

**MANIFOLD PRESSURE REGULATOR ADJUSTMENT and PRESSURE VERIFICATION PROCEDURE:**

**⚠ WARNING ⚠**

INSTALLER MUST VERIFY AND ADJUST, IF NECESSARY, THE MANIFOLD OPERATING PRESSURE OF THIS HEATER ACCORDING TO THE INSTALLATION MANUAL AND RATING PLATE OF THIS HEATER.

FAILURE TO DO SO WILL VOID ALL WARRANTIES AND MAY CAUSE DAMAGE, INJURY AND/OR DEATH.

IF YOU HAVE ANY QUESTIONS CONCERNING THESE INSTRUCTIONS, CALL CALCANA AT 800-778-6729 BEFORE YOU VERIFY AND/OR ADJUST THE MANIFOLD FUEL PRESSURE ON THE HEATER. No one should work on or install this heater unless they are a licensed/qualified and insured contractor trained in the appropriate trade or technical fields (Gasfitting-HVAC-Electrician) related to the installation and/or service of this heater.

Person(s) who service and/or install this unit accept full liability and responsibility for its operation.

**TOOLS REQUIRED**

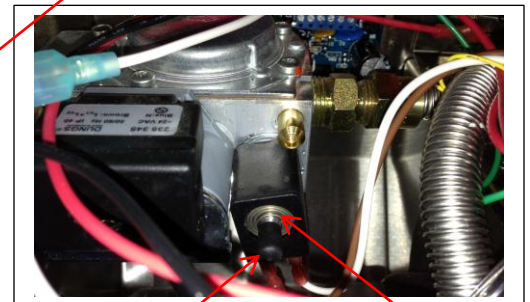
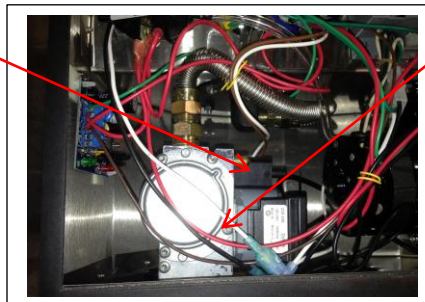
- Small Flat Blade Screw Driver
- 2 mm (millimeter) allen wrench
- 3 mm (millimeter) allen wrench
- Manometer that measures inches of water column (" W.C.)
- Volt Meter capable of reading AC and DC voltage in a range of 0 to at least 30 volts

**INITIAL STEPS:**

- 1) **The installer must verify that the heater being installed is of the correct fuel type for the available fuel that is supplied for this installation. This includes any high altitude correction that may be applicable for your installation. Confirm site has adequate fuel supply to operate all gas fired appliances, including this/these heater(s), at their maximum rated capacity simultaneously (at the same time). Make sure gas lines and pressure regulators are of a capacity to deliver the correct line pressure within the specified range for your fuel type (5" to 14" w.c. for natural gas and 12" to 14" w.c. for propane or LPG fuel) to the heater's gas line inlet connection, with all gas fired appliances on site operating at the same time. If you are unable to achieve the stated line pressures during operation, you will not be able to verify and/or adjust the gas manifold pressure setting on this heater, and the heater will not operate correctly. If fuel pressure is too low, the heater will not have enough fuel to achieve its maximum heat level. Alternatively, if the fuel line pressure is too high, the valve can be damaged.**
- 2) **Make sure all gas-fired appliances on site, other than this heater, are on and operating at the same time. Otherwise, an inaccurate reading of manifold pressure may occur.**
- 3) **Make sure this heater is not operating and is turned off when you start this procedure.**
- 4) **START BY opening the service door and identifying the location of the gas valve and the modulator. Remove the black plastic cap from the adjustment tower.**



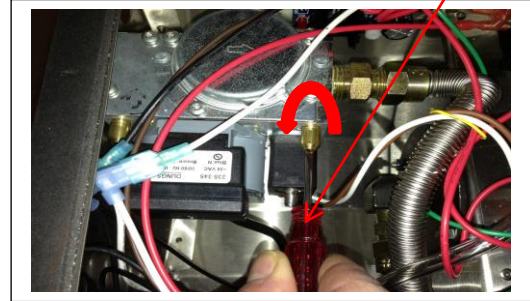
Service Door



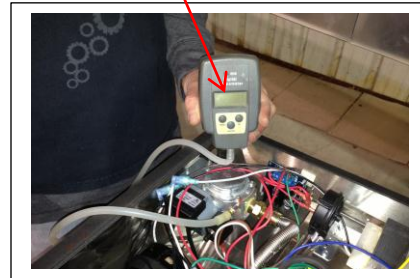
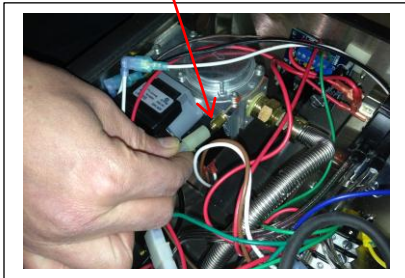
Black Plastic Cap

Adjustment Tower

- 5) Locate manifold pressure tap. Open the manifold pressure tap by using a small flathead screwdriver to turn the screw inside the brass fitting counterclockwise 3 turns. **DO NOT REMOVE THIS SCREW.**



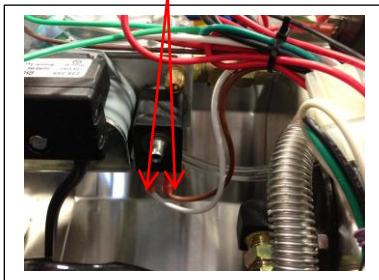
- 6) Connect a manometer that registers pressure in inches of water column ("W.C.) to the manifold pressure tap.



***FOR LOW PRESSURE VERIFICATION and/or ADJUSTMENT:***

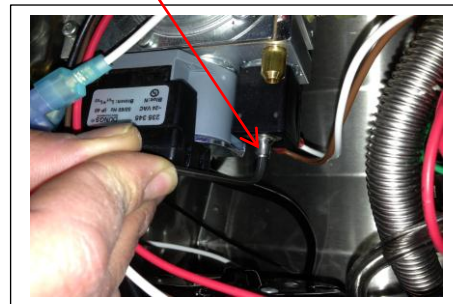
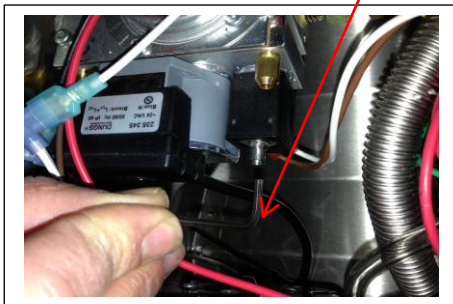
**CAUTION: Always adjust low pressure setting first since the low setting will affect the high setting.**

- 7) Remove the electrical connection from the modulator. (Brown and White Wires)



- 8) Start the heater and take a pressure reading. The manifold pressure required on the low setting for natural gas is 1.25 "W.C. For liquefied petroleum gas, the manifold pressure should be 5.25" W.C. on low. The manifold pressure setting information is also contained on the rating plate which is affixed to the side of the heater near where the service lid is located.

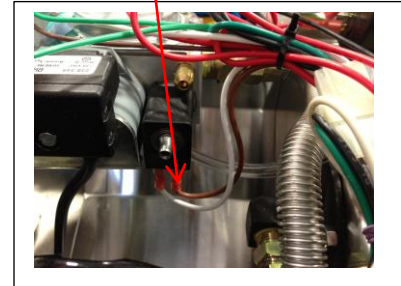
- 9) If adjustment is needed, insert a 3mm allen wrench into the adjustment tower and turn clockwise to lower pressure and counterclockwise to increase pressure.



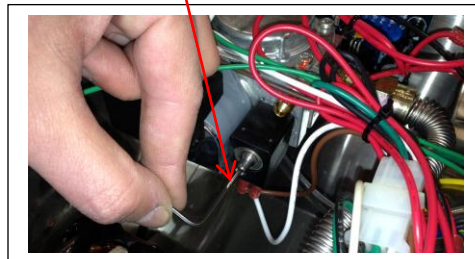
- 10) Once proper pressure is confirmed, turn off the heater, and go to step 11) for high pressure verification and/or adjustment instructions.

**FOR HIGH PRESSURE VERIFICATION and/or ADJUSTMENT:**

- 11) Rotate the modulator control knob on the control panel to high. Connect electrical meter to the modulator control wires. Operate heater by turning it on. Voltage output should be between 24 to 28 volts D.C. current. If voltage is correct, turn off heater and connect the electrical supply wires to the terminals on the modulator. If voltage is incorrect, determine cause for deficient voltage and repair before you continue.

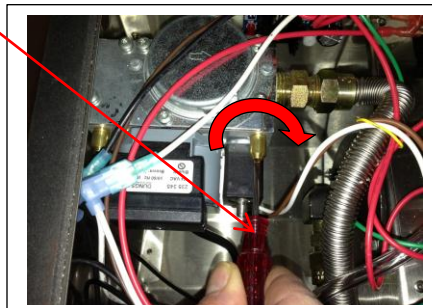


- 12) Start heater and take a pressure reading. For natural gas, manifold pressure should be 3.5 " W.C. on high. For liquefied petroleum gas, manifold pressure should be 10.5" W.C. on high.
- 13) If adjustment is needed, insert a 2mm allen wrench into the adjustment tower and turn clockwise to lower pressure and counterclockwise to increase pressure.

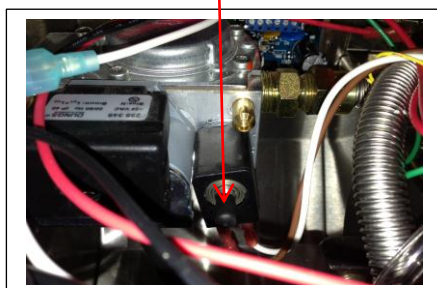


**FINAL STEPS:**

- 14) Once proper pressure is confirmed, turn off the heater, remove the manometer and use a small flathead screwdriver to turn screw inside brass fitting clockwise until tight. DO NOT OVER TIGHTEN.



- 15) Replace the black plastic cap on the adjustment tower.



- 16) Close the service lid and replace the self-tapping screw that secures the service lid.

