## CONDENSATE RETROFIT KIT INSTALLATION INSTRUCTIONS

## **PURPOSE:**

The condensate retrofit kit is designed to improve the condensate management system for current units in the field. Review directions thoroughly prior to installing the kit. Please contact the manufacturer of the water heater as shown in the instruction manual with any questions or for additional product support.

## **PARTS LIST:**

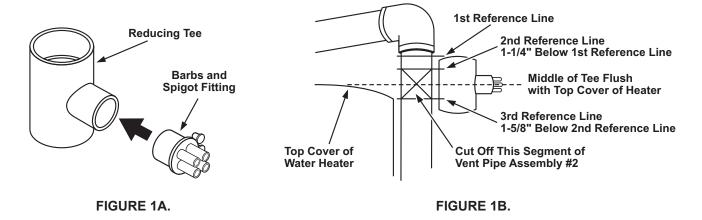
The kit consists of the following items. If a part is missing, use the contact information in the instruction manual to acquire missing part(s).

- Reducing Tee (QTY. 1)
- Barbs & spigot fitting (QTY. 1)
- Loop clamp with rubber cushion (QTY. 2)
- Metal clamp (QTY. 1)
- Screws (QTY. 4)
- Instruction sheet (QTY. 1)

## **INSTALLATION:**

Follow the procedure below to mount the retrofit kit into the current vent pipe system.

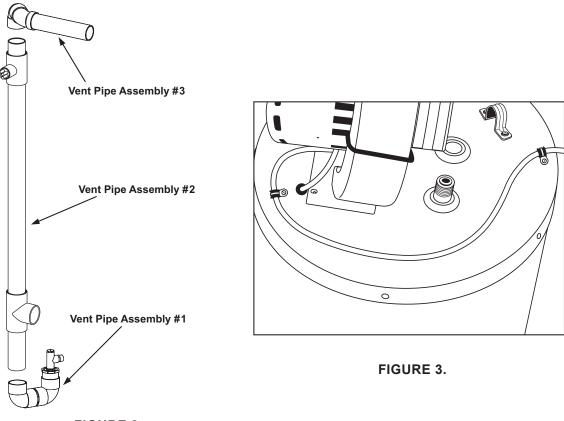
- 1. Shut down the water heater.
- 2. Use standard PVC cement (not included with kit) and glue the barbs & spigot fitting into the Reducing Tee. The fitting should be properly oriented for nice appearance. See Figure 1A.
- 3. Remove the top plastic shroud to have access to the hose coming from bottom of blower housing.
- 4. Use the following steps to mark and cut off a segment of Vent Pipe Assembly #2. Refer to Figure 1B.
  - With Vent Pipe Assemblies as were installed, place the Reducing Tee Assembly made in Step 2 side by side against Vent Pipe Assembly #2 so that the middle of the Tee flushes with the top of the jacket top cover.
  - Mark a horizontal reference line on Vent Pipe Assembly #2 at the place which flushes with the top of Reducing Tee Assembly.
  - Mark a second horizontal reference line about 1-1/4" below the first reference line on Vent Pipe Assembly #2.
  - Mark a third horizontal reference line about 1-5/8" below the second reference line on Vent Pipe Assembly #2.
  - Detach Vent Pipe Assemblies from the water heater; and cut off the segment of 1-5/8" of Vent Pipe Assembly #2 between the second and third reference lines.



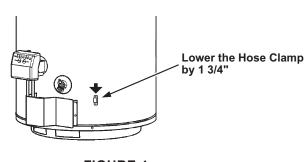
(INSTRUCTIONS CONTINUE ON FOLLOWING PAGES)

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5. Use standard PVC cement (not included with kit) and glue the Reducing Tee Assembly in between the two remainders of Vent Pipe Assembly #2. Make sure the Reducing Tee Assembly is correctly orientated relative to the Tee near the bottom of Vent Pipe Assembly #2, as shown in Figure 2. Depending on existing installation, the Reducing Tee Assembly could be orientated at a different angle as long as it makes a good fit and would facilitate its connection to condensate hoses and future service.



- FIGURE 2.
- 6. Locate the two loop clamps with rubber cushion. Mount one loop clamp on the top cover near the blower and the other one on the top cover near the back of the heater using screws supplied. Remove the rubber hose attached to the drain port near the bottom of blower housing and cut it to 38 inches. Replace one end of the 38 inch rubber hose to the drain port, and run the other end through the two loop clamps. Make sure no kink or twist exists along the whole length of the rubber hose. Refer to Figure 3.
- 7. Locate the metal clamp and mount it on top cover near the back of heater using two screws supplied. Refer to Figure 3.
- 8. Lower the hose clamp near the bottom of the jacket by 1-3/4 inches from its current position to clamp the drain hose from Vent Pipe Assembly #1; i.e. use the current lower hole as the top hole and drill another hole for mounting the hose clamp. Refer to Figure 4.



- FIGURE 4.
- 9. Replace Vent Pipe Assemblies #1, #2 and #3 on the water heater. Run the existing drain hose on Vent Pipe Assembly #1 to an external drain. If needed, run it through the hose clamp newly lowered.
- 10. Connect the loose end of the rubber hose from blower housing to one of the four barbs on the Reducing Tee Assembly.

11. Locate the existing flexible hoses. Make three hoses out of them if a Vent Attenuation Assembly is currently installed. Two hoses should be cut to 30 inches long, and another hose should be cut to 50 inches (for Vent Attenuation Assembly). Connect one end of the two 30 inch hoses to each of the two ports on the rubber adaptor located at the outlet of the blower. Connect one end of the 50 inch hose to the drain port of the Vent Attenuation Assembly. Refer to Figure 5.

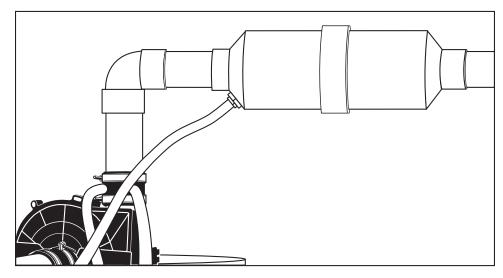


FIGURE 5.

12. Run all three hoses through the metal clamp newly mounted on the top cover. Refer to Figure 6.

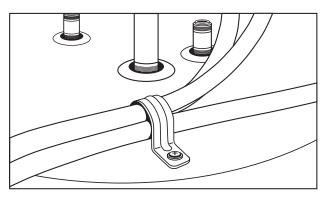


FIGURE 6.

13. Connect loose ends of the three hoses to the rest of open barbs on Reducing Tee Assembly. If any barb is left open (for instance because of the Vent Attenuation Assembly not being installed) cap it with a break-away plug found on the barbs and spigot fitting. Refer to Figure 7. Note: To avoid loss during shipping, the break-away plugs may have been plugged into barbs prior to shipment. In this case, remove them as needed prior to connecting hoses.

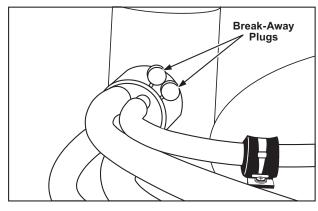


FIGURE 7.

- 14. Replace the top plastic shroud.
- 15. Turn on the water heater and let it run for at least one heat cycle. Ensure there is no leakage around hose barbs or any joints of the vent pipe system.

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