DEWENWILS Photocell Transformer-300W

DEWENWILS 300W Low Voltage Landscape Transformer User Manual

Model: Photocell Transformer-300W

Introduction

Thank you for choosing the DEWENWILS 300W Low Voltage Landscape Transformer. This manual provides important information regarding the installation, operation, and maintenance of your transformer. Please read it thoroughly before use and retain it for future reference.
This transformer is designed to convert 120V AC household voltage to a safer 12V/14V AC, ideal for LED landscape lighting, spotlights, and pathway lights. It features a built-in photocell sensor and timer functions for automated operation.

Safety Information

Always follow basic safety precautions when installing and operating electrical equipment. Failure to do so may result in injury or property damage.

- Ensure the power is disconnected before installation or maintenance.
- This transformer is suitable for outdoor use only.
- Do not immerse the transformer in water.
- The total wattage of connected lights should not exceed 80% of the transformer's capacity (240W for this 300W model).
- Use only low voltage landscape lighting fixtures with this transformer.
- Consult a qualified electrician if you are unsure about any part of the installation.



Figure 1: Front view of the DEWENWILS 300W Low Voltage Landscape Transformer, showing the control panel with digital display and adjustment buttons, and the attached power cord.

Product Features

- **Built-in Dusk to Dawn Sensor:** Automatically turns landscape lighting on at dusk and off at dawn.
- **Countdown Timer:** Allows setting the transformer to turn off automatically 1-9 hours after dusk.
- **Memory Function:** Retains the selected mode even after a power outage (after running in the mode for at least 24

hours).

- **Durable & Waterproof:** Constructed from high-performance metal material for weather resistance and longevity.
- **Overload/Short Circuit Protection:** Features a circuit breaker for safety.
- **Dual Voltage Output:** Provides 12V AC and 14V AC options for lighting connections.

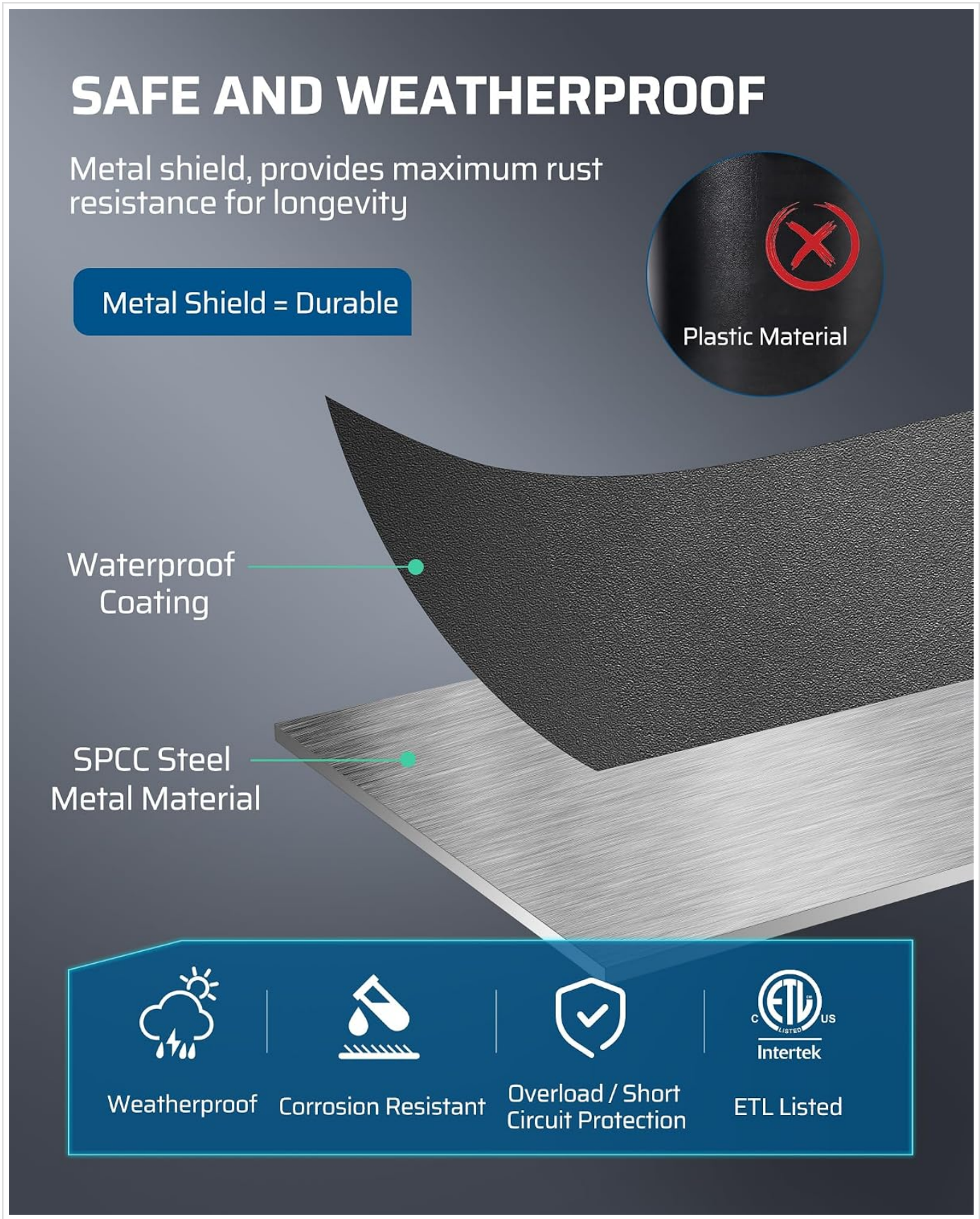


Figure 2: Illustration detailing the robust construction of the transformer, highlighting its metal shield for durability, waterproof coating, SPCC steel material, and features like weatherproof, corrosion resistant, overload/short circuit protection, and ETL listing.

Installation

Mounting the Transformer

The transformer is designed for wall mounting. Use the built-in hanging holes to secure it to an outdoor wall or sturdy surface. Ensure the mounting location is protected from direct heavy rain and is easily accessible for operation.

1. Choose a suitable outdoor location near a 120V AC power outlet.
2. Mark the positions for the mounting screws using the transformer's hanging holes as a template.
3. Drill pilot holes if necessary and secure the transformer firmly to the wall using appropriate screws (not included).

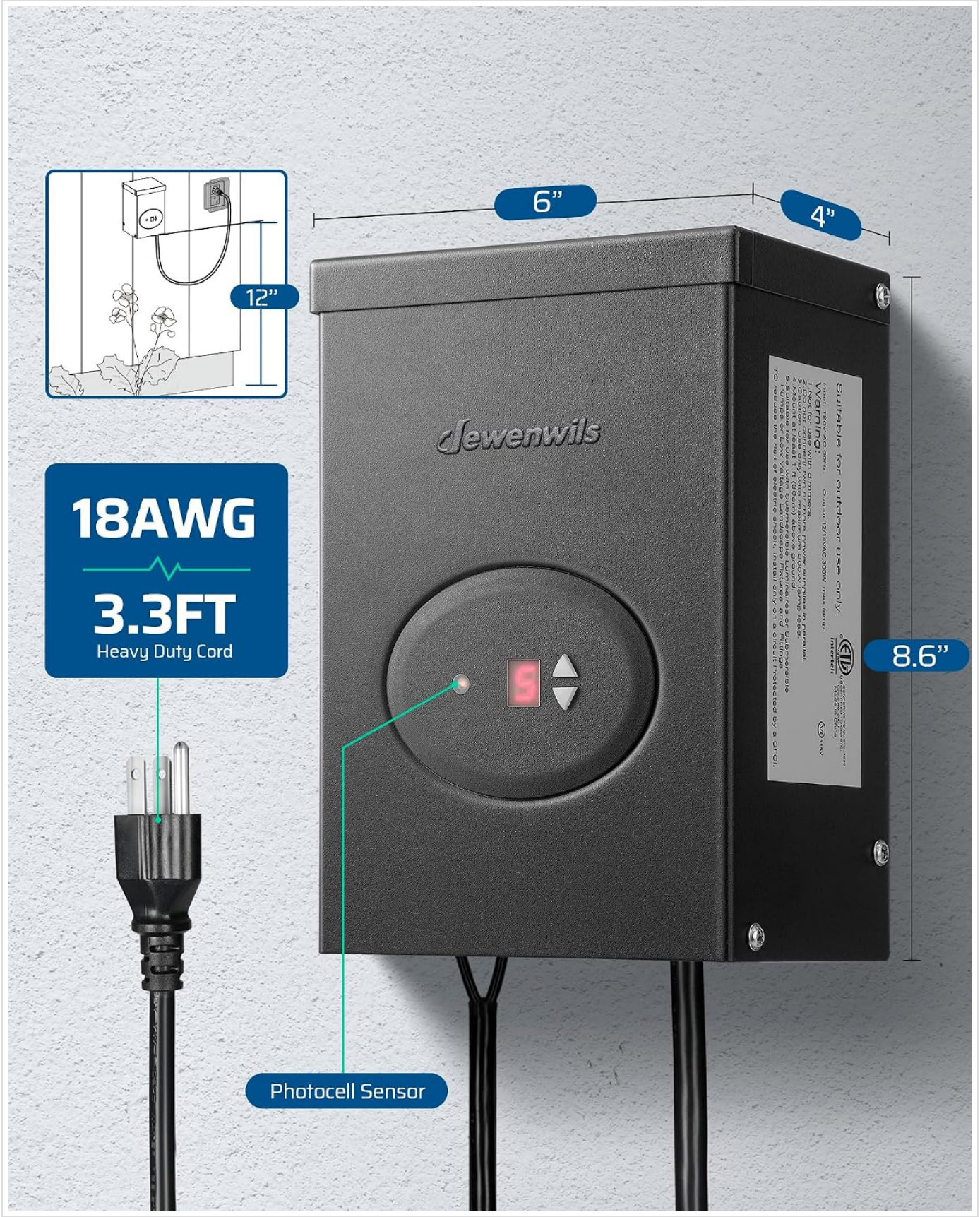


Figure 3: Diagram illustrating the dimensions of the transformer (4"D x 6"W x 8.6"H) and showing how it can be wall-mounted. It also highlights the 3.3ft 18AWG heavy-duty power cord and the location of the photocell sensor.

Wiring Landscape Lights

Connect your low voltage landscape lights to the transformer's output terminals. The transformer provides 12V AC and 14V AC output options. For shorter cable runs or fewer lights, 12V AC is typically sufficient. For longer runs or more lights, 14V AC can help compensate for voltage drop.

1. Ensure the transformer is unplugged from the power outlet.
2. Strip approximately 1/2 inch of insulation from the ends of your landscape lighting cables.
3. Connect the wires to the desired 12V or 14V output terminals. Use the "COM" (common) terminal for the other wire.
4. Tighten the screw connections securely to ensure good contact.
5. Organize excess wires using the integrated cable clip to maintain a neat and tidy installation.
6. Ensure the total wattage of all connected lights does not exceed 240W (80% of 300W).

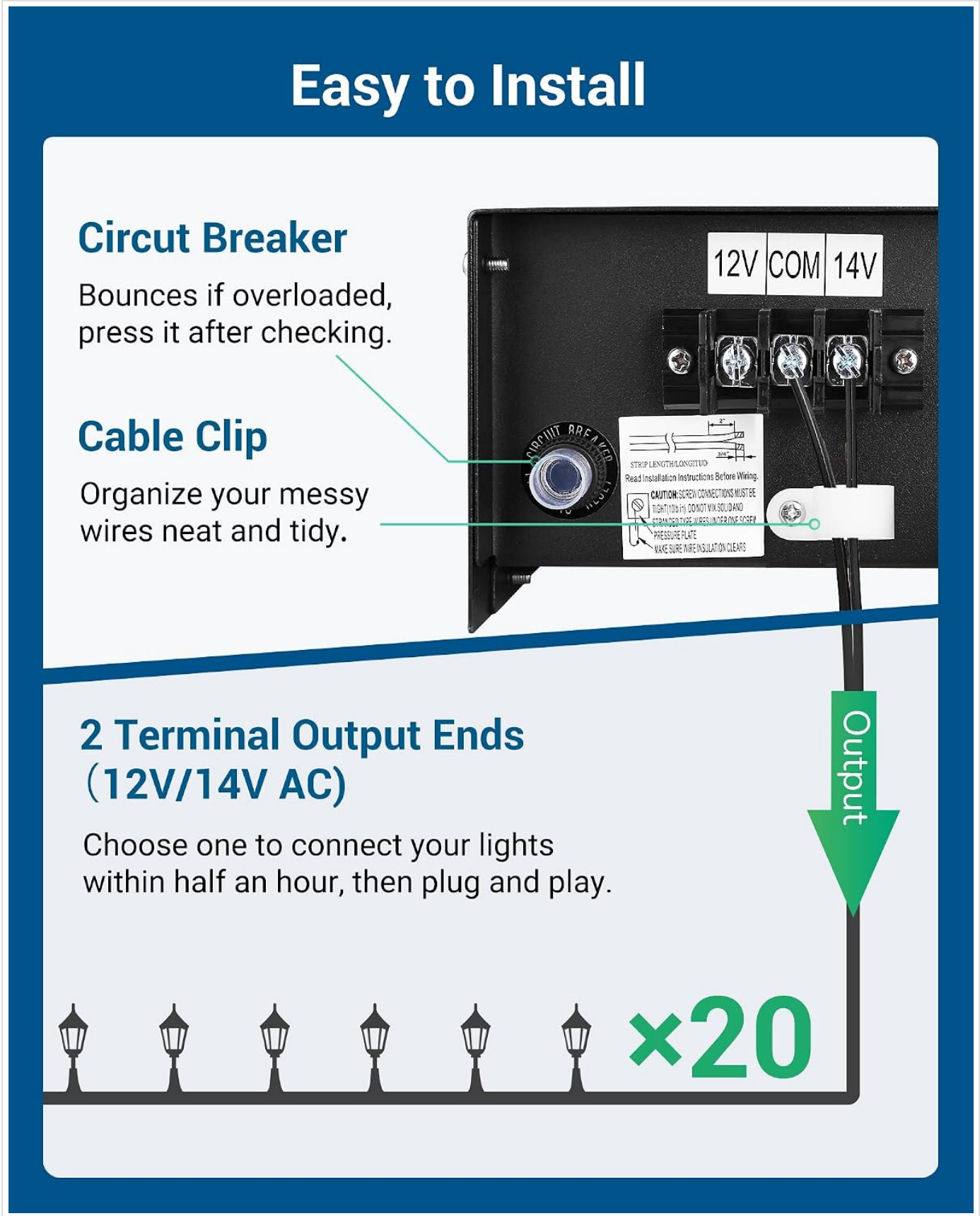


Figure 4: Detailed view of the transformer's back panel, illustrating the circuit breaker, cable clip, and the 12V/14V AC terminal output ends (12V COM 14V) for connecting landscape lights. It also shows a caution regarding screw connections and insulation.

Operating Instructions

The transformer features a simple control panel with a digital display and two buttons (▲ and ▼) for mode selection.

Mode Selection

Press the ▲ or ▼ buttons to cycle through the available operating modes:

1. **Always ON Mode:** The lights will remain on continuously. The digital display will show "ON".
2. **Auto (Dusk to Dawn) Mode:** The lights will automatically turn on at dusk and turn off at dawn. The digital display will show "AUTO". This mode utilizes the built-in photocell sensor.
3. **Countdown Timer Mode:** The lights will turn on at dusk and automatically turn off after a set number of hours (1-9 hours). The digital display will show the selected hour (e.g., "5" for 5 hours). Press ▲ or ▼ to adjust the countdown duration.



Figure 5: Visual representation of the transformer's easy-to-operate control panel, showing the digital display and the ▲/▼ buttons. It illustrates the three main modes: Photocell ON/Timer OFF (1-9 hours), Dusk to Dawn (Auto), and Always ON, along with the memory function.

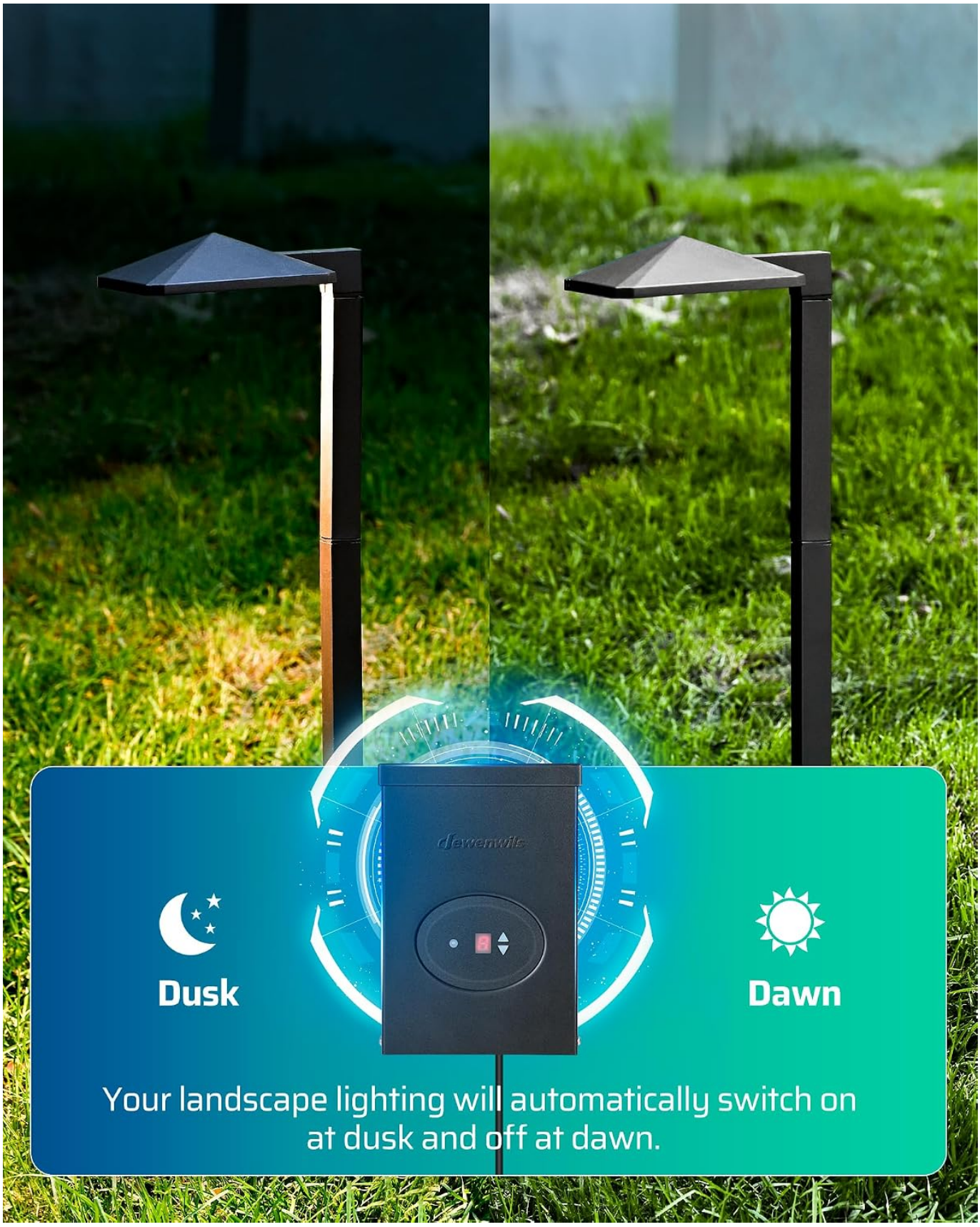


Figure 6: An illustration demonstrating the Dusk to Dawn functionality, where the landscape lighting automatically switches on at dusk and off at dawn, controlled by the transformer's integrated sensor.

Memory Function

Once a mode is selected and the transformer operates in that mode for at least 24 hours, the memory function will activate. This means the transformer will recall and resume the last selected mode even after a power interruption.

Maintenance

The DEWENWILS Low Voltage Landscape Transformer requires minimal maintenance. Regular checks can ensure optimal performance and longevity.

- **Cleaning:** Periodically wipe the exterior of the transformer with a soft, damp cloth to remove dirt and debris. Do not use abrasive cleaners or solvents.
- **Photocell Sensor:** Ensure the photocell sensor (located on the front panel) is clean and unobstructed by dirt, leaves, or other objects to ensure proper dusk-to-dawn operation.
- **Connections:** Annually inspect all wiring connections to ensure they are secure and free from corrosion.
- **Circuit Breaker:** If the circuit breaker trips (bounces out), disconnect the power, check for overloaded lights or short circuits in your landscape lighting system, resolve the issue, and then press the circuit breaker to reset it.

Troubleshooting

Problem	Possible Cause	Solution
Lights do not turn on.	No power to transformer. Circuit breaker tripped. Photocell sensor obstructed (in Auto mode). Incorrect mode selected. Loose wiring connections. Faulty lights.	Check power outlet and cord. Reset circuit breaker after checking for overload/short. Clear obstruction from photocell. Select appropriate operating mode. Check and tighten all wiring connections. Test lights individually.
Lights stay on continuously (in Auto or Timer mode).	Photocell sensor obstructed or dirty. Transformer located in a brightly lit area.	Clean photocell sensor. Relocate transformer to a darker area or shield the sensor from artificial light sources.
Lights flicker or are dim.	Overloaded transformer. Voltage drop due to long cable runs or thin wires. Loose connections.	Reduce total wattage of connected lights. Use 14V output, thicker gauge wire, or shorter cable runs. Check and tighten all wiring connections.

Specifications

Feature	Specification
Brand	DEWENWILS
Model	Photocell Transformer-300W
Power Source	Corded Electric
Input Voltage	120V AC
Output Voltage	12V AC / 14V AC
Wattage	300W
Current Rating	25 Amps

Feature	Specification
Product Dimensions	4"D x 6"W x 8.6"H
Mounting Type	Wall Mount
Material	High-performance metal
Certifications	ETL Listed



Figure 7: An illustration highlighting the core function of the transformer: converting 120V AC input to 12V/14V AC safe low voltage output for landscape lighting, with a total capacity of 300W.

Warranty and Support

DEWENWILS products are designed and manufactured to the highest quality standards. For warranty information, technical support, or customer service inquiries, please contact DEWENWILS directly through their official website or the retailer where the product was purchased.

Please have your model number (Photocell Transformer-300W) and purchase date ready when contacting support.
For more information, visit the DEWENWILS Store on Amazon.

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