Saved from manuals.plus.
Open the live page for links to other documents and user manuals.

Riseem STN601

Riseem STN601 Non-Programmable Thermostat User Manual

Model: STN601

Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of your Riseem STN601 Non-Programmable Thermostat. This thermostat is designed for single-stage heating and cooling systems. Please read this manual thoroughly before installation and use to ensure proper function and safety.

Safety Information

Important Safety Information:

- Always turn off power at the main power source by unscrewing the fuse or switching the circuit breaker to the OFF position before installing, removing, cleaning, or servicing this thermostat.
- Read all information in the manual before installing or operating this thermostat.
- Before removing the old thermostat, please label the wires with the supplied wire labels.

Compatibility

The Riseem STN601 thermostat is compatible with a wide range of single-stage heating and cooling systems. Please verify your system's compatibility before installation.

Compatible 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
- Gas fireplaces (24V)
- 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
- Convectors
- Radiant-ceiling heat
- Mini split systems
- 12V RV systems (Note: Some users have reported success with 12V RV systems, but it is not officially supported.)

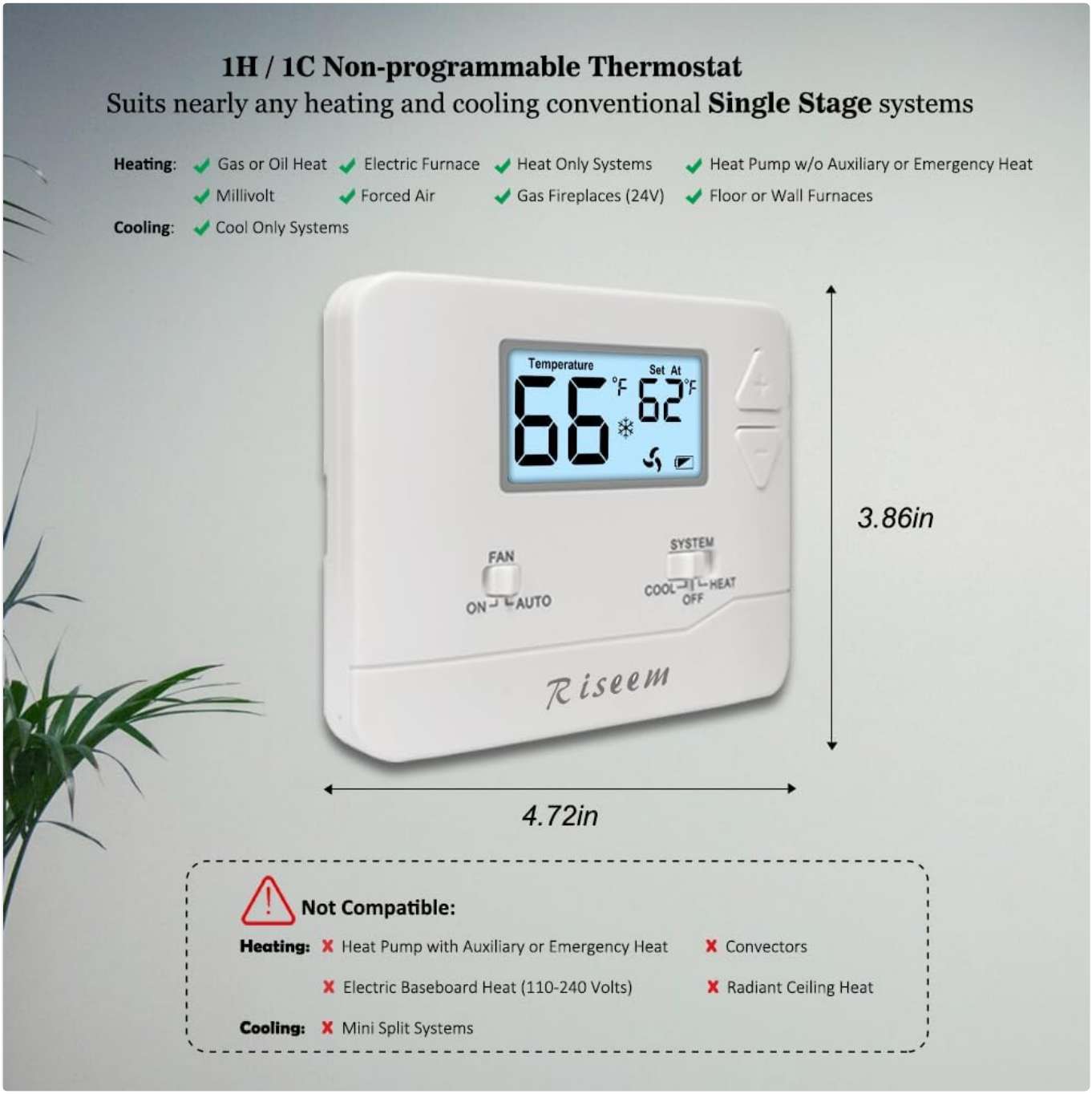


Image: Compatibility chart for the Riseem STN601 thermostat, detailing various heating and cooling systems it supports and those it does not.

Package Contents

Verify that all items are present in the package:

- 1 x Riseem STN601 Thermostat
- 2 x Screws and Anchors
- 1 x Installation Manual
- 1 x Operating Manual
- 1 x Cable Label Sheet

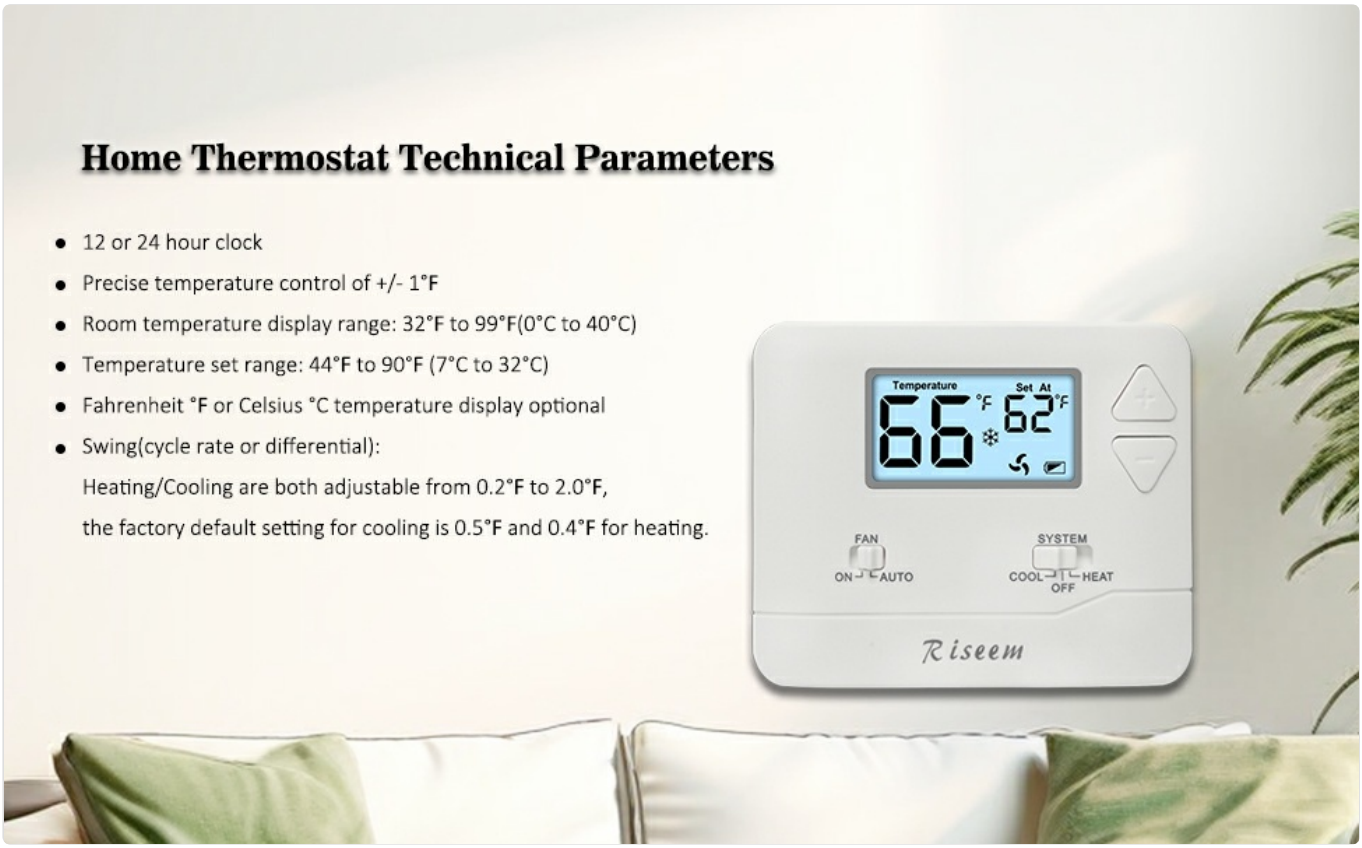


Image: The Riseem STN601 thermostat package contents, showing the thermostat unit, installation hardware, and documentation.

Setup and Installation

Follow these steps to install your new Riseem STN601 thermostat. It is recommended to complete this process within 30 minutes.

1. **Step 1: Turn off Power.** Locate your HVAC system's circuit breaker or fuse box and turn off the power to your heating and cooling system. Ensure the power is off before proceeding.
2. **Step 2: Remove Old Thermostat.** Carefully remove the cover of your old thermostat. Disconnect the wires from the old thermostat, but leave the wallplate with wires attached for now.
3. **Step 3: Label Wires.** Use the provided cable labels to clearly mark each wire according to its terminal designation on your old thermostat. This is crucial for correct re-connection.
4. **Step 4: Mount New Wallplate.** Remove the old wallplate. Mount the new thermostat wallplate to the wall using the included screws and anchors. Ensure it is level and securely fastened.
5. **Step 5: Connect Wires.** Connect the labeled wires to the corresponding terminals on the new Riseem STN601 thermostat's wallplate. Refer to the wiring diagram below for common configurations. If you have RH and RC wires, remove the metal jumper wire if present.
6. **Step 6: Install Batteries (Optional/Required).** If your system does not provide 24VAC power (C-wire not used), insert 2 AAA alkaline batteries into the front-load battery compartment. If a C-wire is available, batteries provide a backup power source during outages.

7. **Step 7: Attach Thermostat to Wallplate.** Carefully align the thermostat body with the mounted wallplate and snap it into place.
8. **Step 8: Restore Power.** Turn the power back on at your circuit breaker or fuse box.

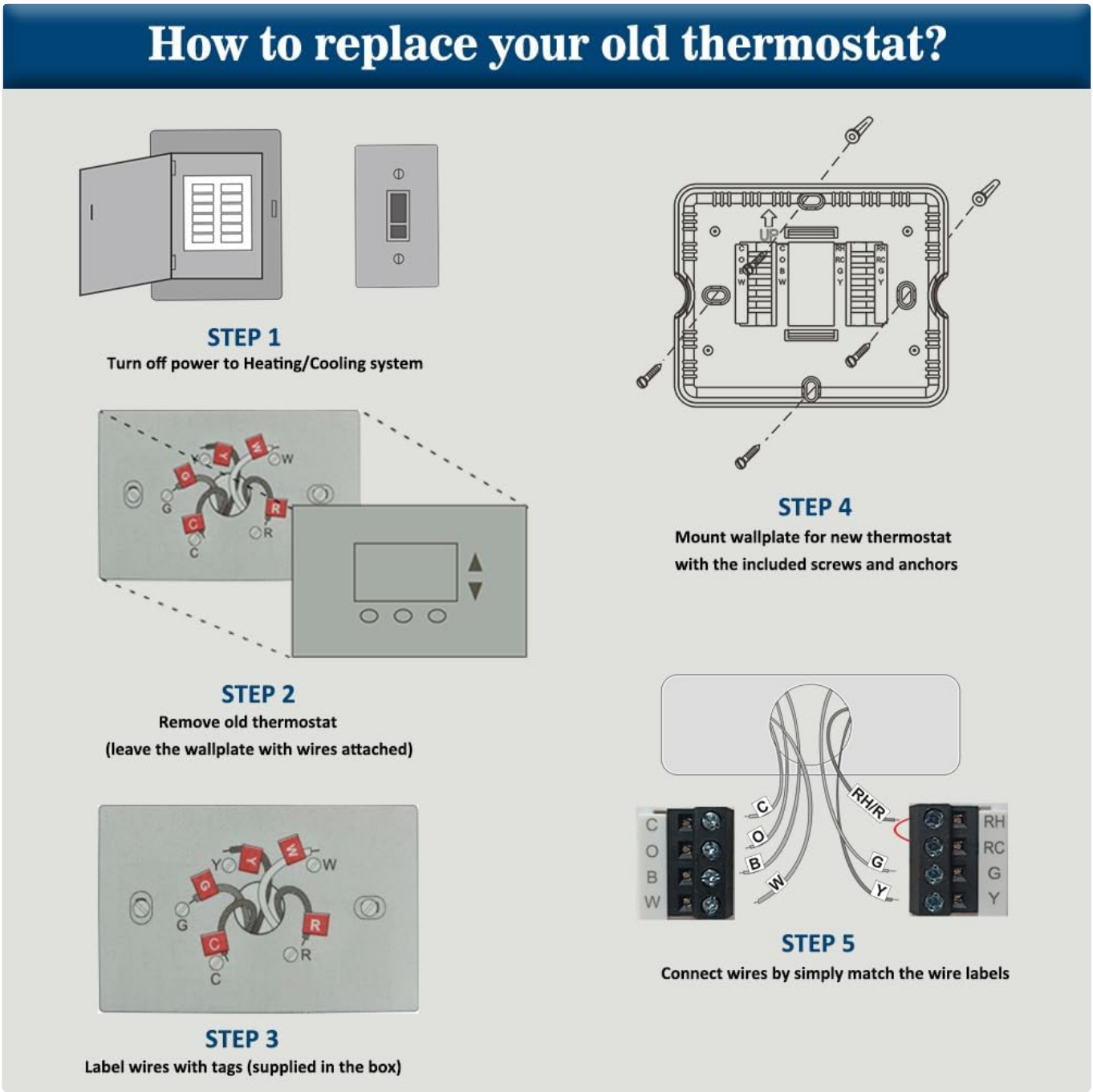


Image: Visual guide for replacing an old thermostat, illustrating the five key steps from power disconnection to wire connection.

Wiring Diagram and Terminal Designations:

Refer to the following diagram and table for correct wire connections. If you have only two wires, batteries are required for operation.

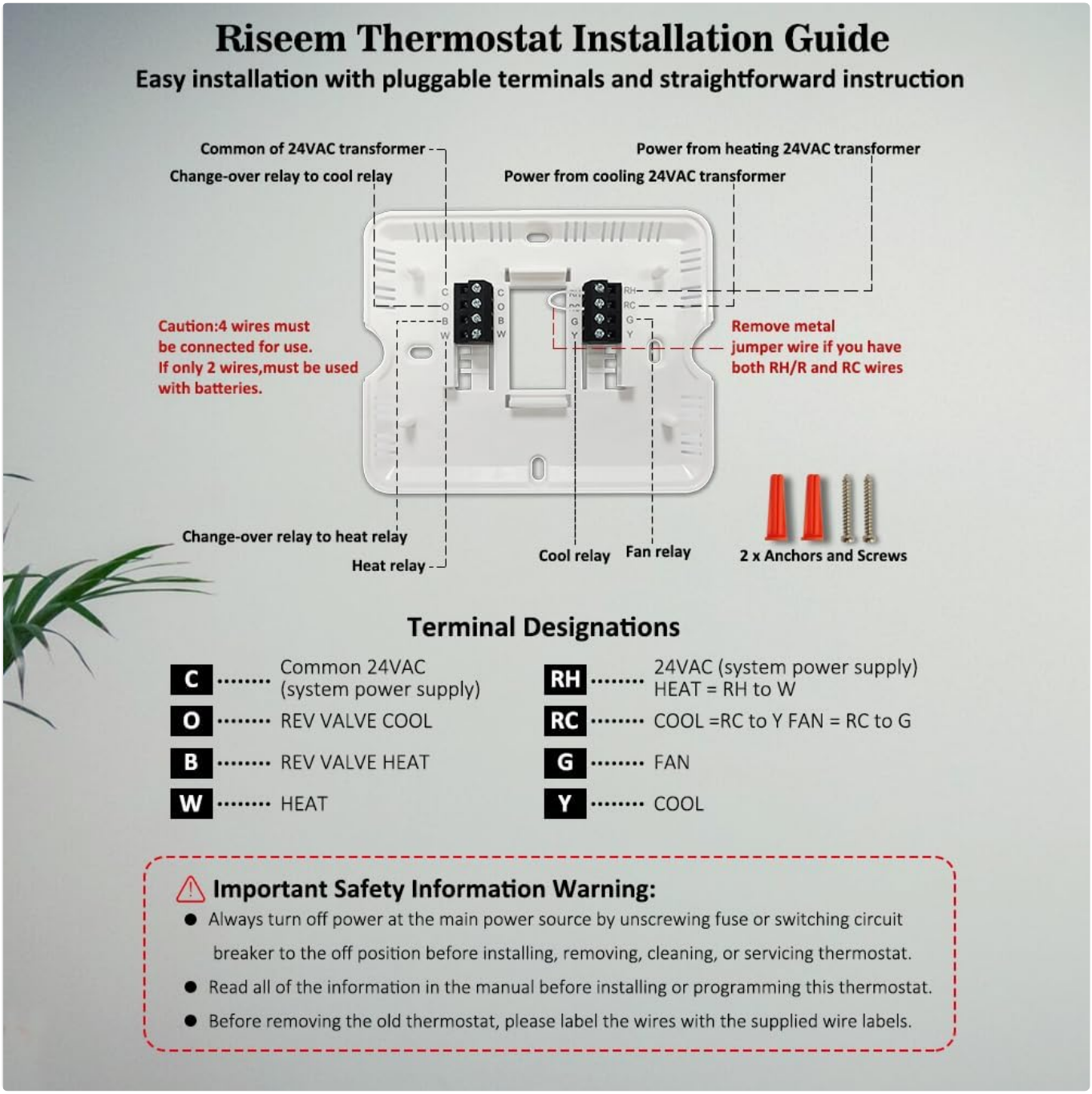


Image: Detailed wiring diagram for the Riseem STN601 thermostat, indicating common terminal connections and a note about removing the RH/RC jumper if applicable.

Terminal Designations

Terminal	Description
C	Common 24VAC (system power supply)
O	Reversing Valve Cool (Change-over relay to cool relay)
B	Reversing Valve Heat (Change-over relay to heat relay)
W	Heat (Power from heating 24VAC transformer)
RH	24VAC (system power supply) - Heat
RC	24VAC (system power supply) - Cool
G	Fan Relay

Terminal	Description
Y	Cool (Power from cooling 24VAC transformer)

Operating Instructions

The Riseem STN601 thermostat features a clear LCD display and simple controls for ease of use.



Image: The Riseem STN601 thermostat's main display and controls, including temperature up/down buttons, fan switch, and system mode switch.

Controls and Display:

- **LCD Display:** Shows current room temperature, set temperature, system mode, fan status, and low battery indicator. Features a white backlight for easy reading.
- **Up/Down Buttons (▲ / ▼):**Adjust the desired set temperature.
- **FAN Switch (ON/AUTO):**
  - **ON:** The fan runs continuously.
  - **AUTO:** The fan runs only when the heating or cooling system is actively operating.
- **SYSTEM Switch (COOL/OFF/HEAT):** Selects the operating mode for your HVAC system.
  - **COOL:** Activates the cooling system when the room temperature rises above the set temperature.

- **OFF:** Turns off both heating and cooling systems.
- **HEAT:** Activates the heating system when the room temperature falls below the set temperature.

Basic Operation:

1. **Set Desired Temperature:** Use the **Up (▲)** or **Down (▼)** buttons to adjust the desired temperature. The display will show "Set At" with your chosen temperature.
2. **Select System Mode:** Move the **SYSTEM** switch to **COOL**, **OFF**, or **HEAT** depending on your preference.
3. **Choose Fan Setting:** Move the **FAN** switch to **ON** for continuous fan operation or **AUTO** for automatic fan control with your system.

Advanced Settings:

- **Temperature Differential (Swing):** This thermostat allows adjustment of the temperature differential (also known as cycle rate or swing) for both heating and cooling. This setting determines how far the temperature must drift from the set point before the system activates. Adjustable from 0.2°F to 2.0°F. The factory default is 0.5°F for cooling and 0.4°F for heating. Adjusting this can optimize energy use and system life.
- **Temperature Display Calibration:** The thermostat supports calibration of the displayed temperature. Refer to the full operating manual for specific steps to access and adjust this setting.
- **°C/°F Unit Conversion:** You can switch between Fahrenheit and Celsius display units. Consult the operating manual for instructions.
- **Compressor Delay Protection:** This feature protects your compressor by delaying its restart for approximately 3 minutes after it has been turned off. This is selectable (on or off) and helps prevent damage from short cycling.

Maintenance

Battery Replacement:

The thermostat can be powered by 2 AAA batteries or 24VAC power. If using batteries, a low battery indicator will appear on the LCD display when replacement is needed. The front-load battery compartment makes replacement easy.

1. Open the front-load battery compartment door located at the bottom of the thermostat.
2. Remove the old AAA alkaline batteries.
3. Insert two new AAA alkaline batteries, ensuring correct polarity (+/-).
4. Close the battery compartment door.

Even if your thermostat is powered by 24VAC (C-wire), batteries can serve as a backup power source to maintain settings during a power outage.

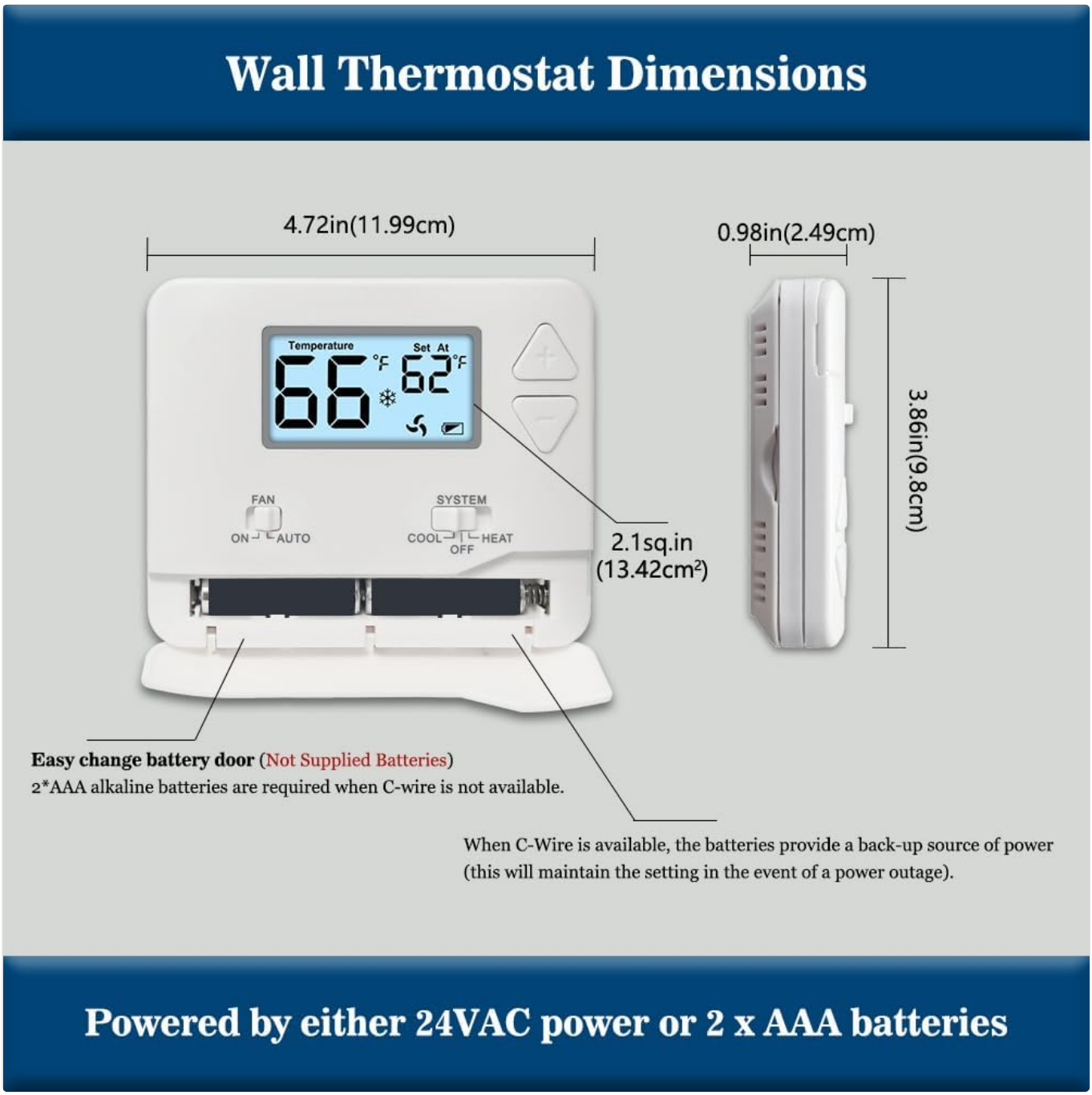


Image: The Riseem STN601 thermostat with its battery compartment open, indicating the use of 2 AAA batteries and overall dimensions.

Cleaning:

To clean the thermostat, gently wipe the exterior with a soft, damp cloth. Do not use abrasive cleaners or solvents. Ensure power is off before cleaning.

Troubleshooting

If you encounter issues with your Riseem STN601 thermostat, refer to the following common troubleshooting steps:

- **No Display or Blank Screen:**
  - Check if the power to the HVAC system is ON at the circuit breaker.
  - If using batteries, check if they are installed correctly and are not depleted. Replace with fresh AAA alkaline batteries if necessary.
  - Ensure the thermostat is securely attached to the wallplate.
- **System Not Responding (No Heat/Cool/Fan):**

- Verify the **SYSTEM** switch is set to **HEAT** or **COOL**, not **OFF**.
- Check the **FAN** switch is set to **AUTO** or **ON**.
- Ensure the set temperature is appropriately above (for cooling) or below (for heating) the current room temperature.
- Allow up to 3 minutes for the compressor delay protection to complete before the cooling system starts.
- Confirm all wires are securely connected to their correct terminals on the wallplate.
- Check the compatibility section to ensure your HVAC system is supported by this thermostat.

- **Inaccurate Temperature Reading:**
  - Ensure the thermostat is not exposed to direct sunlight, drafts, or heat sources (e.g., lamps, appliances) that could affect its sensor.
  - If persistent, consider using the temperature display calibration feature (refer to the operating manual for instructions).
- **System Cycles Too Frequently or Infrequently:**
  - Adjust the temperature differential (swing) setting. A smaller swing value will cause more frequent cycles, while a larger value will result in less frequent cycles.

If these steps do not resolve the issue, contact customer support for further assistance.

Specifications

Feature	Detail
Model Name	STN601
Product Dimensions	0.98"D x 3.86"W x 4.72"H (2.49cm D x 9.8cm W x 11.99cm H)
Controller Type	Push Button
Special Features	Separate Heating and Cooling Swing (Cycle Rate), Low Battery Indicator, Temperature Display Calibration, °C/°F Conversion, Compressor Delay Protection
Color	White
Specific Uses	Heating and Cooling Controls for Conventional Single Stage Systems
Power Source	Hybrid (24VAC and 2 x AAA Batteries)
Item Weight	5.92 ounces (168 grams)
Voltage	24 Volts (AC)
Material	Plastic
Display Type	LCD with Backlight
Control Method	Button Control
Mounting Type	Wall Mount
Room Temperature Display Range	32°F to 99°F (0°C to 40°C)

Feature	Detail
Temperature Set Range	44°F to 90°F (7°C to 32°C)
Temperature Control Accuracy	+/- 1°F
Batteries Required	2 AAA batteries (not included)
UPC	635403033272

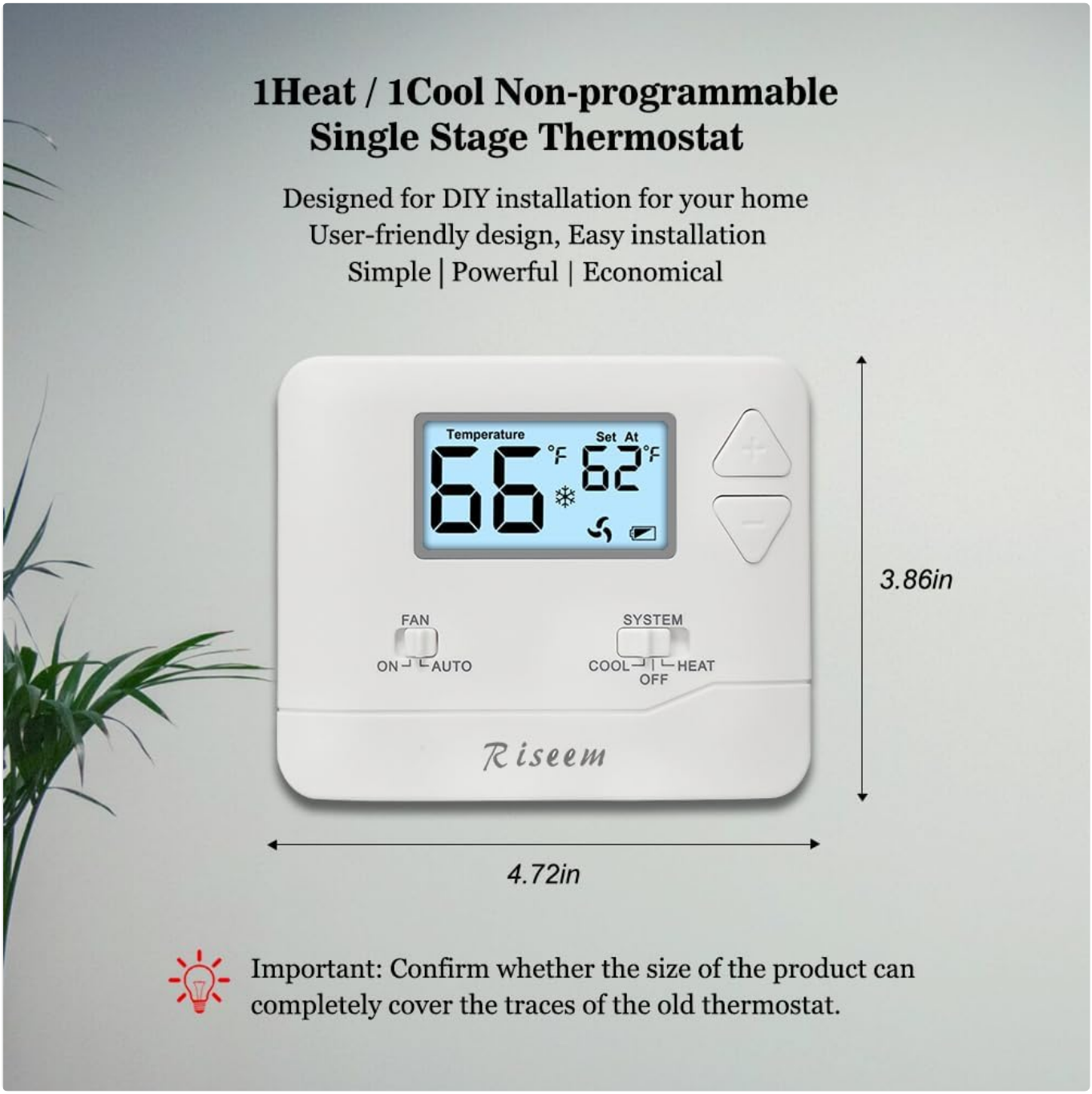


Image: Front view of the Riseem STN601 thermostat with its width (4.72 inches) and height (3.86 inches) clearly marked.

Warranty and Support

Specific warranty information for the Riseem STN601 thermostat is not provided in this manual. Please refer to the product packaging or contact the retailer where you purchased the product for warranty details.

For technical support or further assistance, please contact Riseem customer service through their official website or the contact information provided with your purchase.

© 2024 Riseem. All rights reserved.

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

Anonymous

Email

you@example.com

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

Open the live page

https://manuals.plus/asin/B0D9H3G8KT

More documents and user manuals: **https://manuals.plus/**