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› HIBOITEC 400W & 500W Low Voltage Landscape Transformer User Manual

HIBOITEC 400W & 500W (B0DYJ8FY82)

HIBOITEC 400W & 500W Low Voltage Landscape Transformer User Manual

Model: 400W & 500W (B0DYJ8FY82)

1. INTRODUCTION

Thank you for choosing the HIBOITEC Low Voltage Landscape Transformer. This device is designed to convert standard 120V AC household current to a safe 12V or 14V/15V AC low voltage, suitable for powering outdoor landscape lighting systems. It features a photocell sensor for automatic dusk-to-dawn operation and multiple timing functions for flexible control of your lighting. This manual provides essential information for safe installation, operation, and maintenance of your transformer.

400W LOW VOLTAGE CONVERTER

Convert 120V AC to **12V AC** Safe Voltage

400W



Image 1.1: HIBOITEC 400W Low Voltage Landscape Transformer. This image shows the front view of the 400W model, highlighting its input of 120V AC and output of 12V AC.

500W LOW VOLTAGE CONVERTER

Convert 120V AC to **12V AC/15V AC** Safe Voltage

500W



Image 1.2: HIBOITEC 500W Low Voltage Landscape Transformer. This image displays the front view of the 500W model, indicating its 120V AC input and 12V AC / 15V AC output.

2. SAFETY INFORMATION

Please read and understand all instructions before installing or operating this transformer. Failure to follow these instructions may result in electric shock, fire, or other hazards.

- **Electrical Safety:** Always disconnect power at the circuit breaker before installing or servicing the transformer. Ensure the transformer is connected to a Ground Fault Circuit Interrupter (GFCI) protected outlet.

- **Outdoor Use:** This transformer is designed for outdoor use. Ensure all connections are waterproof and protected from moisture.
- **Mounting:** Mount the transformer at least 1 foot (30 cm) above ground level to prevent water damage.
- **Wiring:** Use only low voltage landscape lighting cable (e.g., 12-gauge, 14-gauge, or 16-gauge) suitable for direct burial or outdoor use. Do not exceed the maximum wattage capacity of the transformer (400W or 500W). Optimal use should not exceed 90% of the maximum power.
- **Overload Protection:** The transformer includes built-in circuit protection. In case of a short circuit or overload, the power will automatically cut off to protect your lights.
- **Photocell Sensor:** Ensure the photocell sensor is not obstructed by objects or light sources that could interfere with its operation.

3. PRODUCT FEATURES

The HIBOITEC Low Voltage Landscape Transformer is equipped with several features to enhance your outdoor lighting experience:

- **Dusk-to-Dawn Photocell Sensor:** Features a removable and replaceable photocell sensor that automatically turns lights on at dusk and off at sunrise, optimizing energy consumption. The upgraded sensor provides zero-delay current output upon detecting darkness.
- **Overload Protection:** Built-in anti-high voltage automatic circuit breaker protects your lighting system by cutting power during short circuits or overloads.
- **Memory Function:** Retains your last set mode even after a power outage, eliminating the need for frequent readjustment.
- **Multiple Timing Functions:** Offers various modes including Automatic ON/OFF, Dusk ON/Timer OFF, Timer ON/OFF (ON and OFF at set times), and Test mode.
- **Weatherproof & Durable:** Constructed with a high-quality metal shell (Heavy Duty 304 Stainless Steel) that is windproof, waterproof, dustproof, corrosion-resistant, and anti-rust, ensuring a long service life.



Image 3.1: Control Panel Features. This image illustrates the various functions available on the transformer's control panel, including Timed ON/OFF, Dusk to Dawn, Manual ON/OFF, Dusk ON/Timed OFF, and Memory Function.

INTELLIGENT MEMORY FUNCTION

The low voltage transformer will remain the mode you selected before, even when power outage



Image 3.2: Intelligent Memory Function. This image visually represents the transformer's ability to retain settings even after a power interruption.



Image 3.3: Weatherproof and Durable Construction. This image highlights the transformer's robust design, emphasizing its 500W capacity, weather durability, corrosion resistance, overload/short circuit protection, anti-rust properties, and sturdy shell, shown in both rain and snow conditions.

4. SETUP AND INSTALLATION

Follow these steps for proper installation of your HIBOITEC landscape transformer:

1. **Choose a Location:** Select a suitable outdoor location near a 120V AC GFCI-protected outlet. The location should be protected from direct water spray and allow for proper ventilation. Mount the transformer at least 1

foot (30 cm) above ground level.

2. **Mount the Transformer:** Securely mount the transformer to a wall or post using appropriate hardware (not included).
3. **Connect Low Voltage Cables:** Strip approximately 1/2 inch (1.2 cm) of insulation from the ends of your low voltage landscape lighting cables. Connect the cables to the low voltage output terminals on the transformer. The transformer provides 12V and 15V AC output terminals. The 15V output compensates for voltage drops on longer wire runs. Multiple terminals are available for several wire runs. Ensure a secure connection.
4. **Install Photocell Sensor:** The photocell sensor is typically pre-installed or can be easily attached. Ensure it is positioned where it can detect ambient light without obstruction from artificial light sources or shadows.
5. **Plug In:** Once all low voltage connections are secure and verified, plug the transformer's power cord into the 120V AC GFCI-protected outlet.

Easy to Install

Input 120V AC



Overload/short circuit protection

Output 12V&15V AC
15V Compensates voltage drops on longer wires Multiple terminals available for several wire runs

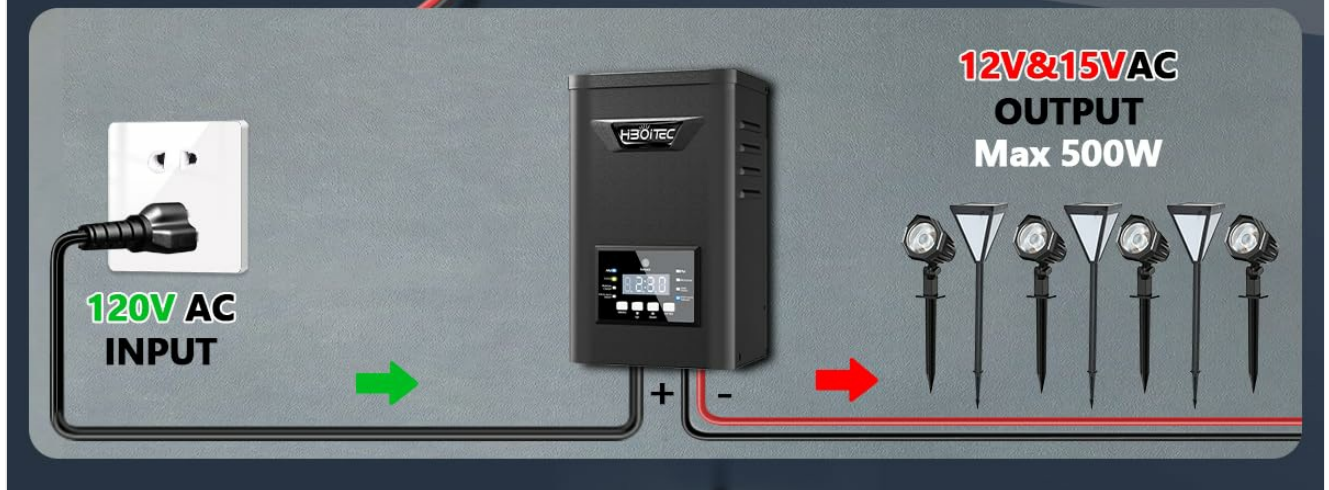


Image 4.1: Easy Installation and Wiring Diagram. This image provides a clear visual guide for connecting the 120V AC input and the 12V & 15V AC output to landscape lights, illustrating the terminal block connections and the location of overload/short circuit protection.

5. OPERATING INSTRUCTIONS

The HIBOITEC transformer offers various operating modes controlled via its integrated display and buttons (MENU, Up, Down, ENTER).

5.1 Setting the Clock

Refer to the display for current time. Use the MENU button to navigate to the clock setting, then use Up/Down to adjust hours and minutes, and ENTER to confirm.

5.2 Operating Modes

Press the MENU button to cycle through the available operating modes:

- **Manual ON/OFF:** Lights can be manually turned on or off. This mode bypasses automatic functions.
- **Photocell Auto ON/OFF (Dusk to Dawn):** The photocell sensor detects ambient light. Lights will automatically turn on at dusk and turn off at dawn.
- **Dusk ON/Timer OFF:** Lights turn on at dusk (detected by the photocell) and remain on for a set duration (e.g., 4, 6, 8 hours) before turning off.
- **Timer ON/OFF:** Allows you to set specific ON and OFF times for your lights, independent of ambient light conditions.
- **Test Mode:** A short mode to test the functionality of the lights and settings.

Use the Up/Down buttons to adjust settings within each mode (e.g., timer duration, specific ON/OFF times) and ENTER to confirm your selections.



Landscape lights automatically turn on at dusk and off at dawn



Landscape lights turn on/off at the time you set



Image 5.1: Dusk to Dawn vs. Timer ON/OFF Operation. This image visually compares the two primary automatic operating modes: lights turning on at dusk and off at dawn, versus lights turning on and off at user-defined times.

6. MAINTENANCE

Regular maintenance ensures optimal performance and longevity of your transformer:

- **Cleaning:** Periodically wipe the transformer's exterior with a damp cloth to remove dirt and debris. Do not use abrasive cleaners or solvents.
- **Photocell Sensor:** Ensure the photocell sensor lens is clean and free from obstructions (e.g., leaves, dirt,

snow) that could affect its light detection.

- **Cable Inspection:** Annually inspect all low voltage cables for damage, fraying, or exposed wires. Repair or replace damaged cables immediately.
- **Connections:** Check terminal connections periodically to ensure they remain tight and secure.

7. TROUBLESHOOTING

If you encounter issues with your HIBOITEC transformer, refer to the following troubleshooting guide:

Problem	Possible Cause	Solution
Lights do not turn on.	No power to transformer. Photocell sensor obstructed or faulty. Incorrect timer setting. Overload protection activated. Loose wiring connections. Faulty light bulbs/fixtures.	Check GFCI outlet and circuit breaker. Clear obstructions from photocell; ensure it's clean. Verify timer mode and settings. Reduce total wattage of lights; check for short circuits. Tighten all low voltage connections. Test lights individually.
Lights stay on constantly.	Photocell sensor receiving too much light. Incorrect timer setting.	Relocate photocell sensor away from artificial light sources. Adjust timer settings to desired OFF time.
Lights flicker or are dim.	Voltage drop due to long wire runs or insufficient wire gauge. Loose connections. Overloaded circuit.	Use the 15V output terminals for longer runs, or use heavier gauge wire. Check and tighten all connections. Reduce the number of lights or total wattage.

8. SPECIFICATIONS

- **Brand:** HIBOITEC
- **Model:** 400W & 500W Low Voltage Landscape Transformer
- **Input Voltage:** 120V AC
- **Output Voltage:** 12V AC / 14V AC (for 400W model), 12V AC / 15V AC (for 500W model)
- **Power Output:** 400W or 500W (depending on model)
- **Power Source:** Corded Electric
- **Material:** Heavy Duty 304 Stainless Steel Shell
- **Protection:** Overload/Short Circuit Protection, Weatherproof (windproof, waterproof, dustproof, corrosion-resistant, anti-rust)
- **Control:** Photocell Sensor, Multiple Timing Functions (Automatic ON/OFF, Dusk ON/Timer OFF, Timer ON/OFF, Test Mode), Memory Function

9. WARRANTY AND SUPPORT

HIBOITEC provides a **12-month replacement warranty** for this product. Additionally, lifetime after-sale support is guaranteed. For any questions, technical assistance, or warranty claims, please contact HIBOITEC customer service through your purchase platform or the official HIBOITEC website.

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ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

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