

AprilAire®

Ventilation

SUBMITTAL SHEET

Model 8120X

Ventilation Controller

Project: _____

Dealer: _____

Architect: _____

Engineer: _____

Contractor: _____

Location: _____

Suppliers: _____

Date: _____

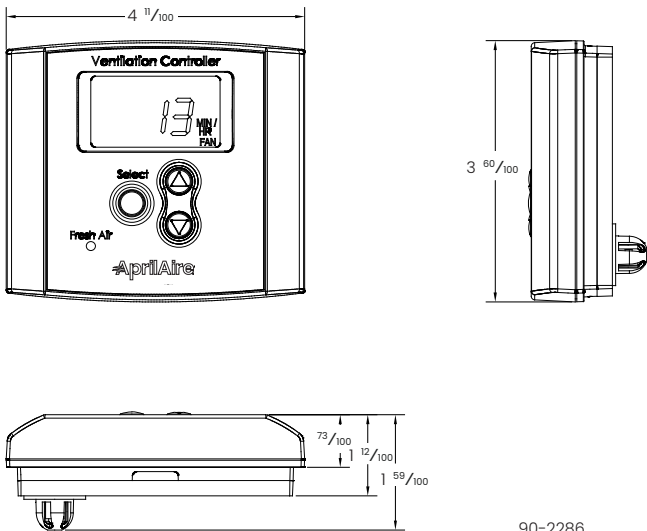
Shows the ventilation time setting (minutes/hr), mode of operation (Code or Comfort) and whether the HVAC fan has been turned on when ventilating.

Use for rater/inspector verification. Press and hold for 5 seconds to enter Test Mode or Set Up Menu.

Lights green when ventilating.

Use to override the calculated ventilation time setting (6 – 60 minutes/hr). Press and hold ▼ to turn ventilation OFF. To return to the calculated setting, go completely through the Set Up Menu.

PRODUCT SPECIFICATIONS



90-2286

SPECIFICATIONS	
Overall Dimensions	4 11/100" W x 3 3/5" H x 1 59/100" D
LCD Screen	Backlit display indicates minutes of ventilation per hour
Input Power	24VAC; 2VA (from the HVAC system transformer)
Duct Opening Dimensions (for humidity sensor)	5/8" dia. in sheet metal 5 3/4" x 5 3/4" for ductboard (ductboard bracket included)
Modes of Operation (3-Button Interface)	Off; 6-60 min/hr Code/Comfort Operation
Temperature Limits	Off; Low: -10° - 40°F; High: 85° - 105°F
Humidity Limits	Off; Low: 10% - 30% RH; High: 45% - 70% RH
HVAC Equipment Terminals	R, C, W, Y, O, GS, GH
Damper (Vent) and GH Output	10VA @ 30VAC max
Equipment Compatibility	Furnace and AC or Heat Pump

SEQUENCE OF OPERATION – “CODE” SETTING

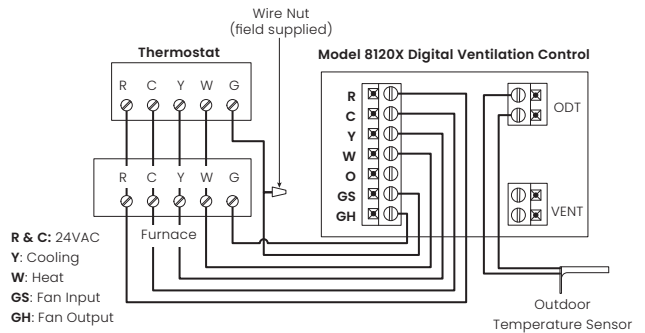
- The control will open the vent damper with a heating, cooling or fan call for the set number of minutes during a one-hour cycle period. If the outdoor temperature is above the high temperature ventilation limit, ventilation will not occur with a cool or fan call, but if it is below the low temperature 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

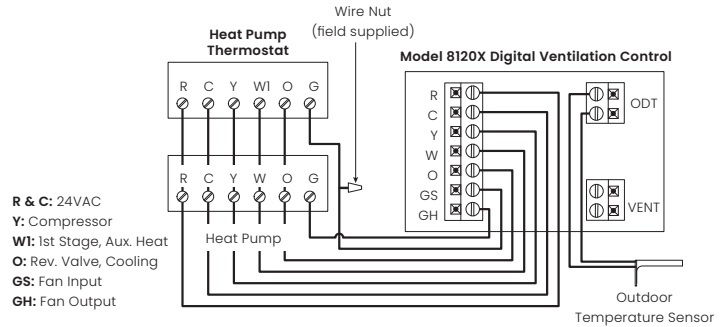
SEQUENCE OF OPERATION – “COMFORT” SETTING

- 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.

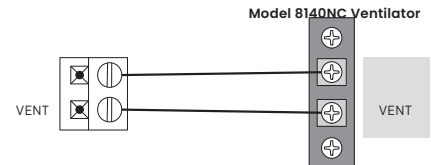
WIRING TO FURNACE



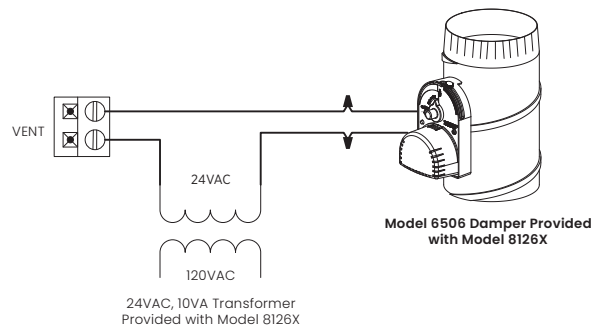
WIRING TO HEAT PUMP



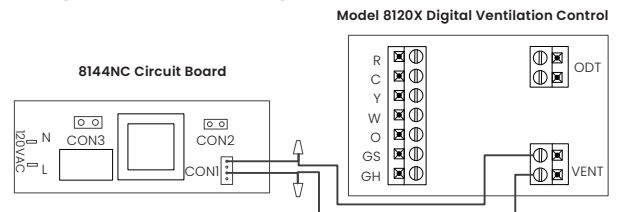
WIRING TO MODEL 8140NC FRESH AIR VENTILATOR



WIRING TO MODEL 6506 DAMPER



WIRING TO MODEL 8144NC FRESH AIR VENTILATOR



The submittal is intended to show general, overall product dimensions and provide guidance for installation clearance. Drawings are not to scale. Ensure submittals are current. AprilAire reserves the right to make product changes without notification or obligation.