

## RANRAO 1511465743

# RANRAO 3A Programmable Digital Room Thermostat

Model: 1511465743

## 1. INTRODUCTION

This user manual provides detailed instructions for the RANRAO 3A Programmable Digital Room Thermostat. This device is designed to control the temperature of your room by managing the operation of a gas boiler. It features a clear digital LCD display, programmable settings, and essential safety functions to ensure comfort and energy efficiency.

## 2. PRODUCT FEATURES

- **Digital LCD Display:** Clear liquid crystal display for easy reading of temperature and settings.
- **Battery Powered:** Operates on two 1.5V batteries, allowing flexible placement.
- **Temperature Control:** Automatically starts or stops the gas boiler to maintain the set room temperature.
- **Programmable Schedule:** Supports 5+2 week programming for customized heating schedules.
- **Child Lock Function:** Prevents accidental operation or changes to settings.
- **Anti-freeze Function:** Protects your heating system from freezing temperatures.
- **Flexible Installation:** Can be conveniently installed on a wall or placed freestanding.

## 3. PACKAGE CONTENTS

Upon opening the package, please ensure all the following items are present:

- 1 x RANRAO Digital Room Thermostat
- 2 x Fixing Screws
- 1 x English Instruction Manual

## 4. SETUP AND INSTALLATION

**Important: Ensure installation is performed by a qualified professional to prevent electrical hazards**

and ensure proper functionality.

#### 4.1. Initial Preparation

- Remove any protective film from the display before use.
- The thermostat is powered by two 1.5V batteries. Install them in the designated battery compartment.

#### 4.2. Mounting

The thermostat can be mounted on a wall or used as a freestanding unit. For wall mounting, use the provided fixing screws to secure the backplate to the wall. Ensure the location is free from direct sunlight, drafts, or heat sources that could affect temperature readings.



Image: Thermostat dimensions (85mm x 85mm x 28mm).



Blue backlight



For ordinary gas boilers, NO and COM terminals can be connected! (NC terminal for special gas boiler)

Image: Rear view of the thermostat showing battery compartment and wiring terminals (NO and COM for ordinary gas boilers).

#### 4.3. Wiring to Gas Boiler

Connect the thermostat to your gas boiler. For ordinary gas boilers, the NO (Normally Open) and COM (Common) terminals should be connected. The NC (Normally Closed) terminal is for special gas boilers. Refer to the wiring diagram provided with your boiler and consult a professional if unsure.



Image: Illustration of the thermostat connected to a gas boiler.

#### 4.4. Installation Video Guide

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Video: Visual guide for thermostat installation and display overview. This video demonstrates the physical installation process and initial display setup.

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Video: Guide on wiring a 2-wire battery-powered thermostat for dry contact boilers. This video provides specific instructions for connecting the thermostat to a boiler system.

### 5. OPERATING INSTRUCTIONS

#### 5.1. Display Overview



Image: Front view of the thermostat showing the digital display with current room temperature, set temperature, time, and day.

The digital display shows the current room temperature, the set temperature, time, and day of the week. Various icons indicate the operating mode (e.g., heating active, manual mode, automatic mode).

## 5.2. Basic Temperature Adjustment

To adjust the desired temperature, use the Up (▲) and Down (▼) buttons. The thermostat will automatically activate or deactivate the boiler to reach and maintain the set temperature.

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Video: Demonstration of basic temperature adjustment and operation of the 3A Programmable Thermostat.

## 5.3. Setting Current Time and Date

To set the current time and date, press and hold the 'M' (Menu) button and the Up (▲) button simultaneously for 5 seconds. Use the Up (▲) and Down (▼) buttons to adjust the values, and the 'M' button to cycle through hours, minutes, and days.

Your browser does not support the video tag.

Video: Guide on how to adjust the current time and program the thermostat's schedule.

## 5.4. Programming the Schedule (5+2 Weeks)

The thermostat allows for a 5+2 week programmable schedule, meaning you can set different heating

programs for weekdays (Monday-Friday) and weekends (Saturday-Sunday). To enter programming mode, press and hold the 'M' (Menu) button for 5 seconds. Follow the on-screen prompts to set desired temperatures and times for each period.

5.5. Child Lock Function

To activate or deactivate the child lock, press and hold the Up (▲) and Down (▼) buttons simultaneously for 5 seconds. When activated, a lock icon will appear on the display, preventing unauthorized changes to settings.

5.6. Anti-freeze Function

The anti-freeze function automatically activates the heating if the room temperature drops below a certain threshold (typically 5°C), preventing pipes from freezing. This function is active by default and can be configured in advanced settings.

6. ADVANCED SETTINGS

Advanced settings allow for fine-tuning of the thermostat's operation. These settings are typically accessed when the device is off. It is recommended that these adjustments be made by professional technicians. To access advanced settings: With the thermostat powered off, press and hold the 'M' (Menu) button and the Power button simultaneously for 5 seconds.

- **1ADJ:** Temperature calibration.
- **2SEN:** Sensor mode selection.
- **3LIT:** Modify threshold value.
- **4DIF:** Switching difference adjustment.
- **5LTP:** Initiate anti-freeze function in off mode.
- **6PRG:** Configure holiday mode.
- **7RLE:** Potential-free output and main current output with the same/different method.
- **8DLY:** Adjust delay time for potential-free output.
- **9HIT:** Adjust maximum temperature.
- **AFAC:** Reset to factory parameters.

7. SPECIFICATIONS

Feature	Specification
Brand	RANRAO
Model Number	1511465743
Material	Plastic
Color	1 Unit (White)
Dimensions	10 x 9 x 6 cm (approx. 86 x 86 x 28 mm)
Weight	143 g
Voltage	Two 1.5V batteries
Power Consumption	<170UW

Feature	Specification
Current Load	3 A
Temperature Setting Range	5-90 °C
Switching Difference	± 1 °C
Ambient Temperature	-5-50°C
Protective Casing	IP20
Non-flammable Casing Material	PC, V-0
Sensor	Integrated sensor
Application	Underfloor heating (also suitable for gas boilers)
Special Features	Anti-freeze function
Connectivity Technology	Bluetooth (as per specifications, though not detailed in description)

## 8. MAINTENANCE

- **Cleaning:** Wipe the thermostat's surface with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Battery Replacement:** Replace batteries when the low battery indicator appears on the display. Ensure correct polarity.
- **Regular Checks:** Periodically check the thermostat for any signs of damage or loose connections.

## 9. TROUBLESHOOTING

If you encounter issues with your thermostat, consider the following common solutions:

- **No Display/Power:** Check battery installation and ensure batteries are not depleted.
- **Heating Not Activating:** Verify the set temperature is higher than the current room temperature. Check wiring connections to the boiler. Ensure the thermostat is not in 'OFF' or 'Child Lock' mode.
- **Inaccurate Temperature Reading:** Ensure the thermostat is not exposed to direct sunlight, drafts, or heat sources.
- **Programming Issues:** Re-enter programming mode and carefully follow the steps to set your desired schedule.

For persistent issues, consult a qualified technician or refer to the detailed troubleshooting section in the complete product manual.

## 10. WARRANTY AND SUPPORT

For warranty information, technical support, or service inquiries, please refer to the contact details provided with your purchase documentation or visit the official RANRAO brand store on Amazon:

[Visit the RANRAO Store](#)

