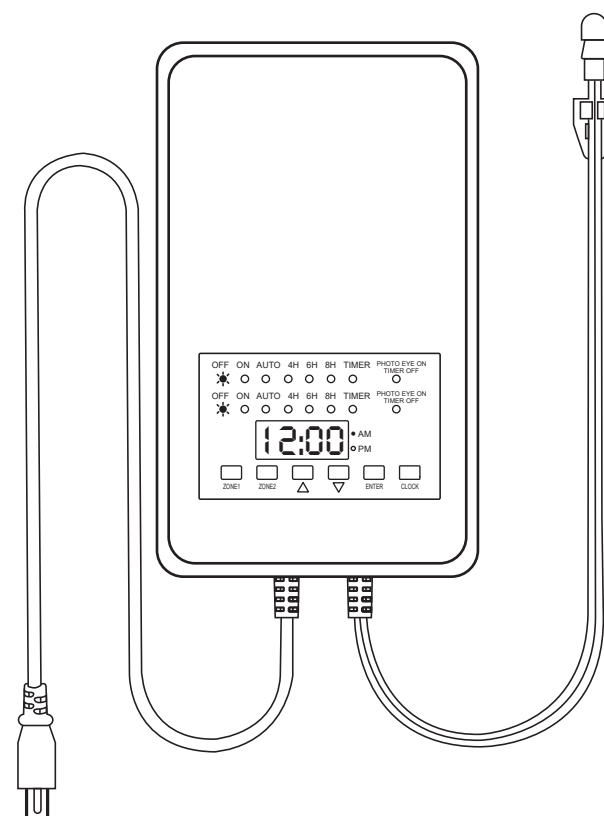


Instruction Manual

LOW VOLTAGE TRANSFORMER

2 zone individually controlled



Models: YTR-120VA/YTR-200VA/YTR-300VA

Before operating this set, please read these instructions carefully.

SAFETY GUIDELINES

IMPORTANT SAFETY INFORMATION TO REDUCE RISK OF FIRE OR INJURY.

- 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 onto combustible material.
- Do not bury the connectors or cables in combustible materials, such as wood chips, bark, dried leaves, or at a depth greater than 6 in.
- Do not exceed the maximum wattage of the transformer's terminal.
- Power supply must be mounted in a vertical orientation with the bottom plate at least 1 foot above the ground.
- In hot climates, avoid mounting in direct sunlight. Power unit will get hot regardless of climate. This is normal for operation.
- Only plug the transformer into a covered 120-volt Class A Type GFCI (ground fault circuit interrupter) receptacle with a hooded push type cover plate marked "WET LOCATION".



PLEASE NOTE: This landscape light system must be installed in accordance with all local codes and ordinances. If you are experiencing problems, contact a qualified electrician.



WARNING: Risk of Electric Shock. Install power unit 5 feet (1.5 m) or more from a pool, spa, or fountain. Where the power unit is installed (a) indoors within 10 feet (3.0 m) of a pool, spa, or fountain or (b) outdoors, connect power unit to a receptacle protected by a GFCI.



WARNING: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.



Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that

TROUBLE SHOOTING

Problem	Probable Cause
All of the lights fail to work	• Check whether the transformer is powered. • Check whether there is a loose connection at the transformer screw terminal with the cable. • Check whether the transformer is in OFF mode.
Only some lights work	• Check the connector to make sure the wire barbs have pierced the landscape cable. • Halogen or incandescent bulbs (if applicable) can be burned out. Use caution as the bulb can be hot.
The lights are on during the day	• The photocell is mounted in a dark area which causes the lights to turn on unnecessarily.
The lights do not turn on at dusk	• The photocell is mounted in an area that has too much constant light at night, preventing the system from turning on.

WARRANTY

warrants that this product is free from defects in materials and workmanship for a period of 1 years from the day of purchase. If the product has been misused, damaged by accident or in any other way of improper use, this warranty becomes void.

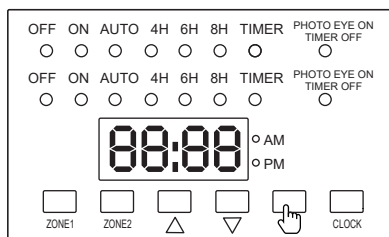
If you have any questions, please contact us.



Note: When the modes "AUTO" "4H" "6H" "8H" "TIMER" "PHOTO EYE ON TIMER OFF" has been set, if the setting you just set is zone1, press "△" you can set the mode again; if the setting is zone2, press "▽" you can set the mode again.

7. Restore Factory Setting

If you want to restore the transformer to factory settings, press and hold the "ENTER" key for 3 seconds, the digital display will display 88:88, and reset to 12:00 after 1 second. indicates that the transformer has been restored to factory settings.



Note: DIGITAL DISPLAY AUTO SHUTDOWN: The digital display will automatically turn off after about 120 seconds, Press any key to open the transformer display.



Note: MEMORY FUNCTION: When the power of the transformer is interrupted it will be in the last set function when it is powered on again.

interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

DETERMINE THE LOAD

The general capacity should have been determined prior to purchasing the transformer. Circuit loads should not exceed 80% of capacity. As a general rule, total light fixture wattage should not exceed 80% of the transformer capacity. To determine the total wattage, simply add up the wattage of all fixture lamps. This number should be 20% less than the transformer's wattage capacity. If you are over capacity, your installation may require a secondary or larger transformer.

DETERMINE WIRE GAUGE

According to the chart below to help you determine the cable size you need for your lighting job. If you have any questions or concerns about this, please contact us.

12 Volt Tap	Cable Length		
Total Fixture Wattage	0-50 Feet	51-100 Feet	101-150 Feet
0-60 Watts	16 AWG	16 AWG	14 AWG
61-120 Watts	16 AWG	14 AWG	12 AWG
121-180 Watts	14 AWG	12 AWG	Not Recommend
181-240 Watts	14 AWG	12 AWG	Not Recommend
241-300 Watts	12 AWG	Not Recommend	Not Recommend

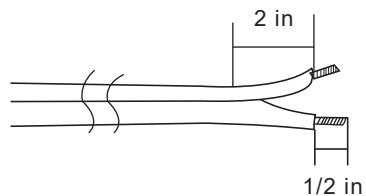
14 Volt Tap	Cable Length		
Total Fixture Wattage	0-50 Feet	51-100 Feet	101-150 Feet
0-60 Watts	16 AWG ¹	16 AWG	16 AWG
61-120 Watts	16 AWG ¹	16 AWG	12 AWG
121-180 Watts	14 AWG ¹	14 AWG	12 AWG
181-240 Watts	14 AWG ¹	14 AWG	12 AWG
241-300 Watts	12 AWG ¹	12 AWG	Not Recommend

AWG¹ Not recommended for Halogen Landscape.

READY TO INSTALL

1. Preparing the Cable

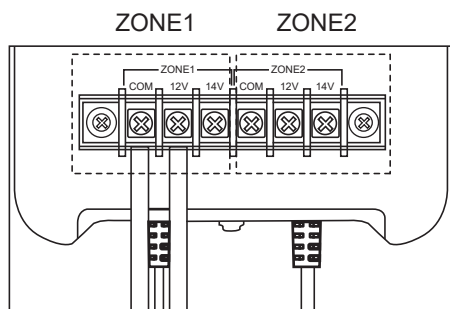
Split one end of cable approximately 2", and strip about 1/2"(12.7mm) of insulation off each wire and twist strands tightly.



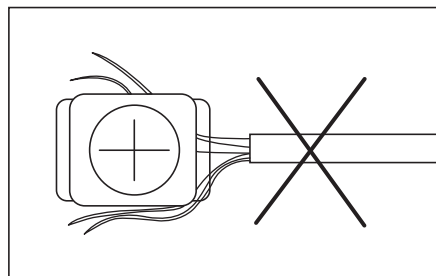
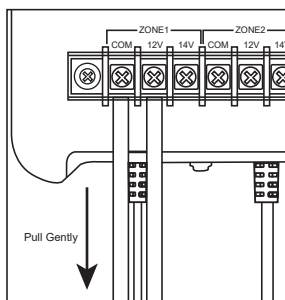
Note: Being careful when splitting NOT to expose the copper wire.

2. Connecting the Cable to the Transformer

Place the transformer on a flat, stable table, insert one end of the twisted wires into the "COM" terminal of zone1, and tighten the screws; insert the other end into the "12V" or "14V" terminal of zone1 as needed, and tighten the screws. Repeat the process when connecting zone 2. Clamping board "12V" or "14V", see cable selection diagram for correct voltage taps.



Note: Gently pull on the landscape wire to verify if the connection is strong. Also verify whether there are loose cable strands.



b. The digital display shows "OFF", which means that you can now set the turn-off time of the landscape lights connected to zone1. Press the "ENTER" key to begin this setting:

- When the AM or PM indicator light is flashing, press the "△" or "▽" key to select it. Press "ENTER" key to enter next step.
- When the hour on the digital display is flashing, press the "△" or "▽" key to adjust it. Press "ENTER" key to enter next step.
- When the minute on the digital display is flashing, press the "A" or "V" key to adjust the minute digit. Finish time-off setting by "ENTER" key.

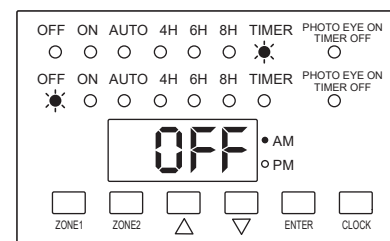


Figure 5.3 The digital display is OFF

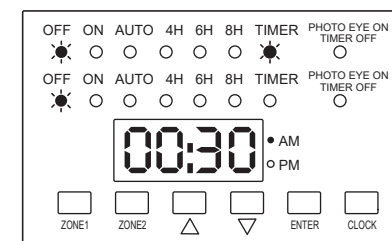


Figure 5.4 Automatically turn off at the time you set

6. PHOTO EYE ON TIMER OFF Mode

At this mode, the landscape light will automatically turn on at dusk and turn off at the set time. Press the "ZONE1" key until the "PHOTO EYE ON TIMER OFF" indicator light is on, then press the "ENTER" key. The digital display shows "OFF", press the "ENTER" key begin this setting:

- When the AM or PM indicator light is flashing, press the "△" or "▽" keys to select. Press "ENTER" key to enter next step.
- When the hour on the digital display is flashing, press the "△" or "▽" keys to adjust the hour digit. Press "ENTER" key to enter next step.
- When the minutes on the digital display are flashing, press the "A" or "V" keys to adjust the minutes. Finish this setting by "ENTER" key.

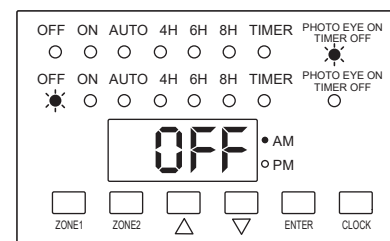


Figure 6.1 The digital display is OFF

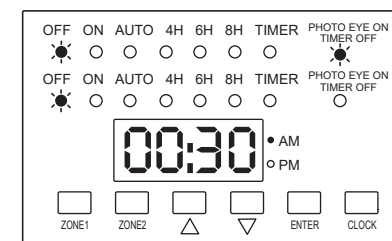


Figure 6.2 Automatically turn off at the time you set

4. Countdown Mode

At this mode, the landscape lights will turn on at dusk and off 4/6/8 hrs later.

Press the "ZONE1" key until the indicator light of "4H" is on, the landscape lights connected to zone1 will turn on at dusk and off 4 hrs later automatically, Set 6H/8H modes in the same way.

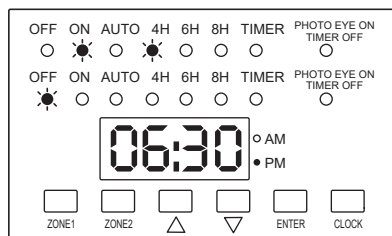


Figure 4.1 Transformer automatically turns on at sunset

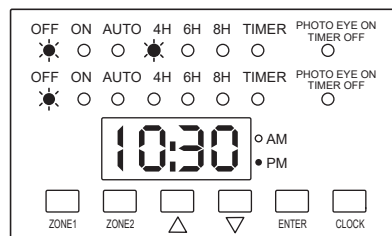


Figure 4.2 Transformer automatically turns off 4hrs later

5. TIMER Mode

At this mode, the landscape lights will turn on and off at the time you set.

Press the "ZONE1" key until the "TIMER" indicator light is on, then press the "ENTER" key, enter the setting of this mode.

- The digital display shows "ON", which means that you can now set the turn-on time of the landscape lights connected to zone1. Press the "ENTER" key to begin this setting:
- When the AM or PM indicator light is flashing, press the "△" or "▽" key to select it. Press "ENTER" key to enter next step.
 - When the hour on the digital display is flashing, press the "△" or "▽" key to adjust it. Press "ENTER" key to enter next step.
 - When the minute on the digital display is flashing, press the "△" or "▽" key to adjust the minute digit and finish time-on setting by "ENTER" key.

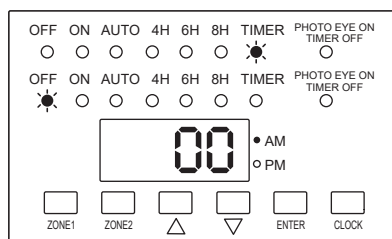


Figure 5.1 The digital display is ON

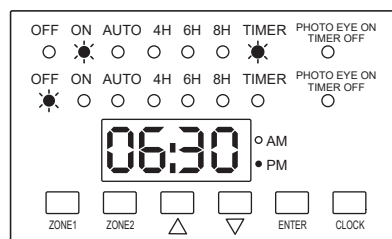
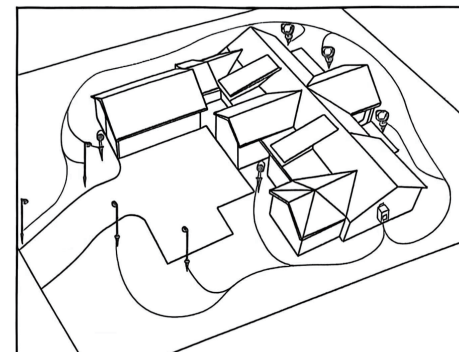


Figure 5.2 Automatically turn on at the time you set

3. Placing Fixtures and Routing the Cable

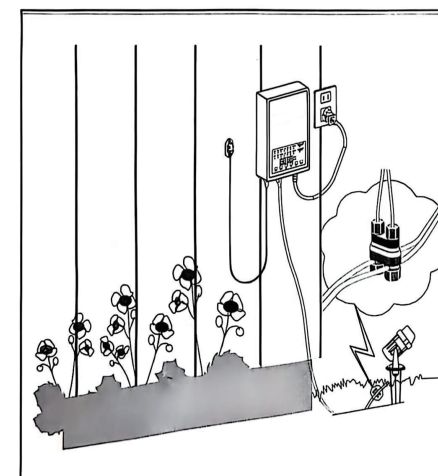
Lay your fixtures (not included) out where you want to locate them. Make sure that the total power of the fixtures does not exceed 80% of the transformer rated power. Route the low voltage cable to the fixtures. If there is extra cable, coil the remaining cables after the last fixture.



Note: Do not coil cable around the transformer.

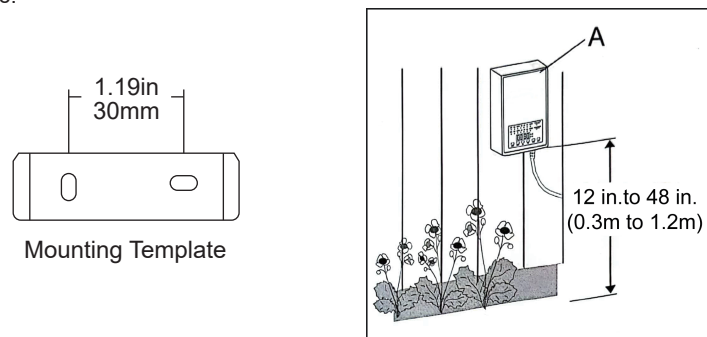
4. Attach Fixtures

Connect light fixtures to the cable. Turn the zone1 and zone2 on, and your lights should light up. If your light fixtures do not open normally, please refer to "TROUBLE SHOOTING" on page 12. (Operations of the transformer are detailed on page 7)



5. Mount the Transformer

Fix the hanging plate directly on the wall surface with screws. Keep the hanging plate within 12 in to 48 in (0.3 m to 1.2 m) from the ground. Then install the transformer on the hanging plate.



Note: Pay attention to the direction of the hanging plate when installing.

6. Mount the Photocell Sensor

Mount the photocell bracket on a wall or other solid surface with the screws provided. Snap the sensor into the bracket. Route or coil the excess wire to protect it from lawn mowers trimmers, etc. Make sure the sensor not point the light source at night time. Such as security lights, path light, etc.



Note: Placing the sensor in areas receiving less sunlight at dusk (east side of house, behind trees and bushes, under a deck) will have the transformer turn on earlier in the evening. Mounting the photocell in brighter locations will have the transformer turn on when it has become dark outside. The location, position and orientation of the photocell can be adjusted until the transformer turns on at the desired light level. If the wire to the photocell is cut or broken, the photocell can be replaced.

Unscrew the photocell connector from the transformer, then connect the new photocell sensor to the transformer.

b. Press the "ZONE1" key until the "OFF" indicator light is on, the terminal of zone1 will stop outputting and the landscape lights connected to zone1 will go off.

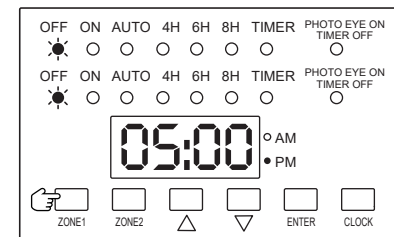


Figure 2.2 Press "ZONE1", "OFF" indicator light up

3. AUTO Mode

At this mode, the landscape lights will automatically turn on at dusk and turn off at dawn.

Press the "ZONE1" key until the "AUTO" indicator light is on, the photocell sensor will come to play, and the landscape lights connected to zone1 will automatically turn on at dusk and turn off at dawn.

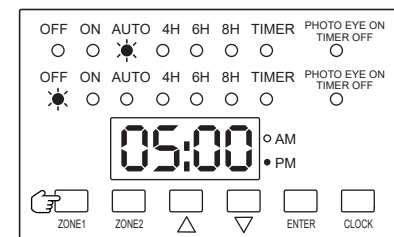


Figure 3.1 Press "ZONE1", "AUTO" indicator light up

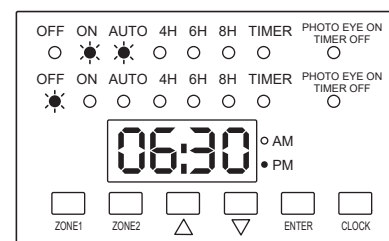


Figure 3.2 Transformer automatically turns on at sunset

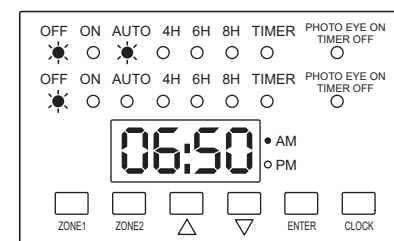


Figure 3.3 Transformer automatically turns on at sunset



Note: The photocell sensor should be installed in the proper position before transformer operation is set.



Note: Before setting, make sure the cover of photocell sensor is opened.



Note: The start delay time is 0.1s ± 1s, The off delay time is 60s ± 10s.

OPERATION

The operation of zone1 and zone2 is in the same way,so the part shows the operation of zone 1 only.Please also refer to this section when operating zone2.

1. Setting the Clock

This setting allows you to set the clock to local time.

a. Press "CLOCK" key to enter the setting and press the "△" or "▽" keys to select "AM" or "PM".Finish this step by "CLOCK".

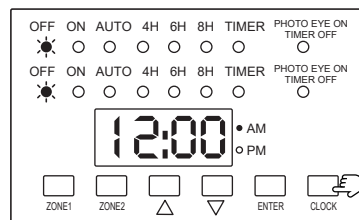


Figure 1.1 Press "CLOCK" to start setting

b. Press "△" or "▽" to adjust the digit of hour when hour on digital display is flashing. Press "CLOCK" to complete this step; Repeat this operation to set digit of minute when minute on digital display is flashing and press "CLOCK" to finish clock setting.

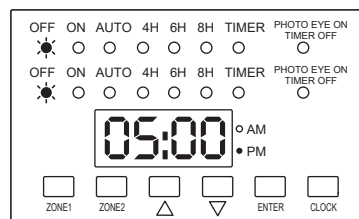


Figure 1.2 The local time has been set



Note: To scroll through the clock settings faster, press and hold the "△" and "▽" key.

2. Manual ON/OFF Mode

At this mode, the landscape lights will always be on or off.

a. Press the "ZONE1" key until the "ON" indicator light is on, the terminal of zone 1 will start outputting and the landscape light sconnected to zone1 will light up.

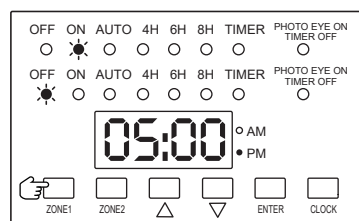


Figure 2.1 Press "ZONE1", "ON" indicator light up

7. Protecting or Hiding the Cable

Once all fixtures are in place and you are satisfied with their locations, and all the faults have been eliminated. Then the cable may be covered with mulch or buried up to 6 in (15 cm) deep. Leave about 12 in (30 cm) of cable after the last fixture.



WARNING: Risk of Fire,do not coil cable around transformer.Total wattages of lights must not exceed 80% of the transformer maximum power.