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CEMELI XH-W1411

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Model: XH-W1411 | Brand: CEMELI

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of the CEMELI XH-W1411 Digital LED Temperature Controller. This device is designed for precise temperature control in various applications, including greenhouses, heating systems, and cooling systems. Please read this manual thoroughly before use to ensure proper functionality and safety.



Figure 1.1: The CEMELI XH-W1411 Digital LED Temperature Controller. This image shows the front view of the controller with its digital display, control buttons, and connected wires.

2. PRODUCT OVERVIEW

The XH-W1411 is a versatile digital temperature controller featuring an LED display for clear temperature readings and settings. It is equipped with a high-precision NTC10K temperature probe for accurate measurements and supports both heating and cooling control modes. The AC 220V variant is designed for standard household or industrial power supplies.



Figure 2.1: Side view of the XH-W1411 controller, showing the attached NTC temperature sensor and power/load wires.

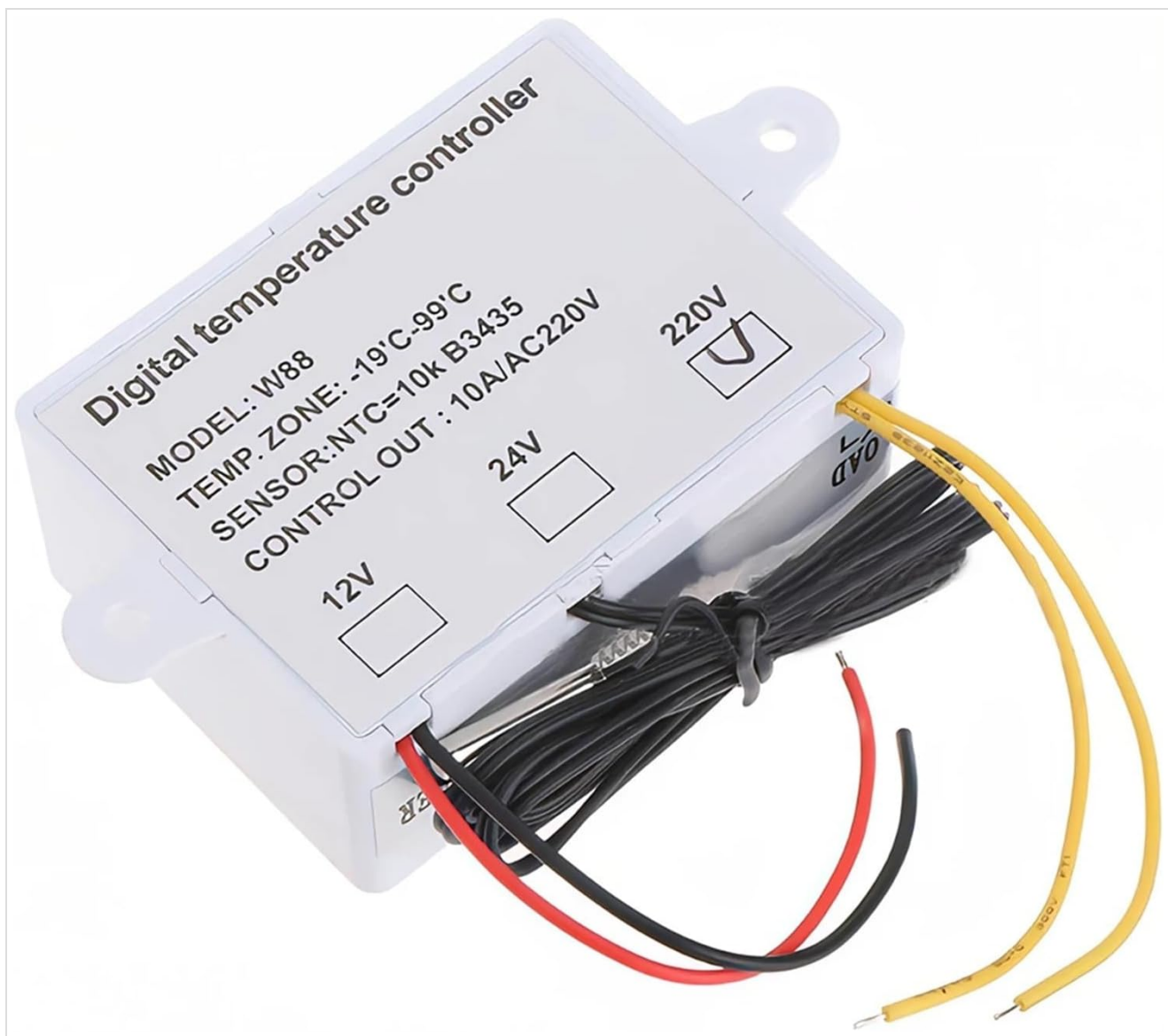


Figure 2.2: Rear view of the XH-W1411 controller, displaying model information, temperature zone, sensor type, and control output voltage options.

3. SPECIFICATIONS

Feature	Specification
Product Name	W88 Digital Temperature Controller (XH-W1411)
Temperature Measuring Range	-50°C to 110°C
Temperature Control Range	-19°C to 99°C
Temperature Measurement Accuracy	±0.3°C
Resolution	0.1°C
Temperature Probe	NTC10K/B3435
Supply Voltage	AC 220V (This variant)
Output Current	10A
Overall Size	81 x 55 x 31 mm (3.19 x 2.17 x 1.22 inches)

Feature	Specification
Display Type	LED
Control Method	Push Button
Mounting Type	Wall Mount
Connectivity Technology	Wired
Item Weight	50 Grams (1.76 ounces)

4. SETUP AND INSTALLATION

Important Safety Note: Ensure the power supply is disconnected before performing any wiring to prevent electric shock. If you are unsure about electrical wiring, consult a qualified electrician.

4.1 Wiring Instructions (AC 220V)

The wiring method for both 12V and 220V versions is functionally similar, but it is crucial to correctly identify the Live (L) and Neutral (N) wires for the AC 220V model. The controller has terminals for power input and load output. The temperature sensor connects separately.

1. Connect the AC 220V power supply to the designated input terminals, ensuring the Live (L) and Neutral (N) wires are correctly identified and connected.
2. Connect your heating or cooling load device (e.g., heater, fan) to the output terminals of the controller.
3. Plug the NTC temperature probe into its dedicated port on the controller.
4. Secure all connections and ensure no bare wires are exposed.

220V Wiring Instruction

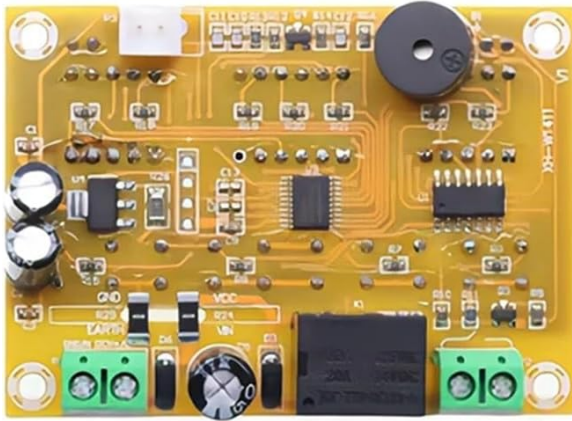


Figure 4.1: Wiring diagram for the AC 220V XH-W1411 controller. This diagram illustrates how to connect the 220V power supply and the load device to the controller's terminals.

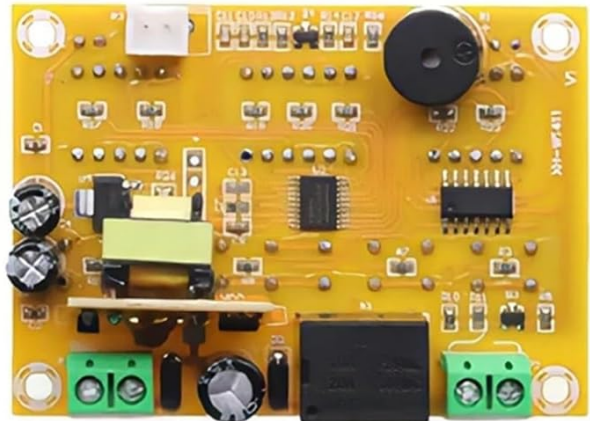
4.2 Product Comparison (Internal Circuitry)

While the external appearance is similar, the internal circuitry differs between the 12V and 220V versions to accommodate different power requirements. This image shows the internal components for reference.

12V and 220V Product Comparison



12V supply voltage
Back of the circuit board



220V supply voltage
Back of the circuit board

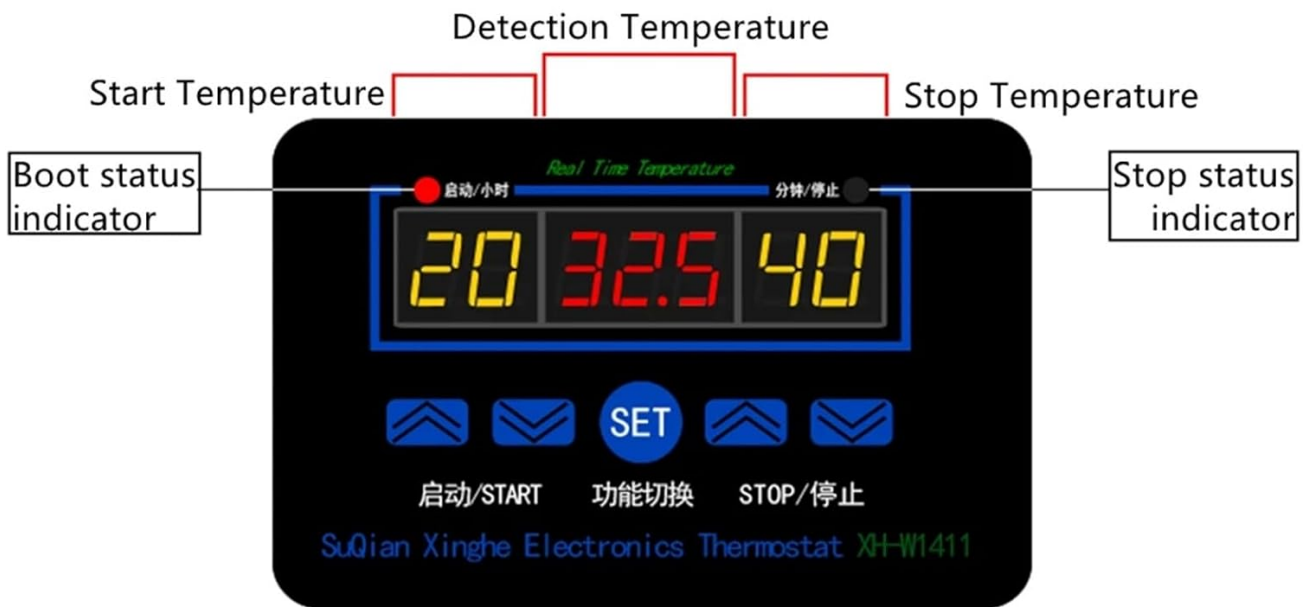
Figure 4.2: Comparison of the circuit boards for the 12V (left) and 220V (right) versions of the XH-W1411 controller, highlighting internal component differences.

5. OPERATING INSTRUCTIONS

The XH-W1411 controller features a clear LED display and intuitive push-button controls for setting parameters.

Set Using

Panel Description



Setting instructions: If the temperature is in the range when power on, the output will be started immediately, and it will be disconnected when it reaches the stop value.

Figure 5.1: Panel description of the XH-W1411, indicating the "Start Temperature", "Stop Temperature", "Real Time Temperature", and status indicators.

5.1 Power On/Off

- **To Power On:** In the off state, press the **SET** button.
- **To Power Off:** In the power-on state, press and hold the **SET** button for 3 seconds.

5.2 Setting Temperature Parameters

The controller operates by setting a "Start Temperature" and a "Stop Temperature".

- If the current temperature is within the set range when powered on, the output will activate immediately.
- The output will disconnect when the temperature reaches the "Stop Temperature" value.

Specific steps for setting Start and Stop temperatures are typically done using the UP/DOWN arrows after a short press of the SET button, but this detail is not explicitly provided in the source. Users should refer to the on-screen prompts.

5.3 Function Switching (F-1, F-2, F-3)

During normal operation, press the **SET** button to cycle through additional functions: F-1, F-2, and F-3. These functions are supplementary and do not directly affect the primary temperature control settings. It is generally recommended to avoid using these if only basic temperature control is needed.

- **F-1: Intermittent Work**

- Left display: Start minute setting.
- Right display: Stop minute setting.

- **F-2: Timed Shutdown**

- Left display: Hours.
- Right display: Minutes.
- Maximum setting: 99 hours and 59 minutes.

- **F-3: Timed Power On**

- Left display: Hours.
- Right display: Minutes.
- Maximum setting: 99 hours and 59 minutes.

5.4 Temperature Calibration

To calibrate the temperature reading:

1. With the thermostat unplugged, press and hold the **SET** button.
2. While holding **SET**, plug in the thermostat to power it on.
3. The screen will display **-000-**, indicating entry into the temperature correction function.
4. Use the UP/DOWN arrow buttons to adjust the temperature correction value. The maximum adjustment range is $\pm 9.9^{\circ}\text{C}$.
5. After calibration, the real-time temperature displayed will be the original measured value plus the calibration value.

5.5 Self-Check Function

The provided product description mentions a "Self-check function" initiated by pressing and holding a button, but the full instructions are incomplete. Please refer to the device's on-screen prompts or manufacturer's website for complete details on this feature if needed.

6. MAINTENANCE

The XH-W1411 Digital LED Temperature Controller is designed for low maintenance. To ensure optimal performance and longevity:

- Keep the device clean and free from dust and moisture.
- Avoid exposing the controller to extreme temperatures or direct sunlight for extended periods.
- Regularly check wiring connections to ensure they are secure and free from corrosion.
- Do not attempt to open the casing or repair the device yourself, as this may void the warranty and pose a safety risk.

7. TROUBLESHOOTING

If you encounter issues with your XH-W1411 controller, consider the following basic troubleshooting steps:

- **No Power/Display:**

- Check the power supply connection.
- Ensure the power outlet is functional.
- Verify that the controller is powered on (short press **SET** button).

- **Incorrect Temperature Reading:**

- Ensure the temperature probe is correctly connected and not damaged.
- Check for environmental factors affecting the probe (e.g., direct heat source, drafts).
- Perform a temperature calibration as described in Section 5.4.

- **Load Not Activating/Deactivating:**

- Verify that the load device is correctly wired and functional.
- Check the set "Start Temperature" and "Stop Temperature" to ensure they are appropriate for your desired operation.
- Confirm that the current temperature is within the range that should trigger the load.

If problems persist, please contact customer support.

8. WARRANTY AND SUPPORT

Specific warranty information for the CEMELI XH-W1411 Digital LED Temperature Controller is not provided in the product details. Please refer to your purchase documentation or contact the retailer/manufacturer directly for warranty terms and conditions.

For technical support or further assistance, please contact CEMELI customer service through their official channels or the platform where the product was purchased.

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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.

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