

INSTALLATION - VENTING

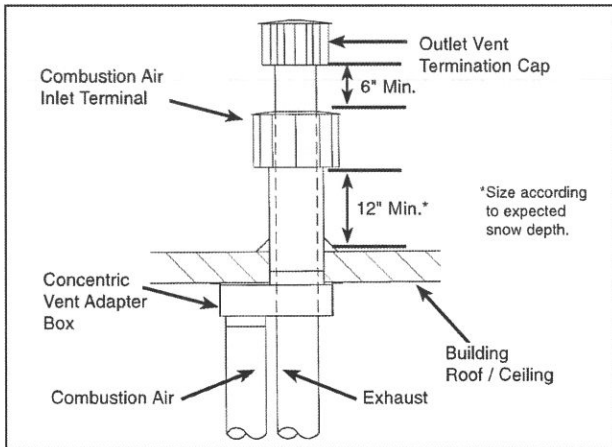
Section D – Concentric Vent System Installation

- D1. This section applies to both horizontally and vertically vented concentric vent systems as defined in "Section A – General Instructions – All Units", and is in addition to the instructions in that section.
- D2. When utilizing the concentric vent option, it should have been predetermined whether the appliance will be horizontally or vertically vented. Before proceeding, verify that the concentric vent kit received contains the correct components for the installation:

For Vertically Vented Units (Refer to Figure 10.1):

- ① Concentric adapter assembly (same for horizontal and vertical kits)
- ② Standard Gary Steel 1092 vent termination
- ③ Specially designed inlet terminal (part #5H75154B1)

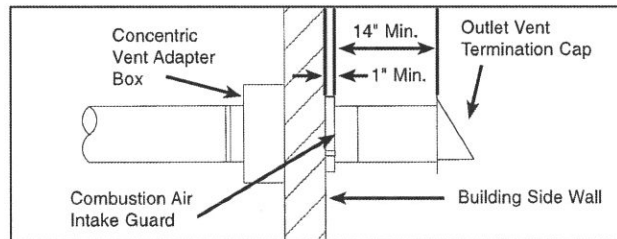
Figure 10.1 - Vertical Concentric Vent Kit Components



For Horizontally Vented Units (Refer to Figure 10.2):

- ① Concentric adapter assembly (same for horizontal and vertical kits)
- ② Special vent termination cap (part #5H75150B1)
- ③ Special inlet air guard

Figure 10.2 - Horizontal Concentric Vent Kit Components



⚠ CAUTION

The concentric vent adapter box must be installed inside of the structure or building. Do not install this box on the exterior of a building or structure.

- D3. Once the kit contents have been verified as correct for the direction of venting, the concentric vent adapter box is to be installed. Determine the location of the box. Be sure to maintain all clearances as listed in these instructions.
- D4. The adapter box is to be mounted on the interior side of the building. It must not be mounted outside the building. The adapter box has integral mounting holes for ease of installation.
- D5. The adapter box can be mounted flush to the wall (for horizontal kits) or to the ceiling (for vertical kits). The box can also be offset from the wall or ceiling by using field supplied brackets. When mounting the box, consider serviceability and access to the vent and combustion air pipes. If the box is to be mounted using field supplied brackets, these brackets must be strong enough to rigidly secure the box to the wall or ceiling, and should be made from corrosion resistant material.
- D6. Determine the length of the vent pipe and combustion air inlet pipe for the selected location. **THE VENT PIPE WILL PASS THROUGH THE CONCENTRIC VENT BOX. THE LAST SECTION OF VENT PIPE IS A CONTINUOUS LENGTH OF DOUBLE WALL "B" VENT.** See section A12 for attaching and terminating double wall pipe. Begin with pipe lengths on the concentric pipe side of the adapter box referring to Figure 11.1. These pipes will extend through the building wall or roof as well as any added length for the thickness of the wall and the offset from any field installed brackets.

For Vertical Concentric Vent Kits (refer to Figure 10.1):

- The bottom of the combustion air intake pipe must terminate above the snow line, or at least 12 inches above the roof, whichever distance is greater.
- The bottom of the vent cap must terminate at least 6 inches above the top of the combustion air intake cap.

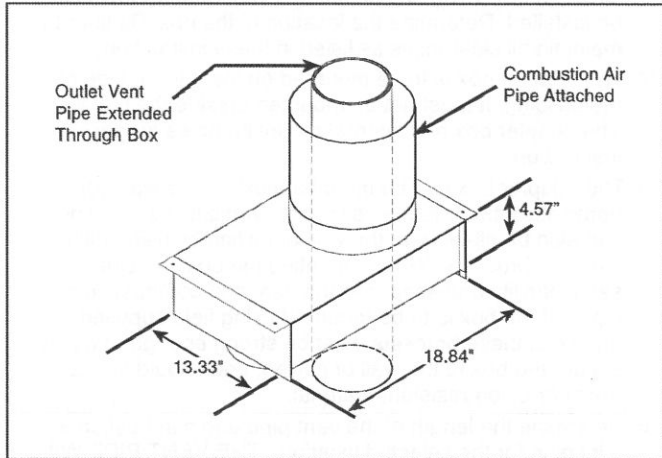
For Horizontal Concentric Vent Kits (refer to Figure 10.2):

- The combustion air intake pipe must terminate at least 1 inch from the wall to prevent water from running down the wall and into the pipe.
 - The back of the vent cap must terminate at least 14 inches from the combustion air intake pipe.
- D7. Cut the concentric side vent and combustion air pipes to the proper length as determined in the previous step. Note that the vent pipe diameter is 4" and the combustion air intake pipe diameter is 6". The pipes must be single wall galvanized or stainless steel material, except for the last section of vent pipe, which must be one continuous length of double wall B-vent extended through the concentric vent box and combustion air inlet pipe on the concentric side of the box.
- D8. Allow the concentric side vent pipe to pass through the concentric vent adapter box, as shown in Figure 11.1. Attach the double wall vent pipe to the single wall vent pipe that goes to the unit. Be sure to seal the joint and the open area around the double wall vent. Seal all joints and seams using sealant suitable for temperatures up to 400°F.

INSTALLATION - VENTING

- D9. Slide the combustion air pipe over the vent pipe and attach to the air inlet of the concentric adapter box, as shown in Figure 11.1, using at least 3 corrosion resistant sheet metal screws. Seal the joint and seam using sealant suitable for temperatures up to 400°F.

Figure 11.1 - Adapter Box with Combustion Air Intake Pipe Attached



- D10. Place this assembly (the adapter box, vent pipe and combustion air pipe) through the wall or roof and verify that the distance requirements as defined in Step D7 are met. Securely attach the assembly building.
- D11. From outside the building, caulk the gap between the combustion air intake pipe and the building penetration.
- D12. Attach the combustion air intake and vent pipe terminations as follows:

For Vertical Concentric Vent Kits (refer to Figure 10.1):

- Slide the combustion air cap down over the vent pipe and fasten it to the combustion air pipe with at least 3 corrosion resistant sheet metal screws.
- Attach the vent cap to the vent pipe using at least 3 corrosion resistant sheet metal screws. Refer to instruction A12 for connecting terminal to double wall pipe.
- Caulk the gap between the combustion air cap and the vent pipe with silicone sealant, or other appropriate sealants suitable for metal to metal contact and for temperatures up to 400° F.

For Horizontal Concentric Vent Kits (refer to Figure 10.2):

- Attach the combustion air intake guard using corrosion resistant screws at the end of the combustion air intake pipe to prevent animals and debris from entering.
 - Attach the vent cap to the vent pipe using at least 3 corrosion resistant sheet metal screws.
- D13. For model sizes 30 and 45, attach the 3" to 4" vent transitions on the non-concentric side vent and combustion air connections using 3 corrosion resistant sheet metal screws.
- D14. Install vent pipe and combustion air pipe between unit heater and concentric vent adapter box as outlined in "Section A – General Instructions – All Units".
- D15. Once venting is complete, proceed to the section titled "Installation - Gas Connections".