

## MODEL NO.: GLA-120-12W-1

120 WATT 12V AC LANDSCAPE LIGHTING TRANSFORMER FOR USE ON 120V CIRCUITS ONLY.

OUTDOOR RECEPTACLE SHOULD BE OF "GFCI" TYPE

NOT FOR USE WITH SUBMERSIBLE FIXTURES

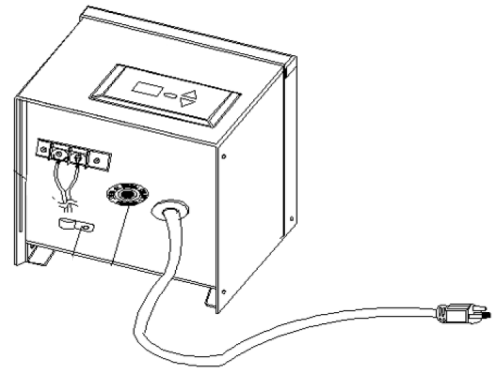
OUTDOOR LOW VOLTAGE TRANSFORMER PRODUCTS INSTRUCTION FOR USE (lighting system).

INPUT: 120Vac 60Hz 1.5A

OUTPUT: 12Vac 120Va max

- **DO NOT** use this transformer with submersible fixtures.
- **DO NOT** repair or tamper with cord or plug.
- **DO NOT** use extension cords.
- **DO NOT** submerge the transformer in water.
- **DO NOT** connect two or more transformers in parallel.
- **DO NOT** use the transformer with a dimmer switch.
- **DO NOT** install the transformer within 10 feet of a pool, spa or fountain.
- **DO NOT** mount the transformer upon combustible material.
- **DO NOT** bury the connectors or cables in combustible materials, such as wood chips, bark, dried leaves, or at depth greater than 6 inches.
- **DO NOT** exceed the maximum wattage of the transformer's terminal.
- **ONLY** plug the transformer cord into a covered 120V AC Class A Type GFCI (ground fault circuit interrupter) receptacle with a hooded flush type cover plate marked "WET LOCATION".

**CAUTION: ALWAYS DISCONNECT THE TRANSFORMER FROM THE ELECTRICAL OUTLET WHEN WORKING ON THE LIGHTING SYSTEM.**



The device is a certified component of a landscape lighting systems where the suitability of the combination shall be determined by UL or local inspection authorities having jurisdiction.

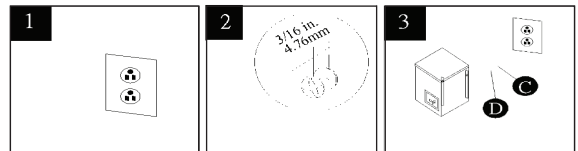
## CALCULATION LIGHTING CAPACITY

The 120W transformer has 120W circuits which powers up to 120W of light. To determine the maximum number of fixtures that can be safely connected to this transformer, add up the individual wattages of all the fixtures. The total wattage of your fixtures must not exceed output capacity of the 120W transformer.

## ASSEMBLY INSTRUCTION

### INSTALL TRANSFORMER MOUNTING SCREWS

1. Select location near 120V AC covered outlet with cover plate marked for WET LOCATION
2. Drill holes 3/16 in.(4.76mm)
3. Install anchors (C) and screws (D), leaving enough space for the transformer to hang on the screws by means located on the back of the Transformer.



NOTE: Do not attach the transformer to the wall at this time. First, connect the low voltage cable to the transformer terminals.

## CONNECT LOW VOLTAGE CABLE TO TRANSFORMER

- For cable connection (12#~16#), split one end of cable approximately 2", and strip about 3/4" (17~19mm) of insulation off each wire and twist strands tightly. (See Diagram 2)
- Cable distance, total wattage and spacing of fixtures affect the light output of each fixture along the run.
- Higher gauge cable such as 12 gauge (recommended for all runs), allows for the higher wattage fixtures at the beginning of the run.
- Always make sure to use the cable required for the wattage load even on short runs. Please refer to the recommended installation configurations on below table.
- Never exceed 120W for any run.
- Please make sure to tighten the screw of the output connection with wire to prevent short circuit and overheat.

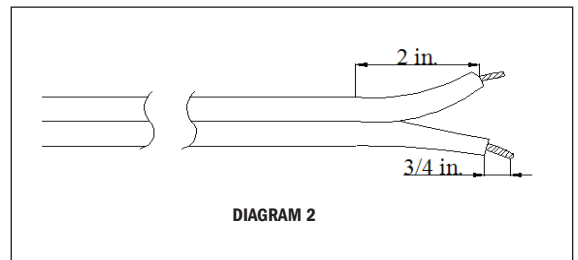


DIAGRAM 2

**CAUTION: FIRE IS POSSIBLE BY A LOOSE WIRE, TIGHTEN CONNECTION SCREWS FIRMLY.**

NOTE: Using the correct gauge cable is essential for obtaining proper lighting performance. For use with SPT-3, SPT-2W, underground low energy circuit outdoor type cable (Minimum 25' length).

## ADDITIONAL TIPS:

1. Distribute the light fixtures as evenly as possible along the cable.
2. Position the higher wattage fixtures closer to the transformer and lower wattage fixture away from it.
3. Place the first fixture a minimum of 10ft away from the transformer.
4. Another cable connection method, called "Looping", should be used to maintain even light output.

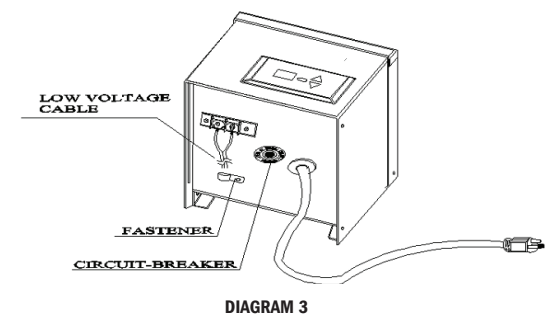
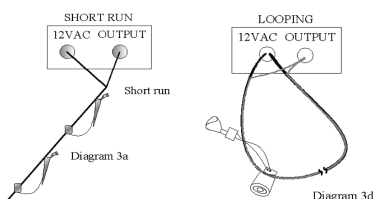


DIAGRAM 3

### CABLE INSTALLATION (DIAGRAM 3)

1. Loosen the cable port screws at the bottom of the transformer.
2. Thread the pre-stripped cables into the cable ports in the bottom of transformer and push in firmly. Tighten the screws securely.
3. Complete layout and test the system before burying cable.
4. Mount the transformer to the wall using screws and template shown in the assembly instructions.

### LOOPING WIRE INSTALLATION (SEE DIAGRAM 3B)

This method is especially good for distribution of lights around the perimeter of a garden in a closed loop.

- Determine the distribution of lights and calculate the total length of cable that is needed to go around and return to the transformer's terminal blocks.
- Make sure not to cross the wires when routing the wires back to the terminal blocks. The wire coming out from a particular terminal block must go back in the same terminal block. Note the wire has a smooth side and a ridged side for easy identification.
- Wrong wire connection will lead to protection mode. The fixtures will not light up on the short run and the fixtures will be abnormally dim on the long run. Please check the circuit and re-connect.
- Make sure that all connections are secure.

NOTE: If you want to test the photocell during the day, plug the transformer into 120V covered GFCI outlet and use a black plastic cover to cover the photocell (make sure the photo-cell does not receive any light). Press the setting button to "A", make sure the photocell is completely turn ON, and completely covered by the plastic cover. Remove the black plastic cover, and your lighting fixtures will be shut off automatically.

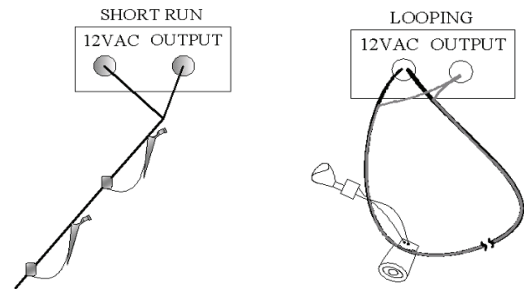


DIAGRAM 3B

### OPERATING THE LIGHTING SYSTEM

After installing the transformer, check carefully and turn on the electrical source. Select the working mode you like: ON (Light stay on); AUTO(Photocell). There are double key-press for your operation. Every time you press the key, it will turn to another working mode. The transformer will also keep your setting automatically, even though the system power OFF and turn back to work, it still operate according to your prior setting. (See Diagram 4) Select setting by pressing "SETTING" Button. There are 12 working modes for your option, difference working way have difference code. Push repeatedly to move to the different selections:

"O" -- ON, Lights stay ON continuously.

" " -- OFF, Lights stay OFF permanently.

"A" -- AUTO, Lights ON at dusk, off at dawn.

"Timing" -- 1~9 Hours -- Lights on at dusk, off at dawn with photocell and then they will turn off after the selected hours.

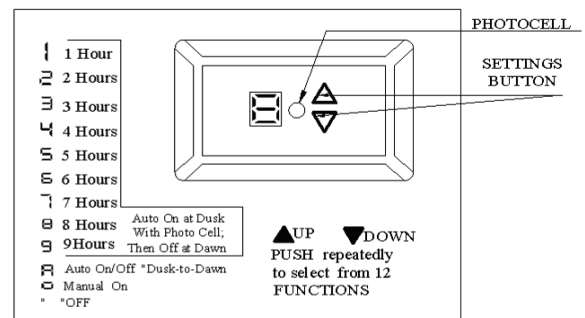


DIAGRAM 4

### IMPORTANT:

If the circuits break or trips, there may be potential problem for a fire. Immediately unplug the transformer from the electrical outlet and check the following:

- Low voltage cable is correctly inserted in the cable ports at the bottom of the transformer.
- Check for overload or short circuit (wires touching) along the cable.
- Check that fixtures are correctly installed on the cable and that there are no short circuits. Make all repairs before operating the lighting system.

### TROUBLE SHOOTING

If the transformer does not work at night, it may be caused by one following conditions:

- Make sure the transformer is connected into power receptacle.
- Check the low voltage cable connection; make sure it is well connected with the transformer.
- Check the wiring of the fixture connector. Make sure the contact pins pierced the wire plastic insulation and touch the electric wire outside.
- Check the bulb. If the bulb is broken, replace with new bulb.
- Check and make sure the transformer is not overload.