



# Amana® 2246002

## Non-Programmable Electronic Thermostat



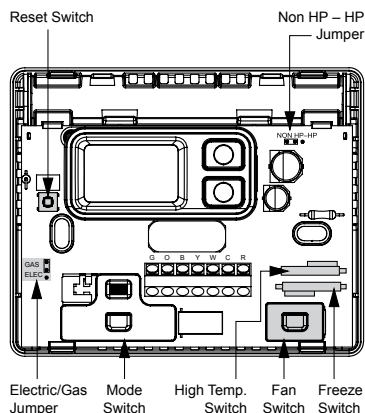
- Controls Single Stage Heating/Cooling Systems
- Single Stage Heat Pump Systems
- Compatible with Gas, Oil or Electric Systems
- Millivolt and Hydronic (water or steam) System Compatible
- Mercury-Free, Environmentally Safe

## Installation, Operation & Application Guide

www.amana-ptac.com



### Parts Diagrams



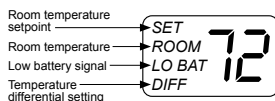
### Specifications

#### Input:

- Voltage: 18-30 VAC

#### Output:

- Maximum: 1 amp per terminal (3 amp total for all terminals)
- Temperature control ranges: 45°F to 90°F (7°C to 32°C) Accuracy: ± 1°F (± 0.5°C)
- Differential range: 1°F to 3°F (0.5°C to 1.5°C)
- System configurations:
  - Single-stage heat, single-stage cool or single-stage heat pump, gas, oil, electric
- Terminations: R, W, Y, O, B, G, C



### Important Safety Information

- Always turn off the thermostat before installing, removing, cleaning, or servicing; turn off the power at the main power source by unscrewing fuse or switching off circuit breaker
- Do not switch to "Cool" if room temperature is below 50°F (10°C); this could damage your A/C system and cause injury
- Do not install on voltages higher than 30 VAC
- All wiring must conform to local and national building and electrical codes and ordinances
- While cleaning, do not get soap directly on thermostat switches or LCD readout; only use a damp cloth with a mild soap to wipe outside of thermostat cover

### Package Contents/Tools Required

**Package includes:** Amana® 2246002 non-programmable thermostat on base, thermostat cover, wiring labels, screws and wall anchors, batteries (if applicable), Installation, Operation and Application Guide.

**Tools required for installation:** Drill with 3/16" bit, hammer, screwdriver.

### General Description

- The Amana® 2246002 thermostat is a **digital, mercury-free, non-programmable, electronic thermostat**
- Compatible with single-stage **heating systems, heating/cooling systems, and heat pump systems**; works with **gas, oil, or electric** systems
- Compatible as a **master thermostat** in zoned system applications
- **Freeze Protection Feature:** Protects pipes from freezing! If the room temperature drops to 40°F, the thermostat automatically turns on the heat; the thermostat must be in the Heat position; works even if the batteries are dead
- **Built-in Compressor Protection for Air Conditioners:** To protect the A/C's compressor, there is a 5-minute delay between the system turning off and the A/C starting
- **System Customization:** Choose **Fahrenheit** or **Celsius** display; three available **temperature differential settings**

### To Remove Existing Thermostat



**ELECTRICAL SHOCK HAZARD – Turn off power at the main service panel by removing the fuse or switching the appropriate circuit breaker to the OFF position before removing the existing thermostat.**

1. Turn off power to the heating and cooling system by removing the fuse or switching off the appropriate circuit breaker.
2. Remove cover of old thermostat. This should expose the wires.
3. Label the existing wires with the enclosed wire labels before removing wires.
4. After labeling wires, remove wires from wire terminals.
5. Remove existing thermostat base from wall.
6. Refer to the following section for instructions on how to install this thermostat.

### To Install Thermostat



**ELECTRICAL SHOCK HAZARD – Turn off power at the main service panel by removing the fuse or switching the appropriate circuit breaker to the OFF position before removing the existing thermostat.**

**IMPORTANT:** Thermostat installation must conform to local and national building and electrical codes and ordinances.

✱ **Note:** Mount the thermostat about five feet above the floor. Do not mount the thermostat on an outside wall, in direct sunlight, behind a door, or in an area affected by a vent or duct.

1. Turn off power to the heating and cooling system by removing the fuse or switching off the appropriate circuit breaker. Move the **Cool/OFF/Heat** switch to **OFF**.
2. Move the **FAN AUTO/ON** switch to **AUTO**.
3. To remove cover, insert and twist a coin or screwdriver in the slots on the top of the thermostat.
4. Put thermostat base against the wall where you plan to mount it (Be sure wires will feed through the wire opening in the base of the thermostat).
5. Mark the placement of the mounting holes.
6. Set thermostat base and cover away from working area.
7. Using a 3/16" drill bit, drill holes in the places you have marked for mounting.
8. Use a hammer to tap supplied anchors into mounting holes.
9. Align thermostat base with mounting holes and feed the control wires through wire opening.
10. Use supplied screws to mount thermostat base to wall.

**CAUTION!** Be sure exposed portion of wires does not touch other wires.

11. Tighten screws on terminal block. Gently tug wire to be sure of proper connection. Double check that each wire is connected to the proper terminal.
12. Set the **fan jumper** to **electric** or **gas/oil**, and heat pump jumper to **NON-HP** or **HP**.
13. Replace cover on thermostat by snapping it in place.
14. Turn on power to the system at the main service panel.

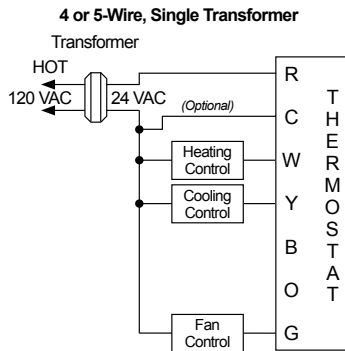
### Replacing Wiring Labels

Replace the old labels with the enclosed new labels:

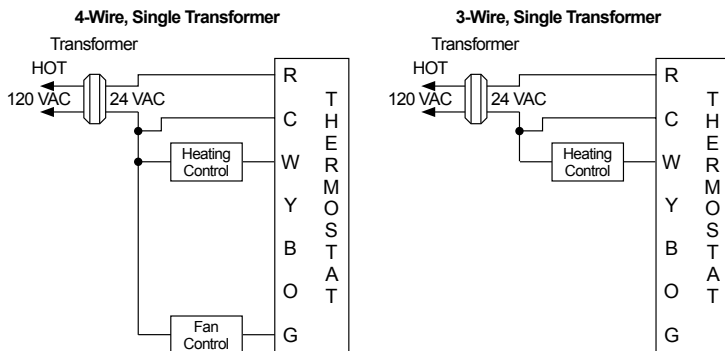
Old	New	Type
F, G	G	Fan control relay
O	O	Cool active reversing valve
B	B	Heat active reversing valve
Y, Y6	Y	Cooling control
H, W, 4	W	Heating control
	C	Transformer, common side
M, 4, RH, RS, R	R	Transformer, hot side
C	Y or C	If the C terminal is the cooling control, connect to Y terminal; if it is the common side of the transformer, connect to C terminal

## Wiring Diagrams

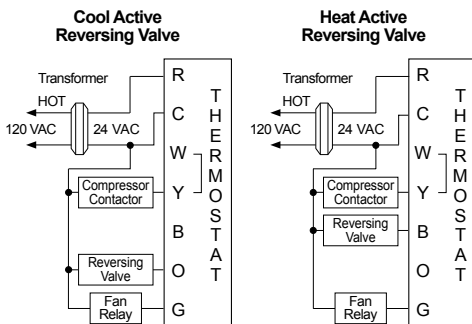
### Heating and Cooling



### Heating Only

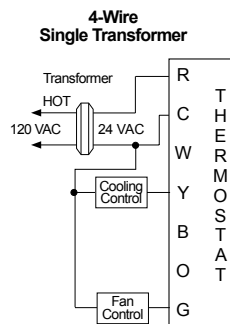


### Heat Pump



Place jumper between "W" and "Y" terminals.

### Cool Only



Millivolt systems may require a transformer and/or an isolation relay to operate properly.

## A Quick Test

**CAUTION:** Do not switch system to cool if the temperature is below 50°F (10°C). This can damage the air conditioning system and may cause personal injury.

Do not short jumper across terminals on the gas valve or at the system control to test installation.

**Action:** Set the Cool/Off/Heat switch to Cool. Press the down button until the temperature setting is 3°F below the room temperature.

**Result:** The A/C system and fan should turn on.

**Action:** Set the Cool/Off/Heat switch to Off.

**Result:** The A/C should turn off (There may be a fan delay).

**Action:** Set the Cool/Off/Heat switch to Heat. Press the up button until the temperature setting is 3°F above the room temperature.

**Result:** The heating system and fan should turn on (There may be a time delay depending on your system).

**Action:** Set the Cool/Off/Heat switch to Off.

**Result:** The heating system should turn off (There may be a fan delay).

**Action:** Set the Fan Auto/On switch to On.

**Result:** The blower fan should turn on.

**Action:** Set the Fan Auto/On switch to Auto.

**Result:** The blower fan should turn off.

If the above test was successful, you have a proper installation.

**If not:** Double check that wires are securely connected and are connected to the proper terminals. Consult the troubleshooting section.

## Operation

### Setting the Room Temperature (Setpoint Temperature)

**Step 1:** Press one of the arrow buttons; the current temperature setting displays.

**Step 2:** Press the down or up or up arrow button until the desired temperature setting displays.

The new temperature setting is automatically saved. After 5 seconds, the display returns to showing the current room temperature.

### Setting a New Temperature Differential

The default temperature differential is 1°. When your room temperature varies by 1°F, the thermostat turns your system on. If you notice your system turning on and off too frequently, increase the temperature differential.

**Step 1:** Reset thermostat by pressing the Reset button once.

**Step 2:** For the first 10 seconds of operation, the temperature differential is displayed. Press the down or up arrow button to select desired setting.

### Starting the Thermostat

**Step 1:** Move the Fan Auto/On switch into the Auto position.

**Step 2:** Move the Cool/Off/Heat switch to Cool or Heat, depending on the season.

## Troubleshooting

Symptom	Remedy
The system isn't turning on	Check the wiring (see Installation)
LCD is blank	Verify 24 VAC is at thermostat.
Thermostat is not properly controlling the fan	Check that the Gas/Electric jumper setting matches your system (gas or electric)
Thermostat is continuously turning on and off	Increase the temperature differential (see Setting a New Temperature Differential)
Temperature displayed is not accurate	Plug the hole for wiring behind the thermostat with non-flammable insulation to prevent airflow into the thermostat