SURAIELEC ULTW30D

SURAIELEC 300W Smart Landscape Lighting Transformer

Model: ULTW30D

Brand: SURAIELEC

1. Introduction

This manual provides comprehensive instructions for the installation, operation, and maintenance of your SURAIELEC 300W Smart Landscape Lighting Transformer. This device is designed to provide intelligent control over your low-voltage landscape lighting, offering features such as Wi-Fi connectivity, voice control compatibility with Amazon Alexa and Google Assistant, and advanced scheduling options. Please read this manual thoroughly before installation and use to ensure safe and optimal performance.

2. Safety Information

WARNING: Electrical Shock Hazard

- If installation involves wiring through building structures, there is a risk of fire. A special wiring method is required. Consult a qualified electrician.

CAUTION:

- Only for installation on or in non-combustible materials. Ensure non-combustible material sealing on pouring surfaces.
- Suitable for indoor and outdoor use.
- Read all installation instructions before wiring.
- For low-voltage landscape lighting and accessories only. Not suitable for diving equipment.

Always disconnect power before performing any installation, maintenance, or troubleshooting. Ensure all connections are

secure and comply with local electrical codes.



Figure 2.1: Front view of the transformer with safety warnings visible.

3. Product Features

- **Remote and Voice Control:** Control your landscape lights from anywhere using the Smart Life (Tuya) app. Compatible with Amazon Alexa and Google Assistant for hands-free voice commands. No separate hub is required.
- **Scheduling and Astronomical Timer:** Easily set schedules based on your location with the smart Wi-Fi transformer. Automatic ON/OFF based on sunrise and sunset times. Simple setup with 2.4G Wi-Fi. Memory function ensures settings are retained after power outages.
- **Multi-tap Outputs and Overload Protection:** The 300W landscape lighting transformer converts 120V AC to safe 12V/15V AC for stable lighting. Connect low-voltage cable to 15V for long runs to prevent voltage drops. An integrated circuit breaker prevents damage from overloads.
- **Durable Construction:** Features a stainless steel, NEMA 3R weather-resistant casing. The transformer is lockable for security, suitable for both indoor and outdoor installation.
- **Versatile Use:** Supports up to 300W for low-voltage LED and halogen landscape lights, deck lights, hardscape lights, and ground lights with AC inputs.

4. Package Contents

Verify that all items are present in the package:

- SURAIELEC 300W Smart Landscape Lighting Transformer (Model ULTW30D)
- Mounting Hardware (screws, anchors)
- User Manual

5. Setup and Installation

5.1 Mounting the Transformer

1. Choose a suitable location for mounting. The transformer is rated for wet locations, allowing for outdoor installation, but ensure it is mounted securely to a wall or sturdy surface.
2. Use the provided mounting hardware to secure the transformer. Refer to the product dimensions for proper placement.



Figure 5.1: Examples of indoor and outdoor installation.



Figure 5.2: Product dimensions and power cord details.

5.2 Wiring the Low-Voltage Lighting

1. Ensure the transformer is unplugged from the main power supply.
2. Connect your low-voltage landscape lighting cables to the appropriate terminals (12V or 15V) inside the transformer. The 15V tap is recommended for longer cable runs to compensate for voltage drop.
3. Ensure all connections are tight and secure.

4. Close and secure the transformer casing.



Figure 5.3: Internal wiring terminals and components.

6. Operating Instructions

6.1 Manual Operation

The transformer features a manual On/Off switch located on the control panel. Press the power button to manually turn the connected lights on or off.

6.2 Smart Life App Setup (Wi-Fi Connection)

1. Download the Smart Life (Tuya) app from your smartphone's app store.
2. Register or log in to your Smart Life account.
3. Ensure your Wi-Fi router is set to 2.4GHz. If your router supports both 5G and 2.4G, switch to 2.4G for the initial connection.
4. Add the device in the app by following the on-screen instructions. The transformer does not require a separate hub or bridge.



Figure 6.1: Wi-Fi connection diagram (No Hub Required).

6.3 Voice Control Integration

Once connected to the Smart Life app, link your account with Amazon Alexa or Google Assistant through their respective apps. You can then use voice commands to control your landscape lights.

- Example: "Alexa, turn on outdoor lights."
- Example: "Hey Google, turn off the path lights."

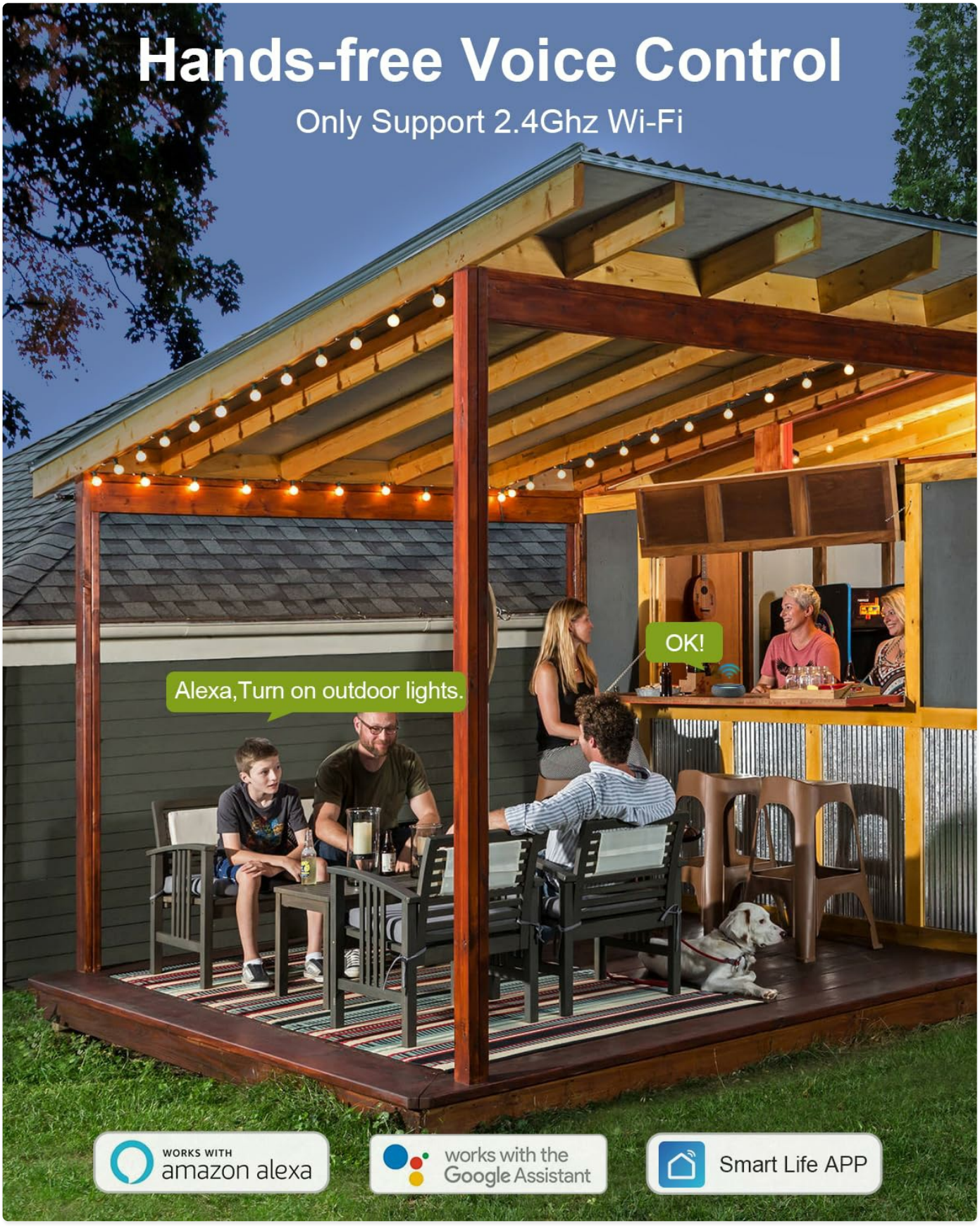


Figure 6.2: Hands-free voice control in action.

6.4 Advanced Scheduling Features

The Smart Life app offers various scheduling options:

- **Astronomical Timer:** Set lights to turn ON at sunset and OFF at sunrise based on your geographical location. This feature adapts to seasonal changes in daylight hours.

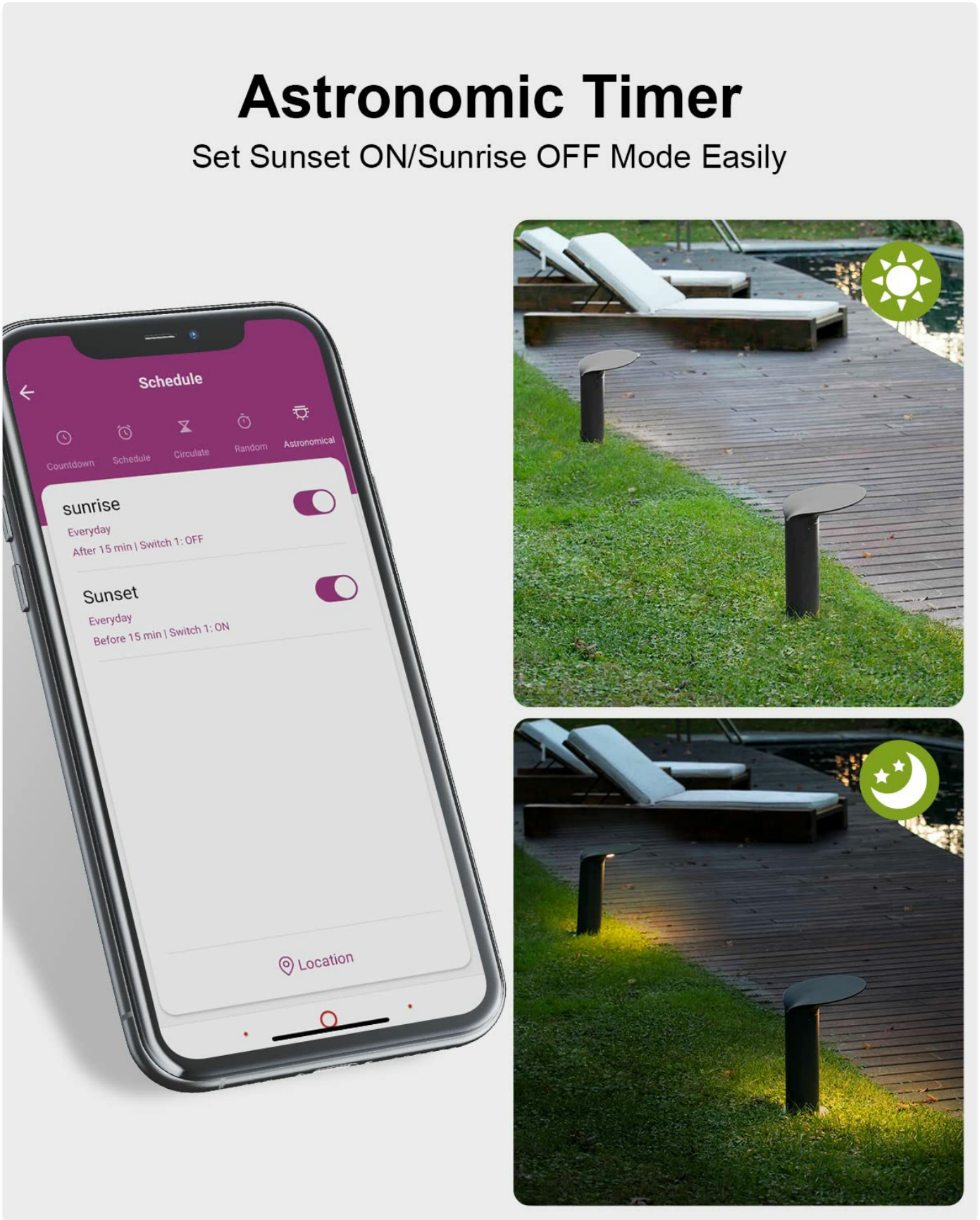


Figure 6.3: Astronomical Timer setup in the app.

- **Specific Schedules:** Set lights to turn ON/OFF at specific times on chosen days of the week.



Figure 6.4: Setting specific schedules.

- **Random Mode:** Activate this mode to make your home look occupied when you are away, deterring potential intruders by randomly turning lights on and off.
- **Countdown Mode:** Set a timer for the lights to automatically turn off after a specified duration.
- **Circular Mode:** Define a cycle for lights to turn on and off regularly for a set period.

7. Maintenance

The SURAIELEC transformer is designed for durability and minimal maintenance. However, regular checks can ensure its longevity and optimal performance:

- **Cleaning:** Periodically wipe the exterior of the transformer with a damp cloth to remove dirt and debris. Do not use abrasive cleaners.
- **Connections:** Annually inspect all wiring connections to ensure they remain tight and free from corrosion.
- **Circuit Breaker:** The built-in circuit breaker will trip in case of an overload. If this occurs, disconnect the load, reset the breaker, and investigate the cause of the overload.



Figure 7.1: Wet location rating for outdoor durability.

8. Troubleshooting

If you encounter issues with your SURAIELEC Smart Landscape Lighting Transformer, refer to the following common problems and solutions:

Problem	Possible Cause	Solution

Problem	Possible Cause	Solution
Lights do not turn on.	No power to transformer; Circuit breaker tripped; Loose wiring; App settings incorrect.	Check power outlet; Reset circuit breaker; Verify all wire connections; Check Smart Life app for manual ON/OFF or schedule conflicts.
Wi-Fi connection fails.	Incorrect Wi-Fi band (5GHz instead of 2.4GHz); Weak Wi-Fi signal; Incorrect password.	Ensure router is on 2.4GHz; Move transformer closer to router or use a Wi-Fi extender; Re-enter Wi-Fi password carefully.
Voice control not working.	Smart Life account not linked to Alexa/Google Assistant; Incorrect device name; Voice command not recognized.	Verify Smart Life account is linked in Alexa/Google Home app; Rename device in Smart Life app to a simple name; Use precise voice commands.
Schedules not executing.	Incorrect time zone/location in app; Schedule disabled; Power outage (if memory function fails).	Check and correct time zone/location settings in Smart Life app; Ensure schedules are enabled; Re-enable schedules if power was lost.

9. Specifications

Feature	Specification
Model Number	ULTW30D
Power Source	Wired Electric
Input Voltage	120V AC
Output Voltage	12V / 15V AC
Wattage	300W
Current Rating	2.5 Amps
Product Dimensions (L x W x H)	15.49 x 8.38 x 29.46 cm (6.1 x 3.3 x 11.6 inches)
Product Weight	5.41 kg (11.93 lbs)
Mounting Type	Wall Mount
Wi-Fi Frequency	2.4 GHz
Operating Temperature	Refer to product labeling for specific range

10. Warranty and Support

SURAIELEC products are manufactured to high-quality standards. For warranty information or technical support, please refer to the warranty card included with your product or contact SURAIELEC customer service directly. Contact details can typically be found on the manufacturer's official website or on the product packaging.

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Question

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