

If the "TIME ONLY" resistor is used instead of the Outdoor Temperature Sensor, the Control's operation is determined by the timer settings as adjusted only. The Control will not limit operation based on the temperature and humidity limits as shown in **Diagram 1**. This feature is important for areas with moderate climates.

If a jumper wire is used in place of the Outdoor Temperature Sensor, the Control will disregard the temperature setting and base ventilation operation on the indoor relative humidity and the timer settings only. In this mode the Control won't allow ventilation if the indoor RH rises above 60%.

#### IV. LIMITED WARRANTY

Your Research Products Corporation Aprilaire® Ventilation Controller is expressly warranted for five (5) years from date of installation to be free from defects in materials or workmanship.

Research Products Corporation's exclusive obligation under this warranty shall be to supply, without charge, a replacement for the Controller which is found to be defective within such five (5) year period and which is returned not later than thirty (30) days after said five (5) year period by you to either your original supplier or to Research Products Corporation, Madison, Wisconsin 53701, together with the installation date of the Controller.

THIS WARRANTY SHALL NOT OBLIGATE RESEARCH PRODUCTS CORPORATION FOR ANY LABOR COSTS AND SHALL NOT APPLY TO DEFECTS IN WORKMANSHIP OR MATERIALS FURNISHED BY YOUR INSTALLER AS CONTRASTED TO DEFECTS IN THE CONTROLLER ITSELF.

IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE SHALL BE LIMITED IN DURATION TO THE AFORESAID FIVE YEAR PERIOD. RESEARCH PRODUCTS CORPORATION'S LIABILITY FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES, OTHER THAN DAMAGES FOR PERSONAL INJURIES, RESULTING FROM ANY BREACH OF THE AFORESAID IMPLIED WARRANTIES OR THE ABOVE LIMITED WARRANTY IS EXPRESSLY EXCLUDED. THIS LIMITED WARRANTY IS VOID IF DEFECT(S) RESULT FROM FAILURE TO HAVE THIS UNIT INSTALLED BY A QUALIFIED HEATING AND AIR CONDITIONING CONTRACTOR. IF THE LIMITED WARRANTY IS VOID DUE TO FAILURE TO USE A QUALIFIED CONTRACTOR, ALL DISCLAIMERS OF IMPLIED WARRANTIES SHALL BE EFFECTIVE UPON INSTALLATION.

Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages so the above exclusion or limitations may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

#### WARRANTY REGISTRATION

Please... Take a few minutes to visit us on-line at  
**www.aprilaire.com**  
to register your Aprilaire product.

If you do not have on-line access, please mail a postcard  
with your name, address, phone number, product purchased  
and date of purchase to:

Research Products Corporation  
P.O. BOX 1467  
Madison, WI 53701

## Thank you!

**Your Warranty Registration information will not be sold or shared outside of this company.**

10007406 2.09  
B2204406B

RESEARCH PRODUCTS CORPORATION  
1015 E. WASHINGTON AVE. • MADISON, WI 53703 • PHONE: 608/257-8801 • FAX: 608/257-4357 • [www.aprilaire.com](http://www.aprilaire.com)

# Aprilaire®

## Ventilation Controller



## Model 8120 and 8126 Ventilation Controller Owner's Manual

Includes Safety & Operating Instructions  
and Warranty Information

#### WARNING

120 volts may cause injury from electrical shock.  
Disconnect power and turn off Vent Control before servicing.

**READ AND SAVE THESE INSTRUCTIONS**

## I. PRINCIPLE OF OPERATION

Today's houses are constructed using "Green" techniques and energy saving systems. These practices and innovations help reduce your utility bills, but prevent the introduction of fresh air, leading to the build-up of stale air. The addition of VOCs into the home from cleaning, painting, and exhaust from attached garages will remain in the air for extended periods of time. To correct these effects, ventilation systems are installed. It's important the ventilation system regulate hot air, cold air, and humidity extremes.

Your Aprilaire Vent Control will bring these under control. It will meter in fresh air around the clock to help reduce the stuffy effects of trapped air. The actual rate of ventilation is determined by the size of your home and the number of occupants. By accounting for these neither too much nor too little ventilation is drawn in by your Aprilaire Vent Control.

With your investment in the Vent Control, you have a dependable way of providing fresh air to your home, so that you can vent out stale air at optimum efficiency and convenience. Your Vent Control will work even when you are absent. Working with your damper system the Vent Control tells when, and how long, it should operate. It does this through continuous monitoring of your indoor humidity, along with the outdoor temperature. It then operates according to the timer settings as adjusted to your preference, or local codes or the HVAC industry recognized ASHRAE 62.2-2007 guidelines. The Vent Control will not let outside air enter if it could potentially raise the humidity inside to high levels. To prevent this, the Vent Control has an upper limit of 60% RH. For temperature extremes of below 0°F or above 100°F, the vent damper will not be opened. This feature can be disabled at installation at your preference, if fresh air is your priority.

**Please Note:** The Vent Control will not work if the inlet is clogged with debris. Clean this regularly.

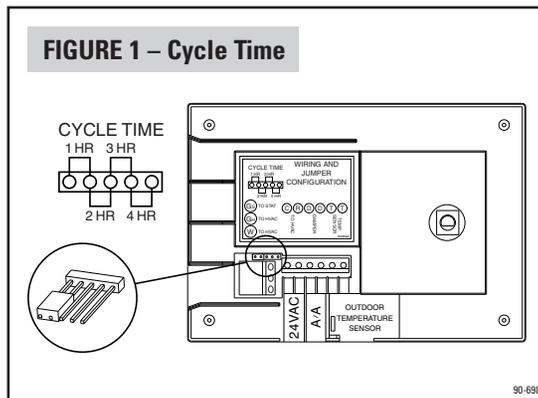
## II. SET-UP INSTRUCTIONS

Your Vent Control is installed in the return duct of your furnace or heat pump. There are two adjustable settings, the **cycle time** and the actual **ventilation time** within each cycle. Here's how this works. If the **cycle time** is set to 1 hour and the control knob is set to 20 minutes, you will get 20 minutes of ventilation every hour.

Your ventilation setting, which is 20 minutes per hour in this example, can be met by the operation of your heating or cooling system. Or if weather conditions are comfortable or the thermostat is on setback, the Control itself will turn on the furnace blower to provide the 20 minutes.

### A. SETTING THE CYCLE TIME INTERVAL

- Your Installer should have already set this for you. This will likely be at the recommended factory setting of one hour.
- If you decide to change the cycle setting yourself, first note or mark the time setting of the knob. Then remove the knob by carefully pulling it straight out. Snap off the cover and refer to **Figure 1** to locate the **cycle time** setting pins.
- The jumper tab on the 5-pin array determines the **cycle time** interval. The interval can be 1, 2, 3 or 4 hours.

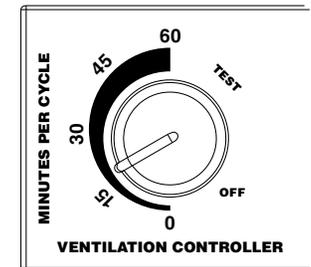


- Per diagram move the jumper tab to the length of time you want. The tab can be removed by pulling it straight up off the pins.
- Once the **cycle time** is set snap the cover back onto the Control base and push the knob back onto the shaft. Reset it to twice its original location for 2 hours, and triple its original location for 3 hours. Note that the knob can't be dialed any higher than 60 minutes, and so you might have to stay at the cycle interval of 1 hour.
- The knob indicates the total running time for a 1, 2, 3 or 4 hour cycle, and so it does not indicate running time per hour per se.

### B. SETTING THE VENTILATION TIME

- The knob on the front of the Control is used to set the **ventilation time** within the cycle interval you set in Step A.
- The **TEST** setting is used to check the device for proper installation. It is not for normal operation, it will only activate the Control for 1 minute. Do not leave the knob at TEST, it does not allow actual operating time.
- The **OFF** setting cuts off all circuit activation, while **0** leaves the circuit electrically active but it will not operate.
- The dial is labeled in 15 minute increments, but can be set to any estimated value within 5 minute accuracy. The Installer will have already set this for you according to the size and number of occupants for your home. If you feel like you need more or less time, turn the knob to a maximum of 5 minutes either way. See how this works before adjusting again.

**FIGURE 2 – Ventilation Time**

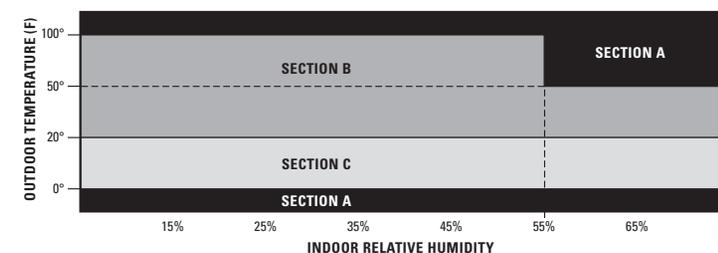


90-702

## III. OUTDOOR TEMPERATURE AND INDOOR HUMIDITY CONTROL LIMITS

As installed your Aprilaire Vent Control will use input measurements of Outdoor Temperature and Indoor Humidity, plus the adjusted time settings, to compute activation. The temperature outdoors is measured with a sensor at the fresh air duct inlet. Indoor Humidity is measured in the return duct with a sensor built into the Control. In coordination with the timer settings, the Control then operates according to the temperature and humidity limits shown in **Diagram 1** below.

**DIAGRAM 1 – Operating Limits**



- Section A:** Ventilation prevented due to temperature extremes and/or high indoor humidity.
- Section B:** Ventilation per the timer settings (Time Only).
- Section C:** Ventilation only with heat, per the timer settings.

90-713