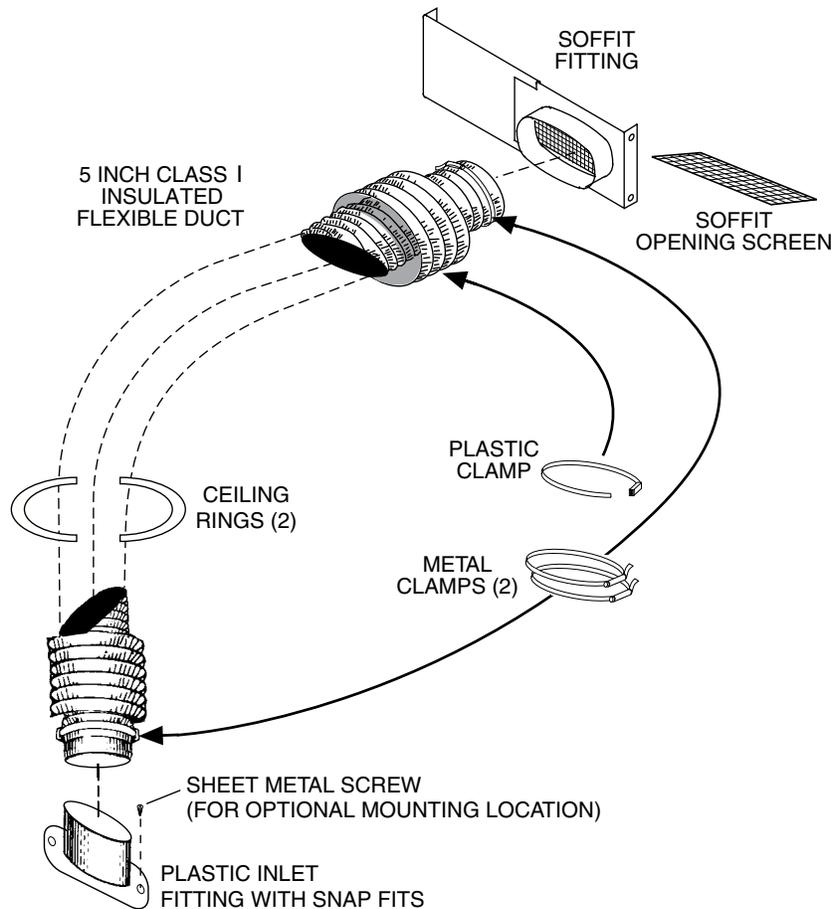


# VentilAire™ III Soffit Vent System Kit (917201)

## INSTALLATION INSTRUCTIONS



### 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 unit 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 & KEEP IN A SAFE PLACE FOR FUTURE REFERENCE.**

## IMPORTANT SAFETY INFORMATION

**INSTALLER:** Please read all instructions thoroughly before servicing this equipment. Pay attention to all safety warnings and any other special notes highlighted in the manual. Safety markings are used frequently throughout this manual to designate a degree or level of seriousness and should not be ignored. **WARNING** - Indicates a potentially hazardous situation that if not avoided, could result in personal injury or death. **CAUTION** - Indicates a potentially hazardous situation that if not avoided, may result in minor or moderate injury or property damage.

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### **WARNING:**

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**Unless noted otherwise in these instructions, only factory authorized parts or accessory kits may be used with this product. Improper installation, service, adjustment, or maintenance may cause explosion, fire, electrical shock or other hazardous conditions which may result in personal injury or property damage**

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### **WARNING:**

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**The information listed below must be followed during the installation, service, and operation of this unit. Unqualified individuals should not attempt to interpret these instructions or install this equipment. Failure to follow safety recommendations could result in possible damage to the equipment, serious personal injury or death.**

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- Use caution when removing components or handling this product. Personal injury can occur from sharp metal edges present in all sheet metal constructed equipment.

## ABOUT VENTILAIRE™

VentilAire is the most efficient way to introduce outdoor freshness 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 Soffit Vent System is designed for use with Nortek 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 ON TOP OF FURNACE BEFORE COMPLETING STEP ONE.**

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

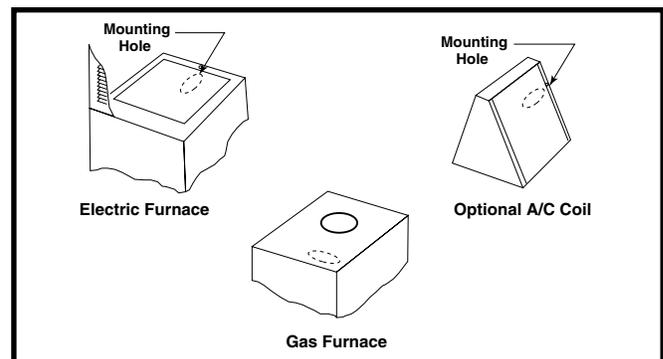
- **Air Handler** - Oval knockout located on the sides of the air handler.
- **Downflow Electric Furnace** - The plastic inlet fitting may be mounted in the rear of the cabinet over the return air filter. When using an optional air conditioning coil, it may be mounted to the front or rear coil end-plate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

**NOTE:** An optional VentilAire™ attachment kit (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 Nortek A/C coil** - Align and fasten the VentilAire™ attachment bracket with the holes in the coil end-plate flange. See Figure 2.
- **Electric Furnace with non-Nortek 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. 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.



**Figure 1. Plastic Inlet Fitting Location**

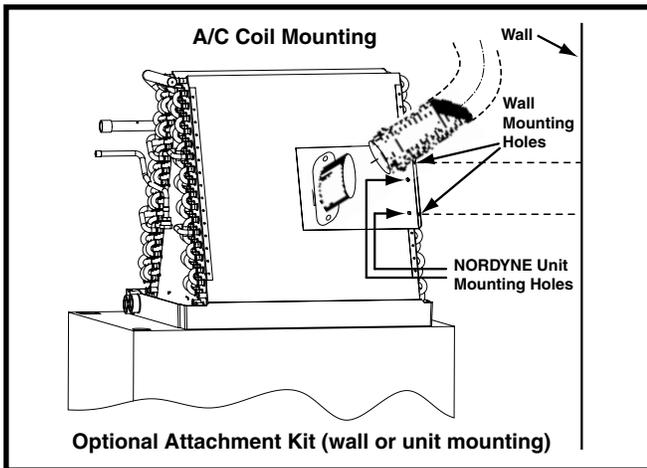


Figure 2. Downflow Electric Furnace with A/C

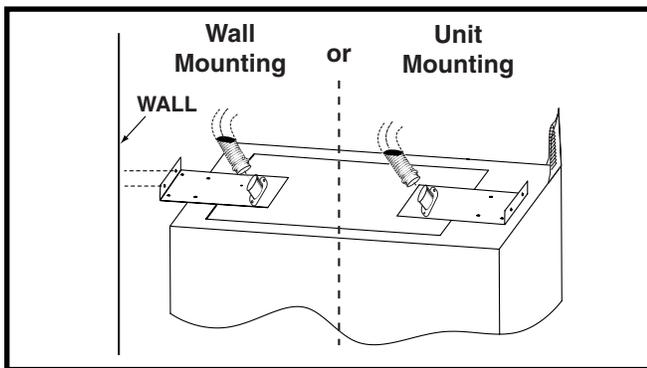


Figure 3. Downflow Electric Furnace (with Heat Only)

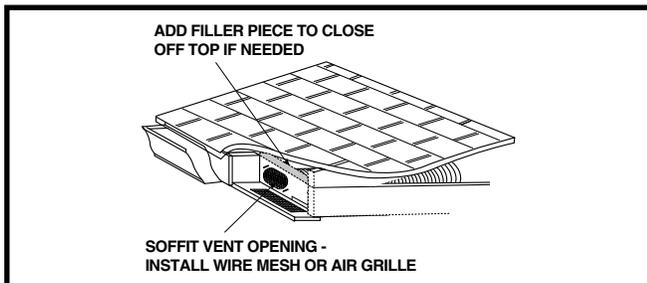


Figure 4. Installation Detail

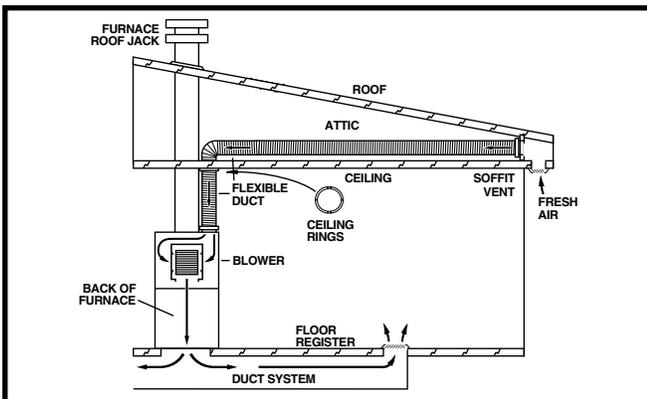


Figure 5. General Install Setup

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:**

**Disconnect the main power supply before drilling through ceiling. Electrical wiring may be present.**

4. Determine the location of the soffit fitting. It should be located as closely as possible to the ceiling grille, to allow connection using the length of flexible duct provided.
5. Cut a rectangular opening of at least 25 in<sup>2</sup> in the soffit between the roof trusses at the selected vent location. **NOTE:** A 4" x 8" opening is recommended. See Figure 4.
6. Install 6" x 10" wire mesh over the hole (an air grille with a minimum of 20 in<sup>2</sup> unrestricted area may be installed in place of the wire mesh).
7. Install the adjustable soffit fitting between two roof trusses. Secure with screws or nails.
8. Fill any space between the fitting and the roof surface with plywood or sheet metal to keep the soffit area free of insulation, as shown in Figure 4.
9. Route the flexible duct through the attic from the soffit fitting to the 7" hole in the ceiling.
10. Attach one end of the flexible duct to the duct collar of the soffit fitting. Secure the inner duct with one of the metal clamps provided and the insulation duct with the plastic clamp provided.

FURNACE MODEL	FRESH AIR SUPPLY CFM - BLOWER SPEED			
	LOW	MED-LOW	MED-HIGH	HIGH
M1*B		50	65	85
M1*C	60	70	80	90
M4RC	75	90		
M4RL	80	90		
M7 / MG2S	65	80	90	
E3EB	50	70	80	90
B(5,6)BV-000K-B	50	65	90	
B(5,6)BV-000K-C	70	90		

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

Table 1. VentilAire™ III & IV Application Chart

### 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

A limited warranty is offered with the purchase of your new Soffit Vent system. The system is warranted for one (1) year, Parts and Labor, against any defects in materials and/or workmanship.

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

**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.

