



Installation Instructions – Supplemental

CONVERTING FROM NATURAL TO LP GAS FOR PLATINUM® WATER HEATERS WITH DUNGS GAS VALVE

These are the steps for conversion of PLATINUM® water heaters from Natural Gas to LP, for all models.

IMPORTANT: INSTALLATION AND SERVICE MUST BE PERFORMED BY QUALIFIED SERVICE PERSONNEL. THESE INSTRUCTIONS ARE TO SUPPLEMENT THE INSTALLATION & MAINTENANCE MANUAL PROVIDED WITH YOUR PLATINUM WATER HEATER.

WARNING: High Voltage Shock Potential - Turn off all electrical service to the appliance prior to installation of this kit. Following, close any opened panel covers before restoring electrical service to the appliance. All wires and terminals carry High Voltage (120V). If the electrical service is not turned off and terminals are touched, a dangerous shock will occur that can result in personal injury or death.

WARNING: When servicing the controls, use exact, factory authorized replacement parts. Label all wires prior to disconnection. Verify proper operation after servicing. Incorrect parts substitution and wiring errors can cause damage, improper operation, fire, carbon monoxide and other unexpected and unsafe conditions that could result in property damage, personal injury, fire, explosion, exposure to hazardous materials or death.

INSTRUCTIONS

This PLATINUM® is factory set-up for operation up to 2000 feet altitude. The PLATINUM derates 4% per 1000 feet above 2000 feet elevation. Consult Factory for installations above 2000 feet elevation. The Platinum water heater uses a Dungs combination gas valve with an integrated gas restrictor which is used to regulate the air-to-fuel ratio. When switching from Natural to LP operation (or vice versa) it necessary to make an adjustment to the restrictor for safe, optimal operation. This is the only adjustment necessary for this conversion (for conversion instructions on PLATINUM water heaters with a White Rogers combination gas valve, consult factory). The following process details the conversion:

1. Disconnect the electrical power.
2. Turn off the gas supply.
3. Remove lower front jacket cover to expose the burner and gas train assembly.
4. Locate the brass restrictor adjustment (small slotted screw head) on the top of the gas valve near the outlet (Refer to Fig 1).
5. Follow the LIGHTING INSTRUCTIONS of the PLATINUM Installation and Maintenance manual (turn on electrical power and adjust the thermostat to obtain a call for heat).
6. Check the inlet/supply gas pressure before startup using a U-tube manometer or a 0 to 28" W.C. (Measure the gas pressure upstream of the gas train.) Record static gas pressure when not firing and gas pressure while firing and ensure these pressures are between 13.0"WC and 11.0"WC. Pressures outside this range could result in gas valve damage, unreliable operation or the creation of dangerous carbon monoxide.

7. Check the flue gases with an electronic combustion analyzer to make final gas adjustments.
 - a. It may be necessary to create a small hole in the vent for combustion analysis. This should be located no more than 12 inches downstream of the appliance flue outlet.
 - b. Measure the vent pressure using a manometer or draft gauge capable of reading up to 1/2" W.C. and record vent pressure. Vent pressure must not exceed +0.4" W.C. Excessive vent pressure indicates a vent obstruction or inadequately sized vent.
 - c. When water in tank is above 120°F, insert the analyzer sensor into the hole in the vent and record O₂ reading.
 - d. If the O₂ reading is not between 5% and 6%, make an adjustment to achieve this condition. Using a fine bladed screwdriver, rotate the brass restrictor adjustment (to obtain an O₂ level between 5% and 6%).
 - e. Record CO reading (200 ppm maximum).
 - f. To prevent products of combustion from escaping, cover the test hole in the vent with aluminum adhesive tape.
8. Re-attach the test port cap (from step 7), replace the lower front jacket cover.
9. **IMPORTANT** – Remove the existing information decal attached to the front control panel and replace with the provided label showing the now converted fuel type. Align the decal carefully before allowing it to touch the surface, as it cannot be moved once contact is made.
10. Contact PVI customer service regarding any problems with the conversion.

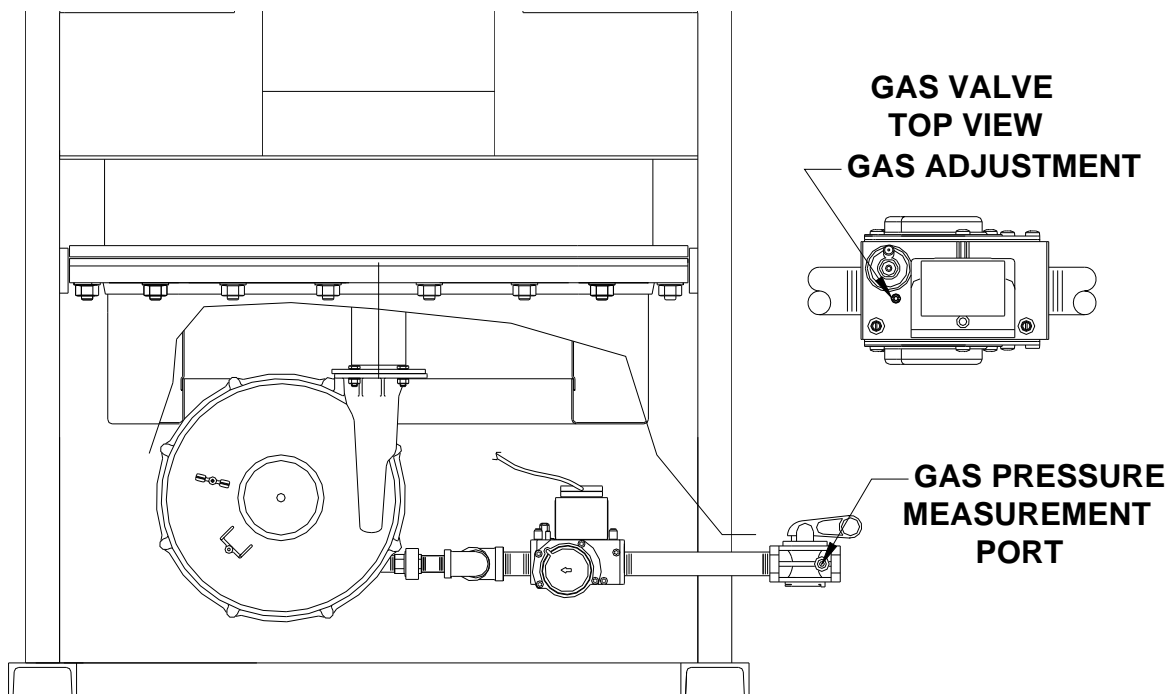


Fig 1. Valve Adjustment

IGNITION SEQUENCE

1. When the water heater is powered (120 volts) through the ON-Off control switch, the Hot Surface Ignition Control will reset and perform a self-check routine to verify no flame is present before the call-for-heat sequence begins.
2. The Digital Temperature Control (thermostat) displays the actual water temperature in the tank.
3. If the actual water temperature inside the tank is below the programmed temperature setpoint differential of the digital temperature control, a call-for-heat is activated.
4. When a call-for-heat is received from the thermostat, the ignition control will perform a safety timing sequence and flame check. If all checks are successfully passed, the combustion blower is energized for a 15-second pre-purge period.
5. When the pre-purge period is complete, the hot surface igniter (HSI) is energized for a 40-second heat-up period, followed by the gas valve for the 4-second trial-for-ignition (TFI) period. The igniter remains energized throughout the TFI period.
6. The ignition control will monitor for flame through the HSI during the trial for ignition period. If a valid flame is detected the gas valve remains energized.
7. The thermostat and main burner flame signal are constantly monitored by the ignition control to assure that the system operates properly. The control will continuously monitor the flame during the heating period.
8. If the burner fails to light or the flame is not detected during the first TFI, the gas valve is de-energized. Following a purge period, the ignition control will make three TFI attempts before locking out.
9. If the flame signal is lost while the burner is operating, the ignition control will de-energize the gas valve. Following a purge period, the ignition control will make three TFI attempts before lockout. If flame is reestablished, normal operation resumes.
10. When the thermostat is satisfied and the demand for heat ends, the gas valve is de-energized.

