

# INSTALLATION INSTRUCTIONS



## Gas Conversion Kit Electronic Ignition Heaters

View these instructions online at [www.lbwhite.com](http://www.lbwhite.com)

### Kit Contents:

DESCRIPTION	QTY.
Instructions	1
Burner orifice	1
Variable rate valve	1
Dataplate	1
Honeywell conversion kit	1
Pipe thread compound	1
Face bushing <sup>1</sup>	1

### Tools required:

- Standard philips screw driver
- 3/16 in. allen key
- 2 – 1/8 in. NPT pressure barb fittings
- 2 – Low pressure gas gauges (0-30 in. w.c.)
- Adjustable wrench
- Pipe wrench
- Plier

### Qualifications for installation of the kit:

- You must read and understand these instructions before beginning the conversion.
- You must be properly trained and have sufficient experience to install the gas conversion kit and test the heater for proper operation.
- Ensure the installation's gas type and pressure conforms to the gas type and pressure requirements on the dataplate within the conversion kit.
- The conversion shall be carried out in accordance with the requirements of the provincial authorities having jurisdiction and in accordance with the requirements of the CAN1-B149.1 and .2 INSTALLATION CODES.

### Discussion:

The following instructions are common for use when converting fuel gas for electronic ignition heaters.

## A. Initial Preparation

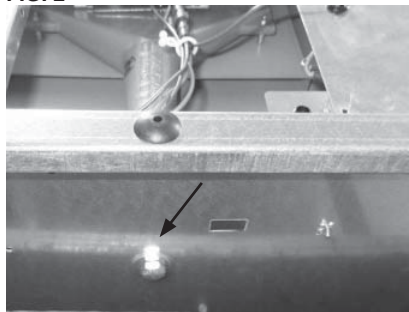
1. Close the main gas supply valve to the heater, and disconnect the heater's electrical supply.
2. Remove the gas hose and sediment trap from the inlet of the gas control valve.
3. Open the burner end door.
4. If applicable, remove the cover from gas control valve enclosure.
5. Disconnect the gas control valve's wiring. See Fig. 1.

**FIG. 1**



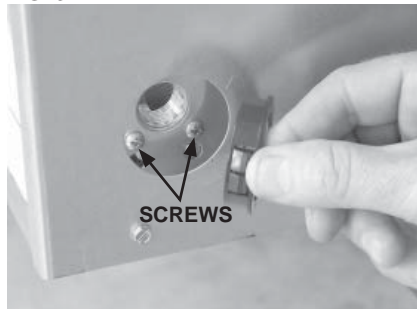
6. Remove the burner retaining bolt and washer from beneath the heater's base. See Fig. 2.

**FIG. 2**



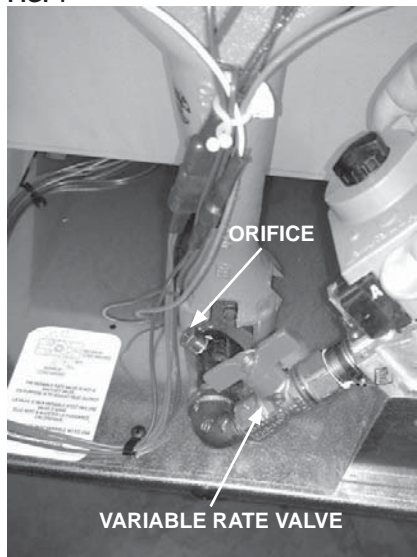
7. If needed, remove the plastic bushing from the case. Remove the screws from the gas valve bracket, Guardian 250 shown. See Fig. 3.

**FIG. 3**



8. Lift and pivot the valve and manifold assembly as needed to remove it from the heater. See Fig. 4, Guardian 250 shown.

**FIG. 4**



9. Replace the existing burner orifice and the variable rate valve with similar components from the kit.

- For model Guardian 250/325 Natural Gas ONLY, observe the arrow location on the valve handle when assembling it to the manifold piping. See Fig. 5a.

- For model Guardian 60/100, observe the position of the blue teardrop handle. See Fig. 5b.

FIG. 5a

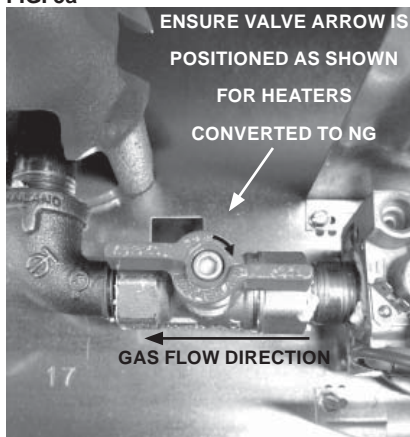
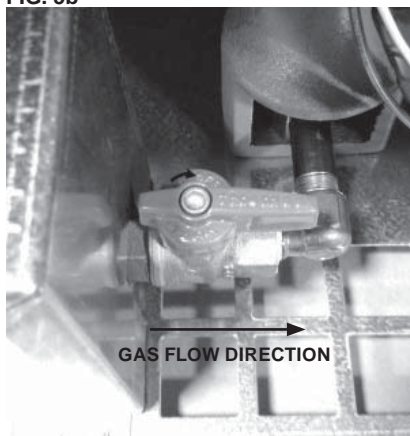


FIG. 5b

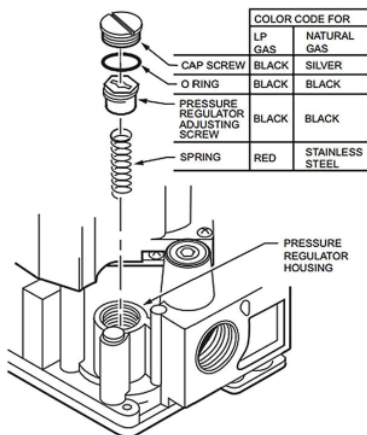


10. Apply a small amount of pipe thread compound on threads, tightening securely.

### B. Converting the Gas Control Valve

1. Remove the regulator cap and pressure regulating adjusting screw. Remove the existing spring from the gas control valve. Install the spring and adjusting screw from the kit. See Fig. 6.

FIG. 6



2. Turn the adjusting screw clockwise 10 complete turns.

**NOTE:** This does not accurately set the pressure. It only allows the heater to light. See Section C – Setting Gas Pressures.

3. Apply the labels included in the kit to the heater. Clean the areas to allow adhesion.

- Apply dataplate from the kit over the existing dataplate.
- Apply language specific ATTENTION label to the gas control valve in the dotted area as shown in Fig. 7.

FIG. 7

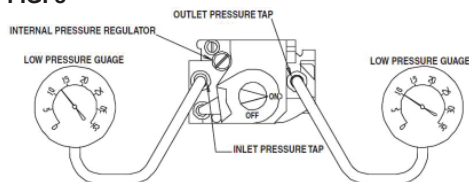


4. Install the converted assembly back into the heater.
5. Reconnect the gas control valve's wiring.

### C. Setting Gas Pressures

1. Using the 3/16 allen key, remove the pressure tap plugs at inlet and outlet of gas control valve. See Fig. 8.

FIG. 8



EXAMPLE SHOWS PRESSURE FOR PROPANE GAS  
ALWAYS REFER TO PRESSURE ON DATAPLATE

2. Securely thread the 1/8 in NPT barbed fittings into the inlet and outlet pressure ports of the gas control valve.
3. Securely connect pressure gauges capable of measuring up to 30 in. w.c. gauges at both locations. See Fig. 8.
4. Reconnect the sediment trap and gas hose to the heater. Use pipe thread compound.
5. Open the gas supply valve to the heater.
6. Ensure variable rate valve is in the full throttle position.
7. Leak test the installation using approved leak detectors. Eliminate any gas leaks at threaded connections before proceeding.
8. Reconnect the heater's electrical supply and start the heater.
9. Refer to the dataplate supplied with the conversion kit. Ensure pressures are set according to required specifications given on the dataplate.

- Observe the pressure read at the inlet and outlet of the gas control valve.
- The pressure read at the inlet of the gas control is Inlet Pressure. The pressure read at the outlet of the control valve is Burner Manifold Pressure.

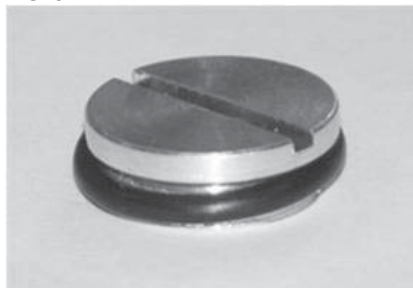
- Verify proper inlet pressure. If the inlet pressure to the gas control valve does not agree with the dataplate, then the regulator controlling gas pressure to the heater requires adjustment. Proceed after proper inlet pressure has been established.

- Verify proper burner manifold pressure. Turn the regulator adjusting screw CW (increase) or CCW (decrease) to adjust pressure as needed.

### D. Completion

1. Install the O-ring into the groove on the regulator cap screw as shown on Fig. 9. Tighten cap screw on to the gas control valve.

FIG. 9



2. Close the heater's main gas supply valve.
3. Remove gauges and barb fittings. Install pressure tap plugs, tightening securely.
4. Open the heater's main gas supply valve. Close and latch the burner access door.
5. Set thermostat to desired temperature.

## Service

Contact your local L.B. White dealer for replacement parts and service. You may also call the L.B. White Co., Inc. at 1-800-345-7200, for assistance, or email us at [customerservice@lbwhite.com](mailto:customerservice@lbwhite.com).

Be sure that you have your heater model number and configuration number when calling.



**WORLD PROVIDER - INNOVATIVE  
HEATING SOLUTIONS**

411 Mason Street, Onalaska, WI 54650

800-345-7200 • 608-783-5691

608-783-6115 (fax)

**[www.lbwhite.com](http://www.lbwhite.com)**