



## TECHNICAL DATA SHEET

### KIT #93-56906

*Converting the Tucson DV 8700, Tucson BV 8501, or Stowe DV 8320  
From Liquid Propane (LP) to Natural Gas (NG)*

#### TOOLS REQUIRED

Phillips Screwdriver  
Slotted Screwdriver  
10mm Open End Wrench  
11mm Open End Wrench  
1/2" Deep Socket or Wrench  
3" Socket Extension (optional)  
Straight Handled T20 Torx  
5-32 Allen Wrench

#### KIT COMPONENTS

1-LP Valve Conversion Kit  
1-#40 Burner Orifice  
1-#51 Pilot Orifice  
NG Sticker (White)  
Instructions  
Fuel conversion labels

**NOTE:** Some Valves may require a tamper proof T20 Torx

#### **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.*

#### **ATTENTION**

*Cet équipement de conversion sera installé par une agence qualifiée de service conformément aux instructions du fabricant et toutes exigences et codes applicables de l=autorisés avoir la juridiction. Si l=information dans cette Instruction n=est pas suivie exactment, un feu, explosion ou production de protoxyde de carbone peut résulter le dommages causer de propriété, perte ou blessure personnelle de vie. L=agence qualifiée de service est esponsable de l=installation propre de cet équipement. L=installation n=est pas propre et complète jusqu=à opération de l=appareil converti est chèque suivant les critères établis dans les instructions de propriétaire provisionnées avec l=équipement.*

**CAUTION:** *The gas supply must be shut off prior to making this conversion. If the stove is equipped with the optional blower, disconnect it from the electrical source before making this conversion.*

**HearthStone Quality Home Heating Products**

317 Stafford Ave., Morrisville, VT 05661

email: [hearthstone@hearthstonestoves.com](mailto:hearthstone@hearthstonestoves.com)

Web: [www.hearthstonestoves.com](http://www.hearthstonestoves.com)

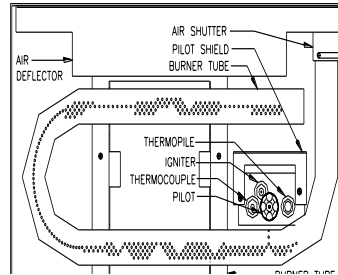
M:\Customer Service\Stowe DV - 8320\Tech Docs\Tech Data Sheets\93-56906 Tucson and Stowe LP to NG.doc



**IMPORTANT: DO NOT attempt this conversion on a Vent Free Tucson**

***PROCEDURE:***

1) Open the front of the stove. For the Tucson use a Phillips screwdriver to remove the screw that holds the front door closed. For the Stowe, use the Allen wrench provided or a standard 5-32 Allen key to remove the 4 bolts in the front facade. Note: some early models will have Phillips screws holding the front on. You will need to drop the ash lip down to remove the 2 lower bolts. Carefully hold the facade as the top 2 bolts are removed. Lift the facade off and place it in a safe place until it is required for reassembly.



2) Carefully remove the log set and the burner tube. Refer to the illustration at right and note the positions of the firebox components. Before the conversion is complete verify that all components are placed correctly.

3) Using a 1/2" deep socket with a 3" extension (or 1/2" wrench), remove the LP gas orifice (#53), located on the inside of the back of the firebox. Install the NG orifice (#40). To prevent damage to the main gas line, hold the elbow, which the orifice is attached to, when removing and installing the orifices.

4) Locate the pilot assembly and remove the 2 Phillips screws that hold the pilot base to the bottom of the firebox. Carefully lift the pilot assembly up into the firebox, just high enough to expose the attachments underneath (taking care not to kink the thermocouple tube, chafe the thermopile wire, and avoid damage to the gasket between the base of the pilot and the firebox).

5) Using a #10 metric wrench, remove the nut that holds the flexible pilot line to the base. Tap the top of the pilot assembly until the LP orifice drops out. Place the NG pilot orifice (#51) directly on the pilot line. Tighten with the #10 wrench.

6) Push the pilot assembly back down into its original position and secure it with the previously remove screws. Check to make sure the igniter wire is still firmly connected to the ceramic igniter. The connection can be verified by observing a spark when the ignition button is depressed.

7) Adjust the air shutter on the end of the burner tube so that it is approximately 2 open. Tighten the retaining screw to hold the shutter in this position.

***HearthStone Quality Home Heating Products***

317 Stafford Ave., Morrisville, VT 05661

email: [hearthstone@hearthstonestoves.com](mailto:hearthstone@hearthstonestoves.com)

Web: [www.hearthstonestoves.com](http://www.hearthstonestoves.com)

M:\Customer Service\Stowe DV - 8320\Tech Docs\Tech Data Sheets\93-56906 Tucson and Stowe LP to NG.doc



8) Replace the burner tube, logs, ember screen, and embers. Refer to the owner=s manual for the proper placement of these parts. Precise location is important to both the look and operation of the stove. Replace and secure the front door (Tucson) or Glass front (Stowe).

**NOTE:** The remainder of this conversion will be done to the valve and pilot assembly underneath the stove. Access can be increased by placing the stove on a raised surface or by blocking the unit up.

VALVE CONVERSION: See illustrations.

9) Using a Torx T20, or slotted screwdriver, remove and discard the three pressure regulator mounting screws (A), pressure regulator tower (B) and diaphragm (C).

10) 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) supplied with the kit. Tighten screws securely.

Install the enclosed identification label (F) to the valve body where it can be easily seen. Place the white NG sticker over the red LP sticker on the valve door.

11) Turn on the gas supply. For checking and properly adjusting the manifold pressure, refer to the appliance owner=s manual for instructions. **LEAK TEST BEFORE AND AFTER LIGHTING THE STOVE.**

12) 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 correct.

13) After filling out the fuel conversion label (pt#3300-510) it should be adhered to the rear of the heater near the rating label. After filling out the valve conversion label (pt#3300-514) it should be adhered, under the valve, to the valve doorframe, next to the warning label.

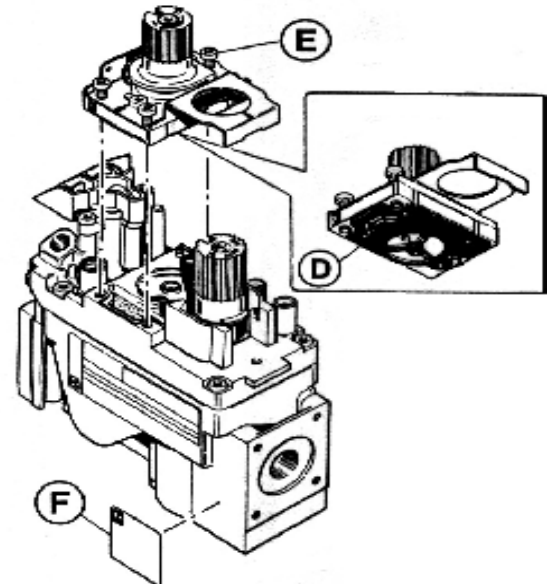
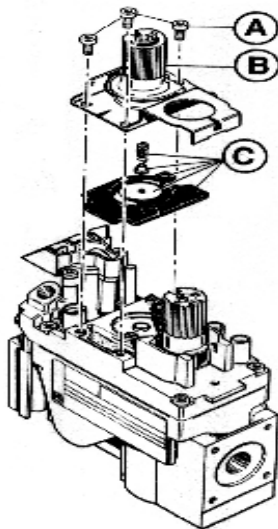
*HearthStone Quality Home Heating Products*

317 Stafford Ave., Morrisville, VT 05661

email: [hearthstone@hearthstonestoves.com](mailto:hearthstone@hearthstonestoves.com)

Web: [www.hearthstonestoves.com](http://www.hearthstonestoves.com)

M:\Customer Service\Stowe DV - 8320\Tech Docs\Tech Data Sheets\93-56906 Tucson and Stowe LP to NG.doc



|  | <u>Natural Gas</u> | <u>LP</u> |
|--|--------------------|-----------|
| Input rating (Btu/hr) 0-610 m          | 26,000             | 26,000    |
| Maximum output (BTU/hr) 0-610 m        | 20,000             | 20,500    |
| Minimum input rating (Btu/hr) 0-610    | 14,700             | 14,700    |
| Orifice size DMS 0-610 m               | 40                 | 53        |
| Input rating (Btu/hr) 610-1370 m       | 24,500             | 24,000    |
| Orifice size DMS 610-1370 m            | 41                 | 54        |
| Manifold pressure (in. w.c./kPa)       | 3.5/0.9            | 10.0/2.5  |
| Man. Pressure-Lo setting (in.w.c./kPa) | 1.2/0.3            | 3.3/0.8   |
| Minimum inlet pressure (in. W.c./kPa)  | 5.0/1.25           | 11.0/2.75 |
| Maximum inlet pressure (in. W.c./kPa)  | 10.5/2.62          | 13.5/3.36 |

**Note:** Refer to the owner=s manual for the:

- Details on adjustment for the proper pilot and main burner flame appearance.
- Instructions for checking out the normal operating sequence of the ignition system.
- Location on the valve to check manifold pressure.

**DO NOT REUSE THE PARTS THAT HAVE BEEN REMOVED FROM THE STOVE.**

|   |                    |             |                     |
|---|--------------------|-------------|---------------------|
| <b>WARNING: Make sure proper replacement orifices have been used.</b> |                    |             |                     |
| <b>LP ORIFICES:</b>   | <b>Main Burner</b> | 0 - 610m    | #53 (Standard)      |
|   |                    | 610 - 1370m | #54 (High Altitude) |
|   | <b>Pilot</b>       | #30         |                     |
| <b>NAT. GAS ORIFICES:</b>   | <b>Main Burner</b> | 0 - 610m    | #40 (Standard)      |
|   |                    | 610 - 1370m | #41 (High Altitude) |
|   | <b>Pilot</b>       | #51         |                     |

*HearthStone Quality Home Heating Products*

317 Stafford Ave., Morrisville, VT 05661

email: [hearthstone@hearthstonestoves.com](mailto:hearthstone@hearthstonestoves.com)

Web: [www.hearthstonestoves.com](http://www.hearthstonestoves.com)