INSTALLATION GUIDE

**The power units are listed for outdoor use and are equipped with multi-tap terminals.
This instruction sheet covers the installation of power units from 60W up to 1200W.
Read these instructions before installation.**

c UL us LISTED 505165

INSTALL AND MAINTAIN TO MEET APPLICABLE CODES

- This power module is for use with landscape lighting systems only.
- Do not connect two or more power module in parallel.
- Not for dwellings.
- Transformer should be mounted close to the power source. Extension cords should not be used with this unit.
- This outdoor power unit shall be connected to a GFCI receptacle marked “Wet Location” while in use (optional hardwire installation).

DETERMINE TRANSFORMER LOAD:

- To determine the transformer size, add up the lamp wattages and also consider the power loss in the output wire too.
- Select a transformer wattage that is able to sustain total load.
- For example, if you have 10 fixtures all rated at 25 watts, you will need a 300 watt (VA) transformer (10 x 25 = 250 watts).
- Do not exceed maximum wattage capacity. If your total wattage is too high, either divide the load between two transformers, or use a higher power rated transformer.

MOUNTING INSTALLATION INSTRUCTIONS

1. Mount the transformer to a solid surface using the keyhole slots in the mounting bracket.
   NOTE: The transformer must be mounted at least one foot above ground level with the wire terminals facing down.
2. Split 12/2 cable approximately 3 inches, and strip 1/2 inch insulation off each wire. 12/2 cable is the heavy black cable to which all 12 volt low voltage lighting fixtures will be connected.
3. Insert one bare wire into the terminal board marked COM and tighten screw. Insert the other bare wire to the appropriate voltage (12V, 13V, 14V, or 15V) and tighten screw. **NOTE:** Do not energize transformer until installation is complete.
4. For any unused conduit knockouts or openings, it is recommended to apply a thin layer of silicone gel.

THERMAL PROTECTION

This unit is thermally protected and will automatically shut down when overheated. If the total lamp wattage exceeds the rated wattage of the power unit, reduce the wattage by using lower wattage lamps in the fixtures, or reduce the number of fixtures on each circuit.

If the unit cycles on and off have it inspected by a qualified electrician.

**WARNING: For conduit connected power unit
RISK OF ELECTRIC SHOCK**. Install power unit 5 feet (1.5 m) or more from the pool or spa and 10 feet (3.05m) or more from a fountain. Where the power unit is installed within 10 feet (3.05m) of a pool or spa, connect unit to a GFCI protected branch circuit.

**WARNING: for power supply cord connected power unit
RISK OF ELECTRIC SHOCK.** Install power unit 5 feet (1.5m) or more from the pool, spa, or fountain. Where the power unit is installed (a) indoor within 10 feet (3m) of a pool, spa, or fountain, or (b) outdoor, connect power unit to a receptacle protected by a GFCI.

LOW VOLTAGE CIRCUIT BREAKERS

(One for each 300W circuit. RESETTABLE SWITCH TYPE.)

1. The circuit breakers will trip if there is a short circuit, or if the total lamp wattage exceeds the rated wattage per circuit.
2. To reset breaker, push the toggle to the “on” position. If breaker trips again, check for an overload or short circuit.

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INSTALLATION GUIDE

INSTALLATION OF 24 HOUR TIME CONTROL

Caution: Only with approved timer controls which are suitable rated with the specific unit.

1. Open the front hinged door of the power console.
2. Unplug the cord from the receptacle on the inside panel.
3. Plug the cord into the 24 hour timer clock and plug the timer clock into the receptacle.

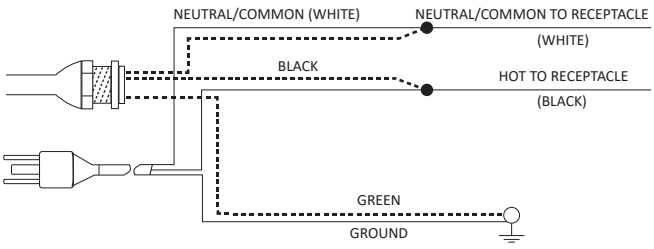
HARD WIRE INSTALLATION (OPTIONAL)

1. Make sure power is off and power console is not plugged into an electrical outlet.
2. For transformers with a steel cover, loosen two screws on the sides, slide cover down and tilt forward.
3. Disconnect the power supply cord (solid lines from receptacle) and reconnect the wires from the conduit (dotted lines from conduit) as shown in Fig. 2. Conduit is to be attached through one of the 7/8" knockouts located on either side on the console. Seal connection with waterproof sealant or silicone.

CAUTION: WIRING MUST COMPLY WITH THE NATIONAL ELECTRICAL AND LOCAL CODES.

4. Close front cover and replace screw. Set time clock per instructions above.
5. Replace lid and secure. Turn power on.

FIGURE 2.
RIGID CONDUIT AND CONNECTOR FOR HARD WIRE INSTALLATION



PLUGGABLE PHOTO CONTROL INSTALLATION (OPTIONAL)

Caution: Only with approved controls which are suitably rated with the specific unit.

1. Make sure power is OFF and power console is NOT plugged into an electrical outlet. (NOTE: no splice is required, power console is equipped with jumper connector.)
2. Open front cover of power console. Locate the white jumper connector on the panel and unplug from the panel plug receptacle. ***Save the jumper connector with these instructions for possible future use.***
3. Remove the 7/8" diameter knockout from the side of the power console and push the photocontrol's white connector through the knockout hole. Inside the housing, slide the spacer and the star nut over the while connector, thread it onto the photo control and tighten.
4. Plug the photo control's white connector into the plug receptacle in the panel. Ensure that the snap lock tabs on the plastic connectors are firmly connected.
5. Position photo control so that no artificial light will shine on the photocell, as this will cause the photo control to cycle on and off.

In the unlikely event that the photo control should fail, the light fixtures will remain on, even during the daytime. If this should happen, follow these instructions and remove the defective photo control and place the jumper connector in its place.

6. Replace the front cover and secure. Turn on power.

POWER UNIT VOLTAGE DROP WIRING CHART

	Tap 1 12V		Tap 2 13V		Tap 3 14V		Tap 4 15V	
Wattage	**AWG 12**	**AWG 10**	**AWG 12**	**AWG 10**	**AWG 12**	**AWG 10**	**AWG 12**	**AWG 10**
100-149	38	60	76	120	113	180	151	240
150-199	25	40	50	80	76	120	101	160
200-249	19	30	38	60	57	90	76	120
250-300	N/A	24	N/A	48	N/A	72	N/A	96

Each circuit can be loaded up to a maximum of 300 watts.

1. Add up fixture wattage. Divide load into 300W max. per wire run. **DO NOT EXCEED 300W PER OUTPUT CIRCUIT.**
2. Measure the approx. distance from the transformer to the first fixture on each circuit. Refer to chart to select the correct output for each circuit. You may use either a single tap or all taps.

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