

TUCSON DIRECT-VENT
TECHNICAL DATA SHEET
KIT #97-55901

**Converting the Tucson Direct-Vent CE
from G31 or G30/31 to G20**

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

KIT COMPONENTS

1-7211-203 Regulator kit
1-#40 Burner Orifice
1-#51 Pilot Orifice
1-G20 Sticker (White)
1-Instructions

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.

CAUTION: *The gas supply must be shut off prior to making this conversion.*

PROCEDURE:

- 1) Using a phillips screwdriver, remove the screw that holds the front door closed.
- 2) Carefully remove the log set and the burner tube. Note their positions for re-assembly.
- 3) Using a 1/2" deep socket with a 3" extension (or 1/2" wrench), remove the G31 or G30/31 gas orifice(#53 or 55), located on the inside of the back of the firebox. Install the G20 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) You can now replace the burner tubes and log set. Close the front door and secure it with the phillips screwdriver.

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.

- 5) Using a 10mm wrench, loosen the nut underneath the pilot assembly that holds the ceramic ignitor in place. Remove the nut and the ceramic ignitor. This will provide greater access to the pilot line under the pilot assembly.
- 6) Using an 11mm wrench, loosen the pilot line where it attaches to the valve (this will allow some mobility of the pilot line when it is removed from the pilot assembly). Remove the pilot line from the pilot assembly with a 10mm wrench. Place one hand under the pilot assembly and gently tap the top of the pilot assembly with your other hand until the G31 or G30/31 orifice (#30) drops out.
- 7) Place the G20 (#51) pilot orifice directly onto the pilot line or into the pilot assembly. Reattach the pilot line with a 7/16" and a #10 metric wrench.
- 8) Replace the ceramic ignitor in the pilot assembly and tighten the pilot line to the valve.

VALVE CONVERSION: See illustrations on page three.

- 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.
- 11) Install the enclosed identification label (F) to the valve body where it can be easily seen. Place the white G20 sticker over the red G31 or G30/31 sticker on the valve door.
- 12) 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.**
- 13) 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. Refer to the appliance owner's manual for the:

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

	G20	G31	G30/31
Input rating (kW)	6.7	7.1	6.5
Minimum input rating (kW)	4.5	5.5	5.1
Orifice size DMS	40	53	55
Pilot Orifice size DMS	51	30	30
Man. Pressure-Lo setting (mbar/wc)	3.0/1.2	8.2/3.3	8.2/3.3
Setting pressure (mbar/wc)	8.7/3.5	25/10	25/10
Inlet pressure (mbar)	20	30,37, or 50	30 or 50

WARNING: Make sure proper replacement orifices have been used.

G20 ORIFICES: Main Burner #40
 Pilot #51

G31 GAS ORIFICES: Main Burner #53
 Pilot #30

G30/31 GAS ORIFICES: Main Burner #55
 Pilot #30

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BOM
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PART #	DESCRIPTION	QUANTITY
7211-203	G20 VALVE REGULATOR	1
7200-240	#40 BURNER ORIFICE	1
7211-151	#51 PILOT ORIFICE	1
KIT #97-55901	INSTRUCTION SHEET(3 PG)	1
3300-520	FUEL CONVERSION LABEL	1
	G20 STICKER (WHITE)	1