Choosing Location of the water heater

This water heater is of the direct vent design. It takes all of its fresh air for combustion from outside the building which it is installed. It also vents the combustion by-products to outside the building. It therefore must be located next to the outside wall, within the range of the telescopic adjustments. See the chart below to determine Minimum and Maximum adjustments of the venting provided with the water heater.

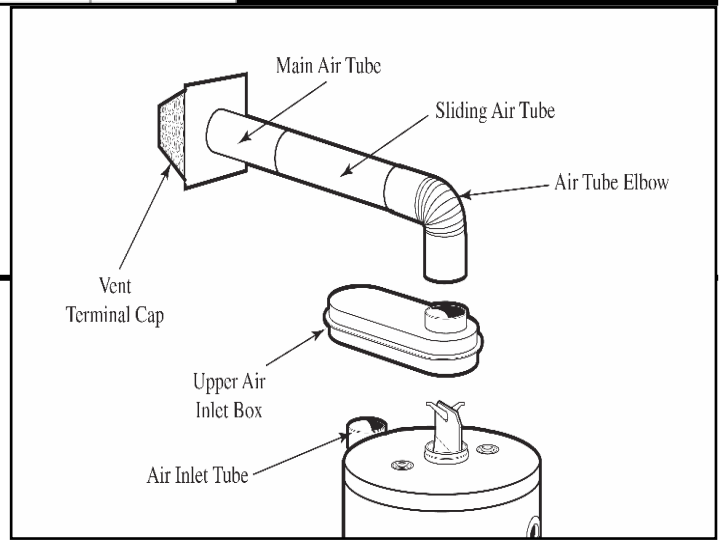
VENTING – ROUGHING IN DIMENSIONS (INCHES)

TYPE	MODEL NUMBER	4 FEET VENTING AVAILABLE	SIDE VENTING		REAR VENTING	
			MIN.	MAX.	MIN.	MAX.
TALL	22DV50-40N	N/A	8-1/8	18-1/8	3-1/8	13-1/8
TALL	22DV50-38	Horizontal & Vertical	8-1/8	48	3-1/8	43
SHORT	22DV40S-36N		8-1/8	48	3-1/8	43

Combustion and Ventilation Air

All air for combustion and all products of combustion are routed through the ducting provided, directly from and to the outside of the building. In a direct vent water heater this is called balanced venting. If there are pressure differences in the inlet side of the venting and the outlet side of the venting, then you will experience nuisance pilot outages. Things that can cause an unbalance vent are:

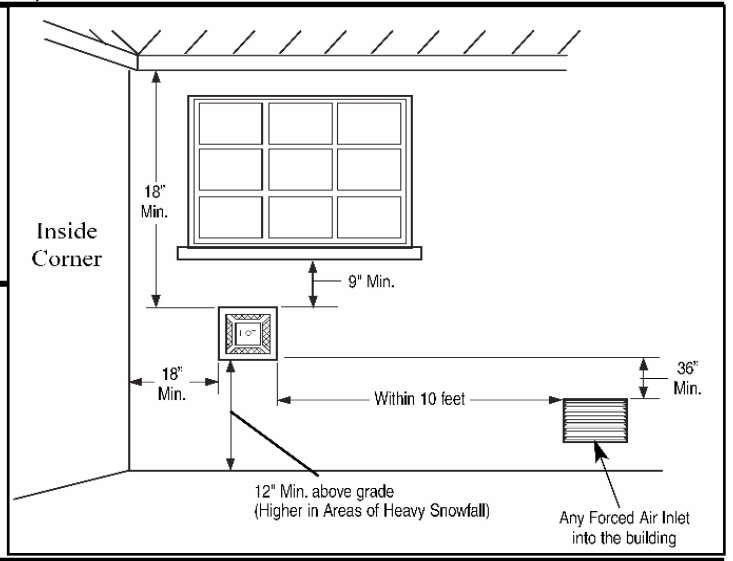
- Failing to seal the inner and outer components to the vent tube.
- Exceeding the maximum venting distance of the installation kit.
- Venting on a high wind side of the home.



Direct Vent Training & Installation Instructions for Venting
40/50 gallon models
Telescoping Vent Kit (standard)

Locating Clearance Hole for Vent

1. Twelve (12) inches above grade level and above normal snow levels.
2. Vent Terminal must be located at least 9” from windows, doors, or any other opening through which flue gases could return into the building.
3. Ten (10) feet from any forced air inlet to the building. Any fresh or make-up air inlet such as for a dryer or furnace area is considered to be a forced air inlet.
4. Vent Terminal must be located at least 36” above any Forced Air Inlet into the building within 10 feet of the vent termination.
5. Vent Terminal must be located at least 18” from any overhang or building corner or other irregularity.
6. Do not locate the vent termination under any deck or patio structure.



Vent Kit Components

The vent kit consists of the following components:

1. 5 inch outer curved tubing
2. 5 inch outer adjustable (2 piece) tube
3. 3 inch outer curved tubing
4. 3 inch outer adjustable (2 piece) tube
5. Silicone sealer – high temperature
6. Installation Instructions
7. Outer vent termination screen
8. Outer wall mounting plate
9. Inner wall mounting plate

Note: You will see the installer wearing rubber gloves. These help protect your hands from the silicone caulk and aid in a cleaner looking installation.

Direct Vent Training & Installation Instructions for Venting
40/50 gallon models
Telescoping Vent Kit (standard)

Installation Procedures

1. Select the final location of the water. Verify distance from the wall. Verify vent termination meets minimum safe distances in accordance with Use and Care instructions.

2. Cut a clearance hole, approximately 6 inches in diameter, through the exterior wall for the 5 inch diameter outer air tube.

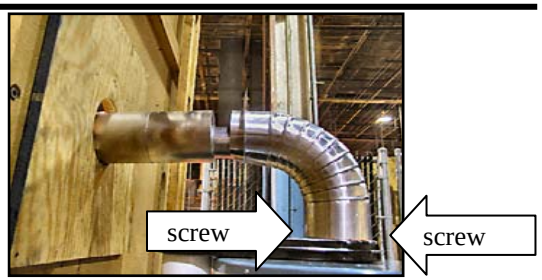
3. Move the water heater close to its final installed location. Make certain clearances from combustible material are observed.

4. Next install the 3 inch inner pipe. This is part of the combustion gas exhaust portion of the venting. Apply silicone sealant to the flue tube inside the upper collar. An improper seal can cause nuisance pilot outages by mixing the inlet fresh air and the combustion gases. This is also a good time to check to make sure the flue baffle is hanging properly.

5. Place the 3 inch steel inner elbow on the water heater flue pipe and press it firmly downward until seated and pointed in the direction of the exhaust hole you cut in the wall.

6. Install the 5 inch aluminum elbow over the 3 inch steel elbow. Be certain both are pointed in the desired direction with the 3 inch centered inside the 5 inch elbow. Do not apply any sealing compound yet.

7. As an aid to leveling the outer elbow, temporarily place the 5 inch sliding tube onto the outer elbow. When leveled, drill a 1/8” inch diameter hole through the elbow into the black collar on the top of the water heater. Secure with the two #8 sheet metal screws provided on the front and back of the outer pipe This prevents the vent from tipping.. Place the finishing collar on the 5 inch elbow, as it will be positioned later.

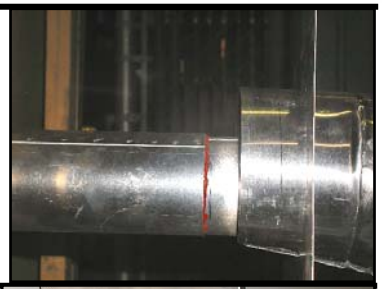


8. Extend the 3 inch inner tube assembly to its maximum installed length. Line up the seams of the vent.

9. Remove the adjustable sliding outer tube. Place the 3 inch inner vent tube through the hole in the external wall to the outside.

10. Place the inner sliding tube fully onto the 3 inch elbow. Apply silicone sealant as shown.

Note: This will be your last chance to verify that all of the joints on the inner 3 inch pipe are sealed. If the inner pipes are not sealed you will create an imbalanced venting. Exhaust combustion gases will recirculated with the fresh inlet air. This will cause nuisance pilot outage, poor combustion, and slow recovery due to poor burner flame.



11. Attach the 5 inch main tube to the vent cap base. Drill a 1/8" inch diameter hole through the tube into the collar of the base. Secure with a #8 sheet metal screw, furnished. Repeat with a second hole and screw approximately 180° from the first. Reinstall the 5 inch sliding section at its maximum extended length, 18-1/8 inches.

12. From the outside of the building, insert the 5 inch tube and outer base assembly through the hole in the exterior wall and onto the 5 inch elbow attached to the water heater.

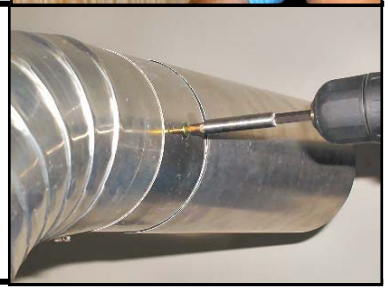
13. Seat the outside vent terminal base onto the wall. Use wood or concrete screws depending on building surface. Apply a generous coat of sealant on the underside of the outer flange as a moisture barrier.

14. Apply sealant to the 3 inch inner pipe. Next place the vent cap fully onto the inner 3 inch pipe. Then seat the cap against the base.

15. Secure the vent cap/base assembly to the exterior wall with four screw anchors appropriate for the type of wall construction. You are done with the outside portion of the venting and termination.

16. Position and fasten the inside finishing collar, previously installed on the 5 inch elbow, against the inside wall to close the opening around the tube. Pull the collar back from the wall approx 1 inch and put a bead of sealant on the back side of the collar. This will create an airtight seal Screw the collar onto the wall.

17. Drill two 1/8” inch holes (180° apart) in the junction of the two joints in the five inch tube. Fasten with four #8 sheet metal screws furnished.



18. Seal all the 5 inch tube joints with silicone sealant including the elbow joint to the collar on the heater's air supply box.

19. Final Inspection. When completed, check all outer joint connections for sealer. Make sure all joints are connected with a minimum of two #8 sheet metal screws.