

**GAS MANIFOLD
PRESSURE TEST KIT**

**INSTALLATION INSTRUCTIONS FOR GAS MANIFOLD PRESSURE TEST KIT (21U27; 622686-01)
USED WITH LS25 / UHSC SEPARATED COMBUSTION UNIT HEATERS**

⚠ WARNING

Improper installation, adjustment, alteration, service or maintenance can cause property damage, personal injury or loss of life. Installation and service must be performed by a licensed professional installer (or equivalent), service agency or the gas supplier.

⚠ CAUTION

As with any mechanical equipment, contact with sharp sheet metal edges can result in personal injury. Take care while handling this equipment and wear gloves and protective clothing.

⚠ CAUTION



Electrostatic discharge can affect electronic components. Take precautions to neutralize electrostatic charge by touching your hand and tools to metal prior to handling the control.

Shipping & Packing List

Package 1 of 1 contains the following:

- 1 - Tubing assembly (tee with long and short tubing)
- 1 - Round tubing (22" length)
- 1 - White Rodgers adapter kit (36G only)
- 1 - Barbed fitting (36H only)

Application

Kit (21U27) provides tubing and fittings needed to measure total manifold pressure for LS25 / UHSC Separate Combustion Unit Heaters. To correctly measure total manifold pressure on these models, the pressure at the positive gas manifold and the negative burner box must be considered.

NOTE- Total manifold pressure is the sum of the positive "+" and negative "-" sides of the manifold pressure.

Gas Manifold Check

Gas Manifold Check - White Rodgers 36G Series Single-Stage Gas Valve

A manifold pressure post located on the gas valve provides access to the manifold pressure. See figure 1, figure 2, and the following steps.

- 1- Use the adapter kit Allen wrench to back out the 3/32" hex screw from the gas manifold pressure post **one** turn.

- 2- Connect one end of the adapter kit tubing to the manifold pressure port. Connect the other end of the adapter kit tubing to the 5/16" end of the adapter kit reducer.
- 3- Connect one end of the 22" round tubing to the 1/4" side of the adapter kit reducer. Connect the other end of the 22" round tubing to the "+" positive side of the measuring device.
- 4- Carefully remove the factory-installed tubing from the gas valve vent barb. Connect the factory-installed tubing to the open end of the tubing assembly tee.
- 5- Connect the tubing assembly short tubing leg to the gas valve vent barb. Connect the long tubing leg to negative "-" side of measuring device.
- 6- Start heat and let run for 5 minutes to allow for steady state conditions.
- 7- After allowing unit to stabilize for 5 minutes, record total manifold pressure. Compare manifold pressure to unit rating plate or installation instruction high altitude tables as applicable.
- 8- If necessary, make adjustments. Figure 1 shows adjustment screw location. Access adjustment screw(s) by removing brass cap screw. Reinstall brass cap screw(s) after adjustments are completed.
- 9- When accurate reading(s) and adjustment(s) are made, shut unit off and remove measuring device.
- 10- Close the gas manifold pressure port 3/32" hex screw securely.
- 11- Reconnect the factory tubing to the gas valve vent barb.
- 12- Start unit and perform leak check. Seal leaks if found.

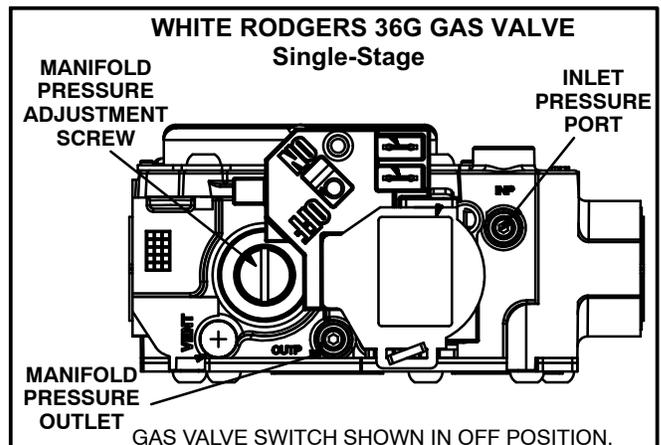


FIGURE 1

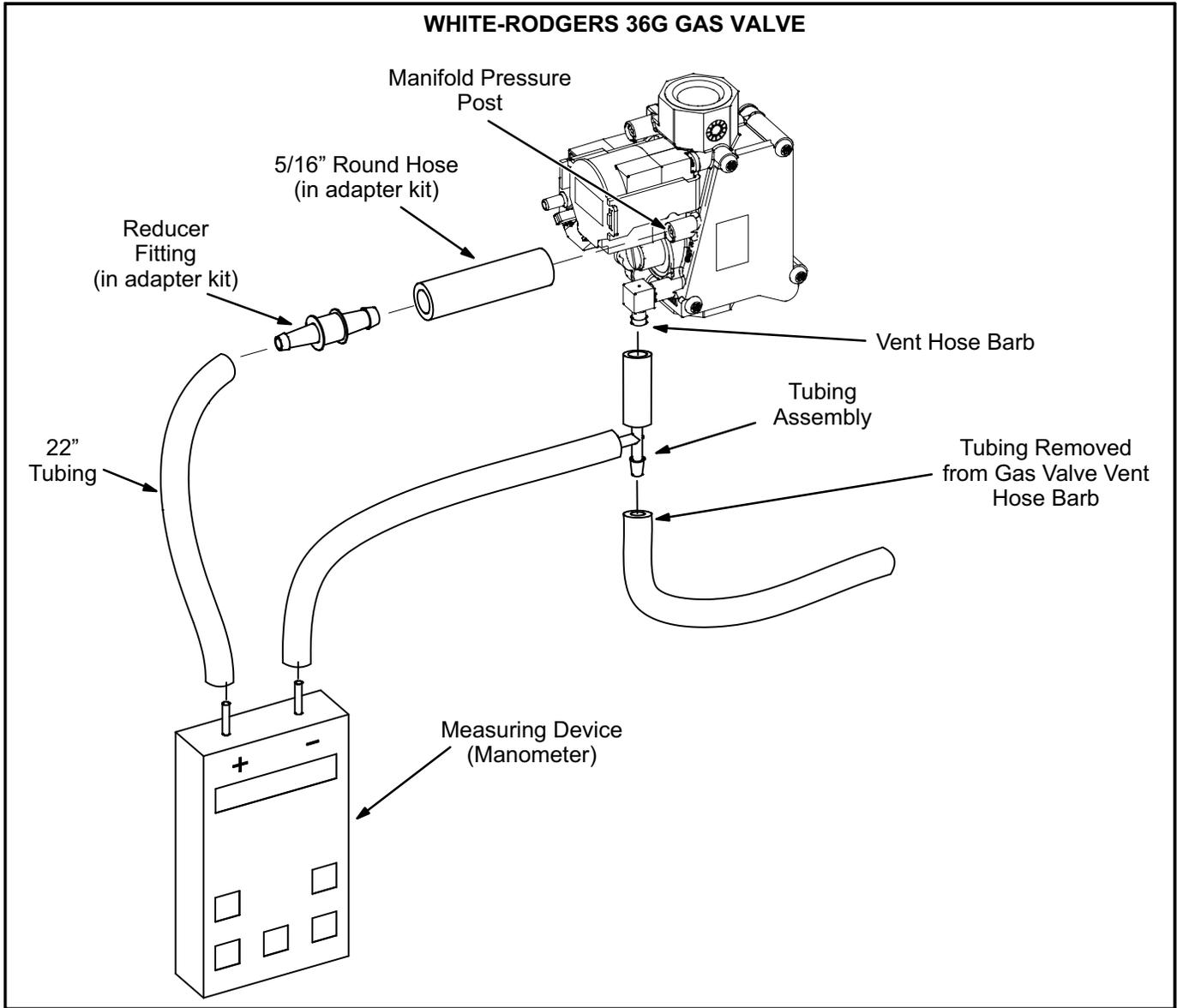


FIGURE 2

Gas Manifold Check - White Rodgers 36H Series Two-Stage Gas Valve

A 1/8" NPT tapped plug located on the gas valve provides access to the manifold pressure outlet. See figure 3, figure 4, and the following steps.

- 1- Remove and retain the gas manifold pressure outlet 1/8" NPT plug.
- 2- Install the threaded end of the barbed fitting into the 1/8" NPT manifold pressure outlet.
- 3- Connect one end of the 22" round tubing to the barbed fitting. Connect the other end of the 22" round tubing to the "+" positive side of the measuring device.
- 4- Carefully remove the factory-installed tubing from the gas valve vent barb. Connect the factory-installed tubing to the open end of the tubing assembly tee.

- 5- Connect the tubing assembly short tubing leg to the gas valve vent barb. Connect the long tubing leg to negative "-" side of measuring device.

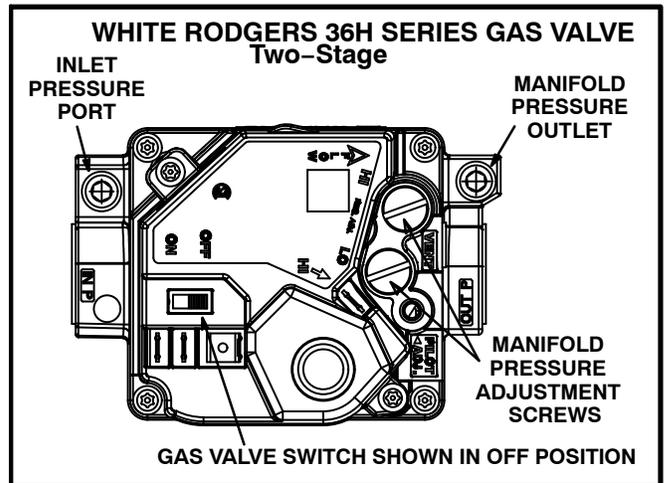


FIGURE 3

- 6- Start unit on high heat and let run for 5 minutes to allow for steady state conditions.
- 7- After allowing unit to stabilize for 5 minutes, record total manifold pressure. Compare manifold pressure to unit rating plate or installation instruction high altitude tables as applicable.
- 8- If necessary, make adjustments. Figure 3 shows adjustment screw locations. Access adjustment

- screw(s) by removing brass cap screw. Reinstall brass cap screw(s) after adjustments are completed.
- 9- Repeat steps 6, 7, and 8 on lower input.
- 10- When accurate reading(s) and adjustment(s) are made, shut unit off and remove measuring device.
- 11- Reinstall the $\frac{1}{8}$ " NPT plug retained in step 1.
- 12- Reconnect the factory tubing to the gas valve vent barb.
- 13- Start unit and perform leak check. Seal leaks if found.

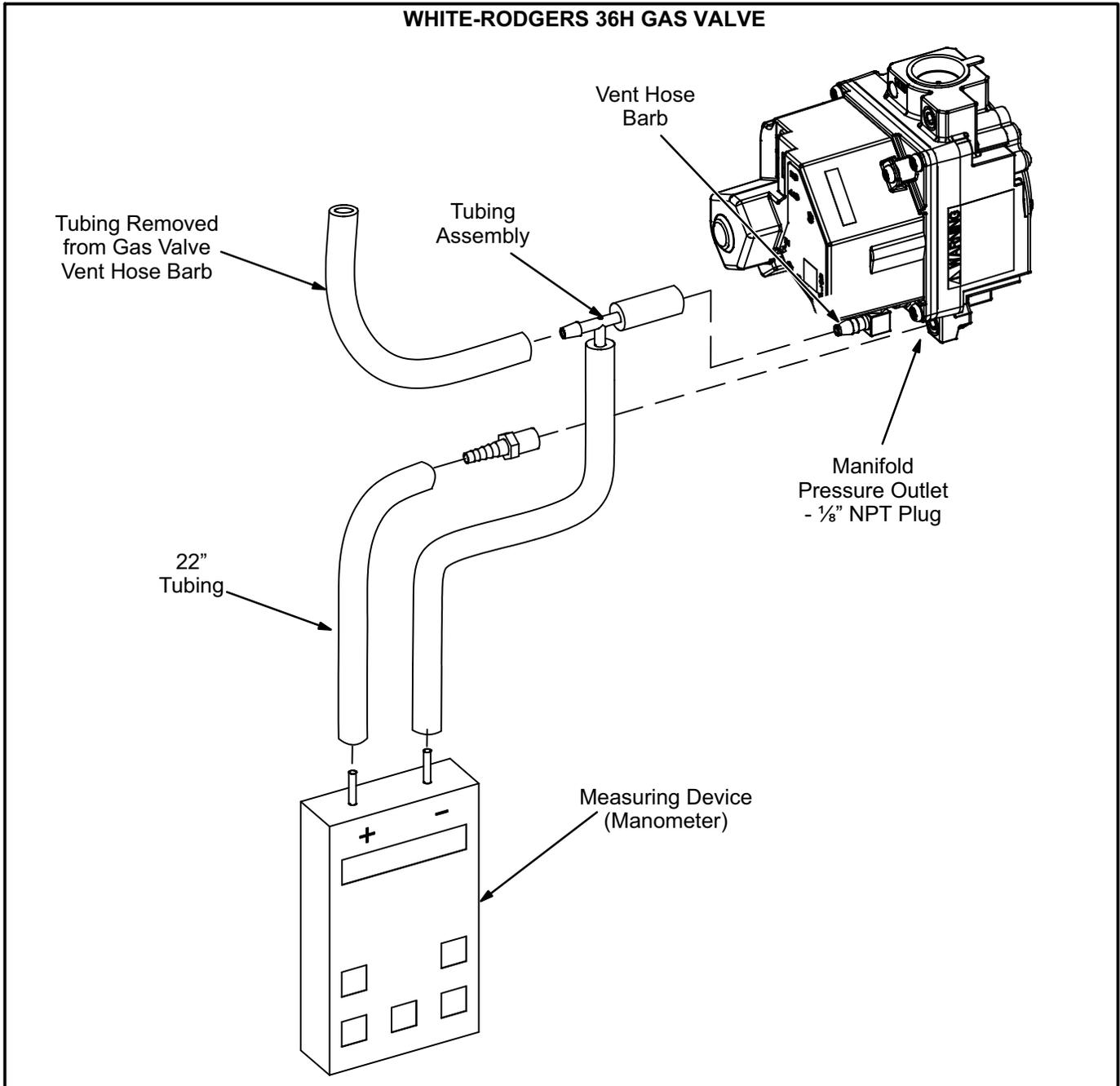


FIGURE 4