sollos™
LANDSCAPE LIGHTING
A Halco Lighting Technologies Company

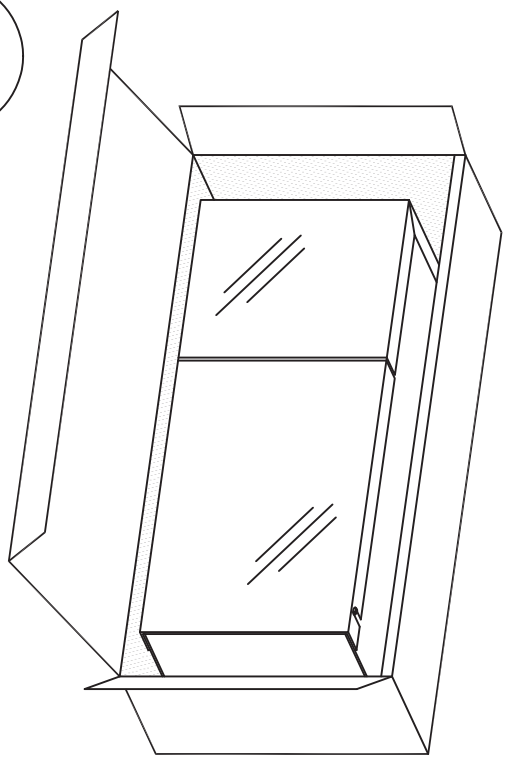
Low Voltage Power Module Installation Guide

200W 300W 600W 900W 1200W

!! ATTENTION !!

Prior to operation, please read and understand the material in this installation guide in order to ensure safe and efficient operation of this Power Module.

1

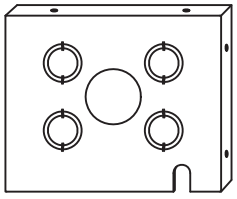


Open shipping carton and carefully remove the transformer.

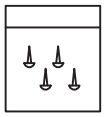
Open the side flap inside of shipping carton and remove the mounting hardware and landscape wire connection hardware bags that are supplied with the unit.

Inspect shipping carton contents for damage that may have incurred during shipment.

To ensure a clean, professional-looking installation, the module's bottom plate fractures double knock-outs that adapt to standard-size conduits as well as a 1-5/8" diameter central access for a 1-1/2" diameter conduit.



Example:
Bottom Plate



Example:
Bottom Plate Hardware Bag

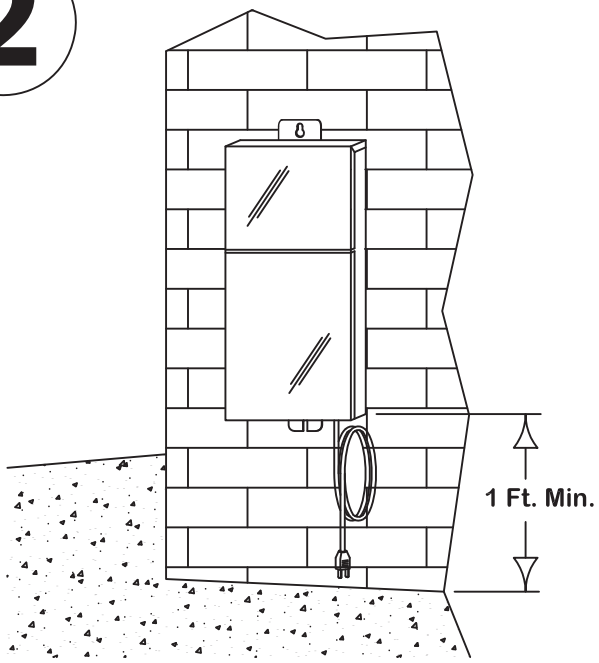
WARNING
(for conduit connected POWER UNIT)

RISK OF SHOCK. Install power unit at least 5 feet from a pool or spa and at least 10 foot from a fountain. Where the power unit is installed within 10 feet 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 at least 5 feet from a pool, spa or fountain. Where the power unit is installed (a) indoor within 10 feet of a pool, spa, or fountain, or (b) outdoor, connect power unit to a receptacle protected by a GFCI.

2 MOUNTING THE UNIT:



Mount the transformer to a solid surface using 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.)

Secure the transformer using the appropriate wall anchors for the wall surface. (Wall mounting screws and anchors not included.)

3 DETERMINE THE LOAD:

Our Multi-Tap transformers are equipped with secondary circuit breakers that are connected to the COM. Each circuit can be loaded up to a maximum of 300 watts.

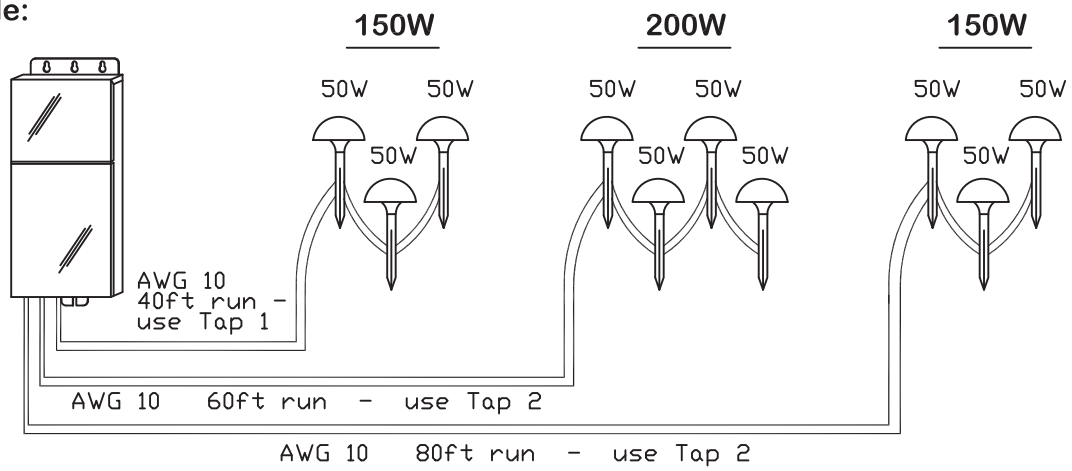
A) Add up fixture wattages. Divide load into 300W max. per wire run. DO NOT EXCEED 300W PER RUN!

B) Measure the approx. distance from the transformer to the first fixture on each run. Refer to Chart 1 to determine the correct tap for each run. You may use one, two, three or all taps at once.

CHART 1 (WIRE RUNS IN FEET)

	TAP 1 12V		TAP 2 13V		TAP 3 14V		TAP 4 15V	
WATT	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

Example:



C) Once you determine the correct tap for each run, refer to Chart 2 to calculate the cable losses.

Cable loss = (loss per foot x distance)
= (0.293 x 40ft) + (0.537 x 60ft) + (0.293 x 80 ft)
= 67.38 watt losses total.

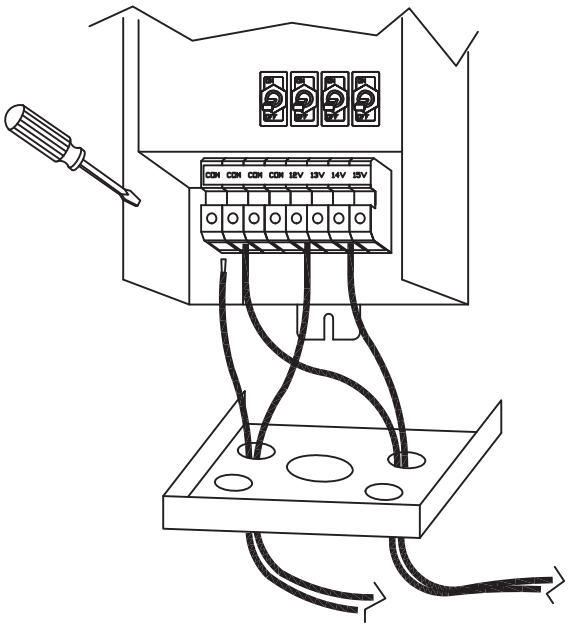
CHART 2 (WATTAGE LOSSES PER FOOT)

AWG	100W	150W	200W	300W
12	0.210	0.461	0.855	N/A
10	0.131	0.293	0.537	1.2

D) Determining Maximum Lamp Load:
All or our Transformers are designed to provide power up to the maximum wattage rating on any tap. However, you must account for cable losses.

*Example:
Maximum Lamp Load = (Transformer rating) minus (cable losses).
= (600W) – (67.38)
= approximately 530W Lamp Load.
* Your maximum lamp load should not exceed approximately 530W.

4 CONNECTING THE CABLES:



Loosen the two screws that hold the unit cover in place and remove the cover.

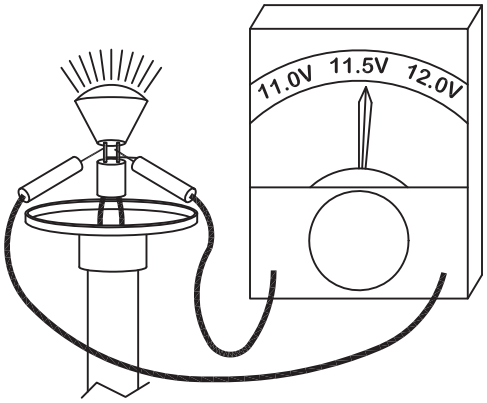
Run lighting cables through knockouts in the bottom plate.

Connect the low voltage cables to the COMs and low voltage taps labeled on the terminal blocks.
Make sure that all connecting screws are secure and tight.

REMEMBER!! Maximum 300W per circuit!!

Turn off ALL the circuit breakers in the transformer unit. Plug the 120V line cord into a grounded 120V outlet. Turn on one breaker at a time to ensure that your low voltage cable runs are connecter per CHART1 and to ensure that there are no short circuits.

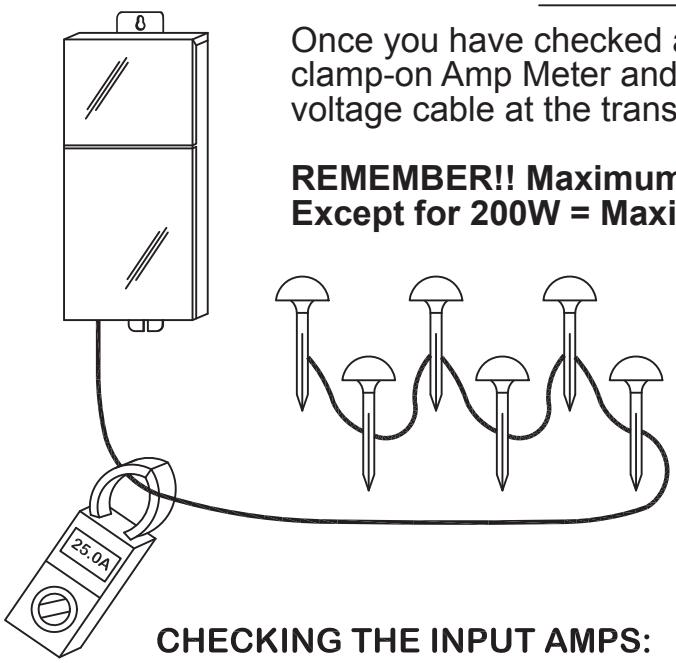
5 CHECKING LAMP VOLTAGES:



Check the voltage at each fixture using a True RMS Voltmeter and confirm you have the proper voltage to the lamp.

The correct voltage should be between 11.0 Volts and 12.0 Volts.

CHECKING THE OUTPUT AMPS:



Once you have checked all the runs for correct voltages, use a clamp-on Amp Meter and check the output current on the low-voltage cable at the transformer.

REMEMBER!! Maximum 25Amp per circuit!!
Except for 200W = Maximum 16Amp per circuit!!

CHECKING THE INPUT AMPS:

Your transformer is provided with a long loop in the optional photocell plug that you may utilize to measure the input current. Simply apply the clamp on the Amp Meter around the loop and measure the current. (See Chart 3)

REMEMBER!! Do not exceed the maximum input current!! If input current exceeds the max rating, either remove the fixtures or reduce lamp wattages in the fixtures until the input current is sufficiently reduced.

The transformer is marked with a label showing the maximum input current.

PHOTOCELL JUMPER
(Example:600W)

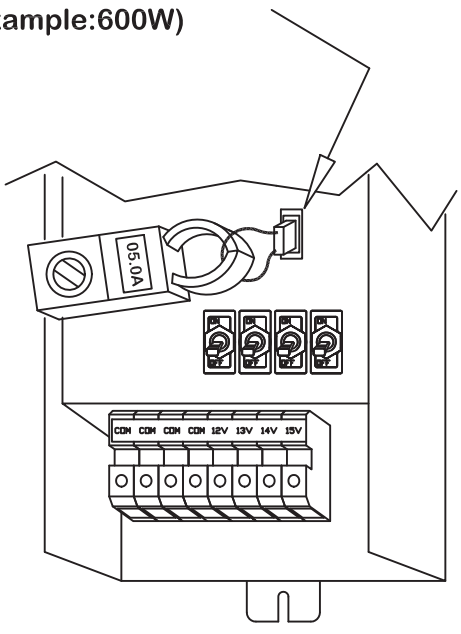


CHART 3 (INPUT CURRENT)

	200W	300W	600W	900W	1200W
AMPS	1.6A	2.5A	5.0A	7.5A	10.0A