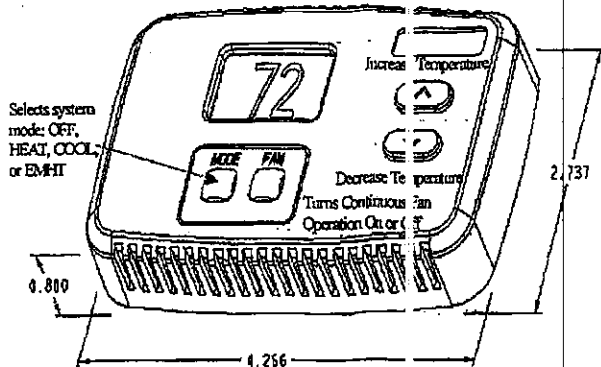


THERMOSTAT Installation and Start-up Instructions

NOTE: Read all instructions before starting the installation.



SAFETY CONSIDERATIONS

Improper wiring or installation may damage thermostat. Wiring must conform to local and national electrical codes.

WARNING: Before installing thermostat, turn off all power to unit. There may be more than one power disconnect. Electrical shock can cause personal injury or death.

INTRODUCTION

The thermostat is a wall mounted, low-voltage thermostat which maintains room temperature by controlling the operation of heating and air conditioning system. Batteries are not required; temperature and mode settings are preserved with the power off.

INSTALLATION CONSIDERATIONS

The thermostat requires no batteries. The heat-only and heat-cool models can be used as "power stealing" devices. If possible, both power and common (R and C) terminals should be connected but these thermostats will work without the "C" connected. The heat pump thermostat is not a power stealing device and **MUST** have both R and C connected.

INSTALLATION

I. THERMOSTAT LOCATION

Thermostat should be mounted:

- Approximately 5 ft. (1.5m) from floor.
- Close to or in a frequently used room, preferably on an inside partitioning wall.
- On a section of wall without pipes or ductwork.

Thermostat should **NOT** be mounted:

- Close to a window, on an outside wall, or next to a door leading to the outside.
- Exposed to direct light and heat from a lamp, sun, fireplace, or other temperature-radiating object which may cause a false reading.
- Close to or in direct airflow from supply registers and return-air grilles.
- In areas with poor air circulation, such as behind a door or in an alcove.

II. INSTALL THERMOSTAT

1. Turn off all power to unit.
2. If an existing thermostat is being replaced:
 - A. Remove existing thermostat from wall.
 - B. Disconnect wires from existing thermostat, one at a time. Be careful not to allow wires to fall back into the wall.
 - C. As each wire is disconnected, record wire color and terminal marking.

- D. Discard or recycle old thermostat.
- NOTE:** Mercury is a hazardous waste and **MUST** be disposed of properly.

3. Separate the front and back pieces of plastic.
4. Route thermostat wires through hole in back piece of plastic. Level plastic against wall (for aesthetic value only - thermostat need not be leveled for proper operation) and mark wall through 2 mounting holes.
5. Drill two 3/16-in. mounting holes in wall where marked. (Note: Mounting holes on thermostat are designed to fit on a horizontal J-box).
6. Secure back plastic to wall with 2 anchors and screws provided making sure all wires extend through hole in plastic.
7. Connect wires to proper terminal of the connector block in the front piece of plastic.
8. Push any excess wire back into wall. Excess wire inside the thermostat plastic case can interfere with proper air flow across the temperature sensor. Seal hole in wall to prevent air leaks. Leaks can affect operation.
9. Snap front and back pieces of plastic together.
10. Turn on power to the unit.

On power up, the LCD readout will display H (Heat-Only), C (Cool-Only), HC (One Stage Heat-One Stage Cool) or HP (Heat Pump) depending on the thermostat model.

III. SET THERMOSTAT CONFIGURATION

While in configuration mode, five option choices can be made:

1. Anticipator - Value Adjustment
3. Fahrenheit/Celsius Selection
4. G (Fan) ON with W (Heat) Selection
10. O (RVS) on with Heat or Cool
13. Room Temperature Offset Adjust

An explanation for each of these and how to enter the configuration mode follows.

TO ENTER THE CONFIGURATION MODE:

Press and hold the FAN button for approximately 10 sec until room temperature disappears and the display reads "1-". You are now in the configuration mode.

NOTE: If the FAN button is pressed again or if no button is pressed for 2 minutes, the thermostat will exit the configuration mode and return to normal operation. To re-enter the configuration mode, the FAN button must be pressed and held for 10 sec. again.

WHILE IN CONFIGURATION MODE, THE FOLLOWING OPTIONS ARE AVAILABLE:

1. ANTICIPATOR - Value Adjustment

This adjustment controls the sensitivity and cycle rate of the thermostat. Higher numbers decrease the sensitivity and slow the cycle rate. Lower numbers increase the sensitivity and increase cycle rate. However, a limiting feature will not allow more than 4 equipment cycles per hour, regardless of setting. Values can range from 1 to 3. Factory default setting is 2. This default selection will provide optimum performance in nearly all installations. Try it first. Do not change setting unless there is evidence of need to do so. Unlike conventional anticipators, this setting is not to be determined by current draw. There is no need to measure, know, or compensate for current.

TO ADJUST:

1. Enter configuration mode (if not already there).
2. Use up and down buttons to display 1-
3. Press MODE button once to display current value.
4. Use up and down buttons to move between values.
5. Press MODE button to return to 1-. Up and down buttons now move between option choices 1-, 2-, etc. or press FAN button to exit configuration mode.

3. FAHRENHEIT/CELSIUS Selection

This selection operates the thermostat in either Fahrenheit or Celsius.

TO SELECT:

1. Enter configuration mode (if not already there).
2. Use up and down buttons to display 3-

3. Press MODE button once to display current selection of F or C.
4. Use up and down buttons to change between F and C.
5. Press MODE button to return to 3-. UP and DOWN buttons now move between option choices; or press FAN button to exit configuration mode.

4. G (FAN) ON WITH W (HEAT) Selection

This selection determines whether the G (fan) output is to be ON or OFF when the W (furnace or strip heat) output is ON. Most furnaces and fan coils manage their own blowers and do not require separate G signal. For these applications, select OFF. Some auxiliary heaters require a separate G signal to turn on the blower. In this case, select ON. The factory default is OFF.

TO SELECT:

1. Enter configuration mode (if not already there).
2. Use up and down buttons to display 4-
3. Press MODE button once to display current selection of ON or OFF.
4. Use up and down buttons to change between ON and OFF.
5. Press MODE button to return to 4-. UP and DOWN buttons now move between option choices; or press FAN button to exit configuration mode.

10. O (RVS) On with Heat or Cool Selection

This selection is only available on heat pump thermostats. This selection determines whether the reversing valve is energized in heating or cooling. The factory default is "C" for energized in cooling.

TO SELECT:

1. Enter configuration mode (if not already there).
2. Use up and down buttons to display 10.
3. Press MODE button once to display current selection of 'H' for energized in heating or 'C' for energized in cooling.
4. Use up and down buttons to change between 'H' and 'C'.
5. Press MODE button to return to 10. UP and DOWN buttons now move between option choices; or press FAN button to exit configuration mode.

13. ROOM TEMPERATURE OFFSET ADJUST Selection

The selected number is the number of degrees, plus or minus, which will be added to the actual temperature. The numbers can range between -5 and +5. Factory default is 0. This adjusted value will be used as actual temperature for both display and control action. The effect is that a positive number selection will make the room temperature lower, and vice versa. The thermostat is calibrated within an accuracy of plus or minus 2 degrees when shipped from the factory; this adjustment will provide the best accuracy when set to 0.

TO SELECT:

1. Enter configuration mode (if not already there).
2. Use UP and DOWN buttons to display 13.
3. Press MODE button once to display offset value.
4. Use UP and DOWN buttons to select a value between -5 and 5.
5. Press MODE button to return to 13. UP and DOWN buttons now move between option choices; or press FAN button to exit configuration mode.

IV. CHECK THERMOSTAT OPERATION

1. Fan Operation

- A. Press fan button, starting fan operation. Fan annunciator turns on.
- B. Press Fan button, stopping fan operation. Fan annunciator turns off.

2. Heating Operation

- A. Press MODE button until HEAT is displayed.
- B. Press up button until LCD readout reads 10 degrees above room temperature. Heating system should begin to operate within 5 minutes.

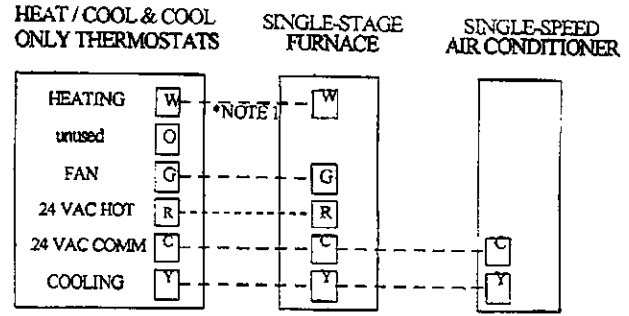
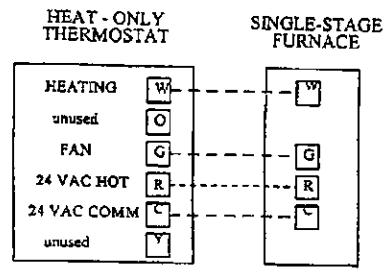
3. Cooling Operation

- A. Press MODE button until COOL is displayed.
- B. Press down button until LCD readout reads 10 degrees below room temperature. Cooling system should begin to operate within 5 minutes.

WIRING DIAGRAMS

NOTE: All excess wire should be pushed back into the wall as far as possible. Excess wire inside the thermostat plastic case may interfere with the air flow across the temperature sensor.

NOTE: If the thermostat is wired in "power stealing" mode (only applicable to heat-only and heat-cool models) then connect the included 270 ohm resistor between the W and C terminals at the furnace.



NOTE 1: NOT REQUIRED FOR COOL ONLY THERMOSTATS

