

# INSTALLATION INSTRUCTIONS



## Guardian Pilot 2.0 Gas Valve Upright Kit 574627

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

### Kit Contents:

Description	Quantity
Instruction, Installation	1
Pilot Tube	1
Gas Valve Mounting Bracket	1
Gas Valve Bottom Insert	1
Self Drilling Screws	2
Piping Compound	1
Compression Nut w/ Breakaway Sleeve	2

### Tools required:

- |                        |                        |
|------------------------|------------------------|
| - Cordless drill       | - Ratchet              |
| - 1/4 in. socket       | - 5/8 Socket           |
| - Phillips screwdriver | - 3/8 Open end wrench  |
| - Standard screwdriver | - 7/16 Open end wrench |
| - Needle nose plier    | - 1/2 Open end wrench  |
| - 10 in. Channellock   | - Adjustable wrench    |

### Qualifications for installation:

- You must be able to read and understand these instructions.
- You must be properly trained and have sufficient experience in servicing heaters and be capable of testing the heater for proper operation.

### General Information:

- The following instructions provide information for the reposition (upright) of the pilot gas valve.
- Read all instructions carefully before beginning installation.
- Allow the heater to cool down or in cold condition before starting the installation.
- Tighten all screws securely.
- Always apply piping compound on all threaded gas connections.

### Preparation:

- Shut off the gas supply to the heater.
- Allow the heater to burn off the gas in the line.
- Unplug the heater from its electrical source.
- Disconnect the gas hose from the heater's sediment trap.
- Remove the sediment trap from the inlet of the heater.

## Preparation:

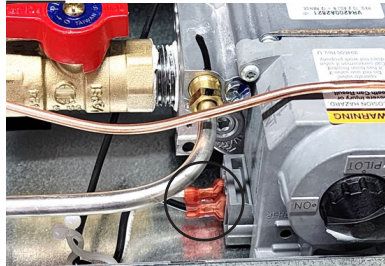
1. Open and remove the burner end door from the heater by pressing the top pin upward to released the door.  
See Fig. 1.

**FIG. 1**



2. Disconnect the black and white wires from the gas valve.  
See Fig. 2.
3. Disconnect the thermocouple and pilot tube from the gas valve, as shown in Fig. 3.

**FIG. 2**

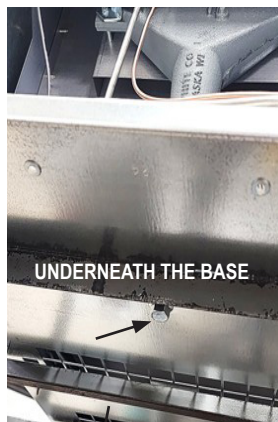


**FIG. 3**



4. Remove the underside base bolt securing the orifice holder and the two screws attaching the gas valve bracket to the base. See Fig. 4.

**FIG. 4**

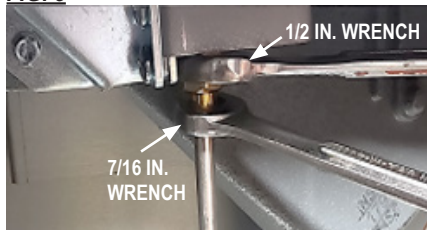


**2ND SCREW  
BEHIND GAS VALVE**



5. Remove the gas train assembly from the heater.
6. Pull the thermocouple downward to remove it from the pilot assembly.
7. Remove and discard the pilot tube from the pilot assembly. Use the 1/2-in. open-end wrench to hold the pilot orifice when removing the pilot tube nut as shown in Fig. 5.

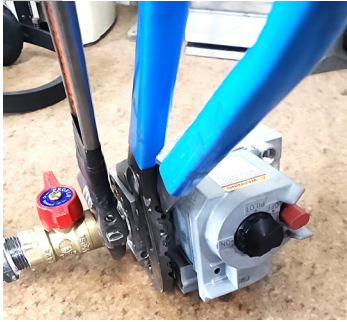
**FIG. 5**



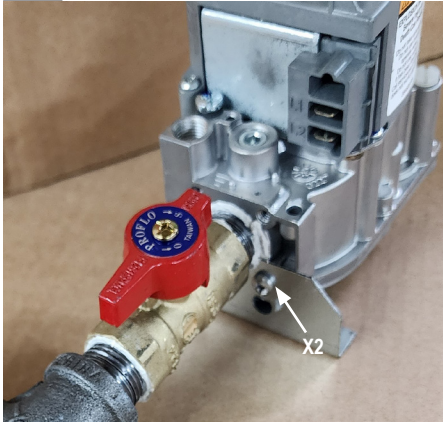
## Gas Valve:

1. Remove and discard the gas valve rear mounting bracket, but retain the screws to install the new front mounting bracket.

2. Using a channellock and adjustable wrench, rotate the gas valve 90° upright. See Fig. 6. DO NOT rotate the gas valve backward, as this will cause a gas leak.

**FIG. 6**

3. Install the provided front bracket to the gas valve with the two screws removed earlier. See Fig. 7.

**FIG. 7**

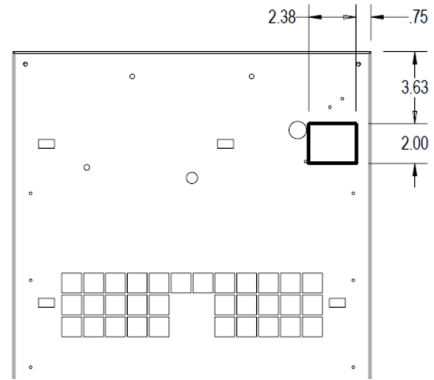
## Base:

Altering the base by cutting an opening is required for the proper installation of the upright gas valve assembly.

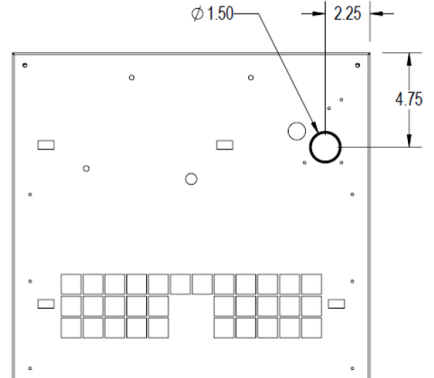
1. Mark the underside of the base per cutting options:
  - a. Using an angle grinder, see Fig. 8A.
  - b. Using a step drill bit, see Fig. 8B.

**FIG. 8A**

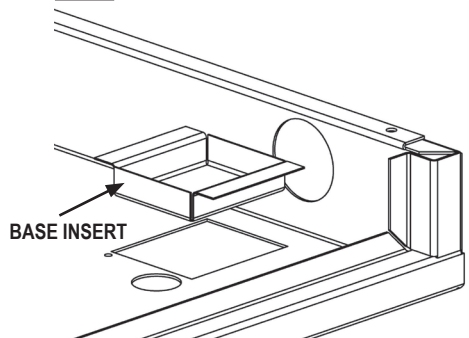
(A) Using an angle grinder to cut the base insert opening.

**FIG. 8B**

(B) Using a step drill bit to drill the base insert opening.



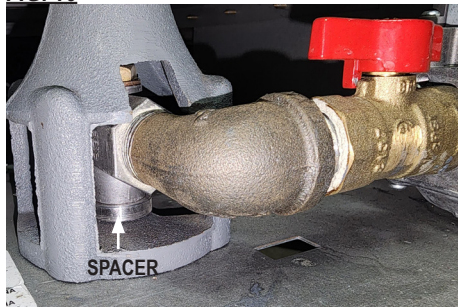
2. Clean the area before installing the base insert.
3. Install the base insert to the base as shown in Fig. 9.

**FIG. 9**

## Installation:

1. Install the upright gas valve assembly onto the heater. Ensuring the orifice holder is sitting on the spacer as shown in Fig. 10.

**FIG. 10**



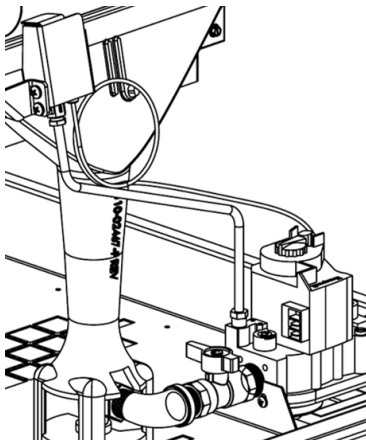
2. Thread the bolt, removed earlier, through the underside of the base into the orifice holder.
3. Secure the gas valve bracket to the base with the provided self drilling screws.
4. Tighten the base bolt securely. Take caution not to over tighten, torque to 12 ft.-lbs.
5. Reconnect the black and white wires to the gas valve. The polarity of the connections is not critical.
6. Insert the breakaway sleeve compression nut to each end of the provided tubing as shown in Fig. 11.

**FIG. 11**



**AN 1/8 INCH OF THE TUBE SHOULD PASS THROUGH THE SLEEVE.**

7. Install the tubing into the pilot assembly and the gas valve, ensuring the nut is not cross-threaded during installation. Tighten the nuts securely. Use the 1/2-inch wrench to hold the pilot orifice when tightening the tube nut.
8. Fully insert the thermocouple tip into the pilot assembly, then adjust it to prevent interference with the gas valve operation before connecting it to the gas valve.
9. Hand-tighten the thermocouple nut, then use the 3/8 wrench for a final 1/4-turn, taking care not to strip the threads.



## Completion:

1. Reinstall, close, and lock the burner side door.
2. Install the sediment trap and gas hose to the heater.
3. Turn on all gas valves to the open position.
4. Connect the heater to its electrical supply.
5. Start the heater to ensure proper operation.

## Service

Contact your local L.B. White dealer for replacement parts and service. You may also call the L.B. White Co., LLC at U.S. & Canada: 1-800-345-7200, Overseas: 001-608-783-5691 assistance, or email us at [customerservice@lbwhite.com](mailto:customerservice@lbwhite.com). Be sure that you have either the heater model or serial number when calling.



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411 Mason Street, Onalaska, WI 54650

800-345-7200 • 608-783-5691

608-783-6115 (fax)

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