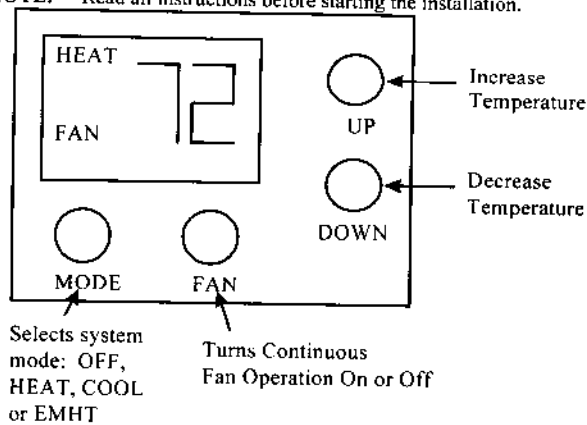


# THERMOSTAT Installation and Start-up Instructions

**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 a 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 and cool-only thermostats are not power stealing devices and **MUST** have both R and C connected.

**This thermostat is not compatible with two-wire applications or with variable speed equipment. (i.e., 355MAV, 58MVP)**

## 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 duct work.

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, four 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 or press FAN button to exit configuration mode.

#### 3. FAHRENHEIT/CELSIUS Selection

This selection operates the thermostat in either Fahrenheit or Celsius. Factory default is F.

#### 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. 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 a 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 value 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 number 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 thermostat is calibrated within an accuracy of plus or minus two 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

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

##### 2. Heating Operation

- Press MODE button until HEAT is displayed.
- Press up button until LCD readout reads 10 degrees above room temperature. Heating system should begin to operate within 5 minutes. (Heat pump models will illuminate the LED when AUX HEAT is active.)

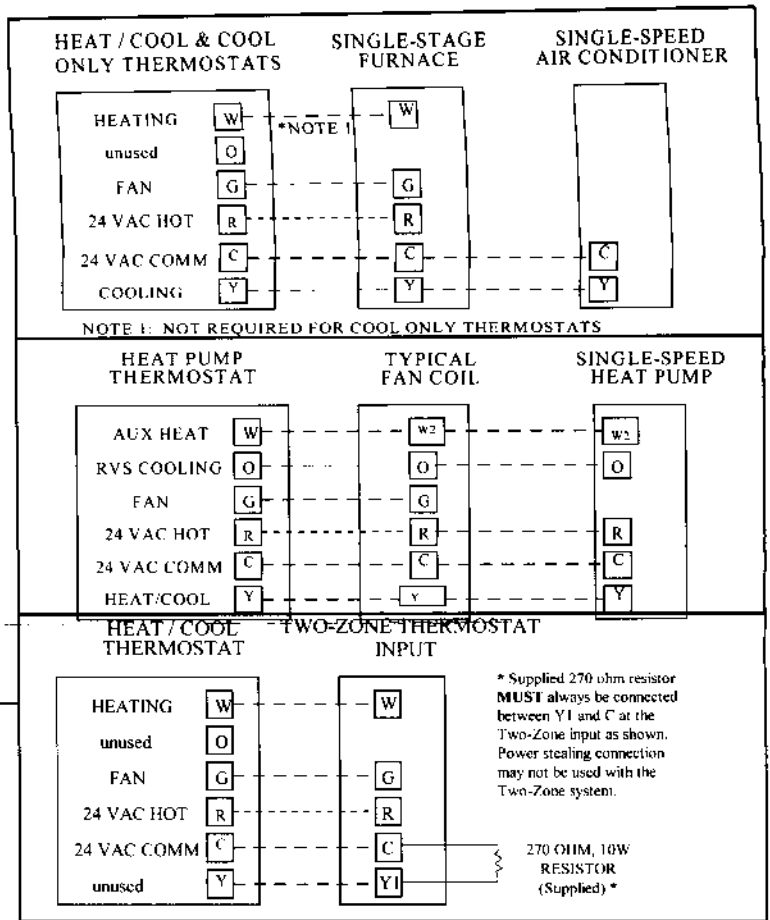
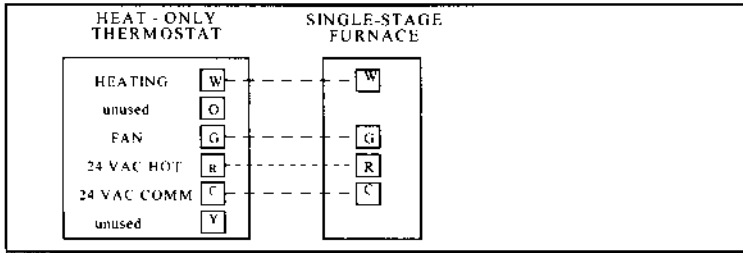
##### 3. Cooling Operation

- Press MODE button until COOL is displayed.
- 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.



## Replacement Components Division Carrier Corporation

### ALL PRODUCT LIMITED WARRANTY

**ONE-YEAR WARRANTY - This CARRIER CORPORATION** (Herein after referred to as "COMPANY") product is warranted to be free from defects in material and workmanship. If it appears within one year from the date of original installation, whether or not actual use begins on that date, that the product does not meet this warranty, a new or remanufactured part, at the COMPANY'S sole option, to replace any defective part will be provided without charge for the part itself; PROVIDED the defective part is returned to our distributor through a qualified servicing dealer.

**THIS WARRANTY DOES NOT INCLUDE LABOR OR OTHER COSTS** incurred for diagnosing, repairing, removing, installing, shipping, servicing or handling of either defective parts or replacement parts. Such costs may be covered by a separate warranty provided by the installer.

**THIS WARRANTY APPLIES ONLY TO THE PRODUCTS IN THEIR ORIGINAL INSTALLATION LOCATION AND BECOMES VOID UPON REINSTALLATION.**

**LIMITATIONS OF WARRANTIES - ALL IMPLIED WARRANTIES (INCLUDING IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE AND MERCHANTABILITY) ARE HEREBY LIMITED IN DURATION TO THE PERIOD FOR WHICH THE LIMITED WARRANTY IS GIVEN. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE MAY NOT APPLY TO YOU. THE EXPRESSED WARRANTIES MADE IN THIS WARRANTY ARE EXCLUSIVE AND MAY NOT BE ALTERED, ENLARGED, OR CHANGED BY ANY DISTRIBUTOR, DEALER, OR OTHER PERSON WHATSOEVER.**

ALL WORK UNDER THE TERMS OF THIS WARRANTY SHALL BE PERFORMED DURING NORMAL WORKING HOURS. ALL REPLACEMENT PARTS, WHETHER NEW OR REMANUFACTURED, ASSUME AS THEIR WARRANTY PERIOD ONLY THE REMAINING TIME PERIOD OF THIS WARRANTY.

#### THE COMPANY WILL NOT BE RESPONSIBLE FOR:

- Normal maintenance as outlined in the installation and servicing instructions or owners manual including filter cleaning and/or replacement and lubrication.
- Damage or repairs required as a consequence of faulty installation, misapplication, abuse, improper servicing, unauthorized alteration or improper operation.
- Failure to start due to voltage conditions, blown fuses, open circuit breakers or other damages due to the inadequacy or interruption of electrical service.
- Damage as a result of floods, winds, fires, lightning, accidents, corrosive environments or other conditions beyond the control of the COMPANY.
- Parts not supplied or designated by the COMPANY, or damages resulting from their use.
- COMPANY products installed outside the continental U.S.A., Alaska, Hawaii, and Canada.
- Electricity or fuel costs or increase in electricity or fuel costs from any reason whatsoever including additional or unusual use of supplemental electrical heat.
- ANY SPECIAL INDIRECT OR CONSEQUENTIAL PROPERTY OR COMMERCIAL DAMAGE OF ANY NATURE WHATSOEVER. Some states do not allow the exclusion of incidental or consequential damages, so the above limitation may not apply to you.

#### IF YOUR UNIT DOES NOT WORK, FOLLOW THESE STEPS IN ORDER:

**FIRST:** Contact the installer. You may find his name on the product. If his name is not known, call your builder if yours is a new residence.

**SECOND:** Contact the nearest CARRIER, BRYANT OR TOTALINE distributor. (See telephone yellow pages.)

**THIRD:** Contact: **Carrier Corporation**

Consumer Relations Department  
P.O. Box 4808  
Syracuse, NY 13221  
Telephone: 1-800-227-7437

Unit Model No. \_\_\_\_\_

Unit Serial No. \_\_\_\_\_

Date of Installation \_\_\_\_\_

Installed by \_\_\_\_\_

Name of Owner \_\_\_\_\_

Address of Installation \_\_\_\_\_

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Effective on products manufactured after January 1, 1996. Supersedes any other warranty certificates supplied with the product.

P/N: 997-980350-6