

## IMPORTANT

If the AirCycler® was installed in your home as a ventilation controller, Do Not Disable it.

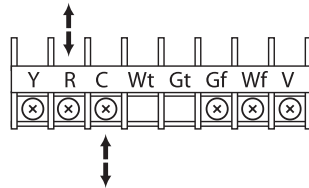
In the past, homes depended on natural leaks for ventilation. Today energy efficient homes are built so that natural ventilation and leaks are reduced. Inadequate ventilation can increase indoor air pollutants to harmful levels. Indoor air is typically 5 to 10 times more polluted than outside air. Controlled ventilation provides adequate air flow to the home without compromising its efficiency.

## SAFETY CONSIDERATIONS

Read and follow manufacturer's instructions carefully. Follow all local electrical codes during installation. All wiring must conform to local and national electrical codes. Improper wiring or installation may result in personal injury or product and property damage.

## INSTALLATION CONSIDERATIONS

The AirCycler® STAT does not require batteries. It does require 24 VAC (R and C terminals) to be connected for proper operation. The AirCycler will not operate without these two connections.



The wires (R, C, W, G & Y) from the air handler to the AirCycler® Some thermostats do not require a (C) connection. The AirCycler requires a (C) for power, which needs to be wired to the furnace.

Key:

- C - Common
- R - 24 VAC Power
- W - Heating
- Y - Cooling
- G - Fan
- V - Vent

## TROUBLESHOOTING

Problem: Blank Display on the AirCycler®

Solution Check:

1. The furnace has power
2. Confirm the furnace is providing 24 VAC to the AirCycler®
3. Verify wiring conforms to wiring diagram
4. Make sure top is firmly seated in the base

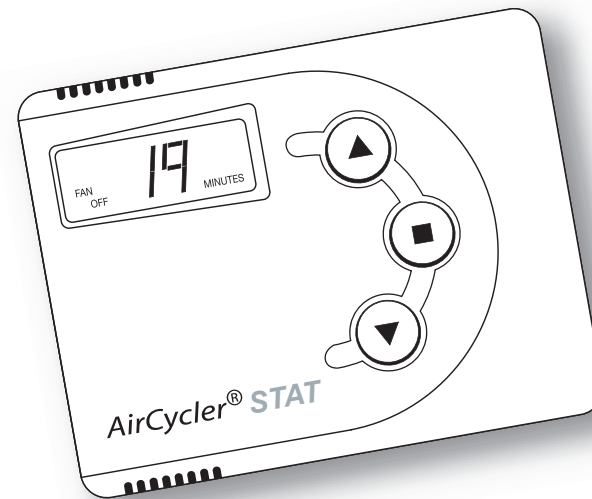
Problem: AirCycler® turns furnace fan on and off, but the motorized damper does not cycle.

Solution Check:

1. Verify that the AirCycler® is providing a 24 VAC signal to the motorized damper
2. Verify that 24 VAC motorized damper is operational by powering directly with a 24 VAC signal
3. Verify continuity in the wiring between the damper and the AirCycler®



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## AirCycler® STAT Instructions

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## INTRODUCTION

The AirCycler® STAT is a single set point thermostat and a furnace fan timer. By operating the furnace fan periodically the AirCycler® improves indoor air quality and thermal comfort. The furnace fan circulates and filters indoor air. The AirCycler® enables the furnace fan to operate more consistently with programmable ON and OFF times.

## Benefits

- Mixes and circulates indoor air
- Eliminates stagnant air
- Creates even temperature and humidity levels
- Filters indoor air consistently
- An economical alternative to continuously running the furnace fan

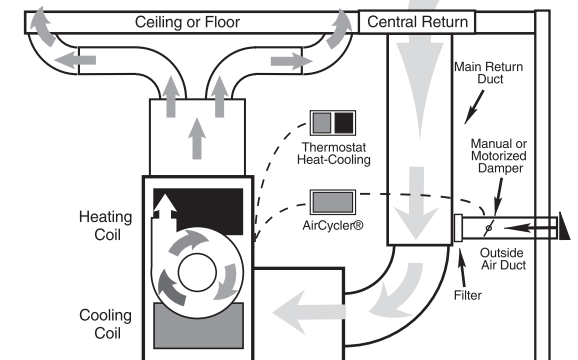
## APPLICATIONS

Digital Programmable Furnace Fan timer

The AirCycler® automatically turns the furnace fan on for a set period of time only when it detects the system has been inactive for a set period of time.

## Ventilation

By adding a fresh air source to the return side of the air handler, the existing HVAC system can be used to provide ventilation. The AirCycler® enables this ventilation system to work properly.



The AirCycler® STAT also has an output to operate a motorized outside damper that limits excessive ventilation. (Motorized dampers sold separately, normally closed, power open 24 VAC)

## INSTALLATION

### Step 1—Controller Location

The AirCycler® STAT should be installed in a central location away from any direct airflow from air vents. The AirCycler® is wired like any conventional thermostat.

**Warning:** Before installing the AirCycler®, turn off all power to the furnace. There may be more than one power to disconnect. Electrical shock can cause injury or death.

### Step 2 – Installing the AirCycler®

1. Remove the AirCycler® cover from wall plate (mounting base) to expose mounting holes.
2. Route wires through large hole in the mounting base. Mount base against wall and mark wall through 3 mounting holes.
3. Drill 3 - 3/16-in. pilot holes in wall where marked.
4. Secure mounting base to wall with 3 screws (provided), making sure all wires extend through hole in mounting base.
5. Adjust length and routing of each wire to reach proper terminal and connector block on mounting base with 1/4 in. of extra wire. Strip only 1/4 in. of insulation from each wire to prevent adjacent wires from shorting together when connected.
6. Connect wires to proper terminals of the connector block. (Figure 2) Both (R) and (C) must be connected for proper operation.

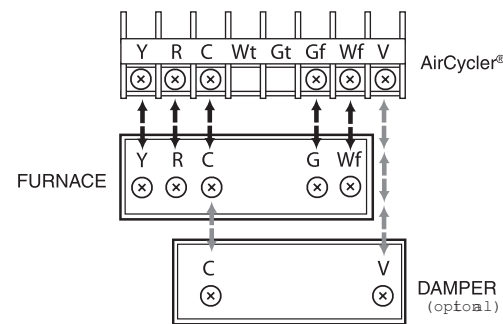


Figure 2

7. Improper wiring or installation may damage the controller. Check to make sure wiring is correct before proceeding with installation or turning the unit on.
8. Push any excess wire into wall and against mounting base.
9. Snap cover onto base making sure pins align with sockets in connector.
10. Once powered the AirCycler® will automatically enter into operating mode.

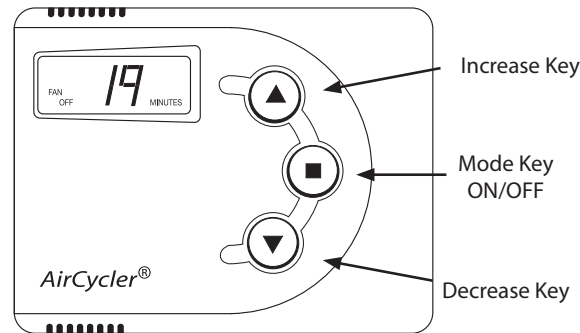


Figure 3

### CONFIGURATION

The three keys on the exterior of the AirCycler are used to configure the AirCycler®. (Figure 3)

#### Factory default settings

FAN ON:	10 minutes
FAN OFF:	20 minutes
VENT ON:	10 minutes
VENT OFF:	20 minutes
Heat Pump:	Off
Pump cycling:	Off
Units:	Fahrenheit
Calibrate:	-5
Delta:	2

Press and hold the Increase Key while placing the unit onto the base to enter the Menu Mode.

#### Configure FAN ON time

1. Once in the Menu Mode FAN ON will flash on the display.

2. Use the Increase or Decrease Keys to change the FAN ON time from 1 - 199 minutes or to select unlimited ON time (UN). UN allows the fan to operate continuously.

#### Configure FAN OFF time

1. Press the Mode Key again to set the FAN OFF time. FAN OFF will flash on the display.
2. Use the Increase or Decrease Keys to change the FAN OFF time or to select unlimited OFF time (UN). This will turn the AirCycler® off. This will also keep the AirCycler® off even after power is lost.

\*The AirCycler® retains settings even after power is lost.

**NOTE:** In humid climates, the FAN OFF time should be at least 6 minutes. This allows moisture on the AC coil to dry, preventing condensation in cold supply ducts.

#### Configure VENT ON time

1. Press the Mode Key. VENT ON will flash.
2. Use the Increase or Decrease Keys to change the VENT ON time.

#### Configure VENT OFF time

1. Press the Mode Key. VENT OFF will flash.
2. Use the Increase or Decrease Keys to change the VENT OFF time.

#### Configure Heat pump functions

1. Press the Mode Key. HP will flash.
2. Use the Increase Key or Decrease Key to toggle between ON and OFF.

#### Configure Pump cycling

Enables pump cycling for combination domestic hot water based systems. ON will cycle the pump for 55 seconds if there has been no call for heating in 24 hours.

1. Press the Mode Key. PC will flash.
2. Use the Increase Key and Decrease Key to toggle between ON and OFF.

#### Configure Units

The temperature reading can be displayed in Celsius or Fahrenheit.

1. Press the Mode Key. UN will flash
2. Use the Increase Key and Decrease Key to change the units to Fahrenheit or Celsius.

### Calibrate

The temperature reading can be calibrated to a known source for the most accurate temperature reading.

1. Press the Mode Key. -x will flash.
2. Use the Increase Key and Decrease Key to calibrate the AirCycler® to a known source.

### Configure the Delta for the set-point.

The delta prevents the system from short cycling.

1. Press the Mode Key. d2 will flash.
2. Use the Increase Key and Decrease Key to increase and decrease the Delta.

### Save Settings

To complete the set up press the Mode Key again to save the settings and to enter into Operating Mode. Otherwise the AirCycler® will back out of Menu Mode automatically without saving the settings.

### OPERATING MODE

Once installed and powered, the AirCycler® will automatically enter into Operating Mode.

The current mode will be displayed alternating with the current temperature reading.

### Modes

HT = heating mode  
CL = cooling mode  
OF = off

To change the mode press the Mode Key. Continue to press the Mode Key until the desired mode is displayed (heating (HT), cooling (CL) or off (OF)).

To change the temperature set-point use the Increase Key and Decrease Key.

If the AirCycler® activates heating, cooling, or constant fan operation, the display will read FAN ON.

When the fan turns on, the damper will open and the display will read VENT ON. Once the VENT ON time has expired, the damper will close, the display will read FAN ON until the AirCycler® turns the fan off.