

# AprilAire®

## Ventilation

### SPECIFICATION SHEET

## Model 8120X

### Ventilation Controller

#### FEATURES

- Easy-to-read LCD screen
- Simple setup with three-button interface
- Can be set for Code or Comfort (factory default setting)
- 24-volt control
- Measures outdoor temperature to stop ventilation at adjustable high and low outdoor temperature lockouts
- Measures indoor humidity to stop ventilation at adjustable high and low humidity lockouts\*
- Patented control programming maintains ASHRAE 62.2 even during high and low temperature limit lockouts
- Installation flexibility—ability to override humidity and temperature control
- Easy access to rater information (amount of CFM brought into the home, etc.)
- Duct board bracket included for accurate indoor humidity sensing

\*Pat. no. 9,874,366

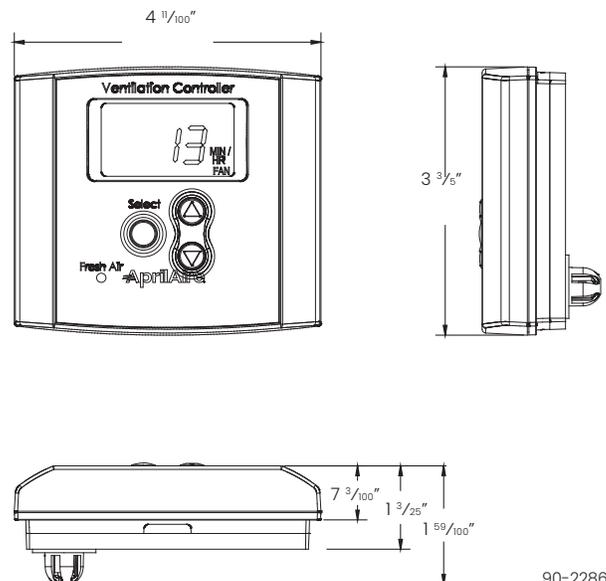


#### BENEFITS

- Designed to meet ventilation requirements. Conforms to latest building and energy codes
- Easy to install and set up, saving you time and money
- Increased customer comfort and energy savings over other economical ventilation options
- Flexible setup allows you to meet every application

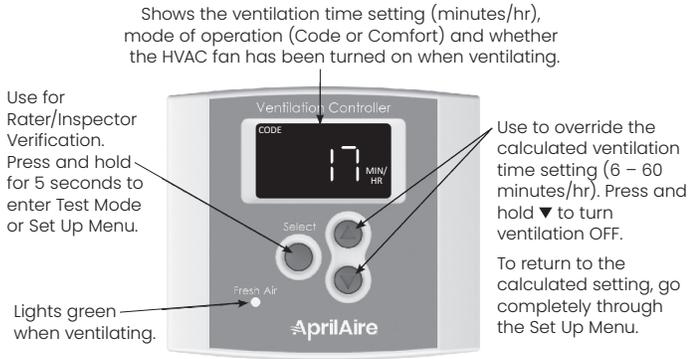
#### SPECIFICATIONS

Overall controller dimensions	4 11/100" W x 3 3/5" H x 1 59/100" D
Duct opening dimensions (for humidity sensor)	5/8" dia. in sheet metal, 5 3/4" X 5 1/4" for duct board (duct board bracket included)
Input power for the control (from the HVAC system transformer)	24VAC, 2VA
Damper output (Vent and GH)	10VA @ 30VAC max
Input voltage	18-30VAC
Controller power consumption	2.0VA
HVAC equipment terminals	R, C, W, Y, O, GS, GH
Equipment compatibility	Furnace and AC or Heat Pump
Outdoor temperature sensor inputs	Thermistor (provided)
Compliance	ASHRAE 62.2
Installation temp limits	20°F-140°F



90-2286

## CONTROLLER INTERFACE



## SEQUENCE OF OPERATION – “CODE” SETTING\*

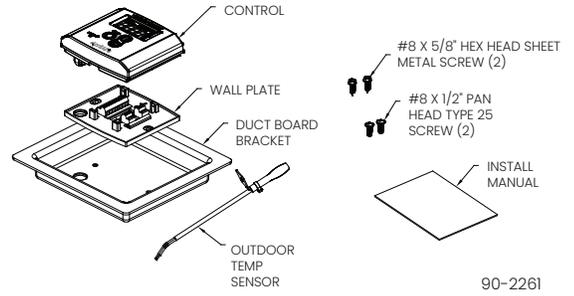
- The control will open the vent damper with a heating, cooling or fan call for the set number of minutes during a one-hour cycle period. If the outdoor temperature is above the high temperature ventilation limit, ventilation will not occur with a cool or fan call, but if it is below the low temperature ventilation limit it will occur with a heat call.
- If the HVAC equipment does not turn on enough to meet the ventilation time within the hour, the control will open the vent damper and turn on the HVAC blower without a call, but only if the outdoor air temperature is within the high and low ventilation temperature limits.
- If the outdoor air temperature is outside of the limits at the end of the one-hour cycle period, then no additional ventilation will occur for another 60 minutes, and the cycle period will automatically adjust to four hours. The controller will then attempt to meet the set amount of ventilation during the four-hour cycle period.
- If the air temperature is still out of range at the end of the four-hour cycle period, the control will automatically switch to an eight-hour cycle period, then a 12-hour cycle period and finally a 24-hour cycle period. During eight, 12 and 24 hour cycle periods, the total ventilation time increases to compensate for ventilation effectiveness as defined in ASHRAE Standard 62.2.
- When the cycle period automatically adjusts to 24-hours, the control will turn on ventilation to meet the requirements even if the temperature is outside of the set limits.

\*Pat. no. 9,874,366

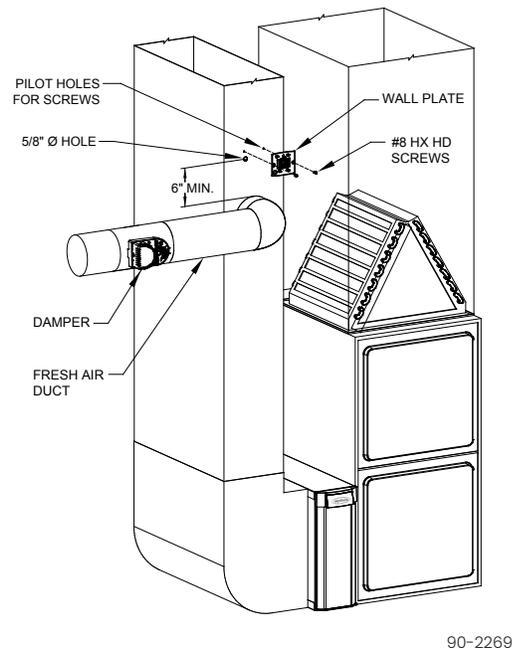
## SEQUENCE OF OPERATION – “COMFORT” SETTING

- The control will open the vent damper with a heating, cooling or fan call if the outdoor air temperature is within the high and low ventilation temperature limits and the indoor RH is within the high and low RH limits, for the set number of minutes during a one-hour cycle period.
- If the HVAC equipment does not turn on enough to meet the ventilation time within the hour, the control will open the vent damper and turn on the HVAC fan without a call, if the outdoor air temperature and indoor RH is within the set limits. If the outdoor temperature or indoor RH are outside of the set limits, then no ventilation will occur.

## PACKAGE CONTENTS



## SHEET METAL INSTALLATION



## DUCT BOARD INSTALLATION

