Checking and Adjusting Gas Pressure

*Equipment needed:* allen wrench set, manometer and small flat head screwdriver.

Turn valve to pilot or turn off power to prevent opening of the gas valve with the pressure tap screw removed.

Locate pressure tap (on the outlet or burner manifold side of the valve), remove the plug and screw in the fitting to hook up a monometer (typically a 3/8” – barbed fitting) and insert tubing to manometer.
Insert other end to the manometer – in this example a combustion test instrument that measures pressure.

Zero the manometer per manufacturer’s instructions and energize the gas valve. Compare the actual reading with the manufacturer’s specifications (Typically 3.5 WC” for natural gas or 11 WC” for propane).

Remove cap to access gas pressure adjustment screw and adjust pressure if necessary.

(Keep in mind that this particular instrument’s pressure sensor is actually designed to measure differential pressure so the available pressure tap reads the opposite polarity.)
Monitor combustion test results as gas pressure is adjusted.

In this example, gas pressure was a little low, confirmed by the Oxygen reading being higher than anticipated.

Increasing the fuel input typically results burning more oxygen, lowering the reading on the analyzer.

Once proper gas pressure is set and combustion test results are within acceptable ranges replace regulator cap and pressure test plug.

Note: to check for incoming pressure, remove tap from the incoming side of the valve. Typically the required incoming pressure will be stamped on the valve body (Generally 10 – 14 WC”). A drop of more than 1 WC” when the valve is energized may suggest inadequate pipe sizing, a restriction, or a problem with the primary regulator.