orbit®
Orbit Industries, Inc.

Category:

TRT - Series

This instruction sheet covers the installation of TRT - Series Transformers. Read these instructions carefully before installing this unit.

- This power supply is for use with landscape lighting systems only.
- Do not submerge transformer.
- **WARNING:** Risk of electric shock, use only with low voltage landscape fixtures and accessories. Do not use with swimming pool or spa lighting fixtures.
- Do not connect two or more power supplies in parallel.
- For outdoor use only.
- For use in dwellings only with provided conduit adaptor plate.
- National Electrical Code requires that wiring where concealed or extended through a building wall must be enclosed in conduit.
- Transformer should be mounted close to power supply. Extension cords should not be used with this unit.
- **WARNING :** (for power supply cord connected POWER UNIT) **RISK OF ELECTRIC SHOCK.** Install power unit 5 feet (1.5 m) or more from the pool, spa or fountain where the power unit is installed (a) indoor, within 10 feet (3.0 m) of a pool, spa or fountain and (b) outdoor, connect power to unit to a receptacle protected by GFCI.
- This outdoor power unit shall be connected to a 120 volt covered GFCI receptacle marked “WET LOCATION” while in use.
- Mount the rain-tight transformer at least 1 foot above ground level with the wire terminals facing down. **NOTE:** Do not energize transformer until installation of system is complete.
- Direct burial rated wire is to be buried a minimum of 6 in. (152 mm) beneath the surface of the ground. **NOTE:** if additional direct burial wire is needed contact local distributor.
- 8GA, 10GA & 12 GA wires can be purchased in length of 500 ft. (152.4 m).
- Finding Transformer Load: Low voltage systems require the use of a transformer to reduce standard 120 volt power from your home to 12 volt. To determine the transformer size, add up the wattages of all lamps you plan to use. Select a transformer that matches as closely as possible to the total lamp wattage. For example, if you have 12 fixtures all rated at 20 watts, you will need a 300 watts transformer (12 x 20W = 240 watts). Generally, the total lamp load should not be less than one-third the transformer wattage rating, nor exceed its maximum wattage capacity. If the total wattage is too high, either divide the load between two transformers, or use a higher wattage transformer.

INSTALLATION INSTRUCTIONS

1. Determine desired location for mounting transformer. **NOTE:** when deciding location for mounting consideration should be taken for the requirements listed above.
2. Mark position of top potion of the key hole slot location at top of transformer and the slot located at bottom.
3. If mounting to a solid surface such as wood, siding, etc.:
   A) Drill 1/8” diameter pilot holes at positions marked in step 2.
   B) Drive screws approximately halfway into holes.
   If mounting to drywall:
   A) Drill 1/4” diameter holes at positions marked in step 2.
   B) Push plastic anchors into holes and tap until flush.
   C) Drive screws approximately halfway into plastic anchors.
4. Slip large portion of key hole overhead of top screw and allow transformer to slide down, making sure bottom slot is behind head of bottom screw.
5. Tighten screws until transformer is secure.
6. Split 12/2, 10/2 or 8/2 cable approximately 3 in. and strip 1/2 in. insulation of each wire. 12/2, 10/2 and 8/2 cable is the heavy black cable which all Orbit 12V low voltage lighting fixtures will be connected.
7. On the bottom of the terminal block push one bare wire into the hole marked “COM” and tighten the corresponding screw on terminal block face until wire is secure.
8. Determine the appropriate voltage tap (holes marked 12V, 13V, 14V or 15V) for remaining bare wire.
   - For optimum light output, the voltage at the lamp socket should range between 10.8V and 12V.
   - For more information on voltage drop, consult with Orbit customer service.
9. Push remaining bare wire into the appropriate hole on bottom of terminal block and tighten the corresponding screw on terminal block face until wire is secure.

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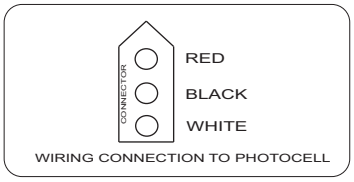
10. Above terminal blocks is a receptacle and a short power cord.
    - If using plug-in time (Model TR-3HT):
        A) Plug timer into receptacle.
        B) Plug short power cord into timer.
        C) Set timer following instructions provided with timer.
    - If not using plug-in timer:
        A) Plug short power cord into receptacle.
11. Optional PHOTOCELL installations (Model PC-1ST):
    A) Make sure power is OFF and transformer is NOT plugged into an electrical outlet.
    NOTE: No splice is required transformer is equipped with jumper connector.
    B) Open front cover of the transformer case. Locate and disconnect the jumper connector inside the housing. “Save the jumper connector with these instructions for possible future use”.
    C) Remove one (1) of the 1/2” knockout on the side of the transformer. Insert photocell (PC-1ST) and tighten by locknut. Wire photocell white connector. See wiring connection color code diagram below for PC-1ST.
    D) Plug photocell white connector into the photocell plug from the transformer. Make sure that the side latch lock the connectors.
    E) Locate transformer and position photocell so that no light will shine on the cell. It will cause the photocell to cycle ON and OFF. In the unlikely event that the photo control should fall, the lighting fixtures will remain on, even in the day time. If this should happen, follow these instructions and remove the defective photocell and place the jumper connector in its place.
12. Plug power supply cord into standard 120 volt receptacle. **NOTE:** The power supply cord must be plugged into a weather tight receptacle equipped with a GFCI (Ground Fault Circuit Interrupter).
13. **WARNING:** Risk of Electric shock. When used outdoors, install only to a covered Class A GFCI protected receptacle that is weatherproof with the power unit connected to the receptacle. If one is not provided, contact a qualified electrician for proper installation. Ensure that the power unit and cord do not interfere with completely closing the receptacle cover.



PC-1ST

AVAILABLE TRANSFORMER SIZE

MODEL NO:	WATTAGE/CIRCUIT
TRT-75-SS/BK	(1) 75 WATTS
TRT-100-SS/BK	(1) 100 WATTS
TRT-150-SS/BK	(1) 150 WATTS
TRT-300-SS/BK	(1) 300 WATTS
TRT-600-SS/BK	(2) 300 WATTS
TRT-900-SS/BK	(3) 300 WATTS
TRT-1200-SS/BK	(4) 300 WATTS

SS - STAINLESS STEEL BK - BLACK

CIRCUIT BREAKER
(SECONDARY SIDE – 12 VOLT SIDE)
- Circuit Breaker will trip if there is a short circuit or if total wattage installed exceeds rated wattage per circuit.
- To reset breaker flip switch to OFF then back to ON position.
- If the unit cycles ON and OFF without regard to the timer setting, it should be checked by a qualified service person.

THERMAL PROTECTION
(PRIMARY SIDE - 120 VOLT SIDE)
- This unit is equipped with a thermal protector and will shut OFF if overheated.

WARRANTY

ORBIT INDUSTRIES, INC., WARRANTS TO THE ORIGINAL CONSUMER PURCHASER THAT ITS PRODUCTS WILL BE FREE FROM DEFECTS IN MATERIALS OR WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF ORIGINAL CONSUMER PURCHASE.

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