## Build it Tight, Ventilate it Right...

# AirCycler® FRV

For More Control Over Ventilation!

By periodically operating the central heating and cooling system fan, the *AirCycler*® markedly improves the temperature control, humidity and filtration system in a house. It allows "averaging" of air temperature throughout the house and eliminates stagnant and uncomfortable air that a thermostat can't detect. *AirCycler*® is "smart" because it knows when the central system fan operates and activates the fan only after a selected period of time during which the fan has not operated.

Add a 24VAC motorized damper and effectively regulate fresh air ventilation. Particularly effective in extreme climates when extended heat or cooling operation occurs frequently.

- Meet ASHREA 62.2 ventilation requirements
- Enhance whole house filteration systems
- Interlock HRV/ERV Systems for use with Existing Ductwork
- Control Exhaust Fan(s) for Balanced Ventilation
- Enhanced Temperature Control
- Enhanced Humidity Control

Thermostat AirCycler Air Handler Unit							
Y (cool)	. Wt	<b>Y</b>					
W (heat)	•	<b>●</b> W					
G (fan)	● Gt						
	Gf <b>●</b> R	<b>—</b> ● G					
R (24 VAC)		<b>—●</b> R					
motorize damper	C	C (common)					
damper	V (vent)						

AirCycler FRV Wiring Diagram



CD	<b>ECI</b>	ы	CA		IC
<b>9</b> [	EUI			UI	CV

Operating Voltage: 24 VAC (up to 30 VAC max.)

Current draw: 0.07 Amps

Fan **ON** and **OFF** delay settings:

Vent **ON** and **OFF** delay settings:

1 to 199 minutes in 1 minute increments, plus an Unlimited setting for both ON and OFF.

#### **Notes:**

The *AirCycler*® ON/OFF function enables or disables the fan recycling function, but all thermostat control signals operate regardless of the switch position.

All outputs protected by a 3A self-resetting fuse, impossible to damage with wiring errors.



The Leader in Energy Efficient Ventilation Control
For more information, or a Dealer in your area, call
1-877-FAN-CONTROLrol
www.AirCycler.com

FAN ON
Heat/Cool/Fan
From Thermostat

FAN OFF time Vent Closed FAN ON - AIRCYCLING
FAN ON time

**VENT ON time** 

VENT OFF time ON.

**VENT ON** 

**VENT OFF** 

**ON...** 

### AirCycler® FRV User Guide

#### **Operating Mode**

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

- The factory settings provide 20 minutes of FAN OFF time followed by 10 minutes of FAN ON time. The LCD display will indicate the current fan activity.
- If the thermostat calls for heating or cooling, the display will read "ON". The AirCycler® is now in standby mode.
- When there is no call for heating or cooling, the
   AirCycler® will display "FAN OFF" and will count down the time
   remaining until the AirCycler® activates the central fan.
- When the AirCycler® activates the central fan, the display will read "FAN ON" The display will now count down the time remaining until the fan is deactivated again. This cycle will repeat until there is another call for heating or cooling from the thermostat.

#### **Motorized Damper control**

- Factory settings provide 10 minutes of VENT ON time followed by 20 minutes of VENT OFF time, with the LCD display indicating the current damper activity.
- If the fan is on and the damper is open, the display will indicate **VENT ON** and the time remaining until the damper closes.
- If the fan is on and the damper is closed, the display will indicate VENT OFF and the time remaining until the damper opens.
- The display will alternate between FAN times and VENT times.

#### The damper will never be ON or open when the fan is not running.

#### Turning the AirCycler® off

Should you choose to turn the *AirCycler*® off during extended vacation periods or when windows are open, press and hold the Mode key for six seconds. All thermostat functions will continue to operate normally. To turn the *AirCycler*® back on, press the Mode key.

#### Setup Mode Setting the FAN ON time

- Press the Mode key once to enter setup mode. FAN ON will flash on the display.
- To change the FAN ON time, use the Increase or Decrease buttons.
- Set the number of minutes between 1 and 199, or select "UN"for unlimited operation. This allows the fan to operate continuously after the FAN OFF delay has expired following a cooling or heating cycle.

#### Setting the FAN OFF time

- To set the delay after the last heating or cooling operation, press the Mode key again. FAN OFF will flash on the display.
- As above, set the number of minutes between 1 and 199.

#### **Setting VENT time**

- Press the Mode key until VENT ON flashes. Set as before.
- Press Mode again, **VENT OFF** will flash, enter settings.
- This cycle repeats for the duration of time the central fan is operating continuously
- Press the Mode key one last time to return to normal operation.

Note: In humid climates, the FAN OFF time should be at least 6 minutes. This avoids moisture re-evaporation from the coil and condensation in cold supply ducts.

#### Testing the AirCycler®

Trained technicians use Test mode to verify or demonstrate the control operation. The test mode will display fan activity in seconds rather than minutes. To activate Test mode, follow these steps.

- Press the Mode kev
- Press the Mode Key a second time press and hold for six seconds. The display will indicate Test.
- Exit Test mode and return to Operating mode by turning the AirCycler® off.
- Hold the Mode key for two seconds, then press Mode again to turn the AirCycler on.

As a safeguard, the *AirCycler*® will automatically exit Test mode after ten minutes.

#### Why controlled ventilation is essential?

Many homeowners are reducing their home's energy cost by tightening their homes. If homes are not equipped for controlling and removing indoor pollutants, indoor air quality problems may result. Controlled ventilation helps maintain healthy indoor air quality for the occupants and the home itself.

#### What is the energy cost to run the AirCycler®?

For a typical 1,500 ft. home, the energy cost for the *AirCycler*® is between \$ 1 to \$ 5 monthly, depending on your climate and electric costs.

For more information:

Energy Efficient Homes: www.energystar.gov Indoor Air Quality: www.epa.gov

