

CONCENTRIC VENT TERMINAL INSTALLATION INSTRUCTIONS

SUPPLEMENT TO INSTALLATION INSTRUCTIONS BSCII & PSCII & SCDFM

WARNING: Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read this supplement and the unit heater installation, operating, and maintenance instructions thoroughly before installing or servicing this equipment.

HORIZONTAL TERMINATION

Select location on outside wall for vent terminal. In most applications, the terminal should be on level with the flue outlet of the unit, less a 1/4 inch per foot pitch for condensate drainage toward the outside of the building. See figure 1.

The location of the vent terminal must be in accordance with the National Fuel Gas Code ANSI Z223.1 in the U.S. or the National Gas Installation Code CSA-B149.1 or the Propane Gas Installation Code CSA-149.2 in Canada. Minimum clearance are as follows:

Table 1

Vent Systems Termination Clearance Requirements		
Structure/Object	Minimum Clearances for Termination Locations	
	USA	CANADA
Door, window or gravity vent inlet or combustion air inlet for other appliances	4 ft. below 4 ft. horizontally 1 ft. above	1 ft. (0.3m) for 100,000 BTUH input or less. 3 ft. (0.9m) for input exceeding 100,000 BTUH
Forced air inlet within 10 ft.	3 ft. above	6 ft. (1.8m)
Adjoining building or parapet	6 ft.	6 ft. (1.8m)
Adjacent public walkways	7 ft. above grade	7 ft. (2.1m) above grade
Electric, gas meters & regulators	4 ft. horizontal	3 ft. (0.9m) horizontally from meter/regulator assembly. 6 ft. (1.8m), any direction, from a gas service regulator vent outlet
Above grade level	1 ft.	1 ft. (0.3m)

Cut hole through wall for 8 inch combustion air pipe. Install thimble if required by local codes or type of wall construction. See figure 2, step 1.



Fasten length of 5 inch pipe to exhaust connection of concentric adapter with sheet metal screws. Use at least three corrosion resistant screws per joint. Seal all joints with high temperature silicone sealant. Concentric adapter box may be fastened directly to wall or spaced away from wall using suitable brackets (field supplied). Before mounting box, cut length of 8 inch pipe so that it will protrude 2 inches through wall when box is mounted in position. Fasten 8 inch pipe to combustion air inlet connection of concentric adapter and seal joint. Add additional 5 inch pipe if necessary so that base of exhaust cap will be 16 to 24 inches from combustion air inlet. See figures 2, step 2.

Insert pipes through wall and fasten adapter box in place. Flash and/or caulk 8 inch pipe on outside wall. See figure 2 step 3.

Install inlet air screen on 8 inch pipe and fasten with sheet metal screws. Install flue terminal on 5 inch pipe and fasten in place. See figure 2, step 4.

Connect flue pipe and combustion air pipe from concentric adapter to unit. Pipe must be single wall 26 gauge or heavier galvanized steel or a material of equivalent durability and corrosion resistance. Pipe diameter must be listed under "INLET & FLUE SIZE" in Table 1 on page 4 of Installation Instructions BSCII or PSCII or SCDFM. The equivalent length of the exhaust vent pipe must be a minimum of 5 feet and a maximum of 50 feet. For propeller units, the equivalent length equals the total length of straight pipe plus 10 feet for each 90 degree elbow and 5 feet for each 45 degree elbow. For duct furnaces and blower units, the equivalent length equals the total length of straight pipe plus 15 feet for each 90 degree elbow and 5 feet for each 45 degree elbow. Secure each joint with a minimum of 3 corrosion resistant screws. Seal all joints of the exhaust vent pipe with two full turns of 3M #425 Aluminum Foil Tape or its equivalent suitable for 550 degrees F. or high temperature silicone sealant. Seal all joints of the combustion air inlet pipe with two full turns of duct tape or aluminum foil tape or silicone sealant.

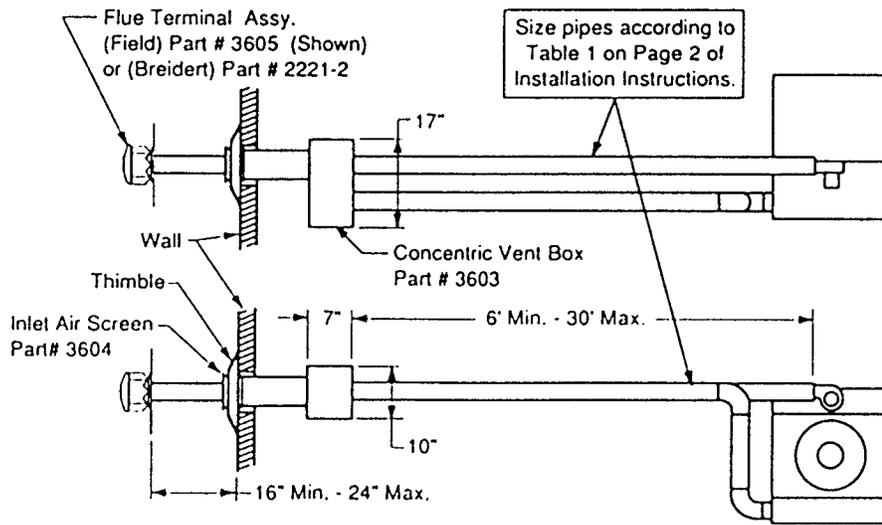


Figure 1. Horizontal Concentric Venting

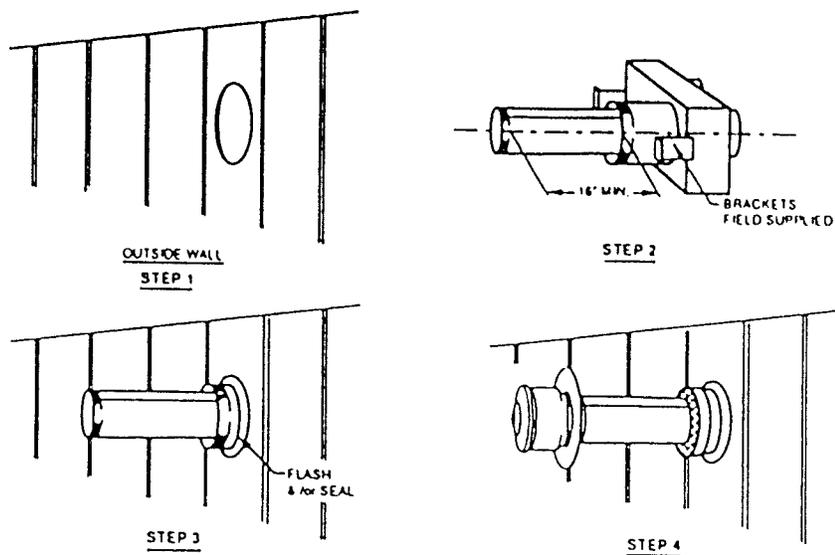


Figure 2. Vertical Termination

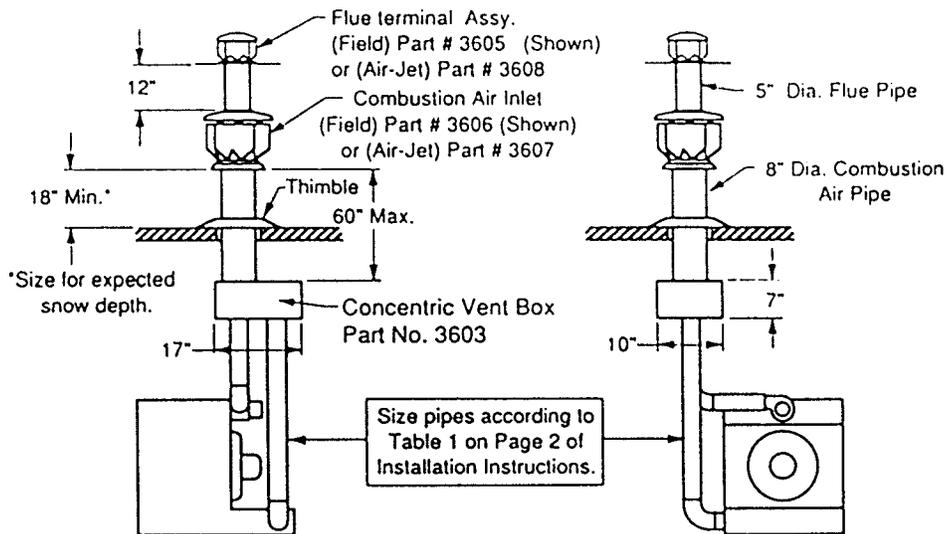


Figure 3. Vertical Concentric Venting

Select location on roof for vent terminal, ensuring adequate space inside for concentric vent box. Terminal must be at least 6 feet from any wall or adjoining building. See figure 3.

Cut hole through roof for 8 inch combustion air pipe. Fasten length of 5 inch pipe to exhaust connection of concentric adapter with sheet metal screws. Use at least three screws per joint. Seal all joints with high temperature silicone sealant. Concentric adapter box is to be suspended from the underside of the roof using suitable brackets (field supplied). Before mounting box, cut length of 8 inch pipe so that dimension A, figure 4 step 1, is equal to the roof thickness plus 18 inches or the roof thickness plus the expected snow depth, whichever is greater. Fasten 8 inch pipe to combustion air inlet connection of concentric adapter and seal joint. Add additional 5 inch pipe to extend at least 20 inches above top of 8 inch pipe.

Insert pipe through roof and fasten adapter box in place. See figure 4, step 2.

Flash and/or caulk 8 inch pipe to roof. See figure 4, step 3.

Install inlet air cap on 8 inch pipe and fasten with sheet metal screws. Install flue terminal on 5 inch pipe and fasten in place. Seal joint between 5 inch pipe and inlet air cap with silicone sealant to prevent entry of water. See figure 4, step 4.

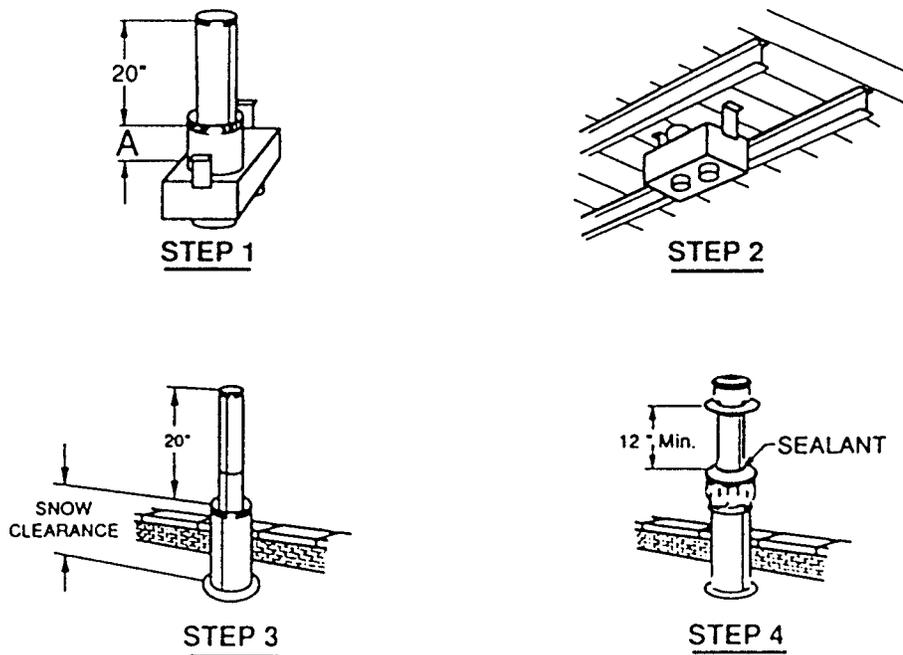


Figure 4

Connect flue pipe and combustion air pipe from concentric adapter to unit. Pipe must be single wall 26 gauge or heavier galvanized steel or a material of equivalent durability and corrosion resistance. Pipe diameter must be as listed under “INLET & FLUE SIZE” in Table 1 on page 1 of Installation Instructions BSCII or PSCII or SCDFM. The equivalent length of the exhaust vent pipe must be a minimum of 5 feet and a maximum of 50 feet. For propeller units, the equivalent length equals the total length of straight pipe plus 10 feet for each 90 degree elbow and 5 feet for each 45 degree elbow. For duct furnaces and blower units, the equivalent length equals the total length of straight pipe plus 15 feet for each 90 degree elbow and 5 feet for each 45 degree elbow. Secure each joint with a minimum of 3 corrosion resistant screws. Seal all joints of the exhaust vent pipe with two full turns of 3M #425 Aluminum Foil Tape or its equivalent suitable for 550 degrees F. or high temperature silicone sealant. Seal all joints of the combustion air inlet pipe with two full turns of duct tape or aluminum foil tape or silicone sealant. Do not enclose the exhaust vent pipe or run the pipe within 6 inches of combustible material.