nu-air

Operating Your Residential HRV or ERV

Modes of Operation

Depending on the presence of/type of central (wall) controls used in your installation, your ventilator is capable of the following modes of operation:

1. **Standby.** The unit is idle and responds to high-speed demands from a timer, dehumidistat, CO2 sensor, etc.
2. **Full-Time Low Speed.** The unit operates in low speed all the time and will go to high speed with a command from other controls in the system, such as a timer, dehumidistst, CO2 sensor, etc.
3. **Full-Time High Speed.** The unit runs in high speed on command from a central control or timer.
4. **Timed High Speed.** Timers operate the unit in high speed for 20 or selectable 20-40-60 minute intervals.
5. **20 Lo/40 Standby.** The unit runs in a cycle of 20 minutes in low speed, followed by 40 minutes of standby.
6. **20 Lo/40 Recirculation.** The unit runs in a cycle of 20 minutes in low speed, followed by 40 minutes of recirculating air within the home.
7. **Full-Time Recirculation.** The unit continuously recirculates air within the home. While not ventilating, this mode can help prevent air in the home from feeling stagnant and offers some level of air filtration.

What is the Right Mode for Me?

In a basic sense, it is recommended that the unit run at least on low speed at all times to ensure a steady supply of fresh air and removal of stale air and indoor pollutants. **However, how much a home needs ventilation can depend on several factors such as number of inhabitants, cooking habits, hobbies, presence of pets, opening windows, etc.** so no two households are necessarily the same for the amount and frequency of ventilation they need. Observance of moisture on windows in winter, lingering odours and a sensation of stuffy, stagnant air are all signs for the need of ventilation in general or increased ventilation in specific cases. The controls for your ventilation system might vary in features, but offer means to regulate how much and how often the home is ventilated.

Indoor Humidity Control

Some central (wall) controls are equipped with a dehimidstat, or "d-stat". A d-stat monitors ambient relative humidity (RH) and has selectable settings/setpoints, generally 30%-80% RH. When indoor ambient humidity is detected above the setpoint, the wall control will trigger high speed operation in the ventilator. The unit will run in high speed until the ambient air returns to the setpoint RH. Your ventilator is not a dehumidifier, however ventilating can have a dehumidifying effect by simply removing high RH air from the indoors, particularly during

cooler/cold seasons when outdoor humidity is typically lower than indoor humidity. **Typical humidity settings are as follows:**

Winter Operation – 40% - 60%. Settings in the lower range may be necessary in damp, cold climate zones to keep windows free of condensation. Use full-time low speed or 20 lo/40 standby modes (if available).

Spring/Fall Operation- 50% - 60%.

Summer Operation – For air conditioned homes, run the HRV as recommended for winter operation, i.e. continuous low speed or use a 20/40 setting. In homes without air conditioning, there is no need to run the HRV during the day when windows are open. If the HRV is connected to the bathrooms(s) or kitchen, use the standby setting on your central wall control. The typical dehumidistat summer setting is 65%-80% or OFF.

Note: For dial-type dehumidistats, moving the dial to **ON** locks unit in high speed; moving the dial to **OFF** prevents ambient humidity from triggering high speed (i.e. turns "off" humidity sensing).

I live where the winters are very cold and very dry—where should I set my wall control humidity level during winter?

Some regions have very dry, cold winters. If you notice the indoor air is uncomfortably dry in winter, you might set humidity to a higher level or choose an operation mode above which operates the ventilator less or for shorter periods (e.g. standby or 20/low, 40 standby). The Nu-Air Lumina (NAV-561) wall control has the functionality to shut off high speed operation based on humidity in case you find it really dry in your home—you could then operate the unit in standby, in low speed all the time, or use 20 low speed/40 standby setting.