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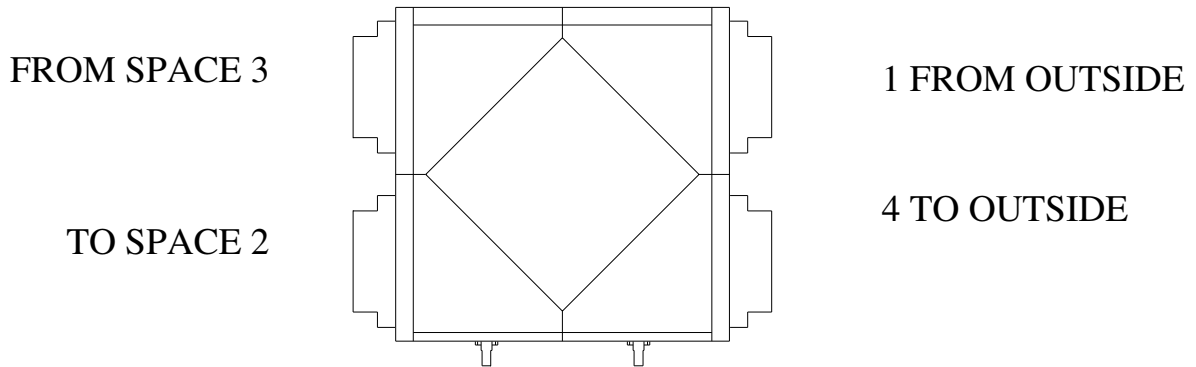


# ***NU120, NU120-MD***

## ***Installation & Maintenance Instructions***

***Follow all applicable buildings codes and safety standards.***

## **1 DUCTING**



Six (6) inch flexible insulated pipe should be used to connect the HRV to the outside hoods. This pipe should be well supported to avoid sags and increased system static pressure.

Six (6) inch pipe should be used to connect the "*stale air from space*" port (#3) to the supply air plenum of the warm air furnace. Rigid or flexible pipe can be used. Better performance will be achieved if this line is insulated.

Six (6) inch pipe should be used to connect the "*fresh air to space*" port (#2) to the return air plenum of the warm air furnace. This should be located along the plenum. Rigid or flexible pipe can be used.

Tape all joints with foil or sheathing tape.

## **2 LOCATING THE HRV**

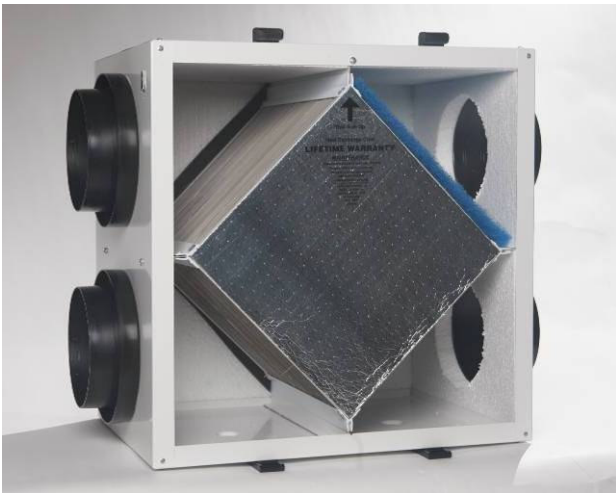
The HRV should be hung from the ceiling using the kit supplied. It should be close to the heating system or may be fixed to one of the plenums.

Allow 16 inches of clearance in front of the door for servicing the core and filter.

The standard assembly of the unit has the exterior hoods on the right hand side when facing the door. If a left hand hood arrangement is more convenient, simply rotate the core 90 degrees, i.e. the more open side of the core is the exhaust air stream. (Polypropylene core only. Rotation not necessary with aluminum core).

### 3 BALANCING

Two balancing dampers are supplied for installation in the duct on the warm side of the HRV (ports 2 & 3). Set the heating system to run continuously on low speed. With the dampers open, measure the airflow in both air streams using a magnehelic gauge and flow grid. Follow the instructions supplied by the manufacturer of the magnehelic kit. Close the damper of the air stream with the greater airflow until a balance is achieved.



### 4 DRAIN KIT

All fittings, connecting hardware (a) and hose (b) for the drain are supplied with the HRV. Be sure to loop or "s" the drain to allow an amount of water to stay in the line and prevent air from flowing into the HRV. Terminate the drain into a container, floor drain, sink, etc.

### 5 MAINTENANCE

#### 5.1 FILTER:

A disposable particulate filter (C) is used to filter the incoming air (port #1). This should be vacuumed every 3 months and replaced annually.

#### 5.2 CORE

The heat exchanger core should be washed annually with mild detergent and warm water. Rinse thoroughly and let dry.

### 6 MOTORIZED DAMPER (MD) UNITS

NU120-1MD (polypropylene core)

NU120-2MD (aluminum core)

**Control Kit:** Passive HRV's with the Motorized Damper (MD) option are supplied with relay and standard dehumidistat (Part#: DSTAT-1).

Note: 24V transformer not included.

## 6.1 NU120-MD OPERATION AND CONTROL

Interlock the dehumidistat with the furnace blower (high speed) and HRV damper motor as per wiring diagram below.

Install the dehumidistat in a central location where it will monitor the ambient humidity level. When indoor humidity rises above the set-point, the dehumidistat activates the furnace blower and opens the HRV damper. Air exchange with heat recovery continues until indoor humidity is reduced below the dehumidistat set-point.

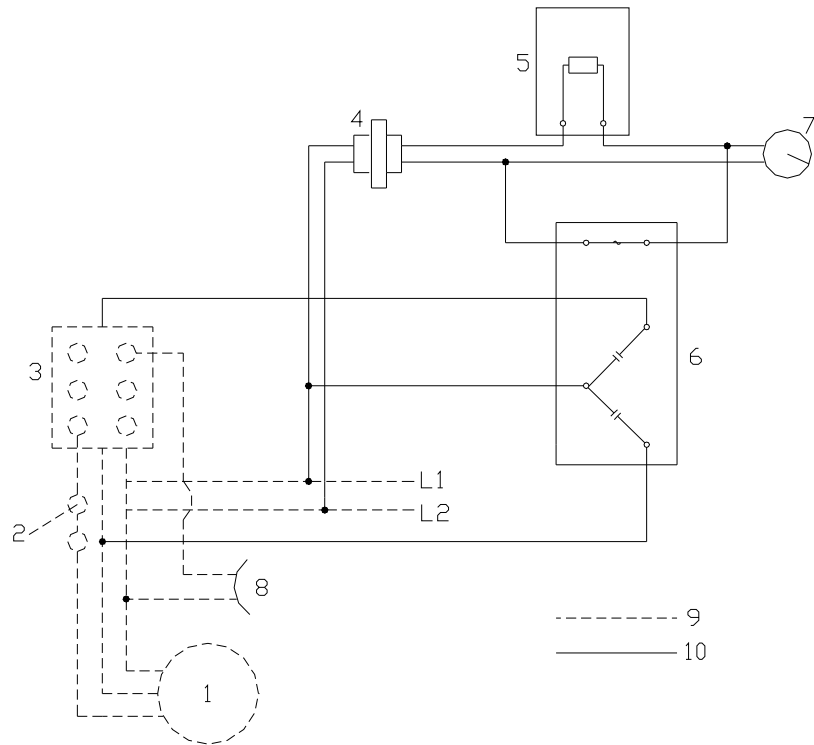
Set the dehumidistat at the desired level. Look for signs of excessive humidity or dryness. *Let your windows be your guide.* As outdoor temperatures decrease – the comfortable humidity level also decreases.

- Winter Operation – 40% - 50%
- Spring/Fall Operation- 50% - 60%
- Summer 55% - 75%

Find the humidity setting that is comfortable for you. Let your windows be your guide; it will not be necessary to change the setting every day. The dehumidistat should be adjusted only when needed.

## 7 WIRING DIAGRAM

- 1.) Fan Motor
- 2.) Plenum switch
- 3.) Fan and limit switch
- 4.) 24V transformer
- 5.) Dehumidistat
- 6.) Fan relay
- 7.) Damper motor
- 8.) To Furnace blower
- 9.) Furnace Circuit
- 10.) Damper Circuit



## 8 WARRANTY

**Lifetime HRV Core Warranty:** If the Nu-Air HRV core develops a leak or is perforated due to corrosion caused by normal use, Nu-Air will supply FOB our plant a replacement core at no charge.

As well, Nu-Air Passive HRV's have a ten (10) year warranty on the cabinet.