



# Technical Data Sheet

## Sterling "G" B-Vent Model 8521 Converting From LP to NG Kit #95-56914 (For Stoves With Serial Numbers Below 016574)

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### **TOOLS REQUIRED**

Phillips Screwdriver  
Stubby Phillips Screwdriver  
Slotted Screwdriver  
#-10 Metric Wrench  
1/2" Deep Socket or Wrench  
7/16" Wrench  
Manometer  
Gas Leak Testing Device

### **KIT COMPONENTS**

1-NG Valve Conversion Kit  
2-#44 Burner Orifice  
1-#51 Pilot Orifice  
Instructions  
NG Sticker (White)

### **WARNING**

**This conversion kit must be installed by a qualified gas service agency in accordance with the manufacturer's instructions and all applicable codes and requirements of the authority having jurisdiction. If the information in these instructions is not followed exactly, a fire, explosion, or production of carbon monoxide may result causing property damage, personal injury, or loss of life. The qualified service agency performing this work assumes responsibility for the proper conversion of this appliance with this kit.**

**CAUTION:** *The gas supply must be shut off prior to making this conversion. If the stove is equipped with the optional blower, the electricity must also be disconnected.*

### **PROCEDURE:**

- 1) Remove the valve extension knobs from the front of the stove by pulling them straight out with your hand.
- 2) Remove the facade (the metal piece the extensions pass through) by removing the two Phillips screws with a stubby screwdriver.
- 3) Locate the rear cover plate on the lower left hand side on the back of the stove. Remove it by removing the two Phillips screws that hold it in place.
- 4) This will expose the shutter adjustment rods and bracket. With a 7/16" wrench, loosen the bolt in the retaining bracket.

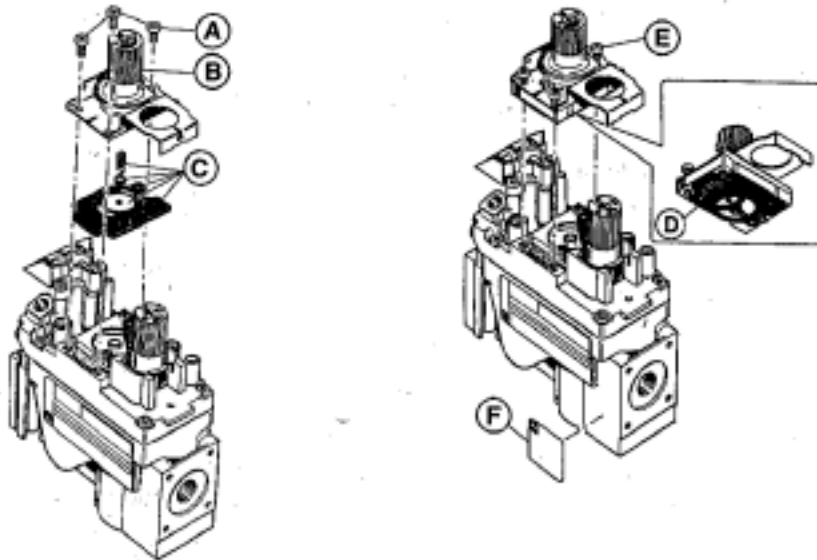
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- 5) Open the front door by removing the retaining screw with a Phillips screwdriver. Carefully remove the log set.
- 6) Remove the Phillips screw in the primary air block (right corner by log rack, just above the burner tube). You can now pull the two burner tubes out of the firebox. Note their position for reassembly.
- 7) Remove the log rack by removing the two screws that retain it.
- 8) Remove the two Phillips screws in the base of the pilot assembly. After removing the base plate, lift the pilot assembly and remove the pilot line with a #10 metric wrench. Place one hand under the pilot assembly, gently tap the pilot assembly with your finger until the LP pilot orifice drops out.
- 9) Place the NG (#51) pilot orifice directly onto the pilot line. Reattach the pilot line with the #10 metric wrench. Replace the pilot base and retaining screws.
- 10) While reaching around the back of the stove to hold the gas manifold fitting with a  $\frac{3}{4}$ " wrench or an adjustable wrench, use a  $\frac{1}{2}$ " deep socket (or  $\frac{1}{2}$ " wrench) inside the firebox to remove the two LP burner orifices (make sure the fitting being held corresponds to the orifice being removed / repeat on the second orifice and fitting). Using the  $\frac{1}{2}$ " socket or wrench without also holding the manifold to remove the burner orifices will damage the manifold. While once again holding the manifold fittings with the  $\frac{3}{4}$ " wrench, install the two NG orifices (#44).
- 11) Reinstall the log rack. Install the front burner tube first. Note, this is the longer of the two burner tubes. Push the shutter rod through the bottom hole. Install the top/rear burner tube making sure the shutter rod passes through the top hole in the rear of the firebox. Adjust the shutters as indicated in the Owner's Manual. **IMPORTANT: When tightening the shutter clamp screw (step 12), do not over-tighten. Tighten until the screw head touches metal, then another  $\frac{1}{4}$ " turn.** Reinstall the primary air block over the shutters by attaching it to the log rack. Replace the log set. Close the front door and tighten the screw.
- 12) On the back of the stove, tighten the shutter retainer bolt and replace the rear cover.

CONVERTING THE VALVE: To convert the valve, refer to the following Instructions and illustrations.



### CONVERTING THE VALVE:

- 1) Using a Torx T20 (tamper proof torx on older models, slotted screwdriver on newer models), remove and discard the three pressure regulator mounting screws (A), the pressure regulator tower (B), and the diaphragm (C).
- 2) Insure that the rubber gasket (D) is properly positioned and install the new HI/LO pressure regulator assembly to the valve using the new screws (E) provided with the kit. Tighten the screws securely.
- 3) Install the enclosed identification label (F) to the valve body where it can be readily seen. Place white NG sticker over the red LP sticker on the valve door.

### BEFORE THE STOVE IS USED:

- 1) Turn on the gas supply. Check the manifold pressure using a manometer. Refer to the Owner's Manual for instructions.
- 2) **LEAK TEST BEFORE AND AFTER LIGHTING THE STOVE.**
- 3) The Input rate of the heater can be verified by checking the manifold pressure. If the manifold pressure is correct, then the input rate is also correct. Refer to the Owner's Manual for:
  - a. Details on adjustment for proper pilot and main burner flame appearance.
  - b. Instructions for placing all markings provided in the kit in the appropriate location on the heater.

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- c. Instructions for checking out the normal operating sequence of the ignition system.
- d. Location on valve to check manifold pressure.

|  | <b>Natural Gas</b> | <b>LP</b>       |
|--|--------------------|-----------------|
| Input rating (Btu/hr) 0-1370 m         | 40,000             | 40,000          |
| Maximum output (BTU/hr) 0-1370 m       | 32,000             | 32,000          |
| Minimum input rating (Btu/hr) 0-1370 m | 25,000             | 30,000          |
| Orifice size DMS 0-1370 m              | 44 Front & Rear    | 55 Front & Rear |
| Pilot orifice                          | 51                 | 35              |
| Manifold pressure (in. w.c./kPa)       | 3.5/0.87           | 10.0/2.48       |
| Man. Pressure-Lo setting (in.w.c./kPa) | 1.6/0.42           | 6.5/1.6         |
| Minimum inlet pressure (in. W.c./kPa)  | 5.0/1.24           | 11.0/2.88       |
| Maximum inlet pressure (in. W.c./kPa)  | 10.5/2.62          | 13.5/3.36       |

**WARNING: Make sure proper replacement orifices have been used.**