

Concentric Vent Termination Kit for Condensing Furnaces

Installation Instructions

INTRODUCTION

These instructions are intended to assist qualified individuals in the proper installation of this concentric vent termination kit. If these instructions differ from those packaged with the furnace, follow these instructions. **READ ALL INSTRUCTIONS CAREFULLY BEFORE STARTING THE INSTALLATION.**

SAFETY CONSIDERATIONS

Installing and servicing heating equipment can be hazardous due to gas and electrical components. Only trained personnel should install or service heating equipment. Untrained personnel can perform basic maintenance such as cleaning coils, or cleaning and

replacing filters. All other operations should be performed by trained service personnel. When working on heating equipment, observe all precautions in the literature, and on tags and labels attached to the unit. Follow all safety codes. Wear glasses and work gloves, and have a fire extinguisher available.

⚠ WARNING!

Electric shock hazard. Disconnect all electrical power to the appliance before beginning any installation or modification.

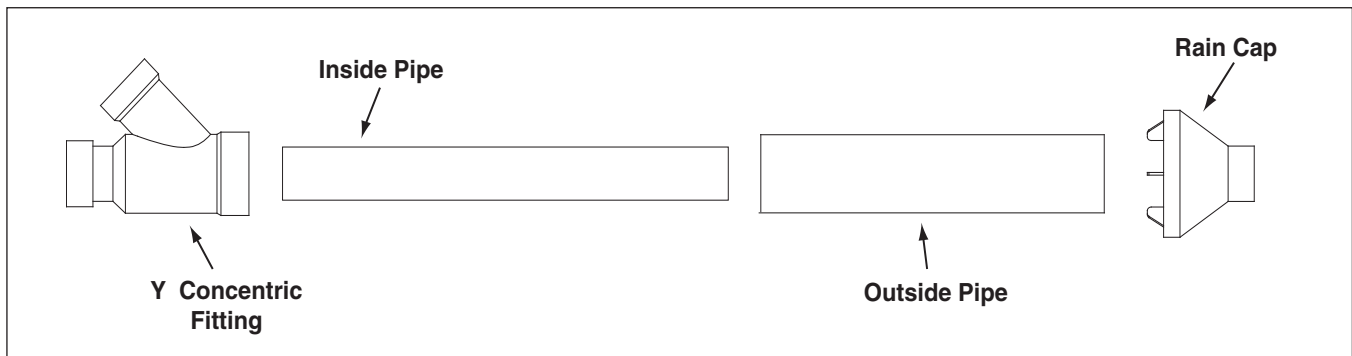


Figure 1. Kit Components

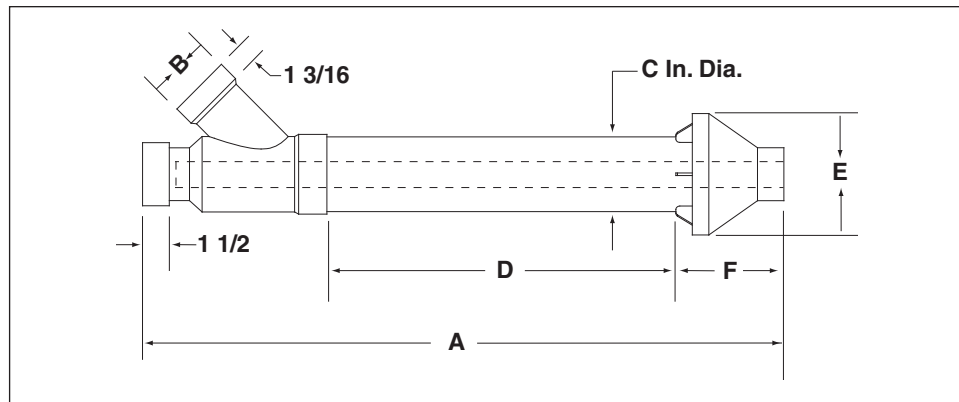


Figure 2. Dimensions

Kit No.	A	B	C	D	E	F
904953 (3")	38 7/8	3	4 1/2	21 1/8	7 3/8	6 1/2
904952 (2")	33 3/8	2	3 1/2	16 5/8	6 1/4	5 3/4

Table 1.

SPECIAL VENTING REQUIREMENTS FOR INSTALLATIONS IN CANADA

Installation in Canada must conform to the requirements of CSA B149 code. Vent systems must be composed of pipe, fittings, cements, and primers listed to ULC S636. This concentric vent termination kit has been certified to ULC S636 for use with those IPEX PVC vent components which have been certified to this standard. In Canada, the primer and cement must be of the same manufacturer as the vent system; do not mix primers and cements from one manufacturer with a vent system from a different manufacturer. Follow the manufacturer's instructions in the use of primer and cement and never use primer or cement beyond its expiration date.

The safe operation, as defined by ULC S636, of the vent system and this termination kit is based on following these installation instructions, the vent system manufacturer's installation instructions, and proper use of primer and cement. Acceptability under Canadian standard CSA B149 is dependent upon full compliance with all installation instructions. Under this standard, it is recommended that the vent system be checked once a year by qualified service personnel. The authority having jurisdiction (gas inspection authority, municipal building department, fire department, etc) should be consulted before installation to determine the need to obtain a permit.

CONSIGNES SPÉCIALES POUR L'INSTALLATION DE VENTILLATION AU CANADA

L'installation faite au Canada doit se conformer aux exigences du code CSA B149. Ce système de ventilation doit se composer de tuyaux, raccords, ciments et apprêts conformes au ULC S636. Ce système de ventilation concentrique a été certifié ULC S636 pour être utilisé avec les composantes IPEX PVC qui sont certifiées. Au Canada l'apprêt et le ciment doivent être du même manufacturier que le système de ventilation; ne pas mélanger l'apprêt et le ciment d'un manufacturier avec le système de ventilation d'un autre manufacturier. Bien suivre les indications du manufacturier lors de l'utilisation de l'apprêt et du ciment et ne pas utiliser ceux-ci si la date d'expiration est atteinte.

Le bon fonctionnement de ce système de ventilation est conditionnel à l'installation tel que défini par le ULC S636 c'est à dire: bien suivre les consignes ci-haut mentionnées ainsi que les instructions du manufacturier et aussi une bonne utilisation de l'apprêt et du ciment. L'acceptation du standard Canadien CSA B419 est directement relié à l'installation conforme aux instructions ci-haut mentionnées. Le standard Canadien recommande l'inspection par un personnel qualifié et ce, une fois par année. Les autorités ayant juridiction (inspecteurs de gas, inspecteurs en bâtiments, département des incendies, etc) devraient être consultées avant l'installation afin de déterminer si un permis est requis.
Copyright 2008

INSTALLATION

WARNING!

These kits are to be used only for terminating condensing Category IV furnaces. DO NOT use kits to terminate Category I, II, or III vent furnaces. Failure to follow these instructions could result in fire, personal injury, or death.

Field supplied pipe and fittings are required to complete the installation. The combustion air and vent pipe fittings must conform to American National Standards Institute (ANSI) and American Society for Testing and Materials (ASTM) standards D1785 (schedule-40 PVC), or D2665 (PVC-DWV), or D2441 (SDR-21 and SDR-26 PVC), or D2661 (ABS-DWV), or F628 (schedule-40 ABS). Pipe cement and primer must conform to ASTM standards D2564 (PVC) or D2235 (ABS).

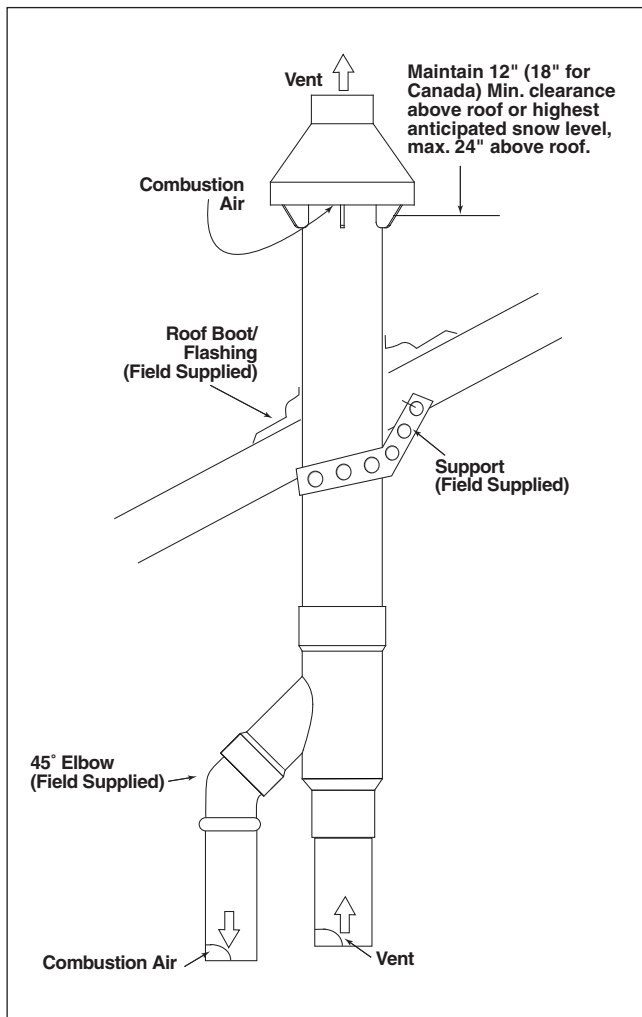


Figure 3. Roof Installation

For Canadian installations, construct all combustion air and vent pipes for this unit of CSA or ULC certified schedule-40 PVC or PVC-DWV, or ABS-DWV pipe and pipe cement.

Consult your furnace installation instructions for the allowable length and size of the plastic vent pipe. The concentric vent termination assembly is equal to 4 feet of 3" inlet and outlet pipe, or 3 feet of 2" inlet and outlet pipe.

The Concentric Vent Termination Kit is shipped assembled but not cemented. Disassemble the kit and cement per Figures 1 and 2.

Procedure 1 - Roof Termination

1. Determine the best location for termination kit.
2. Cut one hole, 5 inch diameter when using a 3" kit or a 4" diameter hole when using a 2" kit.
3. Partially assemble the concentric vent termination kit per Figures 1 and 2.
 - a. Cement Y concentric vent fitting to larger diameter kit pipe. (See figure 1.)
 - b. Cement rain cap to smaller diameter kit pipe. (See figure 1.)
4. Install cemented Y concentric fitting and pipe assembly through structure's hole and field supplied roof boot/flashing (See Figure 3).

NOTE: do not allow insulation or other materials to accumulate inside pipe assembly when installing through hole.
5. Secure assembly to roof structure as shown in Figure 3 using field supplied metal strapping or equivalent support material. NOTE: Ensure termination height is above the roof surface or anticipated snow level (12 inches in U.S.A. or 18 inches in Canada). If the assembly is too short to meet the height requirement, the 2 pipes supplied in the kit may be replaced by using the same diameter, field supplied SDR-26 PVC (D2241) pipe. Do not expand dimension "D" more than 60 inches (See Figure 2).

CAUTION:

DO NOT use field supplied couplings to extend pipes. Airflow restriction will occur and the furnace pressure switch may cause intermittent operation.

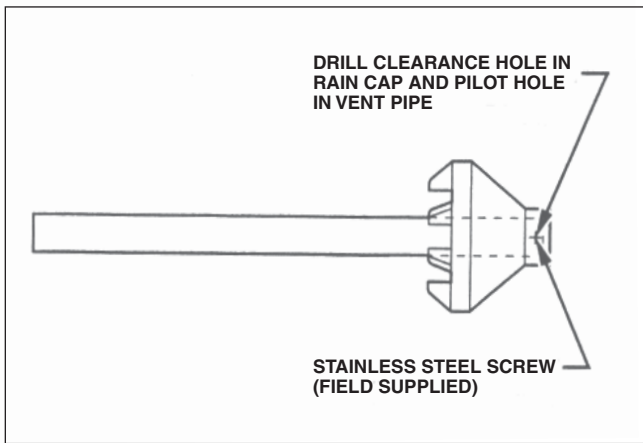


Figure 4. Rain Cap to Vent Pipe Alternate Assembly

NOTE: Instead of cementing the smaller pipe to the rain cap, a field-supplied stainless steel screw may be used to secure the 2 components together when field disassembly is desired for cleaning. (See Figure 4.)

! WARNING!

Do not operate the furnace with rain cap removed. Recirculation of combustion products may occur, or water may accumulate inside larger combustion air pipe and flow into the burner enclosure. Failure to follow this warning could result in product damage or improper operation, personal injury or death.

6. Cement field supplied furnace combustion air and vent pipes to concentric vent termination assembly.
7. Run furnace through a complete heat cycle to ensure combustion air and vent pipes are properly connected to concentric vent termination connections.

Procedure 2 - Side Wall Termination

1. Determine the best location for termination kit.
 - Termination kit should be positioned where the vent vapors will not damage plants/shrubs, or air conditioning equipment.
 - Termination kit should be positioned where it will not be affected by wind eddies or currents that may allow recirculation of combustion products or unwanted intake of airborne leaves or light snow.
 - Termination kit should not be positioned where it may be damaged by foreign objects such as stones, balls, etc.
 - Termination kit should not be positioned where the vapors may be objectionable.

2. Cut one hole, 5 inch diameter if using a 3" kit or a 4 inch diameter hole if using 2" kit.
3. Partially assemble the concentric vent termination kit per Figures 1 and 2.
 - a. Cement Y concentric vent fitting to larger diameter kit pipe. (See Figure 1.)
 - b. Cement rain cap to smaller diameter kit pipe. (See Figure 1.)
4. Install cemented Y concentric fitting and pipe assembly through structure's hole (See Figure 5). **NOTE:** do not allow insulation or other materials to accumulate inside pipe assembly when installing through hole.
5. Secure the assembly to the structure as shown in Figure 5 using field supplied metal strapping or equivalent support material. **NOTE:** Ensure termination location clearance as shown in Figure 5.

NOTE: If assembly needs to be extended, the 2 pipes supplied in the kit may be replaced by using the same diameter, field supplied SDR-26 PVC (D2241) pipe. Do not expand dimension "D" more than 60 inches (See Figure 2).

! CAUTION:

DO NOT use field supplied couplings to extend pipes. Airflow restriction will occur and the furnace pressure switch may cause intermittent operation.

! WARNING!

Do not operate the furnace with rain cap removed. Recirculation of combustion products may occur, or water may accumulate inside larger combustion air pipe and flow into the burner enclosure. Failure to follow this warning could result in product damage or improper operation, personal injury or death.

6. Cement field supplied furnace combustion air and vent pipes to concentric vent termination assembly.
7. Run furnace through a complete heat cycle to ensure combustion air and vent pipes are properly connected to concentric vent termination connections.

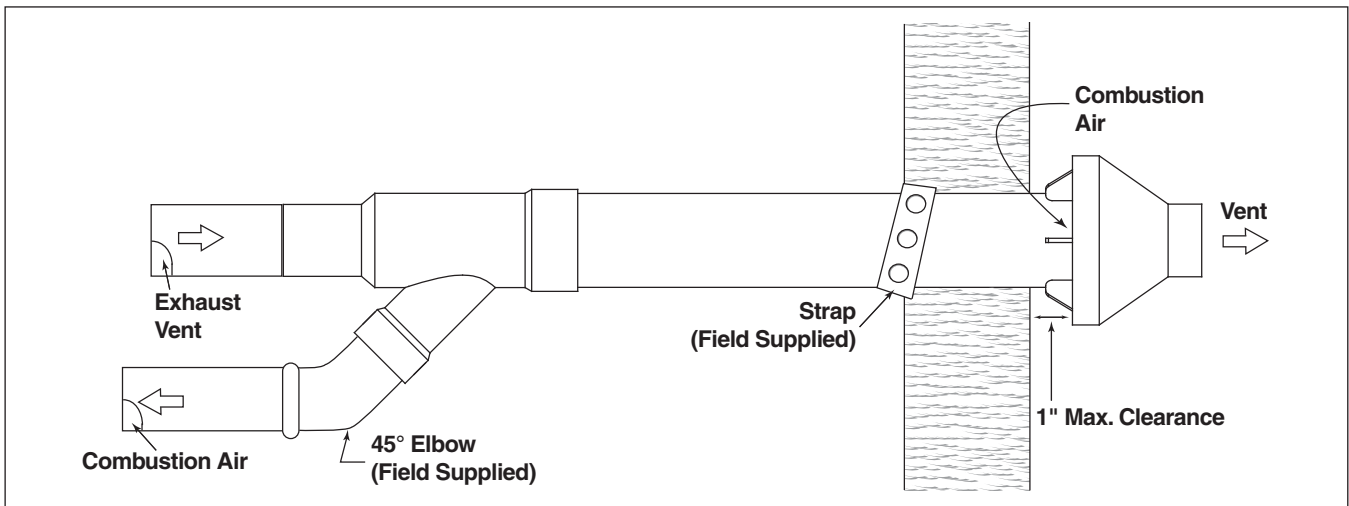


Figure 5. Side Wall Installation

Procedure 3 - Multiventing Terminations

When two or more direct vent furnaces are vented near each other, each furnace must be individually vented. (See Figure 6 and 7.) NEVER common vent or breach vent this furnace. When two or more direct vent furnaces

are vented near each other, each vent termination may be installed as shown in Figure 6 and 7. It is important that vent terminations be made as shown to avoid recirculation of flue gases. A minimum distance of 18 inches or a maximum distance of 36 inches MUST be maintained.

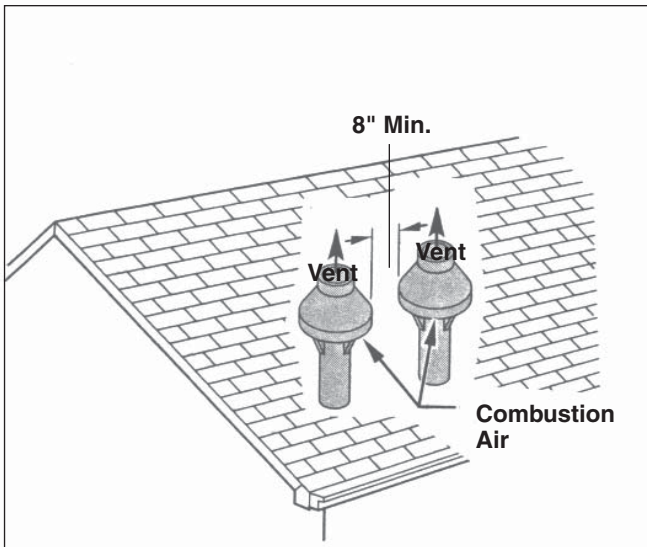


Figure 6. Concentric Vent and Combustion-Air Roof Termination

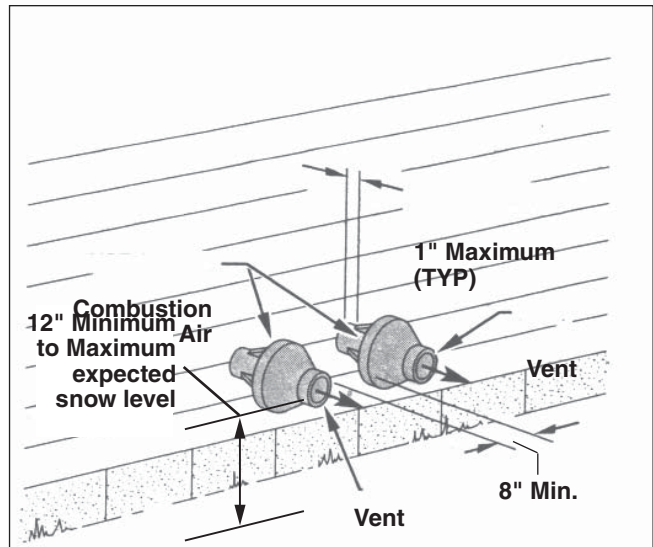


Figure 7. Concentric Vent and Combustion-Air Termination



INSTALLER: PLEASE LEAVE THESE INSTALLATION INSTRUCTIONS WITH THE HOMEOWNER.

