

AIRCYCLER® G2 EASY SETUP GUIDE

PROGRAMMING BASED ON CALCULATED FLOW

To set up your AirCycler® g2 based on Calculated Flow, follow the directions below:

1.0 INSTALLATION INSTRUCTIONS

1.1 CONTROLLER LOCATION

The AirCycler® g2 can be installed near the thermostat or out of view on/near the air handler unit.

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.

1.2 – INSTALLING THE AIRCYCLER®

On power up, all icons will be illuminated for 3 seconds.

There are two setup methods: Calculated Time and Calculated Flow. Calculated Flow is used primarily with the optional FanConnect™ bath fan/light switch.



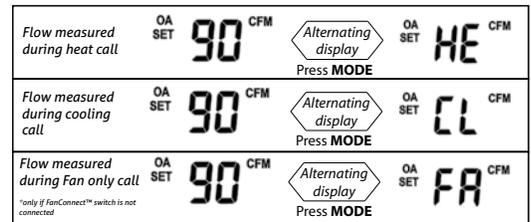
To setup the AirCycler® g2 based on Calculated Flow, press the **UP** arrow within 3 seconds of power up. **Remove from base and replace to reenter setup.**

2.0 CALCULATED FLOW PROGRAMMING

2.1 SETTING THE MEASURED SUPPLY AIR FLOW

The measured flow is the amount of air that enters the return side of the air handler from the outside air vent. (For more information about how to measure/estimate the flow, see page 2) Enter the measured flow. To accommodate variable speed air handlers, you can enter different values for heat, cool and fan. Factory default is 90 CFM.

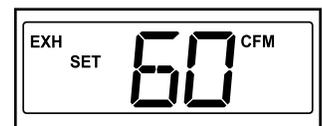
Press MODE to advance to the next setting.



2.2 SETTING THE MEASURED EXHAUST AIR FLOW

Enter the measured flow from the exhaust fan. Factory default is 60 CFM.

Press MODE to advance to the next setting.



2.3 SETTING CODE REQUIRED CONSTANT AIR FLOW

Set the required continuous air flow in CFM based on relevant codes. Factory default is 30 CFM. The g2 controller will calculate run times based on settings 2.1 and 2.2.

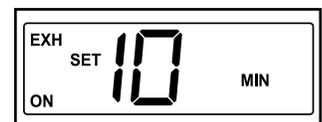
Press MODE to advance to the next setting.



2.4 EXHAUST FAN DELAY TIME

Set the desired length of time you want the exhaust fan to run after the FanConnect™ switch has been turned off. Factory default is 10 minutes.

Press MODE to save all settings and return to normal operation.



Measuring & Testing Outside Air Flow

www.FanRecycler.com

Q. How can you measure or estimate how much outside air (OA) is coming into the home when using the AirCycler® g2?

A. The most accurate way to measure the flow is to follow the directions below:

1. Turn the central system fan (the air handler) on and make sure that any motorized damper in the outside air duct is open.
2. Measure and record the operating pressure in the OA duct using a digital manometer/pressure gauge upstream of any manual or motorized dampers. This should be the intended pressure usually specified by the ventilation system designer/manufacturer. If it is not at specifications, adjust any manual damper to increase or decrease the air flow restriction until the intended pressure (or close to) is achieved.
3. Disconnect the OA duct where it connects to the return plenum.
4. Connect the OA duct to a calibrated fan (Ductblaster™). Use the Ductblaster to take the OA duct back to the same pressure measured in Step 2.
5. Record the measured flow based on the Ductblaster.

While this level of testing accuracy can be laborious, after you have performed enough tests of this nature to establish a good relationship between duct pressure measurements and duct air flow, and you have gained confidence over your range of systems and applications, you can simply take pressure measurements and correlate them to air flow based on the chart below and/or your own field experience.

		Flow rate in outside air duct (cfm) (with 25 ft of flex and 6" wall cap)				
OA Duct Pressure (Pa)	OA Duct Pressure (inch wc)	Flex Duct Diameter (Inches)				
		5	6	7	8	9
-5.0	-0.0201	32	37	53	63	66
-7.5	-0.0301	39	45	65	76	80
-10.0	-0.0402	45	52	75	87	91
-12.5	-0.0502	50	59	83	97	101
-15.0	-0.0603	55	64	91	105	110
-17.5	-0.0703	59	69	99	113	119
-20.0	-0.0804	63	74	105	121	126
-22.5	-0.0904	67	79	112	127	133
-25.0	-0.1005	71	83	118	134	140
-27.5	-0.1105	74	87	123	140	146
-30.0	-0.1206	78	91	129	146	152
-35.0	-0.1407	84	98	139	157	164
-40.0	-0.1607	89	105	149	167	174

NOTE: These are tests that an HVAC technician would perform. www.FanCycler.com recommends a testing regimen similar to the one used by EPA ENERGY STAR program: Test all of the first models in any product line, then at least every 1 in 7 homes after that.