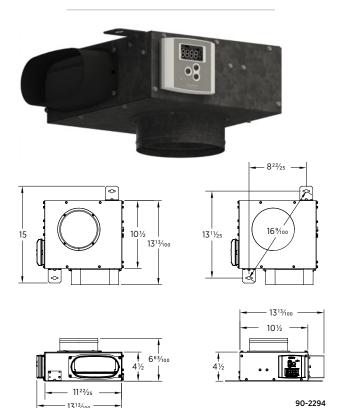


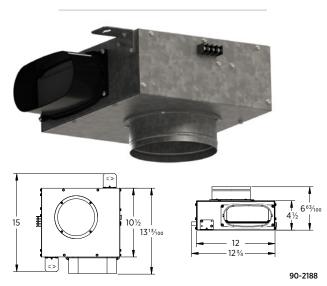
# Fresh Air Ventilators with Backdraft Damper, No Filter MODEL 8142, 8142NC | SUBMITTAL SHEET

Project:	Dealer:
Architect:	Engineer:
Contractor:	Location:
Suppliers:	Date:

#### **MODEL 8142**



#### **MODEL 8142NC**



#### **GENERAL DESCRIPTION**

- + Model 8142 designed to bring in precisely the right amount of outdoor air into tight homes and complies with ASHRAE Standard 62.2-2010.\*
- + Optimizes energy savings by locking out ventilation during hottest/ coldest times of the day. Built-in control automatically compensates for the ventilation time that is missed by bringing in additional fresh outdoor air when temperatures are more moderate, improving indoor air quality (IAQ).\*
- + Motor 65 watts; 0.56 amps (FLA) @ 115v/LPH/60Hz
- + Control ensures that ventilation occurs no less than one hour of every four hours.\*
- + Control is integrated into the Model 8142 Ventilator. The Model 8142NC has no integrated control so the ventilator can be hardwired to the HVAC system and controlled from within the living space.
- + Control provides the capability to adjust the high/low outdoor temperature limits and indoor RH limits
- + 6' power cord with a standard 5-15P plug provided with unit
- + 24-volt wiring to HVAC system. Furnace or air handler does not require an ECM motor to be an Energy Star home
- + For indoor use only; installation temperature up to 160°F
- + Duct collars accept 6" duct
- + Housing 22 gauge G60 sheet metal
- + ETL listed

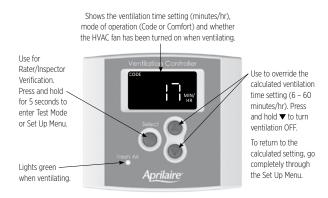
When properly installed and set, it will meet the following mechanical ventilation requirements:\*\*

- + 2015/2012 International Energy Conservation Code (IECC)
- + ASHRAE 62.2-2010
- + Energy Star Certified Homes, Version 3
- + EPA Indoor airPLUS, Version 1
- + 2015/2012 International Residential Code (IRC)
- + California Energy Commission Title 24

PERFORMANCE							
External Static Pressure*** ("w.c.)	0.0	0.2	0.4	0.6	0.8	1.0	
Airflow (CFM)	245	220	190	160	120	95	
Current (amps)	0.63	0.64	0.64	0.63	0.61	0.60	
Efficacy (CFM/watt)	3.30	2.96	2.57	2.12	1.69	1.35	

- Model 8142 only
- 8142NC compliance is subject to the functionality of the external control. To assure compliance use an 8910, 8910W, 8920W, 8620 or 8620W thermostat or 8120X ventilation controller.
- \*\*\* Measured across ventilator.

#### Controller Interface



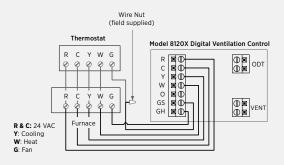
## SEQUENCE OF OPERATION – "CODE" SETTING

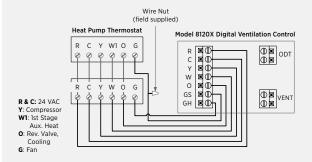
- + The control will open the vent damper with a heating, cooling or fan call for the set number of minutes during a one-hour cycle period. If the outdoor temperature is above the high temperature ventilation limit, ventilation will not occur with a cool or fan call, but if it is below the low temperature 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 62.2-2010.
- + 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.

### 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 HVAC System -Model 8142 Only





## Wiring to Controllers - Model 8142NC Only

