WILAWELS D21LT06

WILAWELS 300W Low Voltage Landscape Transformer User Manual

Model: D21LT06

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of your WILAWELS 300W Low Voltage Landscape Transformer. Please read this manual thoroughly before installation and use to ensure safe and efficient operation.

The WILAWELS 300W Low Voltage Landscape Transformer converts 120V AC household current to a safe 12V or 14V AC output, suitable for various outdoor low-voltage lighting applications such as path lights, spotlights, deck lights, and string lights. It features a durable stainless steel housing, a photocell sensor for automatic operation, and multiple programmable modes.

2. Safety Information

WARNING: To reduce the risk of fire or electric shock, read and follow all instructions carefully.

- This transformer is designed for outdoor use only.
- Do not immerse the transformer in water.
- Ensure the power supply is disconnected before installation or servicing.
- Do not connect two or more power supplies in parallel.
- Use only with low voltage landscape lighting fixtures.
- Mount the transformer at least 1 foot (30cm) above ground level.
- Do not exceed the maximum wattage of 300W.
- This transformer is not compatible with dimmers.
- Consult a qualified electrician if you are unsure about any part of the installation.

3. Package Contents

Verify that all components are present in the package:

- 1 x WILAWELS 300W Low Voltage Landscape Transformer (Model D21LT06)
- 1 x Detachable Photocell Sensor (with 6 ft ETL listed sensor cord)

- 1 x 3.3 ft ETL listed Power Cord
- User Manual

4. Product Features

- **300W Power Output:** Converts 120V AC to 12V/14V AC for outdoor LED and halogen lights.
- **Dusk-to-Dawn Photocell Sensor:** Automatically turns lights on at dusk and off at dawn. Detachable for flexible placement.
- **6 Operating Modes:** Manual On/Off, Auto Dusk-to-Dawn, Countdown (2/4/6/8 hours after dusk), Scheduled On/Off, Dusk-on with Timed-off, and Test Mode.
- **Circuit Protection:** Built-in protection automatically shuts off the transformer during faults, safeguarding connected devices.
- **Memory Function:** Retains the last settings after a power interruption.
- **Durable Construction:** Reinforced 304 stainless steel housing provides resistance against rain, snow, dust, and wear.
- **ETL Listed:** Ensures safety and quality standards are met.

5. Setup and Installation

5.1 Mounting the Transformer

Choose a suitable outdoor location for mounting the transformer. It must be mounted vertically at least 1 foot (30cm) above ground level to prevent water ingress and ensure proper ventilation. Use appropriate screws and anchors for your mounting surface.



Image: The WILAWELS 300W Low Voltage Landscape Transformer mounted on a wall, highlighting its dimensions (14.5cm/5.7" width, 8.2cm/3.2" depth, 22.7cm/8.9" height) and ETL certification. It also shows the power cord (UL Certified 18AWG/3C SJTW, 3.3Ft) and sensor cord (UL Certified 20AWG/2C SJTW, 6Ft).

5.2 Connecting the Photocell Sensor

The photocell sensor automatically detects ambient light levels. Plug the sensor cord into the designated port on the transformer. Position the sensor in a location where it can accurately detect natural light, away from artificial light sources that might interfere with its operation.

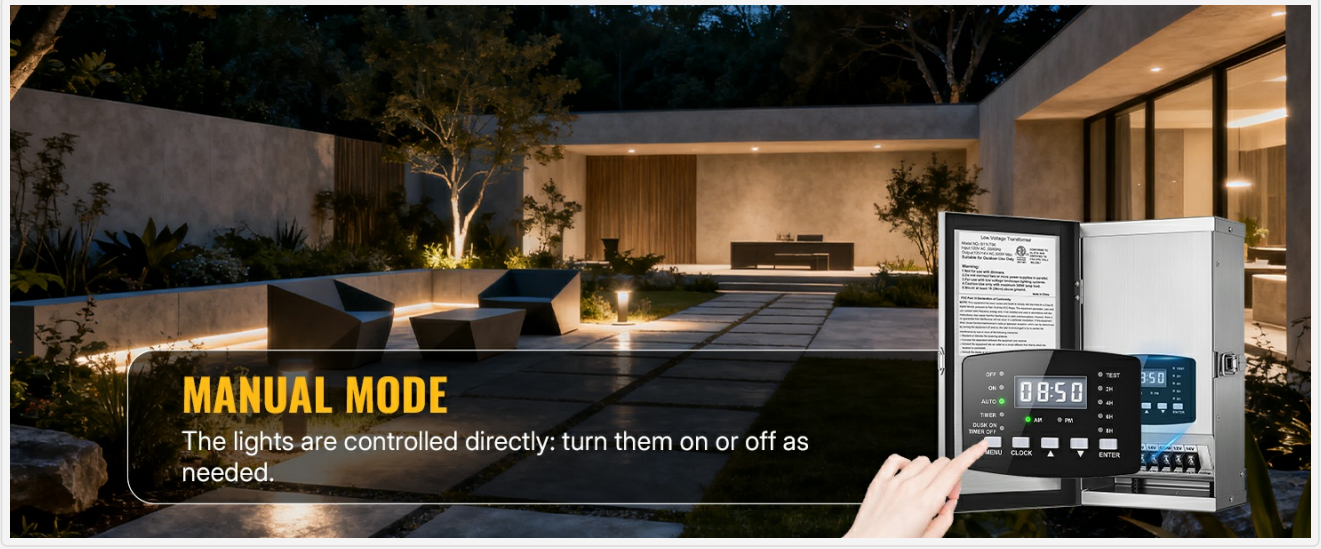


Image: A close-up of the photocell sensor emitting a blue light, indicating it is detecting light. This image illustrates the automatic dusk-to-dawn functionality of the transformer.

5.3 Wiring Low Voltage Lights

Connect your low voltage landscape lighting wires to the terminal block inside the transformer. Ensure proper polarity and secure connections. The transformer offers 12V and 14V output terminals. Use the 14V terminal for longer wire runs or when experiencing voltage drop with 12V lights.



Image: An internal view of the transformer's wiring compartment, showing the terminal blocks labeled "COM 12V 14V" for connecting low voltage landscape lighting. Blue and yellow cables are shown connected, representing input and output.



Image: A diagram illustrating the conversion from 120V AC input to 12/14V AC output, with a focus on the circuit breaker for short-circuit protection. This image emphasizes voltage drop compensation for long-distance lines.

Important: Do not overload the transformer. The total wattage of all connected lights must not exceed 300W.

5.4 Power Connection

Plug the transformer's power cord into a grounded 120V AC outdoor outlet. Ensure the outlet is protected by a Ground Fault Circuit Interrupter (GFCI) for added safety.

6. Operating Instructions

The transformer offers 6 distinct operating modes, selectable via the control panel. Refer to the display and buttons for navigation.



Image: The control panel of the WILAWELS 300W Low Voltage Landscape Transformer, displaying the time (08:50) and indicators for the six operating modes: Manual On/Off, Auto On/Off, Timer On/Off, Dusk On Countdown Off, Dusk On Timer Off, and Test Mode.

6.1 Setting the Clock

Before setting any modes, ensure the current time is correctly set on the transformer's display. Use the "CLOCK" button to enter time setting mode and "MENU" / "ENTER" buttons to adjust and confirm.

6.2 Operating Modes

1. **Manual On/Off:**

Allows you to manually turn the lights on or off as needed. Press the "ON/OFF" button to toggle the power.



Image: A hand interacting with the transformer's control panel, illustrating the "Manual Mode" where lights are controlled directly by turning them on or off.

2. **Auto Dusk-to-Dawn:**
   The photocell sensor automatically turns the lights on at dusk and off at dawn. No manual intervention required after initial setup.



Image: A split image demonstrating "Auto Mode" with the photocell sensor. One side shows lights off at dawn, and the other shows lights on at dusk, indicating automatic operation.

3. **Countdown (2/4/6/8 hours after dusk):**
   Lights turn on at dusk and automatically turn off after a preset duration (2, 4, 6, or 8 hours).



Image: An outdoor scene with landscape lighting, overlaid with a graphic indicating "Countdown Mode" and options for 2H, 4H, 6H, and 8H, signifying timed operation after dusk.

4. **Scheduled On/Off (Timer Mode):**
   Allows you to set specific ON and OFF times for your lights. Program the desired schedule using the control panel.



Image: An outdoor scene with a spotlight, accompanied by a graphic showing "On time: 09:00PM" and "Off time: 01:00AM", illustrating the customizable "Timer Mode".

5. **Dusk-on with Timed-off:**
   Lights turn on at dusk and turn off at a user-defined specific time, rather than after a duration.



Image: An outdoor pathway with landscape lights, featuring a graphic that says "On time: Dusk" and "Off time: 05:00AM", demonstrating the "Dusk On Timer Off Mode".

6. **Test Mode:**
   Activates the lights for a short period to test connections and sensor placement. Useful during installation to verify functionality.

Image: A multi-panel image illustrating "Test Mode". It shows a house with landscape lighting, and then two scenarios for sensor placement: one with a checkmark indicating good placement (sensor detecting light) and one with an 'X' indicating poor placement (sensor blocked or too close to a light source).

7. Maintenance

- **Cleaning:** Periodically wipe the transformer's exterior with a soft, damp cloth to remove dirt and debris. Do not use abrasive cleaners.
- **Photocell Sensor:** Ensure the photocell sensor is clean and unobstructed for accurate light detection.
- **Connections:** Periodically check all wiring connections to ensure they are secure and free from corrosion.
- **Circuit Breaker:** If the lights stop working, check the circuit breaker on the transformer. If tripped, reset it after identifying and resolving the fault.
- **Weather Protection:** While the housing is weatherproof, avoid directing high-pressure water jets directly at the unit.



Image: A series of three images showing the WILAWELS transformer installed outdoors in snowy, rainy, and sunny weather conditions, emphasizing its robust weather resistance and durability.

8. Troubleshooting

Problem	Possible Cause	Solution

Problem	Possible Cause	Solution
Lights do not turn on.	• No power to the transformer. • Circuit breaker tripped. • Photocell sensor obstructed or faulty. • Incorrect mode selected. • Loose wiring connections. • Faulty light bulbs/fixtures.	• Check power outlet and ensure transformer is plugged in. • Reset the circuit breaker after checking for overloads or shorts. • Clean or reposition the photocell sensor. • Select the desired operating mode. • Inspect and tighten all wiring connections. • Test individual lights and replace if necessary.
Lights stay on during the day.	• Photocell sensor is obstructed or in a dark location. • Photocell sensor is faulty. • Incorrect mode selected (e.g., Manual ON).	• Relocate the photocell sensor to an area with adequate daylight. • Contact customer support for a replacement sensor. • Switch to Auto Dusk-to-Dawn or a timed mode.
Lights flicker or are dim.	• Overloaded circuit. • Voltage drop due to long wire runs or insufficient wire gauge. • Loose connections.	• Reduce the total wattage of connected lights. • Use the 14V output terminal or thicker gauge wire for longer runs. • Check and tighten all connections. • Ensure the total wattage of connected lights does not exceed 300W.

9. Specifications

Feature	Detail
Model	D21LT06
Input Voltage	120V AC, 60Hz
Output Voltage	12V AC / 14V AC
Max Power Output	300W
Power Source	Corded Electric
Housing Material	304 Stainless Steel
Certifications	ETL Listed
Item Weight	11.2 pounds
Included Components	Low Voltage Transformer, Photocell Sensor

10. Warranty and Support

WILAWELS products are designed for durability and performance. For warranty information, technical support, or

assistance with your product, please refer to the contact information provided with your purchase or visit the official WILAWELS website.

Protection Plans: Additional protection plans may be available for purchase. Please check your retailer for details.

- 3-Year Protection Plan: Available for purchase.
- 4-Year Protection Plan: Available for purchase.

For further assistance, please contact WILAWELS customer service.

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Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question

Answered questions about this manual

What is the maximum operating temperature and the specific ETL testing standard for the WILAWELS D21LT06 300W Low Voltage Landscape Transformer?

Based on the available documentation for the WILAWELS D21LT06 300W Low Voltage Landscape Transformer, here are the details regarding your inquiry:ETL Standard: The product is officially ETL Listed, which confirms it meets North American...

Read full answer