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› Lightkiwi 300 Watt Multi-Tap Low Voltage Landscape Lighting Transformer User Manual

## Lightkiwi 300 Watt Multi-Tap Transformer

# Lightkiwi 300 Watt Multi-Tap Low Voltage Landscape Lighting Transformer User Manual

## 1. INTRODUCTION

Thank you for choosing the Lightkiwi 300 Watt Multi-Tap Low Voltage Landscape Lighting Transformer. This transformer is designed to power low voltage outdoor lighting systems, including pathway lights, spotlights, and garden lighting. It features multi-tap output voltages (12V-13V-14V-15V) for extended wire runs, a high-performance toroidal core for quiet and efficient operation, and a photocell sensor for automatic dusk-to-dawn functionality. This manual provides essential information for safe installation, operation, and maintenance of your transformer.

## 2. SAFETY INFORMATION

**WARNING: Read all instructions before installing or using this transformer. Failure to follow these instructions may result in electric shock, fire, or serious injury.**

- For installation on or in non-combustible materials only.
- Polar surfaces are incombustible.
- Suitable for indoor and outdoor use.
- Install in accordance with local codes and the National Electrical Code (NEC).
- Use only with low voltage landscape luminaires and fittings.
- Not for use with submersible fixtures.
- Ensure the transformer is **DE-ENERGIZED** before installing a photocell or performing any maintenance.
- This transformer is ETL Listed, indicating compliance with safety standards.



Figure 1: Internal view of the transformer with safety warnings and wiring terminals.

### 3. PRODUCT OVERVIEW

The Lightkiwi 300 Watt Multi-Tap Transformer is designed for robust and reliable outdoor lighting applications. Key features include:

- **Multi-Tap Output Voltage:** Provides 12V, 13V, 14V, and 15V AC outputs, allowing for voltage drop compensation over longer wire runs and ensuring consistent brightness across your lighting system.
- **High-Performance Toroidal Core:** Ensures quiet operation, superior reliability, and high energy efficiency.
- **Dual Protection:** Features a primary auto-reset thermal circuit breaker and a secondary 25A magnetic circuit breaker for enhanced safety against overloads and short circuits.

- **Photocell Sensor:** Enables automatic dusk-to-dawn operation, conserving energy and enhancing security.
- **Weatherproof Design:** Suitable for both indoor and outdoor use.



Figure 2: Exterior view of the Lightkiwi 300 Watt Multi-Tap Transformer.



Figure 3: Detached photocell module.



Figure 4: Photocell installed on the transformer.

## 4. SPECIFICATIONS

| Feature        | Specification                |
|----------------|------------------------------|
| Input Voltage  | 120V AC                      |
| Output Voltage | 12V-13V-14V-15V AC Multi-Tap |

| Feature                            | Specification                              |
|------------------------------------|--------------------------------------------|
| Wattage                            | 300 Watt                                   |
| Maximum Load                       | 70% of rated wattage (210 Watts)           |
| Power Cord                         | 70 inch black 18AWG SJTW cord and plug set |
| Mounting Type                      | Wall Mount                                 |
| Current Rating (Secondary Breaker) | 25 Amps                                    |
| Certification                      | ETL Listed (UL-1838)                       |

**Maximum Number of Wires per Tap**

| Wire Gauge (AWG) | Wire Diameter (mm) | Max Wires per Tap (Com1, 12V, 13V, 14V, 15V) |
|------------------|--------------------|----------------------------------------------|
| 10 AWG           | 4.6 mm             | 4 pcs                                        |
| 12 AWG           | 4.0 mm             | 5 pcs                                        |
| 14 AWG           | 3.5 mm             | 6 pcs                                        |
| 16 AWG           | 3.1 mm             | 9 pcs                                        |
| 18 AWG           | 2.8 mm             | 10 pcs                                       |

# DIMENSION

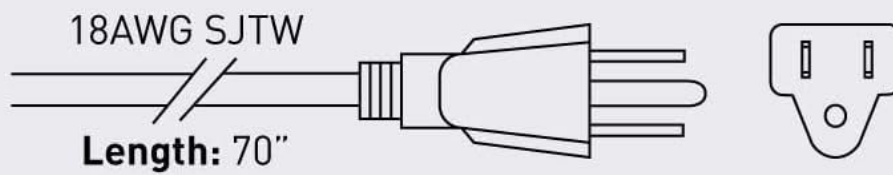
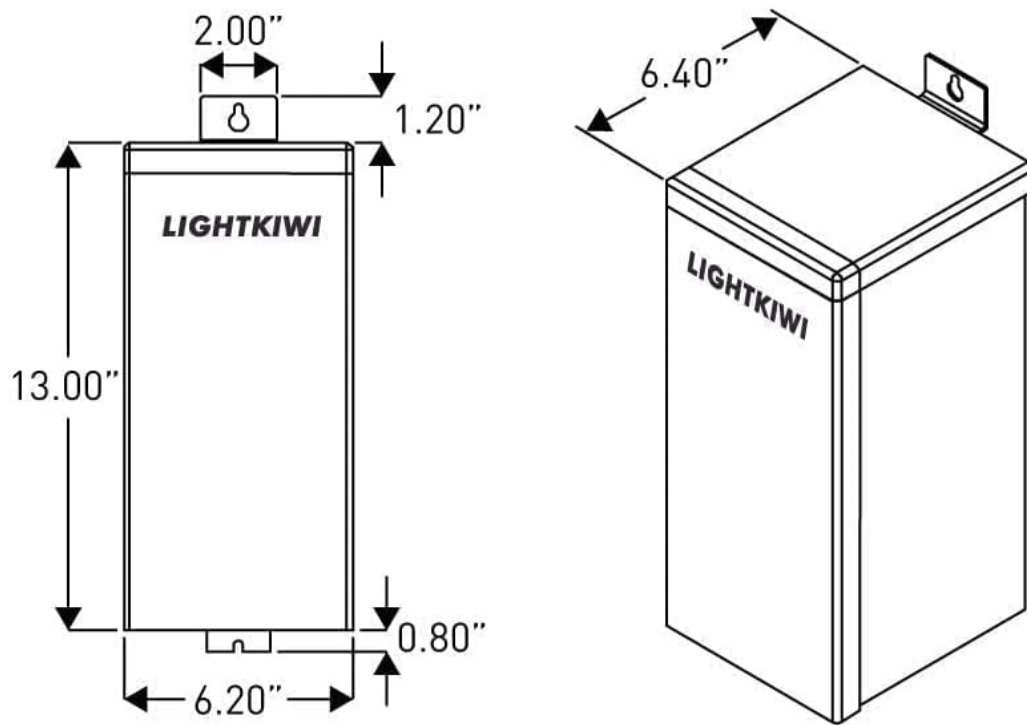


Figure 5: Transformer dimensions and power cord specifications.

# ETL LISTED



## Proof of proper testing in accordance with safety guidelines.

|                                    |                                                                                                                                                                                                                                             |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Title:</b>                      | LOW VOLTAGE LANDSCAPE LIGHTING SYSTEMS                                                                                                                                                                                                      |
| <b>Company:</b>                    | LIGHTKIWI, LLC - Bakersfield, CA USA                                                                                                                                                                                                        |
| <b>Product Information:</b>        | LOW VOLTAGE TRANSFORMER, Model Nos. U2184, C6449, W9715, U8810.                                                                                                                                                                             |
| <b>Evaluated to the following:</b> | A representative sample of the listed devices have been tested, investigated and found to comply with the requirements of the Standard(s) for Low Voltage Landscape Lighting Systems (UL-1838) and are identified with the ETL Listed Mark. |



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### Product Description

**Title:**  
**Company:**  
**Product Information:**  
**Evaluated to the following:**

LOW VOLTAGE LANDSCAPE LIGHTING SYSTEMS  
LIGHTKIWI, LLC - Bakersfield, CA USA  
LOW VOLTAGE TRANSFORMER, Model Nos. U2184, C6449, W9715, U8810.  
A representative sample of the listed devices have been tested, investigated and found to comply with the requirements of the Standard(s) for Low Voltage Landscape Lighting Systems (UL-1838) and are identified with the ETL Listed Mark.

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Figure 6: ETL Listing proof of proper testing in accordance with safety guidelines.

## 5. SETUP

### 5.1 Mounting the Transformer

1. Select a suitable location for wall mounting. The transformer should be installed in a location that is easily accessible, protected from direct heavy rain (if possible, though it is weatherproof), and close to a 120V AC GFCI-protected outlet.
2. Ensure the mounting surface is non-combustible and capable of supporting the weight of the transformer.
3. Use appropriate mounting hardware (not included) to securely fasten the transformer to the wall using the integrated mounting bracket.

### 5.2 Wiring the Landscape Lights

Before wiring, ensure the transformer is unplugged from the power outlet.

1. Determine the total wattage of your landscape lights. The total load should not exceed 70% of the transformer's

rated wattage (210 Watts for this 300 Watt model).

2. Plan your wire runs. For longer runs or higher wattage loads, use a higher voltage tap (13V, 14V, or 15V) to compensate for voltage drop and ensure consistent light output.
3. Connect the common wire from your landscape lighting cable to the 'Com1' terminal on the transformer.
4. Connect the positive wire from your landscape lighting cable to the desired voltage tap (12V, 13V, 14V, or 15V) terminal. Ensure all connections are tight and secure. Refer to the 'Maximum Number of Wires per Tap' table in the Specifications section for wire gauge limits.
5. Route all low voltage cables underground or in a manner that protects them from damage.

## 5.3 Installing the Photocell

The photocell sensor allows for automatic dusk-to-dawn operation.

1. Ensure the transformer is unplugged.
2. Locate the photocell receptacle on the transformer.
3. Insert the photocell module into the receptacle and secure it. Ensure the sensor lens is facing upwards and is not obstructed by any objects, which could interfere with its light-sensing capability.

## 6. OPERATING INSTRUCTIONS

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### 6.1 Initial Power-Up

1. After all wiring is complete and checked for secure connections, plug the transformer's power cord into a GFCI-protected 120V AC outlet.
2. The transformer will power on. If the photocell is installed and it is dark, the lights should turn on. If it is daytime, the lights will remain off until dusk.

### 6.2 Photocell Operation

The integrated photocell automatically detects ambient light levels:

- At dusk, when light levels fall below a certain threshold, the transformer will activate, turning on your landscape lights.
- At dawn, when sufficient light is detected, the transformer will deactivate, turning off your landscape lights.
- Allow a few minutes for the photocell to respond to changes in light conditions.

### 6.3 Voltage Selection

The multi-tap output terminals (12V, 13V, 14V, 15V) allow you to optimize voltage delivery to your lights. If lights at the end of a long run appear dim, consider moving that circuit's positive wire to a higher voltage tap (e.g., from 12V to 13V or 14V) to compensate for voltage drop. Always ensure the transformer is unplugged before changing wire connections.

## 7. MAINTENANCE

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Regular maintenance ensures optimal performance and longevity of your transformer.

- **Cleaning:** Periodically clean the exterior of the transformer with a soft, damp cloth. Do not use abrasive

cleaners or solvents. Ensure the photocell lens is clean and free of debris.

- **Inspections:** Annually inspect all wiring connections for tightness and signs of corrosion. Check the power cord for any damage.
- **Photocell:** Ensure the photocell is not obstructed by leaves, dirt, or other objects that could prevent it from sensing light correctly.
- **Circuit Breakers:** The transformer is equipped with internal circuit breakers. If the lights go out unexpectedly, check if a breaker has tripped. Unplug the transformer, wait a few minutes, and then plug it back in. If the issue persists, consult the troubleshooting section.

## 8. TROUBLESHOOTING

| Problem                          | Possible Cause                                                                                                                                                                                                                                                  | Solution                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lights do not turn on.           | <ol style="list-style-type: none"><li>1. Transformer unplugged.</li><li>2. GFCI outlet tripped.</li><li>3. Photocell obstructed or faulty.</li><li>4. Circuit breaker tripped.</li><li>5. Loose wiring connections.</li><li>6. Faulty bulbs/fixtures.</li></ol> | <ol style="list-style-type: none"><li>1. Ensure transformer is securely plugged in.</li><li>2. Reset the GFCI outlet.</li><li>3. Clear any obstructions from the photocell. Test photocell by covering it (lights should turn on in darkness). If faulty, replace.</li><li>4. Unplug transformer, wait 5 minutes, plug back in. If it trips again, check for short circuit or overload.</li><li>5. Check all low voltage wiring connections at the transformer and fixtures.</li><li>6. Test individual lights or bulbs.</li></ol> |
| Lights are dim or flicker.       | <ol style="list-style-type: none"><li>1. Voltage drop due to long wire runs or undersized wire.</li><li>2. Overload on the transformer.</li><li>3. Loose connections.</li></ol>                                                                                 | <ol style="list-style-type: none"><li>1. Move the affected circuit's positive wire to a higher voltage tap (13V, 14V, or 15V). Consider using heavier gauge wire for long runs.</li><li>2. Reduce the total wattage of connected lights to below 70% of the transformer's capacity.</li><li>3. Tighten all wiring connections.</li></ol>                                                                                                                                                                                           |
| Lights stay on during the day.   | <ol style="list-style-type: none"><li>1. Photocell obstructed or faulty.</li><li>2. Photocell installed in a dark location.</li></ol>                                                                                                                           | <ol style="list-style-type: none"><li>1. Clear any obstructions from the photocell. Ensure it is clean. If faulty, replace.</li><li>2. Relocate the transformer or adjust the photocell's position so it receives adequate ambient light during the day.</li></ol>                                                                                                                                                                                                                                                                 |
| Transformer makes humming noise. | Normal operation (toroidal core).                                                                                                                                                                                                                               | A slight hum is normal for toroidal transformers. If the hum is excessively loud or accompanied by other issues, contact support.                                                                                                                                                                                                                                                                                                                                                                                                  |

## 9. WARRANTY

Lightkiwi products are manufactured to high-quality standards. For specific warranty information regarding your 300 Watt Multi-Tap Low Voltage Landscape Lighting Transformer, please refer to the warranty card included with your product or visit the official Lightkiwi website. Keep your purchase receipt as proof of purchase for any warranty claims.

## 10. SUPPORT

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If you require further assistance or have questions not covered in this manual, please contact Lightkiwi customer support. You can find contact information and additional resources on the official Lightkiwi website or by visiting the [Lightkiwi Store on Amazon](#).