

IMPORTANT

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

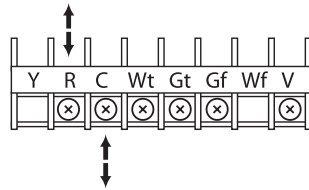
In the past, homes depended on natural leaks for ventilation. Today energy efficient homes are built so that natural ventilation and leaks are reduced. Inadequate ventilation can increase indoor air pollutants to harmful levels. Indoor air is typically 5 to 10 times more polluted than outside air. Controlled 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® model 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 & Y) from the air handler to the thermostat can run parallel with the wiring from the AirCycler® to the air handler. The fan wire (G) needs to be interrupted by 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:

- | | |
|-----------------------|---------------------|
| Y- Cooling | Gf - Fan to furnace |
| R - 24 VAC Power | C- Common |
| W - Heating | V - Vent |
| Gt- Fan to thermostat | |

TROUBLESHOOTING

Problem: Blank Display on the AirCycler®

Solution Check:

1. The furnace has power
2. The thermostat is operational
3. The furnace will call for heat from the thermostat
4. The fan operates with a fan only signal from the thermostat
5. Confirm the furnace is providing 24 VAC to the AirCycler®
6. Verify wiring conforms to wiring diagram
7. Make sure top is firmly seated in the base

Problem: AirCycler FR-V 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®

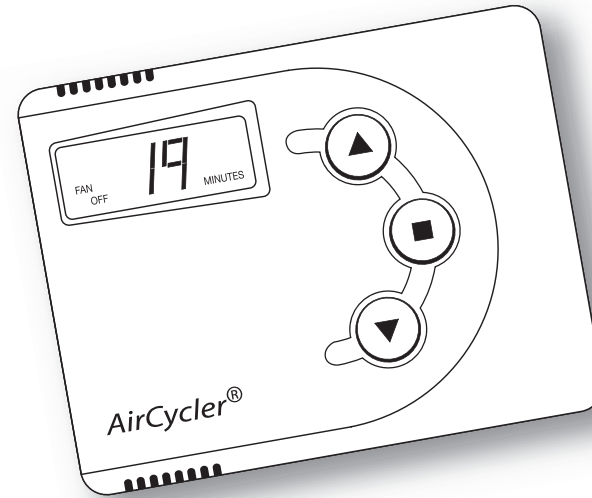
Problem: A/C turns on during fan cycling calls

Solution Check:

1. Verify wiring conforms to wiring diagram
2. Verify the G wire is properly connected
3. The G wire needs to be interrupted by the AirCycler®. Do not run the G wire parallel.



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FR and FR-V Instructions

www.AirCycler.com
1 - 877 - FAN-CONTROL

INTRODUCTION

The AirCycler® is a digital programmable 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

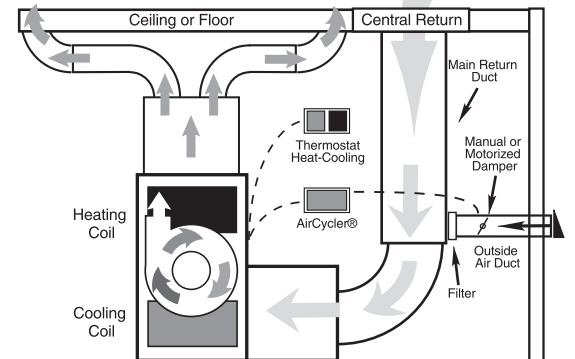
APPLICATIONS

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 FR-V adds 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® can be installed anywhere in your home. It can be installed near a thermostat or out of view on/near the air handler unit. The wiring configuration is flexible.

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. (Figure 2)
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 3) Both (R) and (C) must be connected for proper operation.

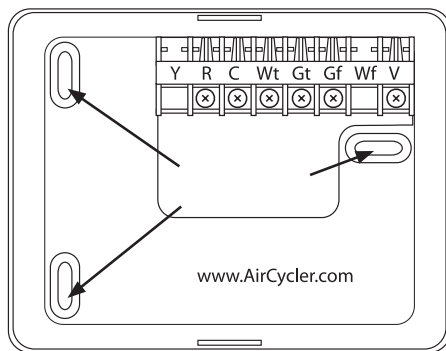


Figure 2

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.

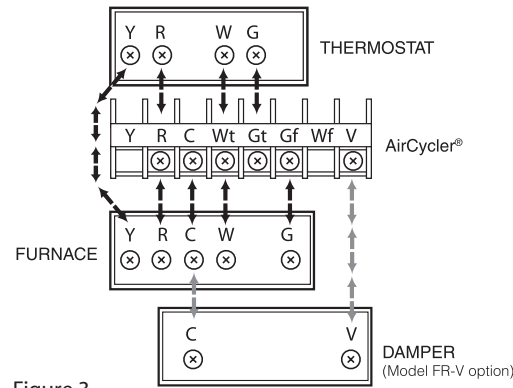


Figure 3

CONFIGURATION

The three keys on the exterior of the AirCycler are used to configure the AirCycler®. (Figure 4)

There are two settings that are adjustable with the AirCycler® FR and four settings with the AirCycler® FR-V.

Factory default settings

FR settings:	FR-V settings:
FAN OFF 20 minutes	FAN OFF 20 minutes
FAN ON 10 minutes	FAN ON 10 minutes
	VENT ON 10 minutes
	VENT OFF 20 minutes

Configure FAN ON time

1. Press the Mode Key once to enter 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.

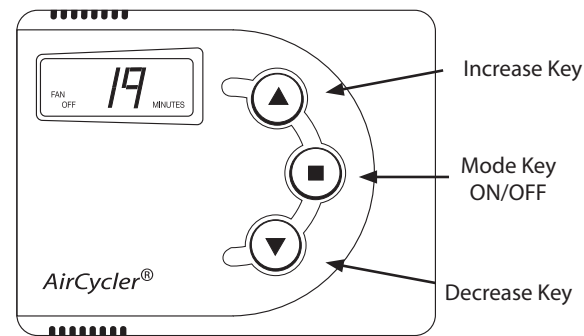


Figure 4

Configure VENT ON time – Model FR-V only

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 – Model FR-V only

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

SAVE SETTINGS

After configuring the AirCycler® press the Mode Key again to save settings and to enter into Operating Mode.

OPERATING MODE

If the thermostat activates heating, cooling, or constant fan operation, the numeric display will read ON. Otherwise, the display will read FAN OFF and will display the time remaining until the fan is activated again. Once activated the display will read FAN ON and the time remaining for FAN ON time.

The model FR-V has additional settings for outside air damper cycling. When the fan turns on, the damper will open and the display will read VENT ON and indicate the time remaining until the damper closes. Once the VENT ON time has expired, the damper will close, the display will read VENT OFF and indicate the time remaining until the damper opens again. This cycle continues for as long as the fan is running. The vent will be closed any time the fan is not running and VENT ON and VENT OFF times will be reset to programmed values.

POWERING OFF

Warning: It is not recommended to turn the AirCycler® off if the unit is used as a ventilation controller. The AirCycler® can be turned off during extended vacation periods or when the windows are open. It is very important to turn the AirCycler® back on.

1. In normal Operating Mode. Press and hold the Mode Key for six seconds to turn the AirCycler® off. All thermostat functions will continue to operate normally.
2. To turn the AirCycler® back on, press the Mode Key.

TESTING

The Test Mode will display fan activity in seconds rather than minutes. To activate Test Mode, follow these steps.

1. Press the Mode Key once and then press it again and hold it for six seconds. The display will indicate TEST.
2. Exit Test Mode and return to Operating Mode by turning the AirCycler® off.
3. Hold the Mode Key for six seconds, and then press Mode again to turn the AirCycler® on.

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