

## **RTU's - Gas Heat with 2 Gas Valves (in lieu of 2 Stage Gas Valve)**

On larger RTU's that have multiple gas valves instead of two stage gas valves, the identification of the stages is very important and if misidentified the heat section will not operate properly. This misidentification can take place after servicing in which the manifold and burner sections were removed and when reassembling, the wiring can get confusing and, in many cases, results in the stages getting wired in reverse.

**Example:** *after reassembly of the manifold and burner assembly, a call for heat is made and the pilot valve opens, the pilot flame will start but the gas valve manifold pressure is only around 1-2" despite the incoming gas pressure being in the proper range. This typically happens if the system is mis-wired and the low manifold pressure is a result of the pilot valve being open but not the main valve. The main valve will not open because the flame sensor is not seeing any flame due to the heat stages being wired in reverse. If the main valve does not open within 6 minutes, an HS 1 or HS 2 alarm and lockout will occur.*

**See below for identifying the correct gas valve positions:**

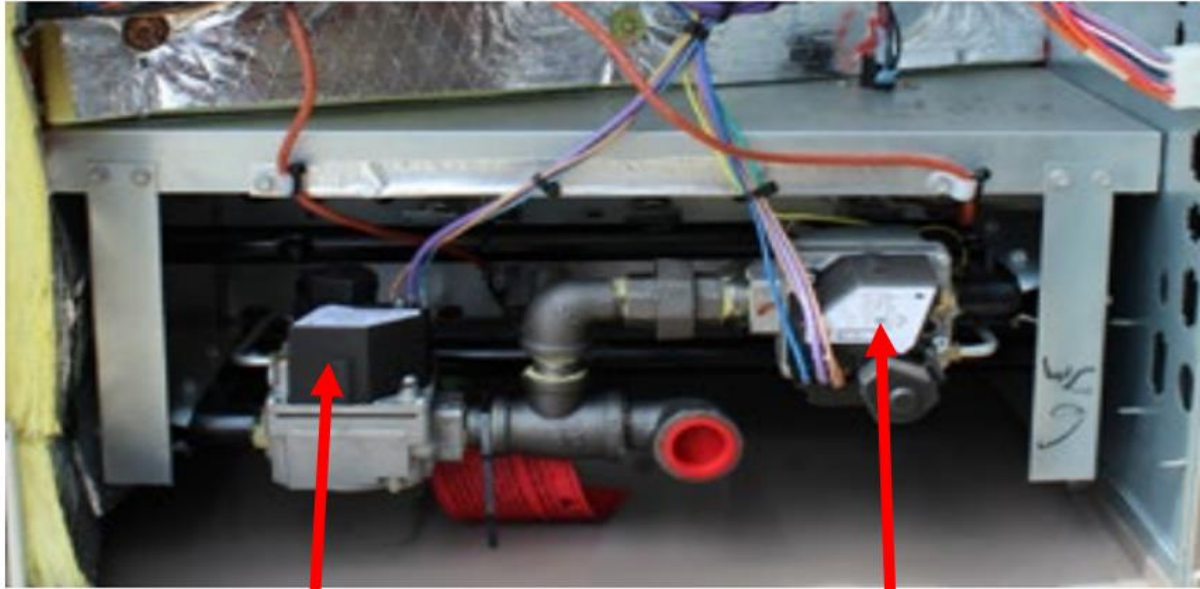
**Gas Valve 1 is located to the top right side of the burner section (see figure 1).**

- On Gas Valve 1, the intermittent pilot lights the burner farthest to the right and the flame sensor proves on the burner farthest to the left.

**Gas Valve 2 in the lower left corner of the burner section (see figure 1).**

- On Gas Valve 2, the burner farthest to the left lights first and the flame sensor proves on the burner farthest to the right.

**Figure 1:**



**Gas Valve 2**

**Gas Valve 1**