

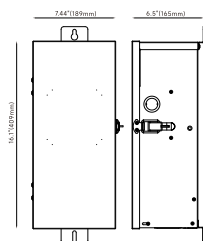
600W
Power
120
VAC
Input
Silver
Finish
12-15
VAC
Output
304
Stainless
Steel
Material
Lifetime
Warranty



Features

- Power:600W
- Input:120VAC,50/60Hz
- Output Voltage:12/15V AC
- Heavy duty 304 stainless steel
- Stainless steel standard finish
- Lifetime warranty

Product Dimensions



Package Contents

(1) Transformer

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Important Safety Instruction

WARNING

(for Power Supply Cord connected POWER UNITE)

RISK OF ELECTRIC SHOCK. Install powerunit 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.

- THIS POWER UNIT MUST BE CONNECTED TO A COVERED GFCI RECEPTACLE MARKED "WET LOCATION WHILE IN USE
- CAUTION: FOR USE ONLY ON A BRANCH CIRCUIT PROTECTED BY A CLASS A TYPE GROUND FAULT CIRCUIT INTERRUPTER
- FOR USE WITH LANDSCAPE LIGHTING SYSTEMS ONLYLANDSCAPE LIGHTING SYSTEMS ARE FOR OUTDOOR USE ONLY (NOT FOR USE IN DWELLING UNITS
- THIS DEVICE IS ACCEPTED AS A COMPONENT OF A LANDSCAPE LIGHTING SYSTEM WHERE THE SUITABILITY OF THE COMBINATION SHALL BE DETERMINED BY CSA OR LOCAL INSPECTION AUTHORITIES HAVING JURISDICTION
- DO NOT CONNECT TWO OR MORE POWER SUPPLIES IN PARALLEL
- DO NOT MOUNT POWER SUPPLY OR FIXTURES WITHIN 3 METERS (10 FEET) OF A SWIMMING POOL OR SPA
- DO NOT USE AN EXTENSION CORD WITH THIS POWER SUPPLY

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Transformer Sizing

Low voltage lighting systems require the use of a transformer to reduce the standard 120 volt power from ordinary household electricity to 12 and 15 volt needed to power low voltage fixtures.

The total wattage of all fixtures connected to one transformer must not exceed the wattage capacity of the transformer.

To determine the size of transformer needed in a low voltage lighting system,add up the wattage of all fixtures in system and then add 10% for low voltagecable and fixtures connections.

SIZE OF TRANSFORMER= TOTAL WATTAGES OF FIXTURES x 1.1

Select a transformer that matches as close as possible to calculation shown above.Example: you have 7 fixtures, each 35 watt. You need a 300 watt transformer (7x35=245 plus 10%= 269.5)

If the total load of fixtures is too great, either divide the total load between 2 transformers or use a more powerful transformer.

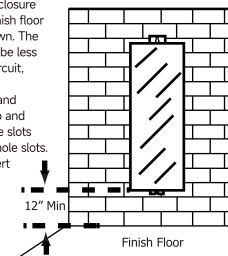
Select a transformer with 20% higher capacity than total wattage of all fixtures in system, that allow you to add more fixtures later.

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Installation Of Transformer

- Remove the hinge type cover door easily, by pulling up on enclosure. Pull the 6 foot power cord plug out of the enclosure through an open hatch, on the right side of the enclosure's interior.
- Choose a flat and solid wall to mount the transformer. The bottom of the enclosure should be at least 12" above the finish floor with wire terminal block facing down. The location of the transformer should be less than 6 feet from 120 volt supply circuit, protected by a class "A" GFCI.
- Align the transformer horizontally and parallel to finish floor. Mark the top and bottom mounting brackets' keyhole slots and predrill holes on marks of keyhole slots.
- Use anchor bolts supplied and insert inside the holes. Secure the transformers keyhole slots on top mounting bracket and bottom by using supplied screws into the anchor bolts.



Connection Of Main Cable To Transformer

- Remove the bottom plate from transformer. Use a screwdriver and loosen the COM1 tap and proper low voltage taps (12V or 15V) on terminal block in order to connect the main cable.
- Run the main cable, through one of the knockouts of bottom plate. Separate the wires of main cable and strip both for about 1".
- Connect one wire to COM1 tap and the other to proper low voltage tap.Make sure both are fully inserted into terminal block.
- Secure both wires to both taps by tightening the COM1 tap and low voltage taps with a screwdriver.
- If photocell is not used,plug in photocell socket with jumper supplied with transformer.Replace the bottom plate and cover door on the transformer.

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BORN TO ILLUMINATE

THANK YOU FOR CHOOSING MALORY LIGHTING
If you have any installation problems or need help
Call us! (626) 426-7553

Please do not hesitate to contact us:
customersupport@malory-lighting.com

MALORY

2250 SW 58TH WAY, WEST PARK,FL 33023

Check Voltage At Each Fixture

It is very important that the secondary voltage provided to each fixture is within the input voltage range of the lamp or fixture. Halogen lamps and some LEDs have an input voltage rating of 12V.

If the specified input voltage range is 12V, the input voltage provided to the fixture must be between 11V and 12V.If the voltage at the socket exceeds 12V, light output of the lamp will be higher but average rated life will be lower. If the voltage at the socket is lower than 11V, light output will be lower and average rated life will be higher.

Many LEDs have an input voltage range of 10V-15V,or 10V-18V For LEDs with input voltage ranges, input voltage supplied to the lamp within that range is acceptable.

- Plug the transformer into a covered 120V GFCI receptacle.
- Switch on the transformer to provide secondary voltage to the fixtures.
- Using a voltmeter, check the voltage at each fixture.
- Make sure that the voltage at each fixture is within the specified input voltage range of the lamps or integrated LED fixtures.
- If the measured voltage falls outside of the specified input voltage range of the lamps or integrated LED fixtures, adjust the voltage to the acceptable range by moving the wire to higher/lower voltage tap.

Check Output AMPS

After checking the voltages on the run, use a clamp-on meter to measure the output current on the low voltage cable at the transformer for each circuit. Make sure that the output current of the circuit is below the maximum rated Amperage.

Circuit Size	50 Watts	100 Watts	150 Watts	200 Watts	300 Watts
Amp Rating	4.16A	8.33A	12.5A	16.66A	25A

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Determine Input AMPS

This unit is provided with a looped wire that is attached to the optional photocell plug. Use a clamp-on meter around the looped wire to measure the input current. Apply the clamp on the amp meter around the looped wire to get an input current measurement. Make sure that the input current of the system is below the maximum rated input current:

Transformer Size	75W	150W	300W	600W	900W
Max Input Amps	0.625A	1.25A	2.5A	5A	7.5A

Determine System Load and Voltage Drop

Low voltage landscape system voltage drop occurs along the secondary wire and is affected by the distance of the run, the total wattage of the system, and the gauge of the wire. As a result, fixtures at the end of the systems run will receive lower voltage than fixtures near the beginning of the run Voltage loss can be minimized in different ways.

Low voltage wire is necessary to run from the secondary power on the transformer to the fixtures it will operate in the system. Low voltage wire is measured by gauges. Thinner wire has a higher number and has a lower maximum load. The lower the wire number, the thicker the wire and the more current it can carry. Consequently, thicker wire reduces voltage drop so it is suggested that 8/2, 10/2, or 12/2 wire is used for low voltage landscape lighting systems. Below is a table that lists the cable constant value of different wire gauges:

Wire Gauge	#18/2	#16/2	#14/2	#12/2	#10/2	#8/2
Cable Constant	1,380	2,200	3,500	7,500	11,920	18,960

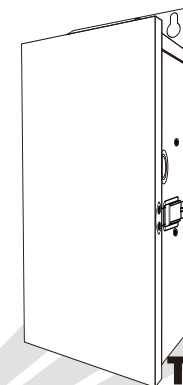
Example:

A 75 ft. run with 100W load using 12/2 wire Voltage Drop=(75 x 100 x 2)/7500=2V. This means that a 14V tap is needed to deliver 12V to the final fixture on the run.

One way to minimize voltage drop in this example is to spread the load to separate wire runs. Wiring the system effectively is another way to minimize voltage drop.

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MLR-TF04 600W LOW VOLTAGE TRANSFORMER USER MANUAL

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