



RV Products
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INSTALLATION AND OPERATING INSTRUCTIONS

FOR 8330A324*

24 VAC AIR CONDITIONER THERMOSTAT

* Last digit represents
specific model number



TROUBLESHOOTING

PROBLEM	SOLUTION
The system is not turning on.	Check the wiring (<i>see Installation</i>). Check the battery.
LCD is blank, or displaying “LO BAT.”	Replace batteries, or make sure the existing ones are properly installed.
Thermostat is not properly controlling the fan.	Check that the fan switch settings match your system (gas or electric).
Thermostat is continuously turning on and off.	Increase the temperature differential.
Temperature display is not accurate.	Your thermostat has two options for temperature readout: Fahrenheit (default) or Celsius. Check that the “jumper” is properly set to your preference.

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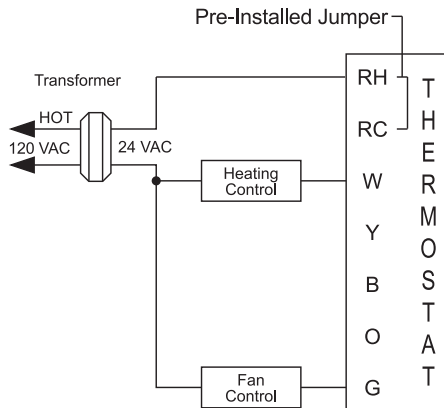
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CAUTION!

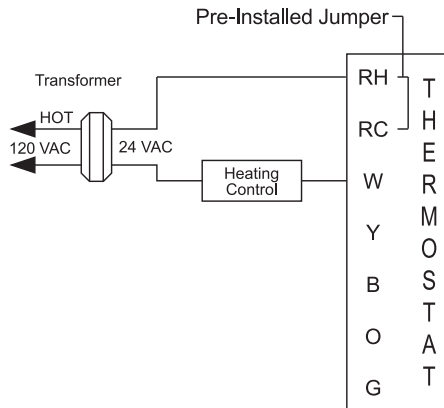
This thermostat should be installed by trained technicians only. Adhere to all local and national codes. Disconnect all power to the system before installing, removing, or cleaning.

Heating Only

3-Wire Single Transformer



2-Wire Transformer



Installation:

Removing an Existing Thermostat

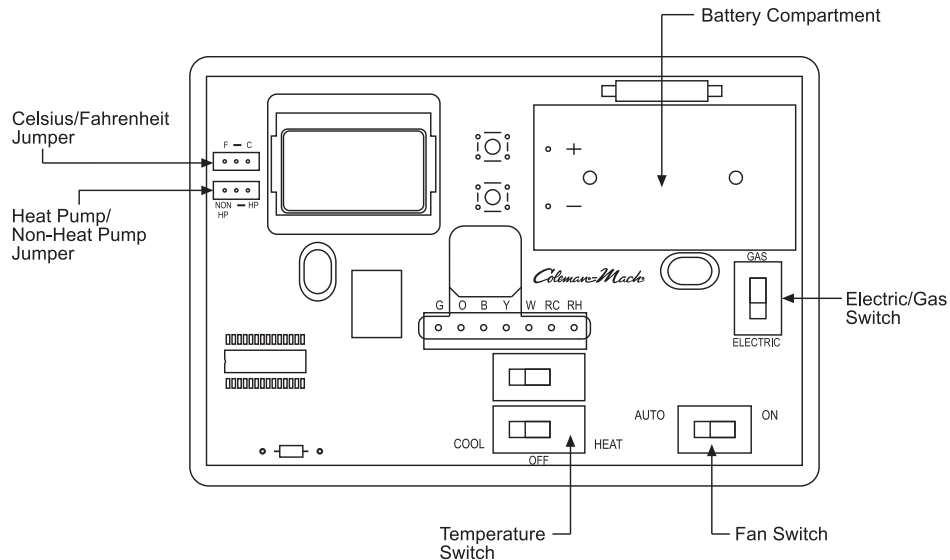
- Step 1:** **Important:** Turn power off to your system.
- Step 2:** Remove the cover (use a screwdriver to snap it open).
- Step 3:** Label the wires using the wire labels (enclosed). See page 3.
- Step 4:** Remove wires from wire terminals.
- Step 5:** Remove old thermostat.

Installing the New Thermostat

For best results: Don't install behind a door or in a corner; keep away from air vents or heat generating objects; install approximately 5 ft. above floor.

- Step 1:** **Turn power off to your system.** Move the "Cool/Off/Heat" switch to "Off."
- Step 2:** Move the "Fan Auto/On" switch to "Auto."
- Step 3:** Remove the cover (use a screwdriver to snap open) and put the thermostat base on the wall and mark mounting holes.
- Step 4:** Drill the holes (use a 3/16" drill bit) and tap in the anchors.
- Step 5:** Align the base with the mounting holes and feed the control wires through wire opening.
- Step 6:** Screw the base to the wall using supplied screws.
- Step 7:** Consult the proper wiring diagram and insert the stripped, labeled wires into the wire terminals.
- Step 8:** Set the fan switch to "electric" or "gas/oil," and heat pump jumper to "NON-HP" or "HP."
- Step 9:** Set the "temperature scale" jumper to Fahrenheit or Celsius.
- Step 10:** Install two "AA" alkaline batteries (see Page 3).

Parts Diagram



Operation

Setting the Room Temperature (Setpoint Temperature)

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

Step 2: Press the ▼ or ▲ arrow buttons 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°, 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 removing batteries for 10 seconds.

Step 2: For the first 10 seconds of operation, the temperature differential is displayed. Press the ▲ or ▼ arrow buttons to select a higher setting.

Changing Fahrenheit to Celsius

The temperature displays in degrees Fahrenheit as a factory set default. Follow these steps to change to degrees Celsius:

Step 1: Move the jumper select marked “F” and “C.” See *Parts Diagram* (see Page 7).

Step 2: Remove and reinstall batteries.

Your LCD readout changes accordingly.

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.

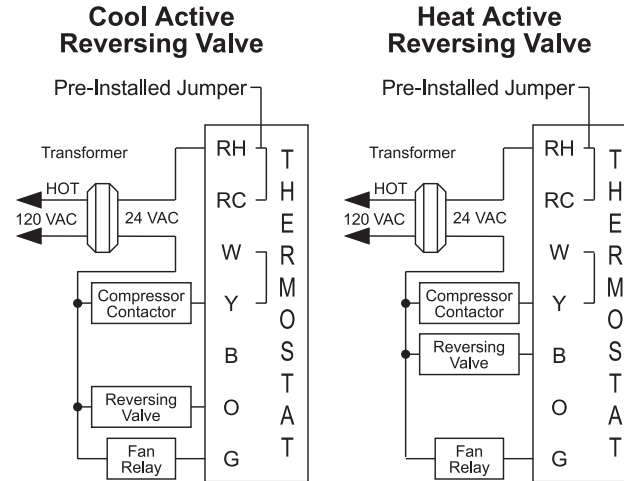
General Description

- The Coleman®-Mach® 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°, 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:** Optional **Fahrenheit or Celsius** display, three available **temperature differential settings**

Safety Considerations

- Always turn the thermostat off 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° (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

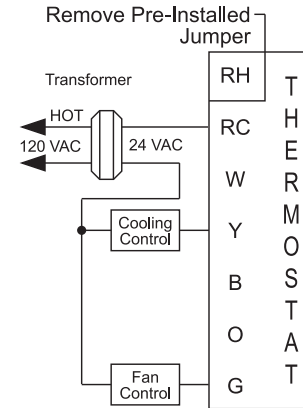
Heat Pump



Place jumper between "W" and "Y" terminals

Cooling Only

3-Wire Single Transformer



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

Installing and Changing Batteries

If your LCD is blank, or displaying “LO BAT,” the batteries are not installed or need to be changed. We suggest you change the batteries at least once a year, or whenever the “LO BAT” warning displays.

Note: After installing new batteries, you have to reset the room temperature setting and the differential setting.

Step 1: Move the “Cool/Off/Heat” switch into the “Off” position.

Step 2: Move the “Fan Auto/On” switch into the “Auto” position.

Step 3: Remove the cover, and install the two “AA” alkaline batteries into the battery compartment. Proper battery installation is important! Make sure the positive ends of the battery match the positive terminals in the battery compartment.

If the display is on, the batteries are installed properly.

Replacing Wire Labels

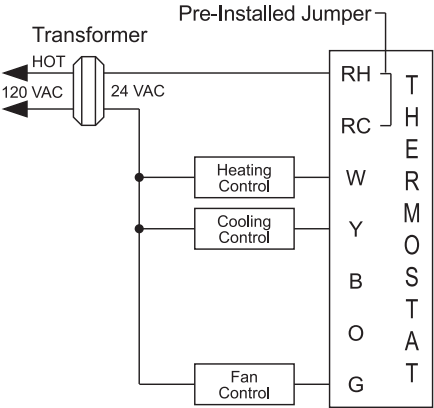
Replace the old labels with the enclosed new labels:

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
V, RC	RC	Cooling transformer, hot side
M, 4, RH, RS, R	RH	Heat transformer, hot side
C	Y or None	If the C terminal is the cooling control, connect to Y terminal; if it is the common side of the transformer, cap the wire and tuck into the wall.

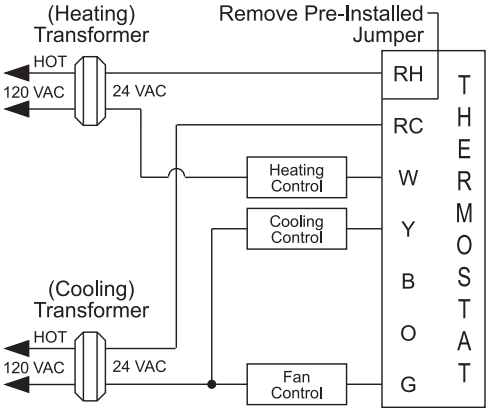
Wiring Diagrams

Heating/Cooling

4-Wire Single Transformer



5-Wire Two Transformer



Both transformers must be in phase.

Operation (continued)

A Quick Test

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 ▼ button until the temperature setting is 3° 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 ▲ button until the temperature setting is 3° 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 “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 (see Page 11).

Specifications

Input

- Input voltage: Millivolt to 30 volts AC/DC
- DC power: 3 volts (2 “AA” alkaline batteries included)

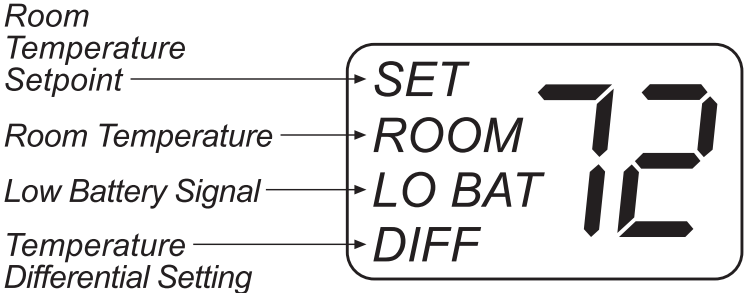
Output

- Maximum: 1 amp per terminal (3 amp total for all terminals)

Temperature Ranges

- Temperature control range: 45°F to 90°F (7°C to 32°C)
- Differential range: 1°F to 3°F (0.5 to 1.5°C)
- Accuracy: +/-1°F (+/- 0.5°C)

Note: This thermostat is designed for: single stage gas, oil, or electric heating, heating/cooling system and heat pump systems.





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Follow proper safety practices. If in doubt, consult a professional RV technician.