8126A ventilation system

SPECIFICATIONS		
Overall Dimensions	4.25" H x 6" W x 1.75" L	
Duct Opening Dimensions (For Humidity Sensor)	0.75" diameter hole	
Input Power For the Control (From the HVAC System Transformer)	24 VAC, 1 VA	
Damper Outputs (A/A)	1A maximum at 24 VAC	
Outdoor Temperature Sensor Inputs	Thermistor (provided)	
Damper Transformer (Provided)	24 VAC, 10 VA	
Cycle Time	1 hour	

Ventilation Time Dial Setting Off, 0-60, Test/Reset (Minutes Per Cycle)









PRINCIPLE OF OPERATION

The Aprilaire 8126A ventilation system will bring in fresh air and activate the HVAC fan to cycle the fresh air throughout the home. The controller is designed to meet the ASHRAE Standard 62.2-2010 for ventilation. The ventilation mode selection allows for time only operation or for temperature and humidity limits to be applied to the incoming air.

SET OF OPERATION

Every hour the Model 8126A ventilation system will open the ventilation damper and turn on the HVAC system blower for the amount of time set on the ventilation time dial. Ventilation will occur first, when the HVAC system calls for either heating (W input) or cooling or continuous fan (G input). If the HVAC system is not on for the amount of time set on the ventilation time dial, the controller will open the damper and turn on the HVAC system blower at the end of the one hour cycle time in order to meet the set ventilation time. For example, assuming the ventilation time is set to 20 minutes per hour and the heating and cooling was on for 10 minutes during that hour, ventilation would be provided during that time and the ventilation controller would open the damper and turn on the HVAC system blower for the last 10 minutes of the hour to meet the 20 minute ventilation time.

High and low temperature limits are available in Modes B, C and D, to prevent outdoor air that is too hot or too cold from being delivered to the home. If the outdoor temperature rises above the high limit or drops below the low limit, ventilation will not occur. If the outdoor temperature drops below the heat only limit, ventilation will be allowed only when the HVAC system is calling for heat.

A high indoor RH limit is available when in Modes B, C and D, to prevent potentially humid outdoor air from being delivered to an already humid home. If the indoor RH is above the indoor RH limit, and the outdoor temperature is above the corresponding limit, ventilation will not occur.

Both the temperature and RH limits are overridden when in Mode A.

POSITION	DESCRIPTION	CHART
A TIME ONLY B C C D	Timer controlled ventilation (No temperature or humidity limits)	This setting can be calculated with ASHRAE Standard 62.2-2010 (Temperature and humidity sensors are ignored)
B DEFAULT B C A	Timer controlled ventilation with humidity and temperature limits	100° VENTILATION ALLOWED VENTILATION PREVENTED 50° 20° VENTILATION ALLOWED WITH HEAT 0° VENTILATION PREVENTED 0% 15% 25% 35% 45% 55% 65% INDOOR RELATIVE HUMIDITY
C COLD CLIMATE	Timer controlled ventilation with humidity and temperature limits	100° VENTILATION ALLOWED 50° VENTILATION ALLOWED 50° VENTILATION PREVENTED 0° VENTILATION PREVENTED 0% 15% 25% 35% 45% 55% 65% INDOOR RELATIVE HUMIDITY
D WARM CLIMATE	Timer controlled ventilation with humidity and temperature limits	90° VENTILATION ALLOWED 50° 40° VENTILATION ALLOWED VENTILATION ALLOWED VENTILATION ALLOWED VENTILATION PREVENTED 0° VENTILATION PREVENTED 0% 15% 25% 35% 45% 55% 65% INDOOR RELATIVE HUMIDITY

Typical Attic Installation



Typical Basement Installation







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