

# HEAT EXCHANGER CONDENSATE DRAIN LINE & VENT KIT - DOWNFLOW

## INSTALLATION INSTRUCTIONS

FOR R8HE / PPG3HE SERIES, ROOF CURB MOUNT, CONDENSING STYLE GAS / ELECTRIC PACKAGE UNITS

### IMPORTANT SAFETY INFORMATION

Please read all instructions before installing the kit. Pay attention to all safety warnings and any other special notes highlighted in the manual. Safety markings are used frequently throughout this manual to designate a degree or level of seriousness and should not be ignored. **WARNING** indicates a potentially hazardous situation that if not avoided, could result in personal injury or death. **CAUTION** indicates a potentially hazardous situation that if not avoided, may result in minor or moderate injury or property damage.

### **WARNING:**

#### ELECTRICAL SHOCK, FIRE OR EXPLOSION HAZARD

Failure to follow safety warnings exactly could result in serious injury or property damage.

Improper servicing could result in dangerous operation, serious injury, death or property damage.

- Before servicing, disconnect all electrical power to the equipment.
- When servicing controls, label all wires prior to disconnecting. Reconnect wires correctly.
- Verify proper operation after servicing.

The installer performing this work assumes all responsibility when installing this kit. These instructions are primarily intended to assist qualified individuals experienced in the proper installation of these components. Some local codes require licensed installation/service personnel for this type of equipment. Safety should always be the deciding factor when installing this product and using common sense plays an important role as well. Improper installation of the components or failure to follow safety warnings could result in serious injury, death, or property damage. After completing the installation, return these instructions to the Homeowner's Package for owner-user's future reference.

### ABOUT THE KIT

This accessory kit is for use with 2-5 Ton 95% condensing style package gas/electric unit roof curb mount installations for proper heat exchanger condensate disposal and venting. [Table 1](#) is a detailed listing of the components in the drain and vent kit to allow the heat exchanger condensate line to pass through the roof. Please check the contents of the kit with that of the parts listing, and familiarize yourself with each component.

### KIT SUPPLIED PARTS

DESCRIPTION	QTY
2" PVC X 22.5 DEGREE ELBOW & 1/4" MESH SCREEN	1
SPRING HOSE CLAMP	3
1/2" ID X 84" DRAIN HOSE	1
HOSE CLAMP 3/4" DIAMETER	2
SELF TAPPING SCREWS	2
J-TRAP AND HOSE ASSEMBLY	1

### FIELD SUPPLIED PARTS

- PVC Solvent Cleaner and Pipe Cement.
- Additional condensate drain components to complete the installation: PVC Pipe, Hose Clamps, Hangers.

Table 1. Parts List

### BEFORE SETTING UNIT ON THE CURB

#### IMPORTANT NOTICE TO INSTALLER

When setting the roof curb for installation, routing and securement of the gas heat exchanger condensate drain line must be determined and installed prior to setting the unit on the curb.

- The Condensate Drain & Vent Kit # 922485 is set up for installing the HX condensate drain line straight down through the roof. It is recommended to drill a 1.00"-1.25" diameter hole through the roof below the rectangular opening located in outer close off curb panel (G), approximately 15" in from the short side of curb and 1"-2" in from the long side of curb. See [Figure 1 \(page 3\)](#).
- If drilling a hole is not an option, routing the condensate drain hose over to the duct passage opening with enough slope is acceptable as long as drain line is secured to curb and duct, ensuring no kinks or traps can form between the collector box drain or interior of the building. Leave a minimum of 24" drain line extending out the top of roof curb front close off panel (G) for passage through unit bottom and connection to unit drain when unit is being set. See [Figure 1 \(page 3\)](#). Seal roof penetration as required.
- It is recommended no non-serviceable connections are introduced in the drain line between unit drain connection and an accessible area within the building interior. Securement of the drain line to the inside surface of the roof curb is acceptable and should be made in the wood nailer area (top 3.5") to avoid possible leaks or penetrations to roofing materials.

- Cut and remove the insulation covering the 2" x 3" condensate drain passage in outer panel (G) only. **Before installing inner panel (G) make sure there is enough slope and there are no kinks or high spots that could trap water in the line prior to entering the warmer interior of the building where a drain trap is SUPPLIED AND REQUIRED.**

## SETTING THE UNIT

### IMPORTANT NOTE

Before hoisting and setting the unit in place, the short piece of factory installed drain line located next to the unit burner section must be removed from the HX collector box drain valve to allow for passage of the condensate drain line installed with the roof curb. The condensate drain valve is located in the bottom left corner of the heat exchanger collector box. See [Figure 2 \(page 3\)](#). Remove the drain line and rubber grommet located in the unit bottom pan, setting the rubber grommet aside for later use.

- Set unit in place on curb as instructed in the Rigging and Hoisting section of unit installation instructions.

### IMPORTANT NOTE:

**R8HE models may be lifted without the control access panel in place to accommodate the passage and installation of the condensate drain line.**

## WARNING:

**To avoid accidental injury 6"x6" boards should be placed across corners of the roof curb while routing the condensate drain line up through the bottom of the unit. After enough drain line is passed through the bottom pan opening to guide from inside the control / burner area the boards may be removed for lowering the unit the remainder of the way onto the curb.**

- While lowering unit onto the curb, carefully pass the first few inches of the 24 inch condensate drain line left outside the top of the curb up through the hole in the bottom pan below the collector box drain fitting.
- While holding the end of the drain line continue lowering the unit until fully seated on curb ensuring the drain line feeds up through the hole and does not become trapped or kinked under the unit.

## COMPLETING THE HEAT EXCHANGER CONDENSATE DRAIN INSTALLATION

### IMPORTANT NOTE

Downflow applications require the factory set position of the condensate drain valve be changed from the horizontal (H) to downflow (D) position. The condensate drain valve is located in the bottom left corner of the heat exchanger collector box to the left of the inducer motor. See [Figure 2](#). Carefully rotate the valve 90 degrees in a clockwise direction until the arrow is pointing vertically downward.

1. Slide the rubber grommet (large diameter first) down the 24" of tubing and reinstall back into the unit bottom pan ensuring a water tight seal. Additional sealing is permissible.
2. Route the drain line up and onto to the condensate drain valve barbed fitting. Cut hose to length required to keep line from bending and secure to barbed fitting using the spring hose lamp provided in the kit.

### Condensate Disposal

- The method for disposing of condensate varies according to local codes. Consult your local code or authority having jurisdiction.
- The condensate drain line must be J-trapped using supplied parts. After the condensate line is J-trapped in a heated area, it must continue to the drain. The drain line must be routed downward to ensure proper drainage from furnace.
- Neutralizer kit P/N 902377 is available for use with this furnace. Please follow the instructions provided with the kit.
- For Installations where there is limited clearance for the J-Trap (such as an attic where it may be installed between ceiling joists), either side of the J-Trap can be shortened to a minimum of 3 Inches. See [Figure 2 \(page 3\)](#).

## COMPLETING THE VENT PIPE INSTALLATION AND ASSEMBLY

1. Connect the horizontal 13.25" x 2" PVC pipe that came supplied with the unit to the inducer motor rubber coupler and secure using the 3" hose clamp provided.
2. Clean the opposite end of vent pipe and cement the 2" x 22.5 degree elbow onto the 2" pipe at this time. Orient elbow in a downward position.

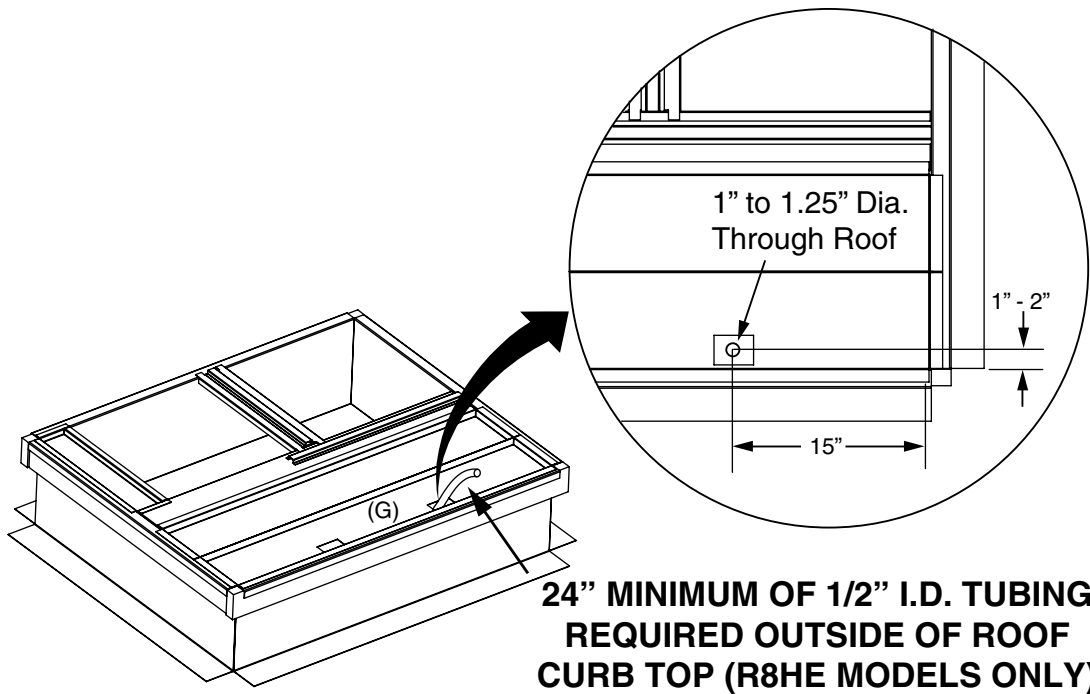


Figure 1. Typical 2 - 5 Ton Roof Curb Layout

**ROOF MOUNTED UNIT  
(ROOF CURB AND ROOF NOT SHOWN)**

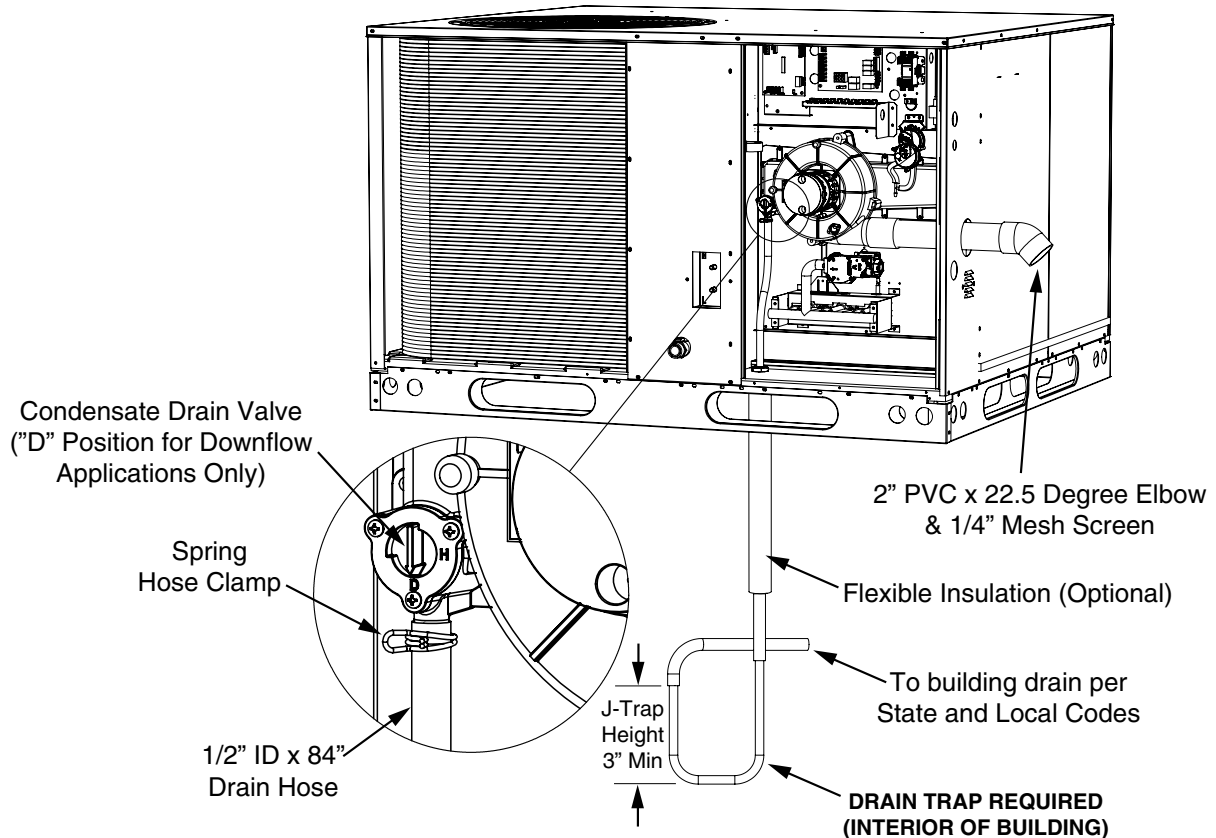


Figure 2. Condensate Disposal

