

Gas Valve

REPLACEMENT INSTRUCTIONS

For Use With Rinnai Tankless Water Heater Models:

RE140i, RE140e, RE160i, RE160e, RE180i, RE180e, RE199i, RE199e, REP160i, REP160e, REP199i, REP199e

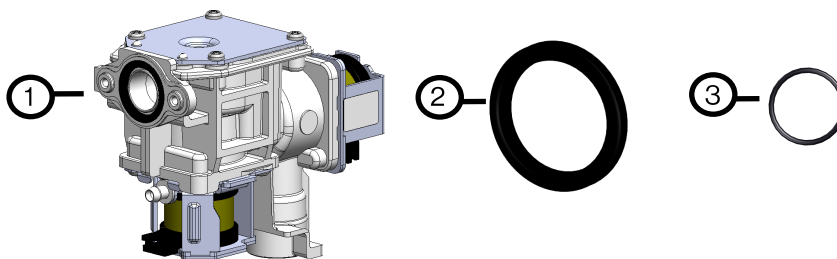
WARNING

Failure to correctly assemble the components according to these instructions may result in electric shock, injury, or death.

Items Inside Product Box

Before installation, please make sure all parts are located inside the product box.

Item #	Item	Qty
1	Gas Valve Assembly	1
2	Packing	1
3	O-ring	1



TOOLS/MATERIALS REQUIRED

Phillips head screwdriver

Instructions

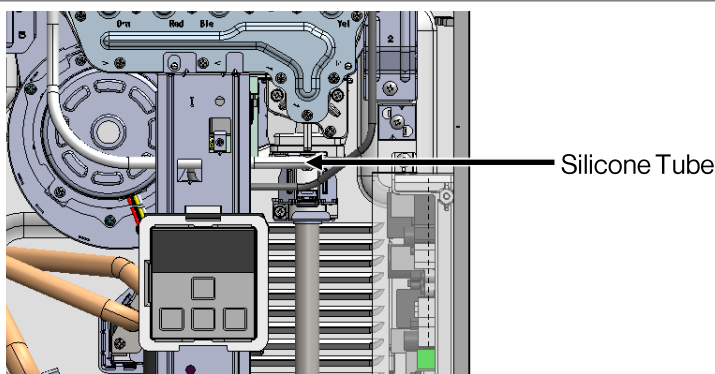
1. Turn off and disconnect 120 V power supply.
2. Turn off water supply.
3. Turn off gas supply.

CAUTION

Confirm gas valve is turned off and not leaking. Use lockout procedure to prevent gas valve from being turned on.

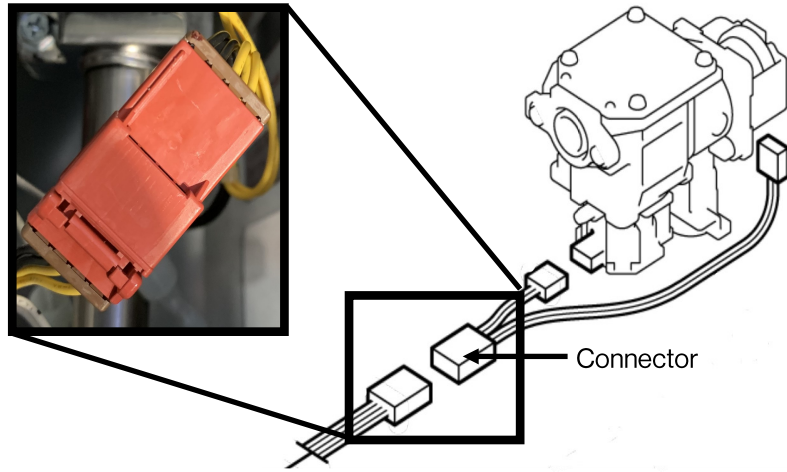
4. Remove front panel.
5. Disconnect the silicone tube from the front of the gas valve assembly (indoor models only) (Figure 1).

Figure 1



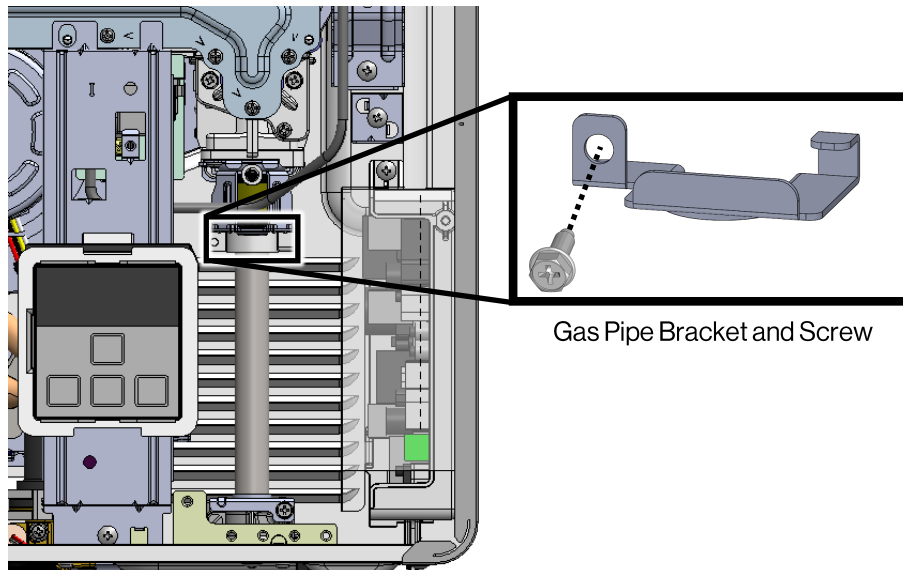
6. Disconnect the main connector on the gas control harness (Figure 2).

Figure 2



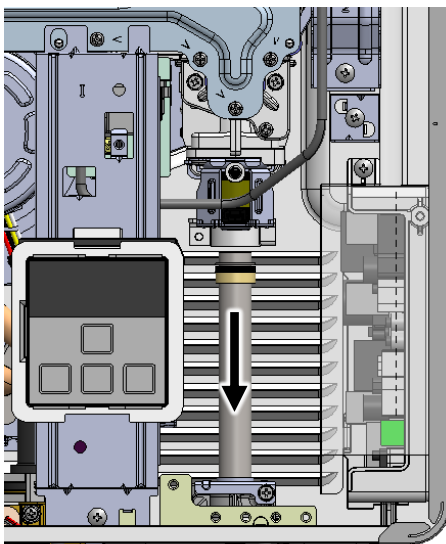
7. Remove the screw and gas pipe bracket securing the gas pipe to the bottom of the gas valve assembly (Figure 3).

Figure 3

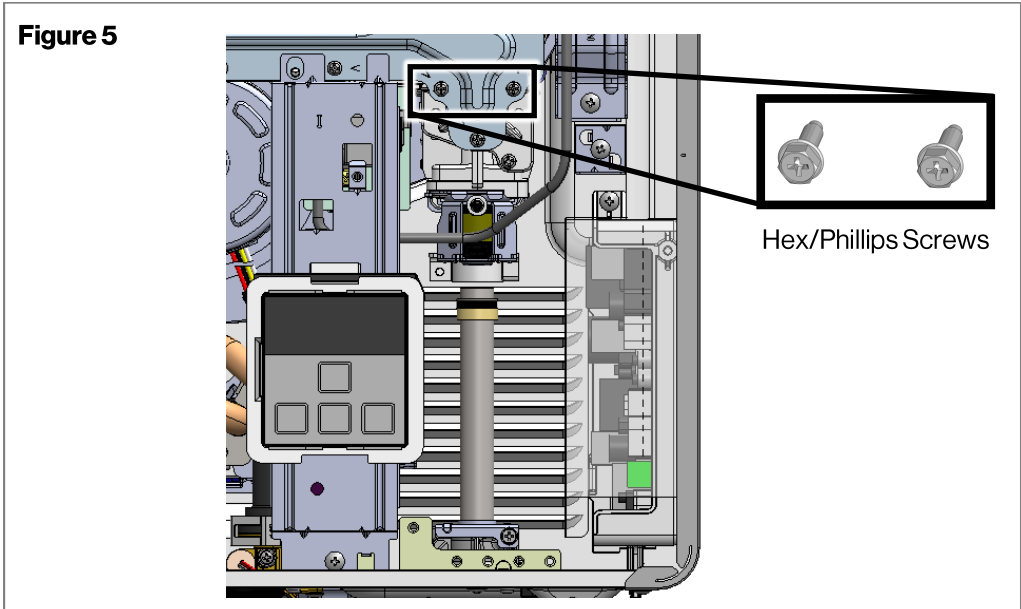


8. Slide the gas pipe down and out of the gas valve assembly (Figure 4).

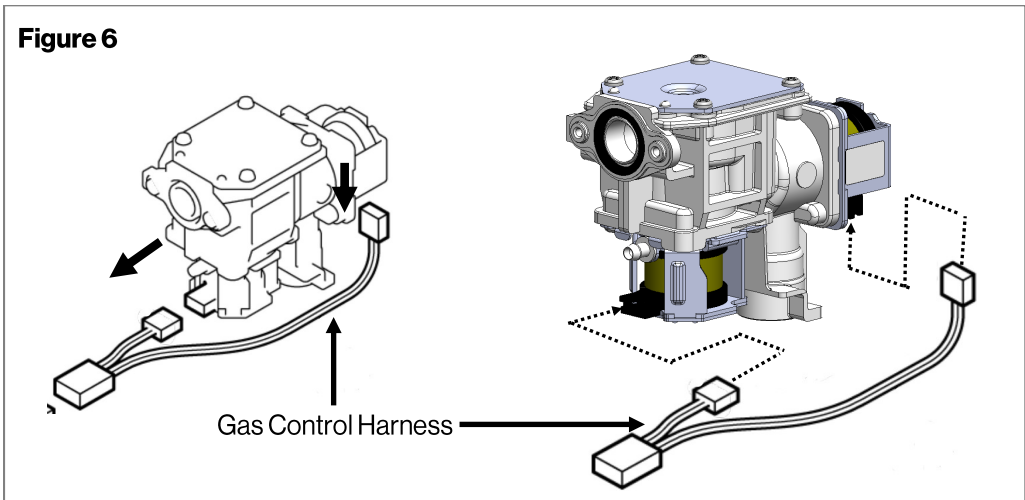
Figure 4



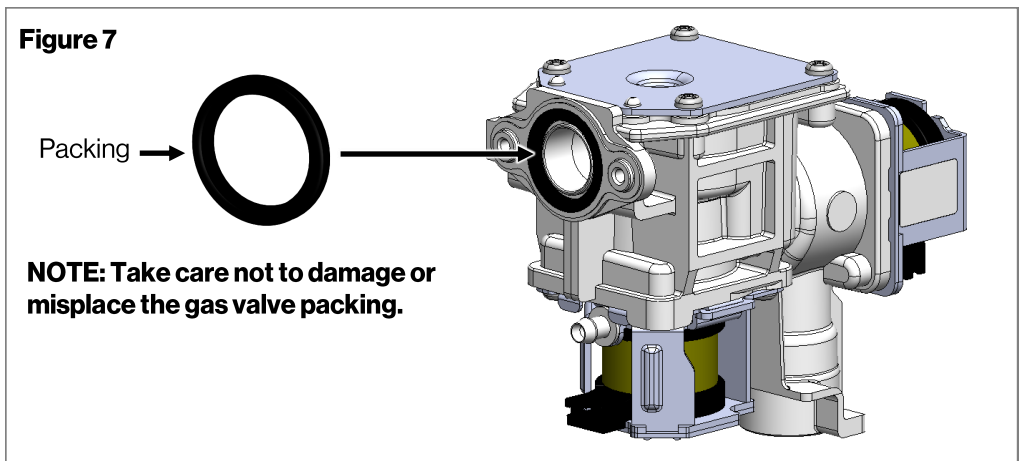
9. Remove the two Hex/Phillips screws securing the gas valve assembly to the gas manifold (Figure 5).



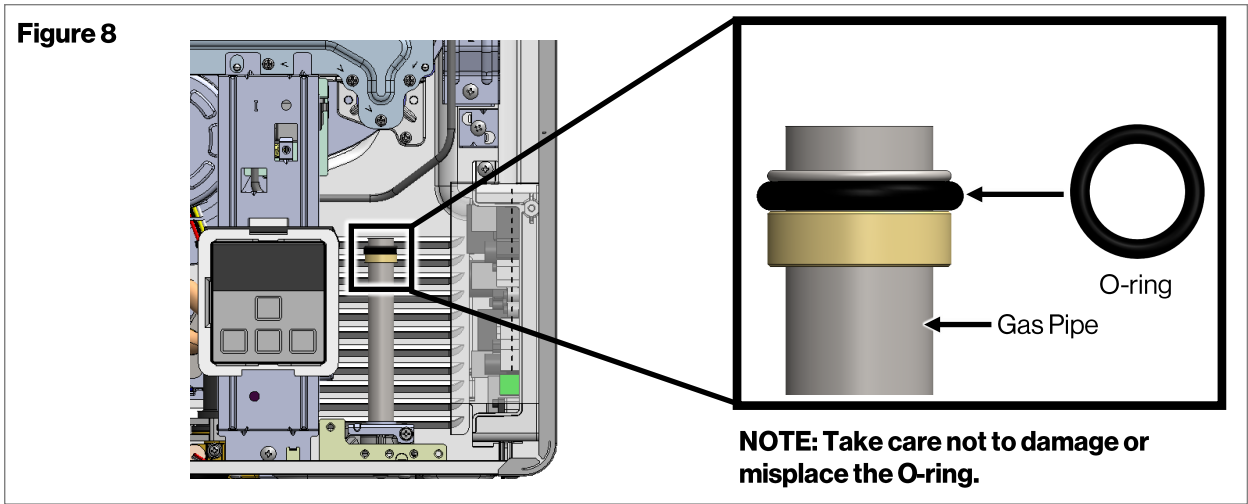
10. Carefully remove the gas valve assembly from the water heater and disconnect the gas control harness. Reconnect the gas control harness to the new gas valve (Figure 6).



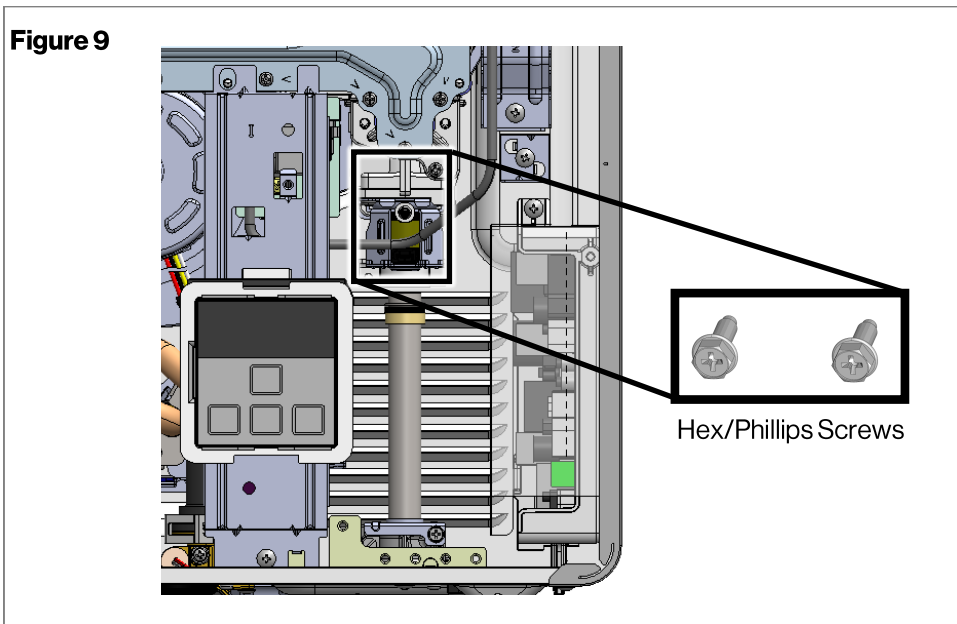
11. Install packing to the gas valve assembly (Figure 7). Ensure the ribbed side of the packing is facing outward.



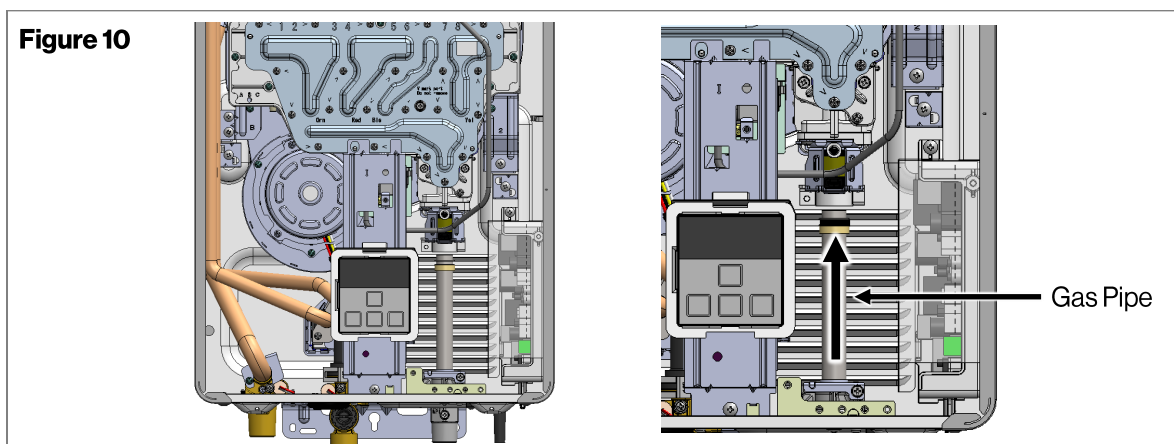
12. Remove the existing O-ring and install the new O-ring to the gas pipe (Figure 8).



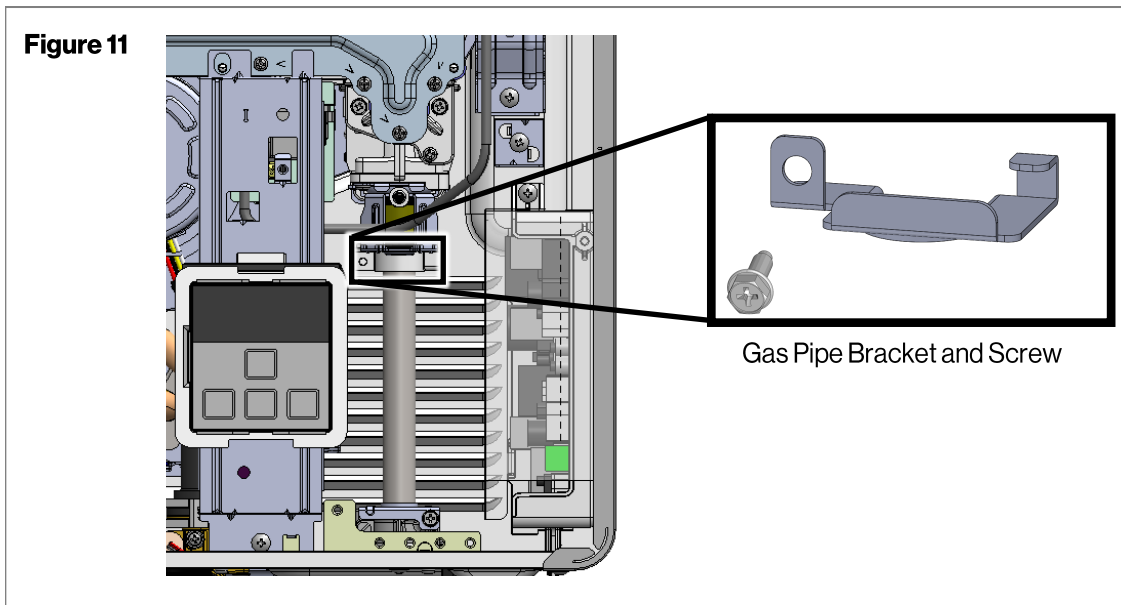
13. Position the gas valve assembly behind the gas manifold and secure in place with two Hex/Phillips screws (Figure 9).



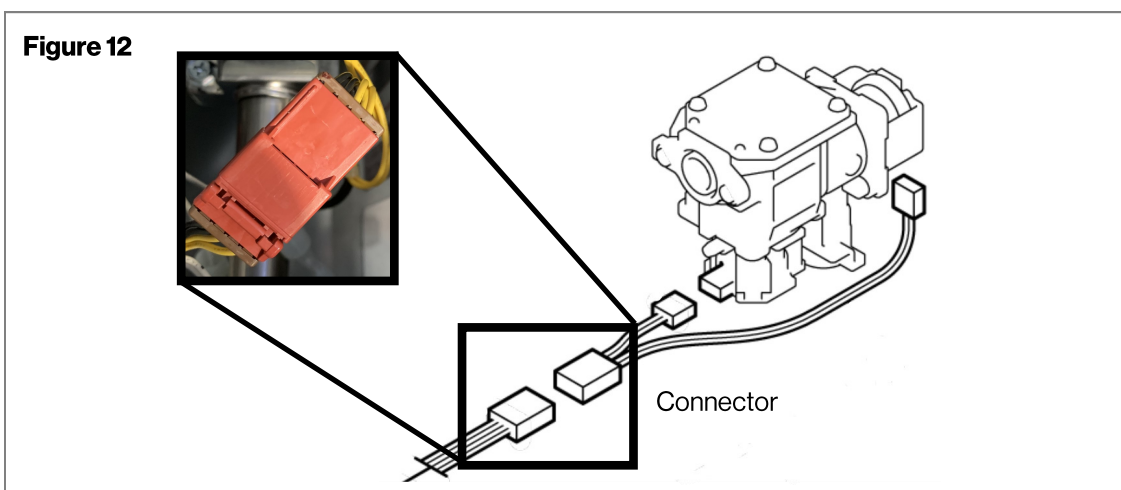
14. Slide the gas pipe up and into the gas valve assembly (Figure 10).



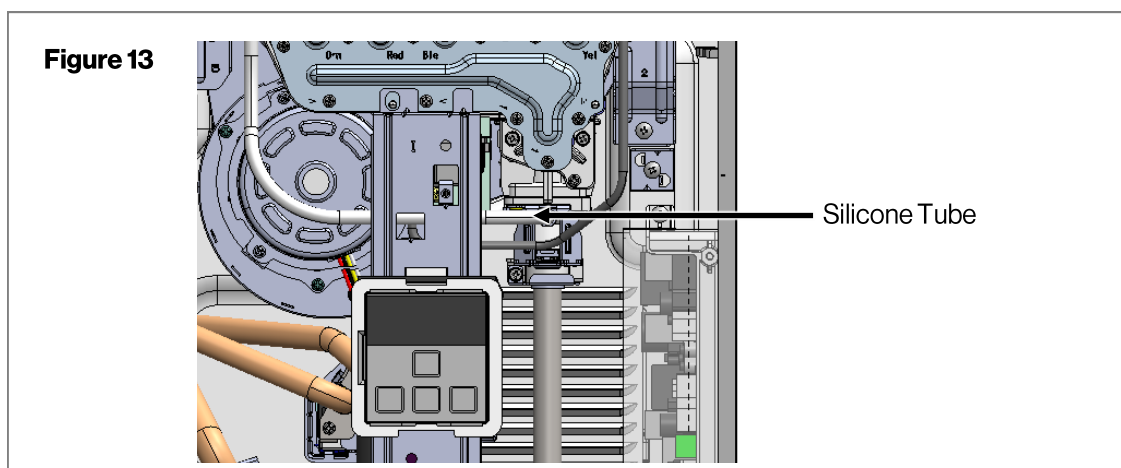
15. Ensure gas pipe is fully engaged to the gas valve. Brass ring should not be exposed. Then secure the gas pipe to the bottom of the gas valve assembly with the gas pipe bracket and Hex/Phillips screw (Figure 11).



16. Reconnect the main connector on the gas control harness (Figure 12).



17. Reconnect the silicone tube from the front of the gas valve assembly (indoor models only) (Figure 13).



18. Reconnect and turn on 120 V power supply, water supply and gas supply.
19. Perform leak detection test for gas and purge any air out of the gas line.
20. Check manifold gas pressure.

Adjust Gas Pressure Settings

Complete this section after replacing the gas valve. Confirm that the inlet gas pressure is between the minimum and maximum pressures allowed for this appliance.

CAUTION ⚡

Do not touch any other areas on the PC board besides the "SW" switches while power is supplied to the appliance. Parts of the PC board are supplied with 120 volts AC.

CAUTION 🔥

Do not touch the areas at or near the heat exchanger or hot water lines. These areas become very hot and could cause burns.

1. Turn off the gas supply.
2. Turn off the 120 V power supply.
3. Remove the front panel from the appliance (front panel may already be opened).
4. Turn on the 120 V power supply.
5. Check the gas type using the data plate on the side of the unit and parameter setting 10 (refer to Parameter Settings section in Tech Sheet or Installation and Operation Manual). (A=LPG, b=NG)
6. Remove test port screw and attach the manometer to the burner test point located on the manifold (Figure 14).
7. Turn on the gas supply.
8. Flow water through the water heater at the maximum flow rate obtainable. (At least 3 gallons per minute is recommended. If there is not enough water flowing, the water heater could shut off or sustain damage due to overheating.)
9. Push and hold "B" button. "IF" will appear on the display.
10. Push and hold "A" button. "FL" (Forced Low) will appear on the display.
11. Push and hold "A" button again. "FH" (Forced High) will appear on the display.
12. While in "Forced Low" or "Forced High", use the Up button on the controller to increase the pressure. Use the Down button to decrease the pressure. Reference the rating plate on the side of the unit for values.
13. To exit "Forced Low" or "Forced High", push and hold "B" button. "2L" will appear on the display.
14. Push and hold "B" button again. "3C" will appear on the display (indoor models only)
15. Push and hold "B" button again. "4t" will appear on the display.
16. Push and hold "B" button again. The set temperature will appear on the display (indoor models only).
17. Close the hot water taps.
18. Turn off the gas supply and 120 V power supply.
19. Remove the manometer and re-install the test port screw (Figure 14).
20. Operate the unit and check for gas leaks.
21. Install the front panel.

Figure 14

