

CONCENTRIC VENT TERMINATION KIT

Installation Instructions

NOTICE

Read this entire instruction manual and refer to the Venting section of the Operation and Maintenance Manual before starting the installation.

INTRODUCTION

This instruction manual covers installation of the 2" concentric vent termination kit and the 3" concentric vent termination kit for use on the Munchkin boiler and the Voyager water heater.

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

WARNING

Before beginning any installation or modification, be sure the main electrical disconnect switch is in the "OFF" position. Electrical shock can cause personal injury or death.

WARNING

This vent kit is to be used only for terminating the Munchkin Boiler or Voyager Water Heater. Do not use kit to terminate Category I, II, or III vent furnaces or other water heaters. Failure to follow this warning 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), D2665 (PVC-DWV), D2441 (SDR-21 and SDR 26 PVC), D2661 (ABS DWV), or F628 (schedule-40 ABS). Pipe cement and primer must conform to ASTM standards D2564 (PVC) or D2235 (ABS).

In Canada, construct all combustion air inlet and exhaust vent pipes for this unit of CSA or ULC certified schedule-40 PVC, PVC-DWV pipe and pipe cement.



H E A T T R A N S F E R P R O D U C T S , I N C .

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A. ROOF TERMINATION

1. Determine the best location for the termination kit.

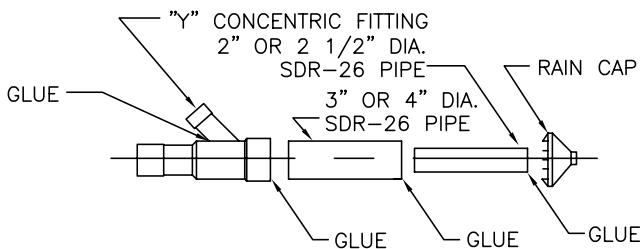
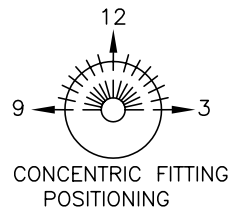
Note: A roof termination is less susceptible to damage. It has reduced chances to intake contaminants and has less visible vent vapors.

2. Cut a hole (4" diameter for 2" concentric vent) or 5" diameter for 3" concentric vent kit).
3. Partially assemble concentric vent termination kit.
 - a. Cement Y concentric fitting to larger diameter kit pipe (see Figure 1).
 - b. Cement rain cap to smaller diameter kit pipe (see Figure 1).

⚠ WARNING

Do not operate the appliance with rain cap removed, or re-circulation of combustion products may occur. Water may also collect inside larger combustion air pipe and flow to burner enclosure. Failure to follow this warning could result in product damage, improper operation, personal injury, or death!

NOTE: IT IS IMPORTANT TO MAKE SURE THE "Y" FITTING IS POSITIONED ANYWHERE BETWEEN 3 O'CLOCK AND 9 O'CLOCK AND NOT LOWER THAN THAT TO PREVENT RAIN WATER FROM FLOWING BACK INTO THE BOILER. (SEE DIAGRAM)



NOTE: IT IS VERY IMPORTANT THAT YOU GLUE JOINTS PROPERLY IN LOCATIONS SHOWN.

Figure 1: Kit Components

4. Install Y concentric fitting and pipe assembly through the structure's hole and field supplied roof boot/flashing.

Note: Do not allow insulation or other material to accumulate inside pipe assembly when installing through hole.

5. Secure assembly to roof structure as shown in Figure 4. using field supplied metal strapping or equivalent support material.

Note: Ensure termination height is above the roof surface or anticipated snow level (1 ft. in USA or 1-1/2 Ft. in Canada) as shown in Figure 3.

Note: If assembly is too short to meet height requirements, the two pipes supplied in the kit may be replaced by using same diameter, field supplied SDR-26 PVC (D2241) pipe. Do not extend dimension D more than 60". (See Figure 2) Do not use couplings to extend pipe.

Note: When shortening the length of the concentric vent, the inner pipe is longer than the outer pipe. Make sure you cut the same amount from each pipe. **Do not** make them equal in length.

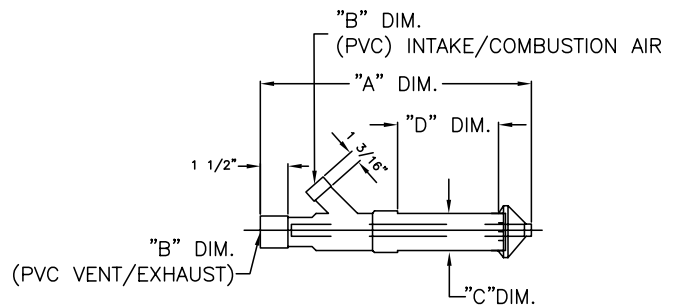


Figure 2: Concentric Vent Dimensional Drawing

Kit Part No.	A**	B	C	D****
KGAVT0601 CVT	38-7/8"	3	4-1/2"	21-1/8"
KGAVT0501CVT	33-3/8"	2	3-1/2"	16-5/8"

** Dimension A will change accordingly as dimension D is lengthened or shortened.

**** Dimension D may be lengthened to 60" maximum. Dimension D may also be shortened by cutting the pipes provided in the kit to 12" minimum.

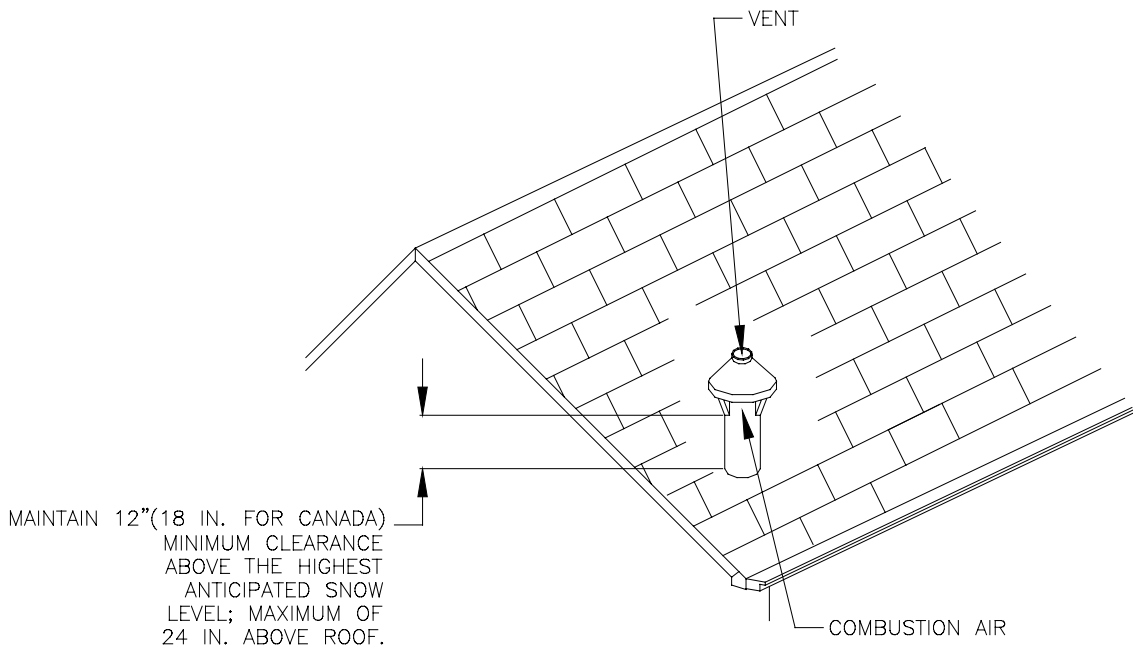
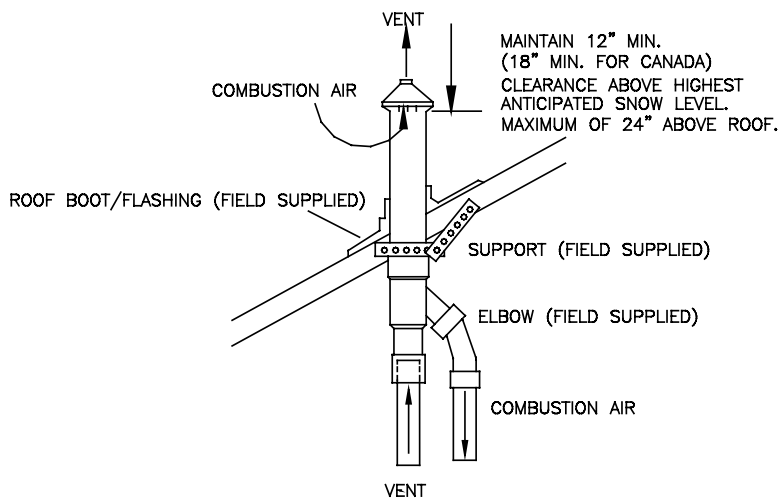


Figure 3: Roof Termination

6. Install rain cap and small diameter pipe assembly in roof penetration assembly. Ensure small diameter pipe is cemented and bottomed in Y concentric fitting.
7. Cement air inlet vent pipe and exhaust vent pipe to concentric vent termination assembly. See Figure 4 for proper pipe attachment.
8. Operate boiler through a heating cycle to ensure air inlet vent pipe and exhaust vent pipe are properly connected to concentric vent termination connections.

⚠ CAUTION

It is very important that all joints are properly glued.



NOTE: SUPPORT MUST BE FIELD INSTALLED TO SECURE TERMINATION KIT TO STRUCTURE.

Figure 4: Roof Installation

B. SIDE WALL TERMINATION

1. Determine best location for termination kit.
 - a. Termination kit positioned where the vent vapors will not damage plants, shrubs, air conditioning equipment, or the existing structure.
 - b. Termination kit positioned so it will not be affected by wind, that may allow re-circulation of combustion products, air borne leaves, light snow or fertilizer.
 - c. Termination kit positioned where it will not get damaged or be subjected to foreign objects: stones, balls, etc.
 - d. Termination kit positioned where the vent noise will not be objectionable to abutters.
2. Cut a hole (4" diameter for 2" concentric vent kit or 5" diameter for 3" concentric vent kit).
3. Partially assemble concentric vent termination kit.
 - a. Cement the Y concentric fitting to larger diameter kit pipe (See Figure 1).
 - b. Cement the rain cap to the smaller diameter kit pipe (See Figure 1).
4. Install Y concentric fitting and pipe assembly through the structure's hole.

Note: Do not allow insulation or other materials to accumulate inside pipe assembly when installing through hole.
5. Install rain cap and small diameter pipe assembly in Y concentric fitting and large pipe assembly. Ensure small diameter pipe is bottomed and cemented in Y concentric fitting.

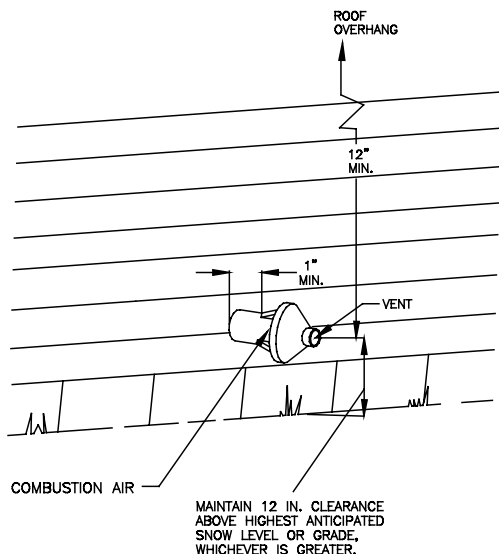


Figure 5: Sidewall Termination

6. Secure assembly to structure as shown in Figure 6, using field supplied metal strapping or equivalent support material.

Note: Ensure termination location clearance dimensions are as shown in Figure 5.

Note: If assembly needs to be extended to allow side wall thickness requirement, the two pipes supplied in the kit may be replaced by using the same diameter, Field supplied SDR-26 (D2241) pipe. Do not extend dimension D to more than 60" (see Figure 2). DO NOT USE COUPLINGS TO EXTEND PIPE.
7. Cement air inlet vent pipe and exhaust vent pipe to concentric vent termination assembly. See Figure 6 for proper pipe attachment.
8. Operate boiler through a heating cycle to ensure air inlet vent pipe and exhaust vent pipes are properly connected to concentric vent termination connections.
9. Allow 8" center-to-center distance between concentric vent terminations on multiple boiler installations. (See Figure 7)

NOTE: Multiple vertical venting is not allowed.

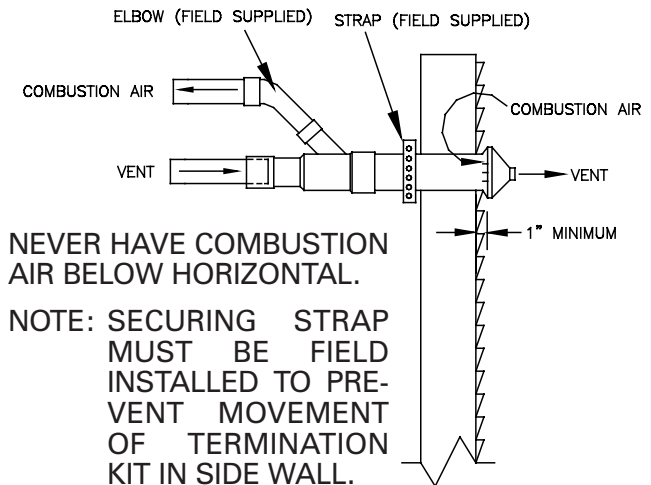


Figure 6: Sidewall Attachment

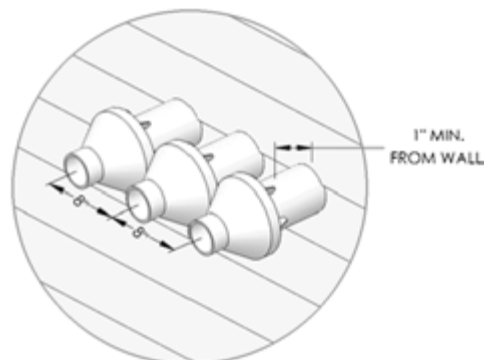


Figure 7: Multiple Boiler Installations