

CLEARANCES

1. In selecting a location for installation, it is necessary to provide adequate accessibility clearances for servicing and proper installation.
2. Although certified for 0 clearance to the floor, the unit is held in place by a wall bracket. Enough clearance [2" (51mm)] suggested to allow changing or adding floor covering is recommended. Other clearances to combustible construction:
Sides 1" (25mm) and 12" (305mm) from the top.
3. Note the position of the vent relative to the center of the unit. The DV-210 has the vent in the center. The DV-215 vent is 2" (51mm) off center to the right.
4. The minimum distance from the center of the outside vent to the nearest outside corner or obstruction is 16" (406mm).
5. The DV-210/DV-215 minimum wall depth is 4 1/2" (114mm) and maximum wall depth is 13" (330mm). The use of tubes not supplied by the manufacturer result in unsatisfactory performance.

The vent terminal of a direct vent appliance, with an input of 10,000 Btu per hour (3 kW) or less shall be located at least 6" (150mm) from any air opening into a building, and such an appliance with an input over 10,000 Btu per hour (3 kW) but not over 50,000 Btu per hour (14.7 kW) shall be installed with a 9" (229mm) vent terminal clearance and the bottom of the vent terminal and the air intake shall be located at least 12" (305mm) above grade.

WARNING: The nearest point of the vent cap should be a minimum horizontal distant of six (6) feet (1.8m) from any pressure regulator. In case of regulator malfunction, the six feet (1.8m) distance will reduce the chance of gas entering the vent cap.

INSTALLATION INSTRUCTIONS

The furnace is to be located on an outside wall. Locate wall studs so that wall opening will be located between wall studs. One wall stud can be used for attachment of inside wall plate. The wall opening required as shown in Figure 3 is a minimum diameter of 6 1/4 (159mm) inches. The inside wall plate and the outside wall plate are large enough to permit a wall opening diameter of 8 inches (203mm).

A template is provided in furnace carton for positioning furnace on the wall. Also, refer to Figure 3 for positioning the furnace on wall and for locating gas line connection.

Installing Inside Wall Plate

After the wall opening has been located and cut, center and level inside wall plate in wall opening. The collar on the inside wall plate is to be placed within the wall opening. On solid wall or wall stud, attach inside wall plate with (6) #10 x 1 1/2" (38mm) screws provided. On sheet rock wall, by using wall opening for access, attach inside wall plate with (6) #10 x 1 1/2" (38mm) screws and (6) Tinnerman nuts provided.

Attaching Furnace To Inside Wall Plate

Align and attach mounting clips on furnace back with mounting slots on inside wall plate. The furnace support bracket located at furnace bottom is to be secured to wall. On solid wall, secure furnace support bracket with (1) #10 x 1 1/2" (38mm) screw provided. On sheet rock wall, secure furnace support bracket with (1) toggle bolt provided.

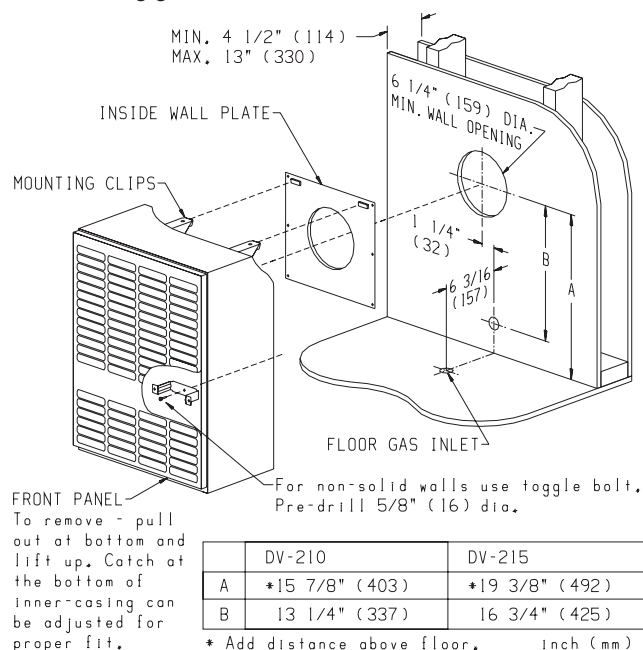


Figure 3

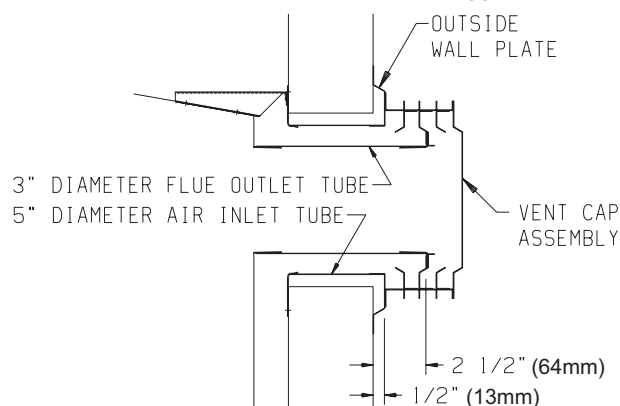


Figure 4

INSTALLATION INSTRUCTIONS (continued)

Cutting Vent Tubes

This is the most important part of the installation. With the furnace installed on wall the 5" (127mm) diameter air inlet tube and 3" (76mm) diameter flue outlet tube are to be marked and cut using the following procedure.

1. Attach 5" (127mm) diameter air inlet tube onto the collar of air drop assembly. Be sure 5" (127mm) diameter air inlet tube is placed as far as possible onto the collar of the air drop assembly. Mark the 5" (127mm) diameter air inlet tube 1/2" (13mm) beyond the outside wall. Remove 5" (127mm) diameter air inlet tube from collar of air drop assembly.
2. Attach 3" (76mm) diameter flue outlet tube onto flue outlet collar on combustion chamber. Be sure 3" (76mm) diameter flue outlet tube is placed as far as possible onto the collar of flue outlet. Mark the 3" (76mm) diameter flue outlet tube 2" (51mm) beyond the outside wall. Remove 3" (76mm) diameter flue outlet tube from collar of flue outlet on combustion chamber.
3. Mark or wrap tape completely around the tubes at the marked points to help in making a true cut. Do not crimp or enlarge tubes.

Installing The Vent Assembly

1. Place caulking (not provided) beneath the edge of the outside wall plate. Use additional caulking to correct uneven wall surface, such as clapboard.
2. Attach 5" (127mm) diameter air inlet tube onto the collar of air drop assembly. Attach caulked, outside wall plate into the 5" (127mm) diameter air inlet tube. Position the outside wall plate so that 5" (127mm) diameter air inlet tube has a slight downward slope to the outside. The downward slope is necessary to prevent the entry of rainwater. Attach outside wall plate to exterior wall with (4) #10 x 1 1/2" (38mm) screws provided.
3. Apply furnace cement to 3" (76mm) diameter flue outlet collar on combustion chamber and to 3" (76mm) diameter collar on vent cap. Attach 3" (76mm) diameter flue outlet tube onto flue outlet collar on combustion chamber. Attach vent cap into the 3" (76mm) diameter flue outlet tube. Attach vent cap to outside wall plate with (3) #10 x 1/2" (13mm) screws provided.
4. Installation is completed.

Reassembly And Resealing Vent-Air Intake System

When vent-air intake system is removed for servicing the furnace, the following steps will assure proper reassembly and resealing of the vent-air intake assembly.

1. Remove old furnace cement from flue outlet collar on combustion chamber and collar of vent cap. Remove old furnace cement from both ends of 3" (76mm) diameter flue outlet tube.
2. Remove old caulking beneath the edge of the outside wall plate. Apply new caulking beneath the edge of the outside wall plate. Use additional caulking to correct uneven wall surface, such as clapboard.
3. Attach 5" (127mm) diameter air inlet tube onto the collar of air drop assembly. Attach caulked, outside wall plate into the 5" (127mm) diameter air inlet tube. Position the outside wall plate so that 5" (127mm) diameter air inlet tube has a slight downward slope to the outside. The downward slope is necessary to prevent the entry of rainwater. Attach outside wall plate to exterior wall with (4) #10 x 1" (25mm) screws provided.
4. Apply furnace cement to 3" (76mm) diameter flue outlet collar on combustion chamber and to 3" (76mm) diameter collar on vent cap. Attach 3" (76mm) diameter flue outlet tube onto flue outlet collar on combustion chamber. Attach vent cap into the 3" (76mm) diameter flue outlet tube. Attach vent cap to outside wall plate with (3) #10 x 1/2" (13mm) screws provided.

5. Reassembly and resealing vent-air intake system is completed.

Installing a Vent Near a Window Ledge, Other Type of Projection or on Siding (vinyl, aluminum, etc.)

Direct vent furnaces are designed to be installed on a uniform outside wall. When the wind comes from any angle (up, down or from either side), it must hit the vent cap equally over both the air inlet and the flue outlet portions of the vent. Any wall projection, such as a door or window casing, which disturbs the wind on one side of the air inlet section will result in back pressure on the flue section smothering the flame and eventual pilot outage.

When the vent cap is to be installed on siding or it appears that a projection within 6" (152mm) of any side of the air inlet section could shield the air inlet section, the entire vent should be supported away from the wall at least the distance of the projection. 2" x 4" (51mm x 102mm) framing whose outside dimensions match the overall dimensions of the mounting plate is recommended. The 2" x 4" (51mm x 102mm) framing protects siding from possible warpage or discoloration. All joints can then be sealed and painted. The wall depth plus the additional depth of the 2" x 4" (51mm x 102mm) framing should not exceed a total depth of 13" (330mm) for DV-210/DV-215. (See Figure 5)

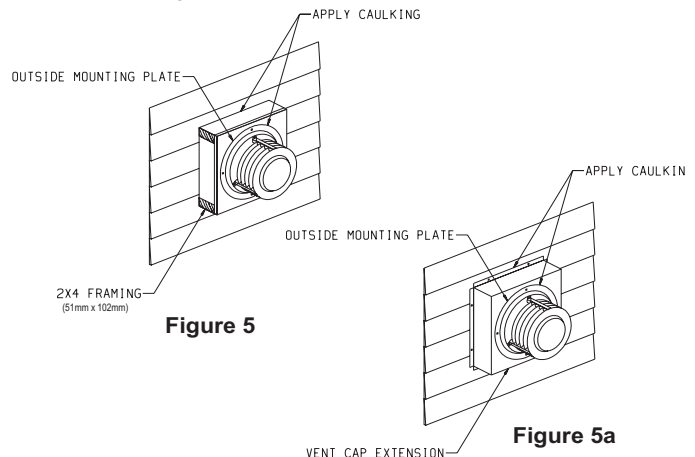


Figure 5

Figure 5a

Vinylsiding ventkit, DV-822, is available from Empire Comfort Systems, Inc. The depth is 3" (76mm), which enables the vent cap to be extended away from siding or projections. The wall depth plus the additional 3" (76mm) depth of the vinyl siding vent cap extension should not exceed a total depth of 13" (330mm) for DV-210/DV-215. (See Figure 5a)

Warning: When vinyl siding vent kit, DV-822 or 2" x 4" (51mm x 102mm) framing is added to an existing installation (furnace is installed) do not attempt to add sections of pipe to the flue outlet tube or air inlet tube. An air tight seal is required for both tubes. Refer to Parts List, page 14 to order tubes.