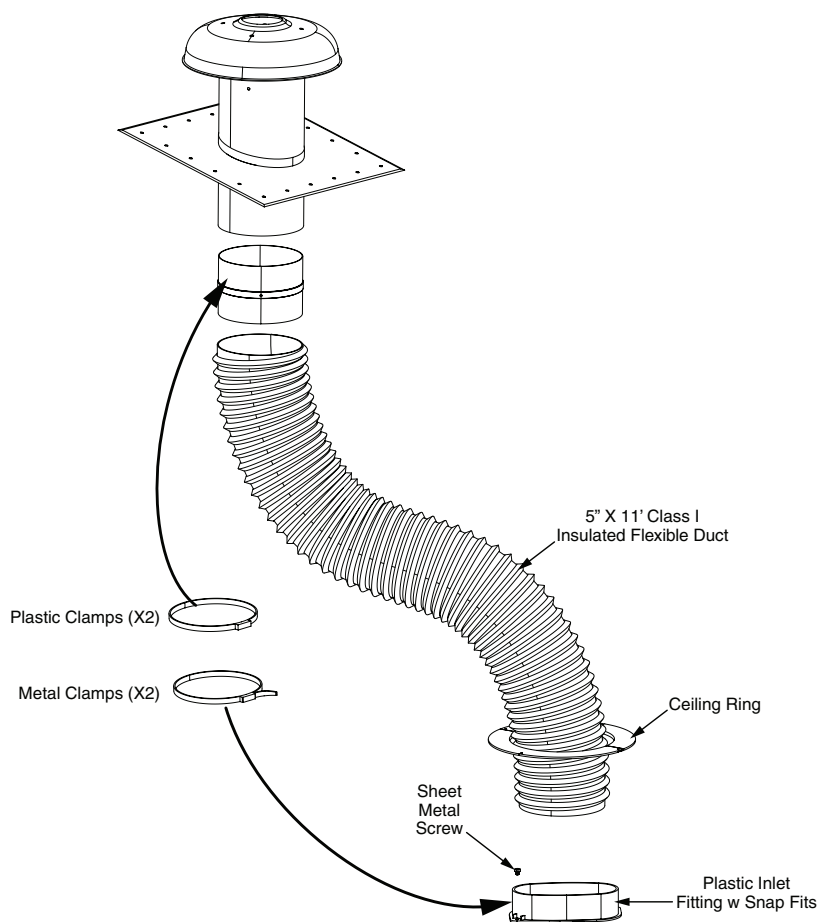


# VentilAire™ V Whole-House Fresh Air Supply System

## INSTALLATION INSTRUCTIONS

### Sloped Roof Kit



## IMPORTANT

### ATTENTION INSTALLERS:

It is your responsibility to know this product better than your customer. This includes being able to install the product according to strict safety guidelines and instructing the customer on how to operate and maintain the equipment for the life of the product. Safety should always be the deciding factor when installing this product and using common sense plays an important role as well. Pay attention to all safety warnings and any other special notes highlighted in the manual. Improper installation of the furnace or failure to follow safety warnings could result in serious injury, death, or property damage.

These instructions are primarily intended to assist qualified individuals experienced in the proper installation of this appliance. Some local codes require licensed installation/service personnel for this type of equipment. Please read all instructions carefully before starting the installation. Return these instructions to the customer's package for future reference.

**DO NOT DESTROY. PLEASE READ CAREFULLY AND KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.**

## ABOUT VENTILAIRE™

VentilAire™ is the most efficient way to introduce outdoor air to interior environments. It works in conjunction with the furnace blower and existing duct system and is able to work independently when the heating and cooling system is off. Best of all, VentilAire™ is a cost-effective way to substantially improve air quality and help control attic condensation in manufactured homes.

The VentilAire™ system is designed for use with NORDYNE Series gas, oil and electric furnaces and electric air handlers.

### How It Works

The home's thermostat is the control device for selecting continuous whole-house ventilation. When the thermostat is in the whole-house ventilation position, the unit blower will operate continuously; independent of COOL or HEAT modes. When the furnace blower is operating, a negative pressure (suction) is created in the furnace plenum. This suction draws in fresh outdoor air which is mixed with the homes return air then distributed through the home duct system. When HEAT or COOL modes are selected, the fresh outdoor air and home return air are conditioned prior to being distributed throughout the home.

## VENTILAIRE™ INSTALLATION

**DO NOT REMOVE THE OVAL KNOCKOUT (IN THE FURNACE TOP) BEFORE COMPLETING STEP ONE.**

1. Determine the location of the plastic inlet fitting:

**Gas Furnace** - Oval knockout located at the top, near the front of the furnace. See Figure 1.

**Air Handler** - Oval knockout located on the sides of the air handler.

**Downflow Electric Furnace** - The plastic inlet fitting may be mounted in the rear of the cabinet over the return air filter. When using an optional air conditioning coil, it may be mounted to the front or rear coil end-plate flange using the mounting holes provided. See Figure 1.

**NOTE:** An optional VentilAire™ attachment kit (Nordyne P/N 919328) may be purchased to attach the plastic inlet fitting to the coil or wall in Heat/Cool and Heat only (no coil) applications. This bulk kit is supplied with 24 brackets and fasteners. The plastic inlet fitting snaps into the bracket opening without screws. See Figure 2.

**Electric Furnace with Nordyne A/C coil** - Align and fasten the VentilAire™ attachment bracket with the holes in the Nordyne coil end-plate flange. See Figure 2.

**Electric Furnace with non-Nordyne A/C coil** - When using other brands of coils, the installer has the option to attach the bracket to the wall of the furnace cavity. Fastening must penetrate into a framing member or sheetrock anchors. See Figure 2.

**Electric Furnace, Heating only, no coil** - The bracket may also be mounted directly to the front of the electric furnace.

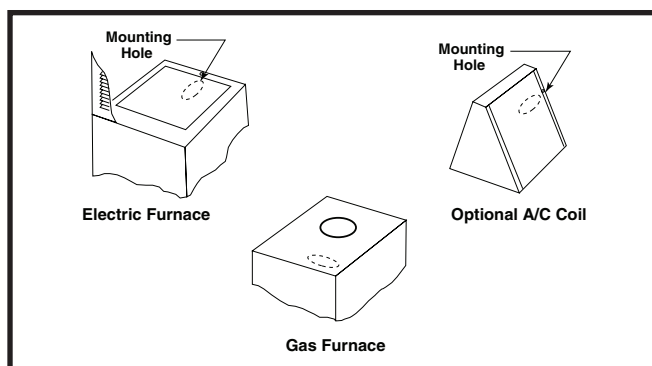


Figure 1. Plastic Inlet Fitting Location

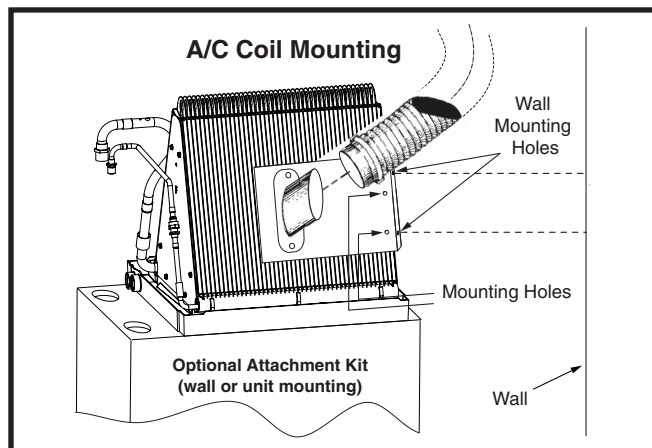


Figure 2. Downflow Electric Furnace with A/C

See Figure 3 (page 3). In wall mounting applications, the bracket should be positioned at the rear of the unit with the entire bracket opening located over the return air inlet.

**NOTE:** In all applications, the VentilAire™ system should be positioned no more than 2 inches from the return air inlet opening of the furnace or coil without interfering with the filter or coil fins.

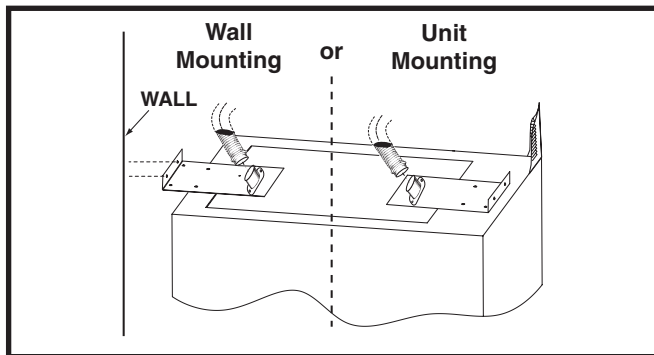
**Upflow Electric Furnace** - a special adaptor (914427) may be applied over the square refrigerant line knockout.

2. For oval knockout installation, place the plastic inlet fitting with locking tabs onto the sheet metal. The side with tabs further apart (back) should be inserted first, then push gently on the front in the center of the part until front tabs fall below the sheet metal and release. Part will tighten securely in place after application of metal clamp. **NOTE:** For optional locations use the sheet metal screw provided through one of the clearance holes on the plastic inlet flange.
3. Cut approximately a 7-inch diameter hole in the ceiling directly above the duct fitting. Avoid ceiling joists and other obstructions in the ceiling cavity.

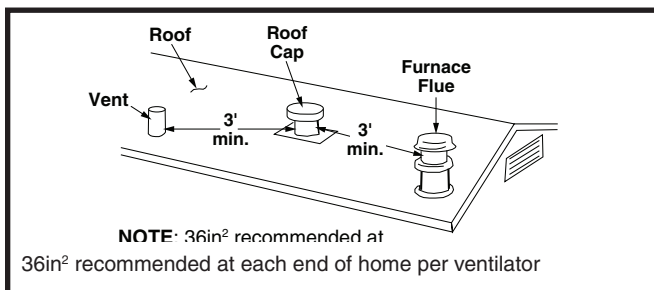
## CAUTION:

**The roof cap MUST be located at least 3 feet from any plumbing vent or exhaust vent (gas or oil furnaces, water heater, fireplace, etc.).**

- Determine location of roof opening. **NOTE:** The roof cap assembly should be located as closely as possible to the center of the home, allowing connection of the fresh air intake to the furnace using the 11-foot length of flexible duct provided. See Figure 4.
- Cut approximately a 7 1/2-inch circular or square opening in roof.
- Route flexible duct through ceiling hole between the roof opening and the furnace area. See Figure 5.
- Attach one end of flexible duct to bottom flange of roof cap assembly. Secure the inner duct with one of the metal clamps provided and the insulation duct with one of the plastic clamps provided.
- Apply appropriate caulking or roof sealing material to underside of roof cap flashing to form a continuous strip around the underside of the perimeter of the flashing.
- Attach roof cap assembly to roof. Press down firmly over caulking on flashing, to ensure a waterproof seal. Secure roof cap flashing with appropriate fasteners for your specific roof construction. As an added protection against leaks, coat the roof cap flashing and fasteners with roofing compound.
- Pull slack in flexible duct down through ceiling hole to inlet fitting, being careful not to damage or severely bend the duct. Trim off any excess length of duct to minimize restrictions.
- Shape end of flexible duct to fit over collar on inlet fitting and attach with clamps provided.
- Install ceiling ring around flexible duct and attach to the ceiling. **NOTE:** Alternate replacement ceiling ring(s) or other suitable materials may be used in place of supplied rings.



**Figure 3. Downflow Electric Furnace (with Heat Only)**



**Figure 4. Roof Spacing**

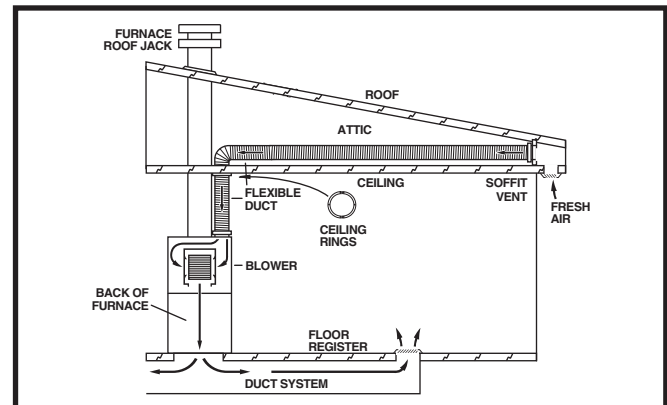
## Moisture Control Recommendations

- Follow the recommendations of the manufacturer of your home to maintain low levels of moisture in your home.
- When moisture-producing activities (cooking, bathing, etc.) are occurring, operate exhaust fans.
- Avoid hanging clothes to dry within your manufactured home.
- Vent all fuel burning appliances.
- Avoid using humidifiers.
- Avoid having large quantities of houseplants, pools of water, and other moisture-producing conditions.
- Place a vapor barrier (such as plastic sheeting) on top of the ground underneath your manufactured home.
- Ventilation openings should be provided in skirting.
- The fresh air supply to your home may be energized at any time by switching the furnace control (or the thermostat control, if so equipped) to WHOLE-HOUSE VENTILATION.

## Warranty

NORDYNE offers a limited warranty with the purchase of your new VentilAire™ system. The system is warranted for one (1) year, Parts and Labor, against any defects in materials and/or workmanship.

Due to the many variable factors and conditions which the VentilAire™ System cannot control, the system is not warranted to prevent or cure moisture condensation problems in the home.



**Figure 5. General Install Setup**

| Furnace Model   | Fresh Air Supply CFM - Blower Speed |           |           |           |
|-----------------|-------------------------------------|-----------|-----------|-----------|
|                 | Low                                 | Med-Low   | Med-High  | High      |
| M1*B            | —                                   | 50        | 65        | 85        |
| M1*C            | 60                                  | 70        | 80        | <b>90</b> |
| M4RC            | 75                                  | <b>90</b> | —         | —         |
| M4RL            | 80                                  | <b>90</b> | —         | —         |
| M7(R,T)L        | 65                                  | 80        | 90        | —         |
| E3EB            | 50                                  | 70        | 80        | <b>90</b> |
| B(5,6)BV-000K-B | 50                                  | 65        | <b>90</b> | —         |
| B(5,6)BV-000K-C | 70                                  | <b>90</b> | —         | —         |

**NOTE:** Manufactured homes installed ventilation system capacity should be in compliance with HUD 3280.103(6)(1-6)

**Table 1. VentilAire™ V Application Chart**

**INSTALLER:** Do Not Discard These Instructions. After completing the installation, return these instructions to the equipment owner for future reference. Complies with H.U.D. Manufactured Home Construction & Safety Standards.

Kits conform to H.U.D. Manufactured Home Construction and Safety Standard for ventilation, paragraph 3280.103(b)(1-6). Effective May 30, 2006.

