

## Manuals+

[Q & A](#) | [Deep Search](#) | [Upload](#)

manuals.plus /

> [CHBMSS](#) /

> [CHBMSS TC4M-N4N Temperature Controller User Manual](#)

## CHBMSS TC4M-N4N

# CHBMSS TC4M-N4N Temperature Controller User Manual

Model: TC4M-N4N

## 1. PRODUCT OVERVIEW

---

The CHBMSS TC4M-N4N is a compact and reliable digital temperature controller designed for precise temperature management in various applications. It offers features such as temperature calibration, high-temperature alarm, and selectable cooling or heating modes, ensuring stable and safe operation.



Figure 1: CHBMSS TC4M-N4N Temperature Controller Front Panel

### Key Features:

- Compact and lightweight design for easy integration.
- High reliability for consistent performance.
- Temperature calibration function for accurate readings.
- Audible alarm for high-temperature conditions.
- Selectable cooling or heating control modes.
- Adjustable maximum and minimum temperature limits for safety.

## 2. SAFETY INFORMATION

Please read all instructions carefully before installation and operation. Failure to follow these instructions may result in equipment damage, personal injury, or improper operation.

- Ensure the power supply voltage matches the controller's specifications.
- Disconnect power before performing any wiring or maintenance.
- Install the device in a dry, well-ventilated area, away from direct sunlight, high temperatures, and corrosive gases.

- Do not operate the controller with wet hands.
- This device is not intended for life-support applications where malfunction could result in injury or death.

### 3. INSTALLATION AND WIRING

#### 3.1 Unpacking

Carefully remove the temperature controller from its packaging. Inspect the device for any signs of damage during transit. Report any damage to your supplier immediately.

#### 3.2 Mounting

The controller is designed for panel mounting. Ensure adequate space for ventilation and wiring connections at the rear of the unit.

#### 3.3 Wiring Diagram

Refer to the wiring diagram provided on the side of the unit or in the included quick start guide for specific connection details. Ensure all connections are secure and correctly polarized.



Figure 2: CHBMSS TC4M-N4N Temperature Controller Side View with Terminals

- **Power Supply:** Connect the appropriate voltage to the designated power terminals.
- **Sensor Input:** Connect your temperature sensor (e.g., thermocouple, RTD) to the sensor input terminals. Observe polarity if applicable.
- **Output Relay:** Connect your heating or cooling device to the output relay terminals. Ensure the load

current does not exceed the relay's rating.

## 4. OPERATION

### 4.1 Initial Power-Up

Once wired, apply power to the controller. The display will illuminate, showing the current process value (PV) and set value (SV).



Figure 3: CHBMSS TC4M-N4N Display Example

### 4.2 Setting the Temperature (SV)

1. Press the **MODE** button briefly to enter the set value adjustment mode. The SV display will flash.
2. Use the **Up (▲)** and **Down (▼)** arrow buttons to adjust the desired temperature.
3. Use the **Left (◀)** arrow button to shift the cursor for faster adjustment of individual digits.
4. Press the **MODE** button again to confirm the setting and exit adjustment mode.

### 4.3 Parameter Settings (Advanced)

To access advanced parameters (e.g., control mode, alarm settings, calibration), press and hold the **MODE** button for several seconds until the parameter menu appears. Navigate using the arrow buttons and confirm with **MODE**.

- **Cooling/Heating Mode:** Select between cooling (output active when temperature is above SV) or heating (output active when temperature is below SV).
- **Temperature Calibration:** Adjust the sensor reading to match a known reference temperature.

- **Alarm Settings:** Configure alarm thresholds (AL1, AL2) and alarm types.
- **Max/Min Temperature Limits:** Set upper and lower bounds for the adjustable temperature range to prevent accidental over/under-setting.

## 5. MAINTENANCE

The CHBMSS TC4M-N4N Temperature Controller requires minimal maintenance to ensure long-term reliable operation.

- **Cleaning:** Periodically wipe the display and casing with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Inspection:** Regularly check wiring connections for tightness and signs of wear or corrosion.
- **Environment:** Ensure the operating environment remains within the specified temperature and humidity ranges.

## 6. TROUBLESHOOTING

If you encounter issues with your temperature controller, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Display is blank	No power supply or incorrect wiring.	Check power connections and ensure correct voltage.
Temperature reading is inaccurate	Sensor faulty, incorrect sensor type selected, or calibration needed.	Verify sensor connection, check sensor type setting, perform temperature calibration.
Output not activating	Wiring error, control mode incorrect, or temperature not reaching set point.	Check output wiring, verify cooling/heating mode, ensure SV is appropriately set.
Alarm constantly active	Alarm set point too close to PV, or sensor issue.	Adjust alarm thresholds, check sensor accuracy.

If the problem persists after attempting these solutions, please contact CHBMSS customer support for further assistance.

## 7. TECHNICAL SPECIFICATIONS

Parameter	Value
Model	TC4M-N4N
Brand	CHBMSS
Package Dimensions	1.18 x 0.79 x 0.39 inches
Item Weight	1.1 pounds (500 Grams)
Color	One Color
Number of Pieces	1
ASIN	B0DPYS4XK7
Manufacturer	CHBMSS

## 8. WARRANTY AND SUPPORT

For warranty information or technical support, please refer to the documentation included with your purchase or contact CHBMSS customer service directly. Please have your product model number (TC4M-N4N) and purchase details ready when contacting support.