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› CEMELI RC-114M Digital Temperature Controller User Manual

CEMELI RC-114M

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1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of the CEMELI RC-114M Digital Temperature Controller. This device is designed for precise temperature control within a range of -30°C to 300°C, utilizing an NTC sensor and a 30A relay output. Please read this manual thoroughly before use to ensure proper function and safety.

2. PRODUCT OVERVIEW

The CEMELI RC-114M is a compact digital thermostat featuring an LED display for clear temperature readings and intuitive buttons for setting parameters. It is designed for panel mounting and includes a robust NTC temperature sensor.



Figure 2.1: Front view of the RC-114M controller, displaying the LED screen, 'Set' button, 'Rst' button, and up/down arrow buttons.

3. SAFETY INFORMATION

- Ensure the power supply matches the controller's specifications (220V AC).
- All wiring should be performed by a qualified electrician to prevent electrical shock or damage.
- Do not exceed the maximum load capacity of 30A/220V. Overloading can cause damage to the device and create a fire hazard.
- Avoid short circuits or misuse of the device. Damage resulting from such actions may void the warranty.
- Keep the device away from water and excessive humidity.
- Operate within the specified ambient temperature and humidity ranges.

4. SETUP

4.1 Mounting

The controller is designed for panel mounting. Ensure adequate space for ventilation and access to wiring terminals. The dimensions of the controller are approximately 75mm x 34.5mm x 85mm.



Figure 4.1: Side view of the RC-114M controller, illustrating the integrated red mounting clips for secure panel installation.

4.2 Wiring Diagram

Refer to the wiring diagram below for correct electrical connections. Ensure all connections are secure and insulated.

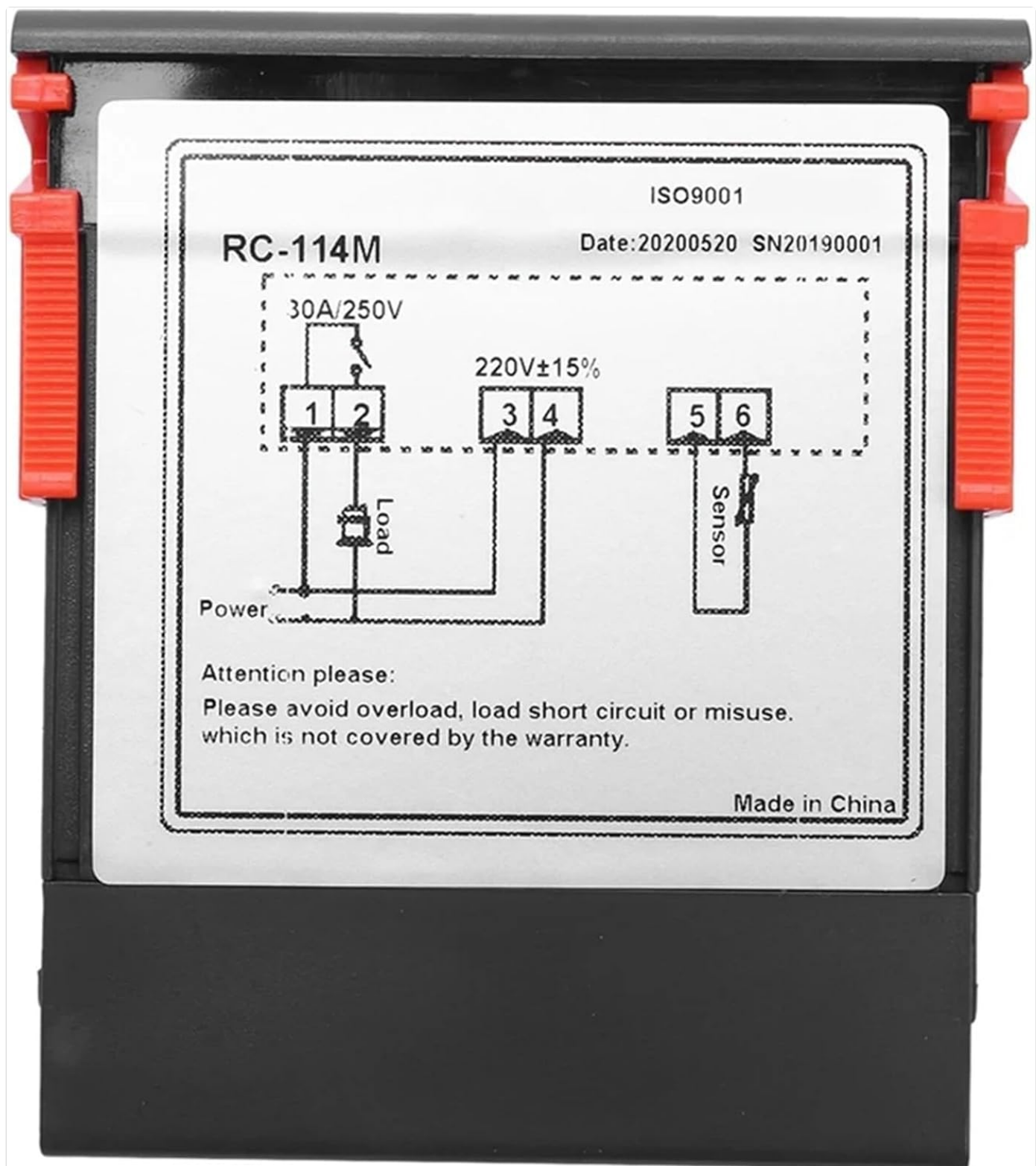


Figure 4.2: Wiring diagram for the RC-114M. Terminals 1 & 2 are for the load, 3 & 4 for 220V power input, and 5 & 6 for the NTC sensor.

- **Power Input (220V AC):** Connect the 220V AC power supply to terminals 3 and 4.
- **Load Output:** Connect the heating or cooling load to terminals 1 and 2. The controller acts as a relay switch for the load.
- **NTC Sensor:** Connect the NTC temperature sensor to terminals 5 and 6.

4.3 NTC Sensor Installation

The included NTC sensor has a 2-meter wire. Install the sensor in the environment where temperature measurement and control are required. Ensure the sensor tip is fully exposed to the temperature being measured and is not obstructed.



Figure 4.3: The NTC temperature sensor with its 2-meter cable, designed for accurate temperature detection.

5. OPERATING INSTRUCTIONS

5.1 Power On

Once wired correctly, apply power to the controller. The LED display will illuminate, showing the current measured temperature.

5.2 Setting the Target Temperature

1. Press the '**Set**' button once. The display will flash, indicating that the target temperature can be adjusted.
2. Use the '**▲**' (Up) and '**▼**' (Down) arrow buttons to adjust the target temperature to your desired value.
3. Press the '**Set**' button again to confirm and save the new target temperature. The display will return to showing the current measured temperature.

5.3 Reset Function

Press the '**Rst**' button to reset the controller. This may be used to clear certain error states or to restart the control process.

6. MAINTENANCE

- **Cleaning:** Wipe the controller's surface with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Sensor Care:** Ensure the NTC sensor is clean and free from debris that could affect its accuracy. Avoid bending or damaging the sensor cable.
- **Periodic Checks:** Periodically inspect wiring connections for tightness and signs of wear or corrosion.

7. TROUBLESHOOTING

- **Display Not Working:** Check power supply connections (terminals 3 & 4). Ensure the voltage is 220V AC.
- **Incorrect Temperature Reading:** Verify the NTC sensor is correctly connected to terminals 5 & 6. Check the sensor cable for damage. Ensure the sensor is properly placed in the environment to be measured.
- **Load Not Switching:** Check the load wiring to terminals 1 & 2. Ensure the load capacity does not exceed 30A/220V. Verify the target temperature setting and the current temperature.
- **Controller Unresponsive:** Try pressing the **Rst'** button. If the issue persists, disconnect power for a few minutes and then reconnect.

8. SPECIFICATIONS

Feature	Specification
Model	RC-114M
Temperature Measuring Range	-30°C to 300°C
Temperature Controlling Range	-30°C to 300°C
Power Supply	220V AC ±15%, 50/60Hz
Load Capacity	≤ 30A / 220V
Output	Relay Output
Input	1 NTC Sensor
Sensor Wire Length	2 meters (standard)
Accuracy	±1°C
Resolution	0.1°C
Power Consumption	≤ 3W
Ambient Temperature	-10°C to 60°C
Ambient Humidity	20% to 85% (No condensate)
Dimensions (L x W x H)	75mm x 34.5mm x 85mm
Material	Plastic
Color	Black
Item Weight	50 Grams

9. WARRANTY AND SUPPORT

Warranty information for the CEMELI RC-114M Digital Temperature Controller is typically provided by the seller at the time of purchase. Please retain your proof of purchase for any warranty claims.

For technical support or inquiries, please contact your retailer or the manufacturer directly. Ensure you have your product model number (RC-114M) and purchase details available when seeking assistance.

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

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Email

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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