



CONCENTRIC VENT TERMINATION KIT INSTALLATION INSTRUCTIONS (Part # KGAVT0601CVT, KGAVT0501CVT)

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

This instruction manual covers installation of the 2" and 3" concentric vent termination kit for use on HTP boilers and water heaters.

SPECIAL ATTENTION BOXES

The following defined terms are used throughout this manual to bring attention to the presence of hazards of various risk levels, or to important product information.

DANGER

DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

WARNING indicates a potentially hazardous situation which, if not avoided, could result in serious injury or death.

SAFETY CONSIDERATIONS

Installing and servicing heating equipment can be hazardous due to gas and electrical components. Only trained service personnel should install or service heating equipment.

DANGER

This installation shall be done by a qualified service agency in accordance with these instructions, all applicable codes, and requirements of the authority having jurisdiction. If the information in these instructions is not followed exactly, property damage, personal injury, or death may result.

Prior to installation, examine all components for possible shipping damage. When working on heating equipment, observe all precautions in the literature, on tags, and on 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 serious personal injury or death.

DANGER

This vent kit is to be used only for terminating HTP boilers and water heaters. Do not use this kit to terminate any other appliance. Failure to follow this warning could result in fire, serious 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 with CSA or ULC certified schedule-40 PVC, PVC-DWV pipe and pipe cement.

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 for intake contaminants and less visible vent vapors.

2. Cut a hole in the roof 4" in diameter for 2" concentric vent, or 5" in diameter for 3" concentric vent kit.

3. Partially assemble concentric vent termination kit.
 a. Cement Y concentric fitting to larger diameter kit pipe (see Fig. 1).
 b. Cement rain cap to smaller diameter kit pipe (see Fig. 1).

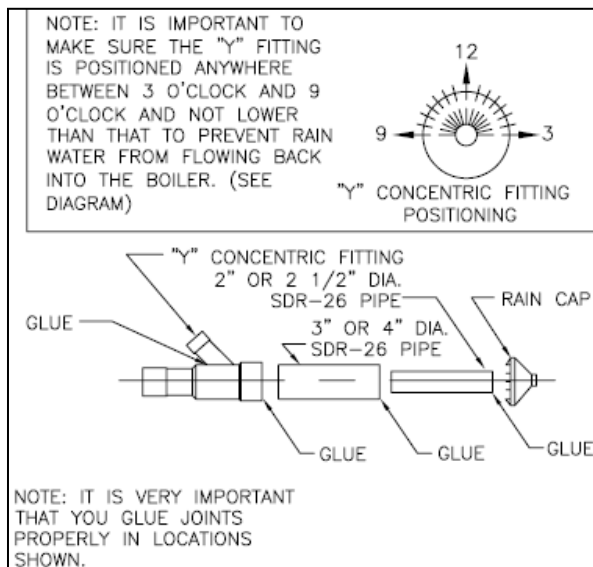


Figure 1 – Kit Components

⚠ DANGER

Do not operate the appliance with rain cap removed. Re-circulation of combustion products may occur. Water may also collect inside larger combustion air pipe and flow to burner enclosure. Operating appliance without rain cap could result in product damage, improper operation, personal injury, or death.

4. Install Y concentric fitting and pipe assembly through the hole in the roof and field supplied boot/flashing. **NOTE:** Do not allow insulation or other material to accumulate inside the pipe assembly when installing through the hole.

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

NOTE: Ensure termination height is above the roof surface or anticipated snow level (1' in USA or 1 1/2' in Canada) as shown in Fig. 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 Fig. 2.) **DO NOT USE COUPLINGS TO EXTEND PIPE.**

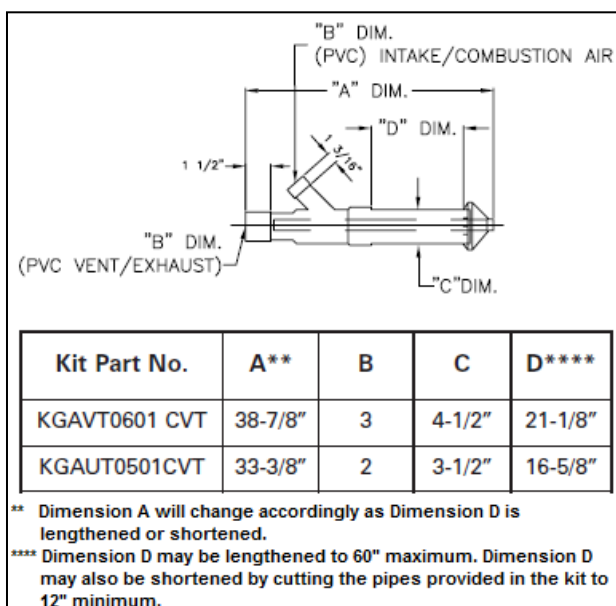


Figure 2 – Concentric Vent Dimensional Drawing

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 the pipes equal in length.

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 and exhaust vent pipes to concentric vent termination assembly. See Fig. 4 for proper pipe attachment.

8. Operate boiler through a heating cycle to ensure air inlet and exhaust vent pipes are properly connected to concentric vent termination connections.

NOTE: Multiple vertical venting is not allowed.

⚠ WARNING

It is very important to properly glue all joints. Failure to do so can result in property damage, serious personal injury, or death.

B. SIDE WALL TERMINATION

1. Determine the best location for the termination kit.
 - a. Position termination kit where vent vapors will not damage plants, shrubs, air conditioning equipment, or the existing structure.
 - b. Position termination kit so it will not be affected by wind (which may cause recirculation of combustion products), airborne leaves, light snow, or fertilizer.
 - c. Position termination kit where it will not be subjected to damage from foreign objects, such as stones, balls, etc.
 - d. Position termination kit where the vent noise will not be objectionable to abutters.
2. Cut a hole in the sidewall 4" in diameter for 2" concentric vent kit, or 5" in 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 Fig. 1).
 - b. Cement the rain cap to the smaller diameter kit pipe (see Fig. 1).

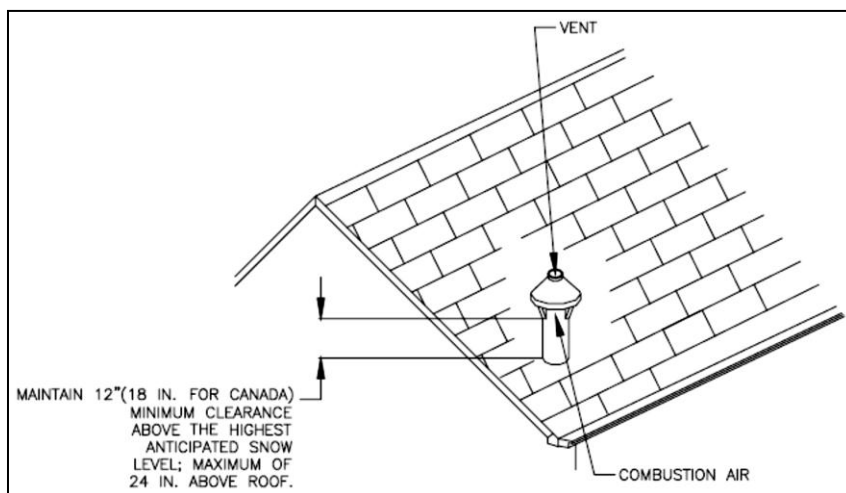


Figure 3 – Roof Termination

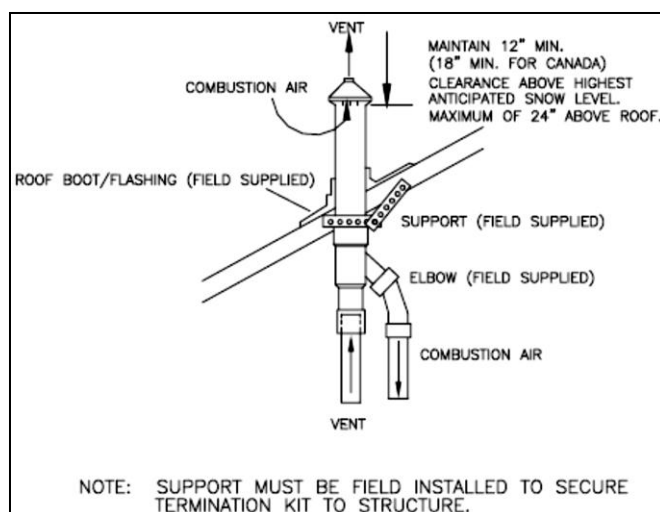


Figure 4 – Roof Installation

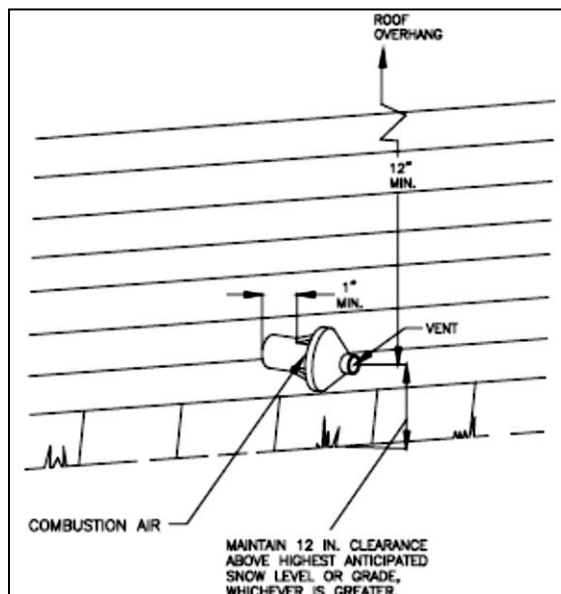


Figure 5 – Sidewall Termination

4. Install Y concentric fitting and pipe assembly through the 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.

6. Secure assembly to structure using field supplied metal strapping or equivalent support material (see Fig. 6).

NOTE: Ensure termination location clearance dimensions are as shown in Fig. 5.

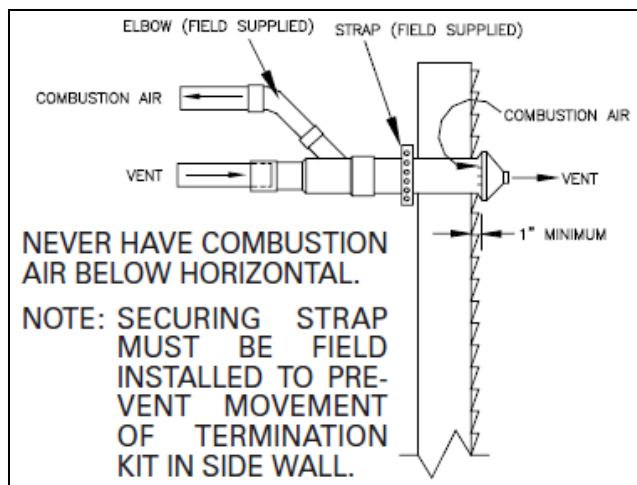


Figure 6 – Sidewall Attachment

NOTE: If assembly needs to be extended to allow sidewall 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 Fig. 2). DO NOT USE COUPLINGS TO EXTEND PIPE.

7. Cement air inlet and exhaust vent pipes to concentric vent termination assembly. See Fig. 6 for proper pipe attachment.

8. Operate boiler/heater through a heating cycle to ensure air inlet 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 Fig. 7).

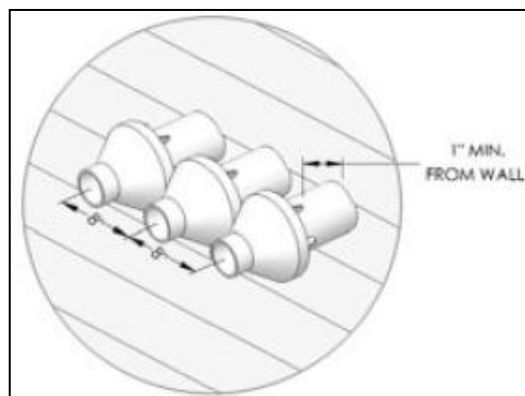


Figure 7 – Multiple Boiler Installations