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› Coiwsei RTH702 Multi-Stage Thermostat User Manual

## Coiwsei RTH702

# Coiwsei RTH702 Multi-Stage Thermostat User Manual

Model: RTH702

## INTRODUCTION

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This manual provides comprehensive instructions for the installation, operation, and maintenance of your Coiwsei RTH702 Multi-Stage Thermostat. This non-programmable thermostat is designed for efficient control of home heating and cooling systems. Please read this manual thoroughly before installation and use to ensure proper function and safety.



Figure 1: Coiwsei RTH702 Multi-Stage Thermostat Front View

This image displays the front of the Coiwsei RTH702 thermostat, featuring a large blue backlit LCD screen. The screen shows a current temperature of 62°F and a set temperature of 63°F. Indicators for fan (On Auto), system mode (Cool, Off, Heat), and fan operation (fan icon, flame icon) are visible. Up and down arrow buttons are located on the right side for temperature adjustment.

## COMPATIBILITY

The Coiwsei RTH702 thermostat is compatible with a variety of HVAC systems. Please verify your system's compatibility before installation.

### Compatible Systems:

- Single-stage or Multi-stage systems
- Forced air (gas, oil, or electric)
- Electric furnace
- Hot water steam or gravity radiant heat
- Heat only systems
- Heat pump without auxiliary or emergency heat
- Millivolt systems
- 24V Gas fireplaces
- Floor or wall furnaces
- Cool only systems

## Not Compatible With:

- Heat pump with auxiliary or emergency heat
- Dual fuel/hybrid heating systems
- Electric baseboard heat (110-240 volts)
- Line voltage systems
- Convector
- Radiant-ceiling heat
- Mini split systems
- 12V RV systems

# 2 Heat, 2 Cool Multi Stage Room Thermostat System Compatibility

## Cooling Compatible:

- ✓ Cooling Only Systems
- ✓ Multi Stage Cooling

## Heating Compatible:

- ✓ Gas / Oil / Electric Furnace - Heating Only
- ✓ Gas / Oil / Electric Furnace - Multi Stage
- ✓ Heat Pump w/o Auxiliary or Emergency Heat
- ✓ Floor or Wall Furnaces
- ✓ Gas Fireplaces (24V)
- ✓ Millivolt
- ✓ Forced Air



## Not Compatible:

- × Heat Pump with Auxiliary or Emergency Heat
- × Electric Baseboard Heat (110-240 Volts)
- × Portable Space Heaters
- × Radiant Ceiling Heat
- × Mini Split Systems
- × Convector

Figure 2: Thermostat System Compatibility Chart

This diagram visually categorizes HVAC systems into "Cooling Compatible" and "Heating Compatible" lists, along with a "Not Compatible" list. It reiterates the compatibility details provided in the text, showing checkmarks for compatible systems and crosses for non-compatible ones, with an image of the thermostat at the bottom.

Verify that all items are present in the package:

- 1 x Coiwsei RTH702 Thermostat
- 1 x Wall Plate
- 1 x Instruction Manual
- 1 x Screw Set (screws and wall anchors)
- 1 x Wiring Labels

## ***What's in the Box*** ***Package Contents***

- 1 x Thermostat
- 1 x Wall Plate
- 1 x Manual
- 1 x Wiring Labels
- 1 x Screw Sets

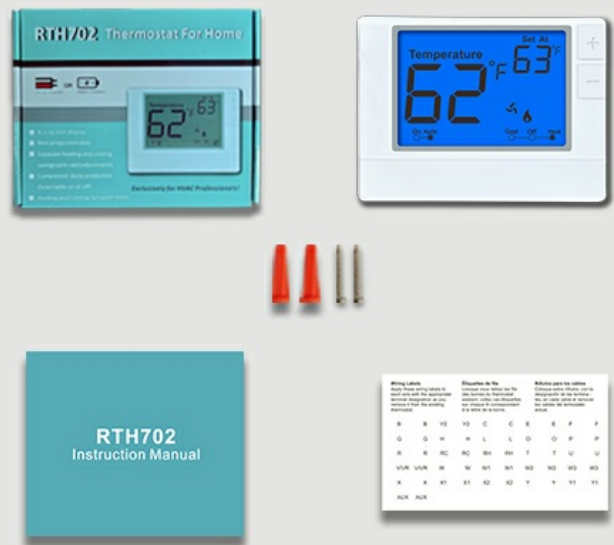


Figure 3: Package Contents

This image displays the complete package contents, including the Coiwsei RTH702 thermostat unit, its wall plate, the instruction manual, a set of screws and wall anchors, and a sheet of wiring labels, all laid out on a grey background.

## **PRODUCT FEATURES AND LAYOUT**

The Coiwsei RTH702 thermostat features a clear, user-friendly interface for easy temperature control.

# Thermostat Layout

## Large clear display, User-friendly Operation Interface

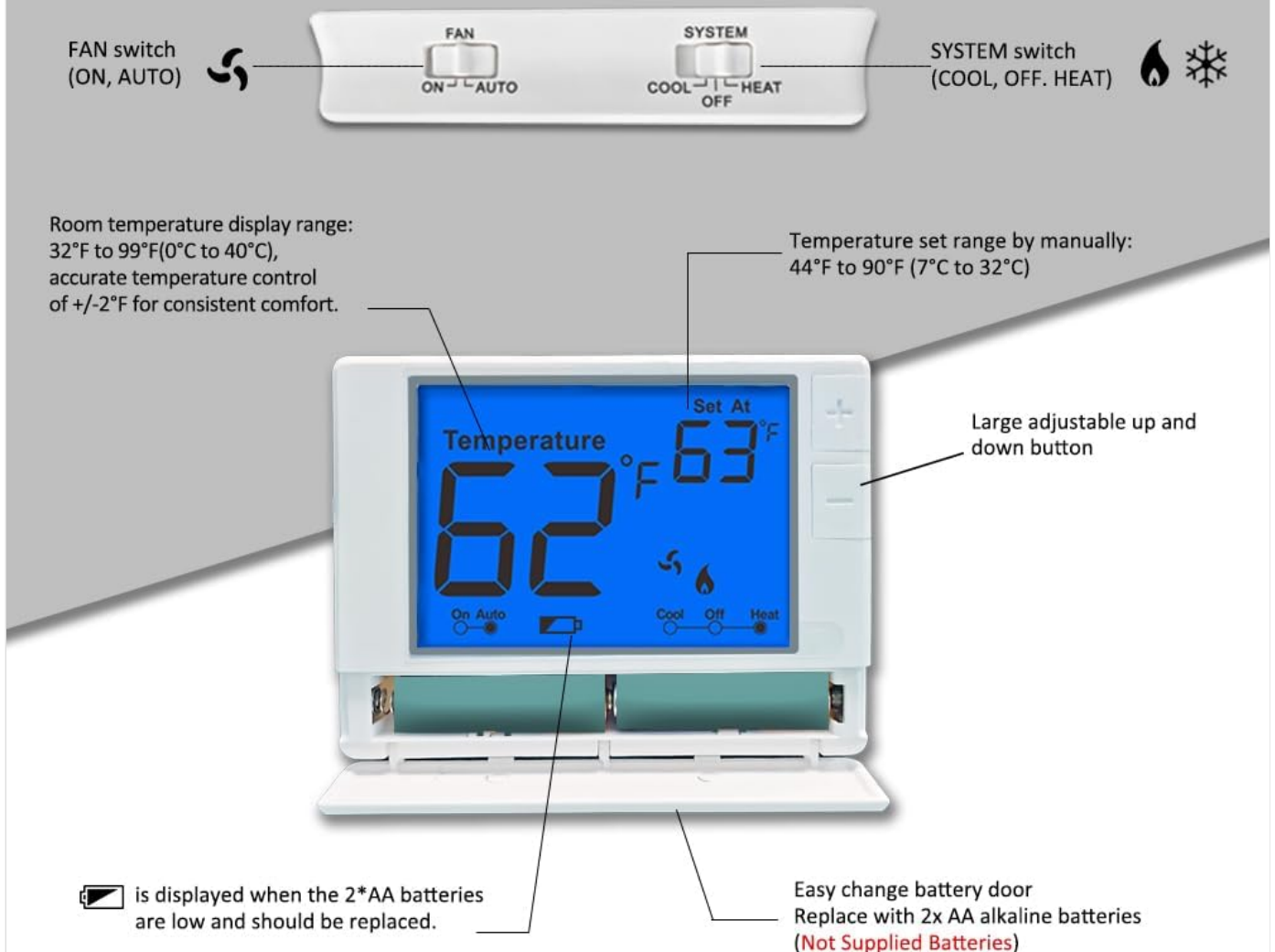


Figure 4: Thermostat Layout and Controls

This image provides a detailed view of the thermostat's layout. It highlights the FAN switch (ON, AUTO), SYSTEM switch (COOL, OFF, HEAT), the large clear LCD display showing room temperature and set temperature, and the large adjustable up and down buttons. The easy-change front-load battery compartment is also indicated, noting that 2x AA alkaline batteries are required (not supplied).

- **Large, Clear Backlit LCD Display:** Easy to read from a distance.
- **Adjustable Up/Down Buttons:** For setting desired temperature.
- **FAN Switch:** Selects between ON (continuous fan operation) and AUTO (fan runs only when heating/cooling system is active).
- **SYSTEM Switch:** Selects between COOL, OFF, and HEAT modes.
- **Easy-Access Battery Compartment:** Front-load design for convenient battery replacement (requires 2x AA alkaline batteries, not supplied).

## INSTALLATION

Installation of the Cooiwisei RTH702 thermostat is designed to be straightforward. Follow these steps carefully.

### 1. Power Off HVAC System

Before beginning any wiring, ensure the power to your heating and cooling system is turned off at the circuit breaker or fuse box. Failure to do so can result in electrical shock or damage to the equipment.

## 2. Remove Old Thermostat

Carefully remove your old thermostat from its wall plate. Take a picture of the existing wiring connections for reference. Use the provided wiring labels to mark each wire as you disconnect it from the old thermostat's terminals. This will help ensure correct re-connection to the new thermostat.

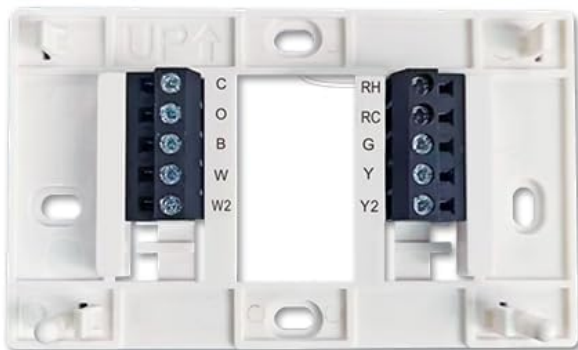
## 3. Mount New Wall Plate

Position the new wall plate on the wall where the old thermostat was located. Use the included screws and wall anchors to secure it. Ensure the plate is level for aesthetic and functional reasons.

## 4. Connect Wires

Connect the labeled wires to the corresponding terminals on the new thermostat's wall plate. Refer to the wiring diagram below. Ensure each wire is securely fastened.

**Just Install It Yourself!**  
**You can carry out the installation yourself quickly and easily.**



- C** ..... Common 24VAC (system power supply)
- O** ..... REV VALVE COOL
- B** ..... REV VALVE HEAT
- W** ..... Heat relay stage 1
- W2** ..... Heat relay stage 2
- RH** ..... 24VAC (system power supply)  
HEAT = RH to W
- RC** ..... COOL = RC to Y FAN = RC to G
- G** ..... FAN
- Y** ..... Cool relay stage 1
- Y2** ..... Cool relay stage 2



### Electric or Gas Switch

If you have an electric furnace,  
set the switch to ELEC  
If you have either a gas or oil furnace,  
set the switch to GAS

Figure 5: Thermostat Wiring Terminals

This image illustrates the wiring terminals on the thermostat's backplate. It shows labeled terminals for C (Common 24VAC), O (Reverse Valve Cool), B (Reverse

Valve Heat), W (Heat Relay Stage 1), W2 (Heat Relay Stage 2), RH (24VAC System Power Supply), RC (Cool = RC to Y Fan), G (Fan), Y (Cool Relay Stage 1), and Y2 (Cool Relay Stage 2). Instructions are provided to remove the metal jumper wire if both RH and RC wires are present, and a note about connecting 4 wires for optimal use, or 2 wires with batteries.

## 5. Set Electric or Gas Switch

On the back of the thermostat unit, locate the small switch for Electric/Gas furnace selection. Set the switch to "ELEC" if you have an electric furnace, or "GAS" if you have a gas or oil furnace.

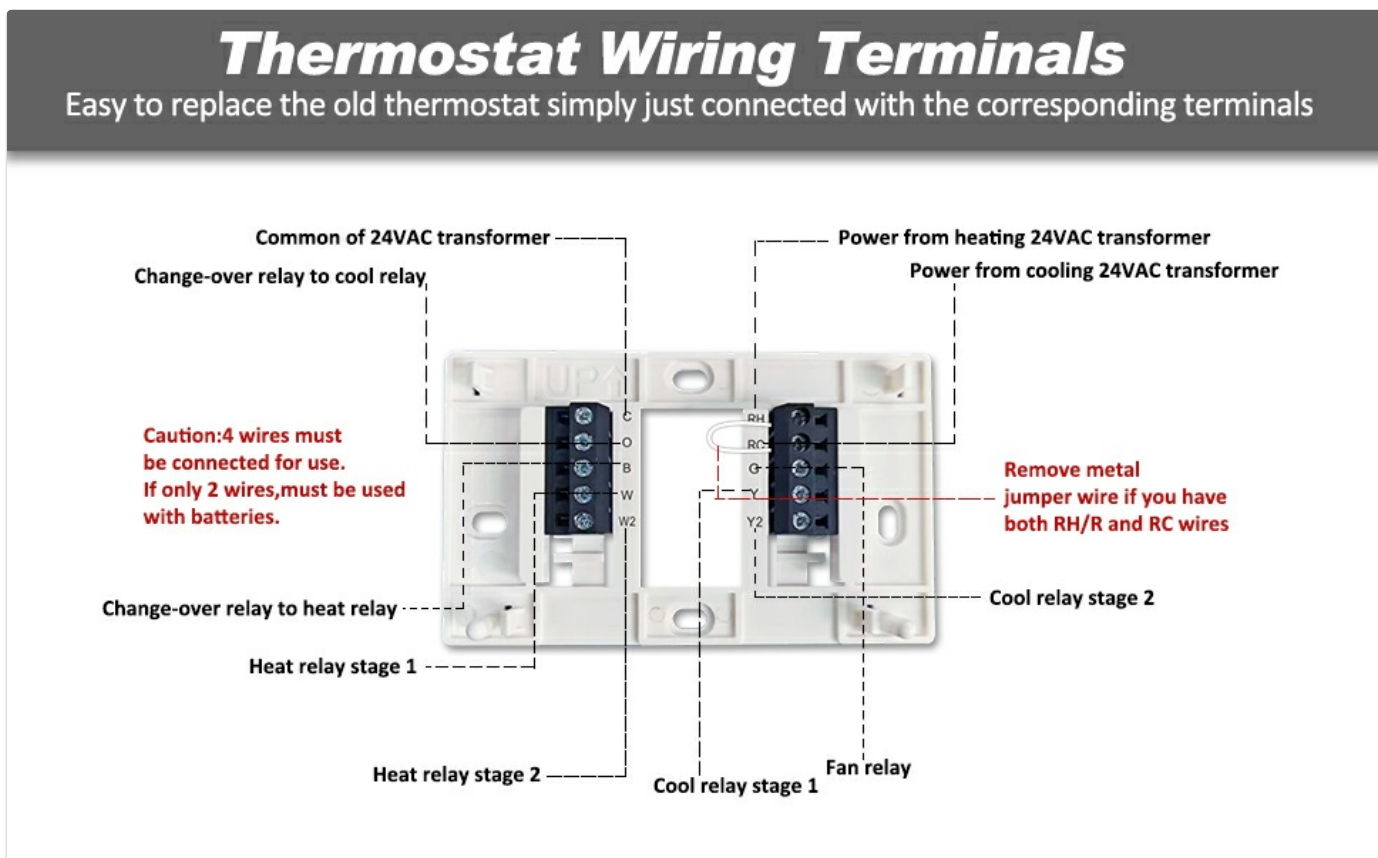


Figure 6: Electric or Gas Switch Location

This image shows a close-up of the internal components of the thermostat, specifically highlighting a small toggle switch labeled "ELEC" and "GAS". This switch is used to configure the thermostat for either electric or gas furnace systems.

## 6. Install Batteries

Open the front-load battery compartment and insert 2x AA alkaline batteries (not supplied), observing the correct polarity. The batteries provide a backup power source if a C-wire is not available, maintaining settings during power outages.

## 7. Attach Thermostat to Wall Plate

Align the thermostat unit with the mounted wall plate and gently push until it snaps securely into place.

## 8. Restore Power

Turn the power back on to your HVAC system at the circuit breaker or fuse box.

## OPERATING INSTRUCTIONS

The Coiwsei RTH702 is a non-programmable thermostat designed for simple and direct control.

### 1. Setting Temperature

- Use the large **Up** (▲) and **Down** (▼) arrow buttons on the right side of the thermostat to adjust the desired set temperature.
- The display will show both the current room temperature and the set temperature.

- The temperature display range is 32°F to 99°F (0°C to 40°C).

## 2. Selecting System Mode

- Slide the **SYSTEM** switch to select the desired operating mode:
  - **COOL**: Activates the cooling system.
  - **OFF**: Turns off both heating and cooling systems.
  - **HEAT**: Activates the heating system.

## 3. Controlling Fan Operation

- Slide the **FAN** switch to select the desired fan mode:
  - **ON**: The fan runs continuously, regardless of whether the heating or cooling system is active.
  - **AUTO**: The fan runs only when the heating or cooling system is actively operating.

## 4. Advanced Settings (User-Configurable)

- **Adjustable Temperature Differential (Swing)**: This feature allows you to set the temperature range before the system turns on or off, optimizing energy use and extending system life. Refer to the full manual for detailed adjustment procedures.
- **Temperature Display Calibration**: If you believe the displayed temperature is inaccurate, it can be calibrated. Consult the full manual for calibration steps.
- **°C/°F Unit Conversion**: The thermostat supports switching between Celsius and Fahrenheit temperature units.
- **Compressor Delay Protection**: This feature protects your compressor from short cycling. It can be selected ON or OFF based on your preference and system requirements.

## MAINTENANCE

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To ensure optimal performance and longevity of your Cooiwsei RTH702 thermostat, follow these simple maintenance guidelines:

- **Battery Replacement**: Replace the 2x AA alkaline batteries annually, or when the low battery indicator appears on the display.
- **Cleaning**: Gently wipe the thermostat's exterior with a soft, damp cloth. Do not use abrasive cleaners or solvents.
- **Regular Checks**: Periodically verify that the thermostat is operating correctly and maintaining desired temperatures.

## TROUBLESHOOTING

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If you experience issues with your Cooiwsei RTH702 thermostat, try the following steps:

- **No Display/Blank Screen**: Check if the batteries are correctly installed and have sufficient charge. Replace batteries if necessary. Ensure the HVAC system power is on.
- **Incorrect Temperature Reading**: Verify the thermostat is not exposed to direct sunlight, drafts, or heat sources. Consider using the temperature display calibration feature if needed (refer to advanced settings).
- **System Not Responding**: Check the SYSTEM switch is set to COOL or HEAT, not OFF. Ensure the FAN switch is set to AUTO or ON. Verify the HVAC system has power.
- **System Short Cycling**: Ensure compressor delay protection is enabled in advanced settings.

For further assistance, please contact customer service.

## SPECIFICATIONS

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Feature	Detail
Brand	Coiwsei
Model Name	RTH702
Product Dimensions	1.02"D x 5"W x 3.82"H
Controller Type	Push Button
Special Feature	Programmable, Compressor Delay Protection, Adaptable to Various HVAC Systems
Color	Blue
Specific Uses For Product	Heating and Cooling Controls
Temperature Control Type	Conventional Single Stage Systems
Power Source	Battery Powered (2 AA batteries required)
Voltage	24 Volts (AC)
Material	Plastic
Display Type	LCD
Mounting Type	Wall Mount
Date First Available	March 10, 2025

# Heating and Cooling Thermostat Dimensions



Easy change battery door (Not Supplied Batteries)  
2\*AA alkaline batteries are required when C-wire is not available.

When C-Wire is available, the batteries provide a back-up source of power (this will maintain the setting in the event of a power outage).



**Important:** Confirm whether the size of the product can completely cover the traces of your old thermostat.

Figure 7: Thermostat Dimensions

This image provides a dimensional drawing of the Coiiwsei RTH702 thermostat, showing its width as 5.00 inches (12.7 cm), height as 3.82 inches (9.7 cm), and depth as 1.02 inches (2.60 cm). It also highlights the battery compartment and notes that 2x AA alkaline batteries are required when a C-wire is not available, providing backup power.

## WARRANTY AND SUPPORT

The Coiiwsei RTH702 thermostat is manufactured by a professional company with over 20 years of experience, ensuring reliability and quality.

- **Customer Service:** 7 days a week, 24 hours a day support is available for any inquiries or assistance needed.