

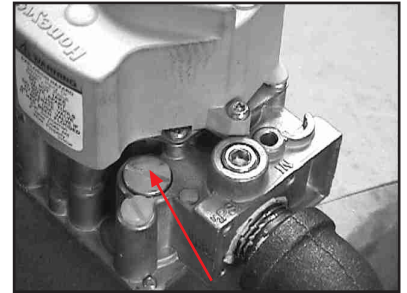
Gas Conversion Instructions

(page 1)

GAS BURNERS REQUIRE THE SERVICES OF A COMPETENT SERVICEMAN, DO NOT ATTEMPT TO SERVICE THE BURNER YOURSELF.

TO CONNECT THE GAS BURNER TO A TYPE OF GAS OTHER THAN WHAT IS SPECIFIED ON THE SOUTHERN PRIDE NAMEPLATE COULD RESULT IN A HAZARDOUS CONDITION AND WILL VOID THE WARRANTY. IF A GAS CONNECTION IS TO BE MADE TO A TYPE OF GAS OTHER THAN WHAT IS SPECIFIED ON THE NAMEPLATE, THE FOLLOWING INSTRUCTIONS MUST BE FOLLOWED.

1. Disconnect power to the oven. If the oven is already connected to the gas supply, turn OFF the main gas shut off valve before beginning the gas conversion.
2. Convert the gas valve using the kit supplied. Follow the gas valve manufacturer's instructions supplied with the kit. The color code for the Honeywell valve kit is as follows.



(fig.1 PRV cap screw)

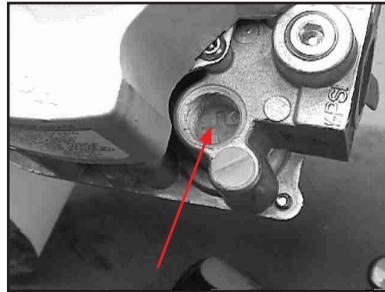
Natural Gas

(PRV) Cap Screw-Silver
Pressure Regulator (PRV) Adjusting Screw-White
(PRV) Spring-Stainless Steel

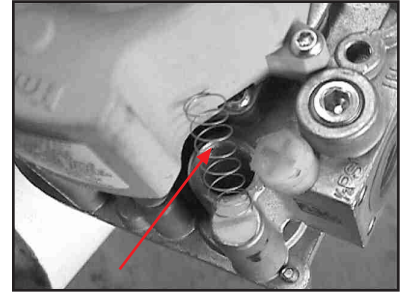
L.P. (propane) Gas

(PRV) Cap Screw-Black
Pressure Regulator (PRV) Adjusting Screw-White
(PRV) Spring-Red

Figures 1,2, and 3 show the Cap Screw, Pressure Regulator Adjusting Screw, and the Spring.

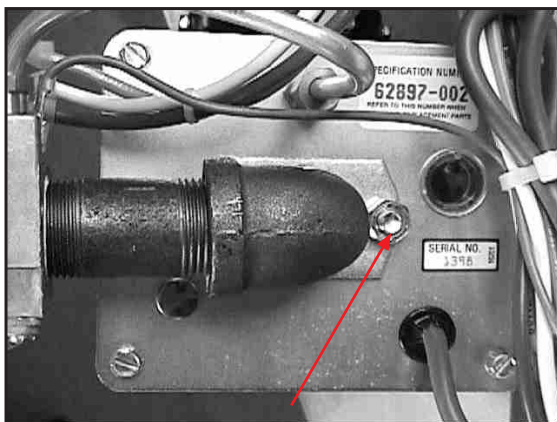


(fig.2 PRV adjusting screw)

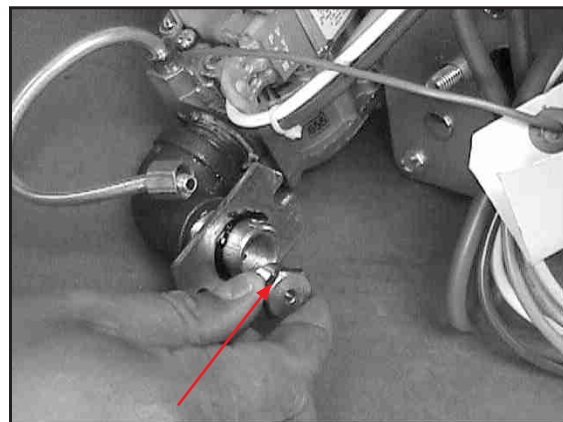


(fig.3 PRV spring)

3. To change the main orifice: Remove the valve and orifice flange from the back of the oven by loosening the pilot line and removing the two nuts that hold the orifice flange in position (fig.4), then grasp the valve and pull it away from the burner (fig.5). Use a wrench to loosen the orifice and then remove it, replace it with the correct orifice supplied with the conversion kit.



(fig.4 orifice flange nuts -2)



(fig.5 main orifice)

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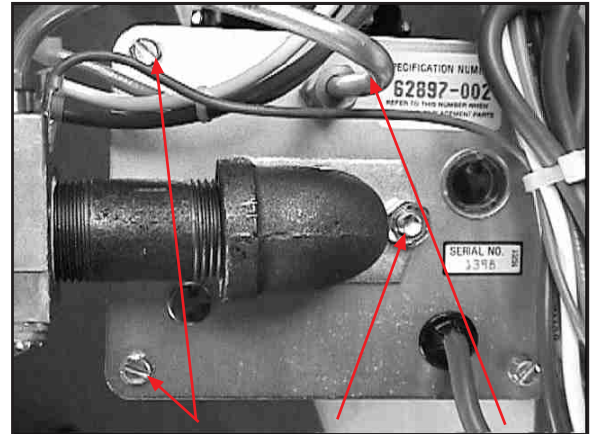
Gas Conversion Instructions

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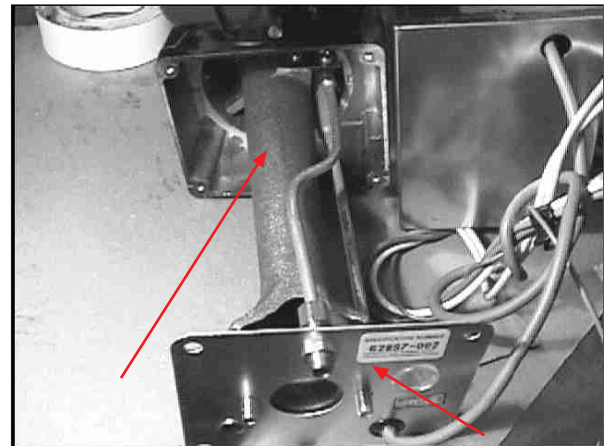
4. To change the pilot orifice: remove the four screws from the mounting plate (fig. 6) Grasp the mounting plate and pull it away from the back of the burner (fig.7). this will expose the venturi and the electrode (fig.8). Next loosen the pilot tube and unplug the high voltage lead from the electrode (fig.9), then remove the two screws that fasten the electrode to the venturi (fig.8), and pull the electrode away from the venturi (fig.10). Turn the electrode so that the gas tube port is down and tap the side of the port with a screw driver, the pilot orifice (fig.10) should fall out. If it does not, use a miniature screw driver and gently pry the pilot orifice loose from the gas tube port.

5. Install the correct pilot orifice supplied with the conversion kit. The pilot orifice goes into the electrode tapered end first. (fig.10)

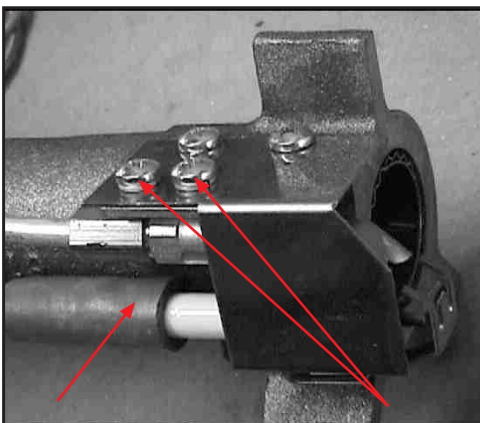
6. Reassemble the burner: Fasten the electrode back onto the venturi and reconnect the pilot tube and the high voltage lead to it. Slide the venturi back into the burner housing (fig.7). Fasten the venturi in place with the four mounting screws (fig.6). Slide the orifice flange back onto the two studs, make sure the pilot line slides into the brass fitting, then fasten the flange in place with the two orifice flange nuts (fig.6), and last, screw the brass compression nut "on the pilot line" back onto the brass fitting that protrudes through the mounting plate (fig.6).



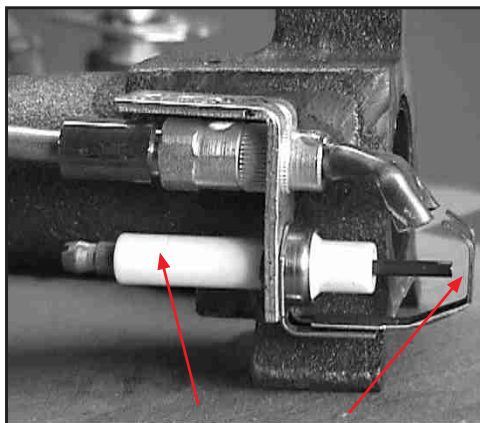
(fig.6 mounting bolts, flange nuts, pilot line)



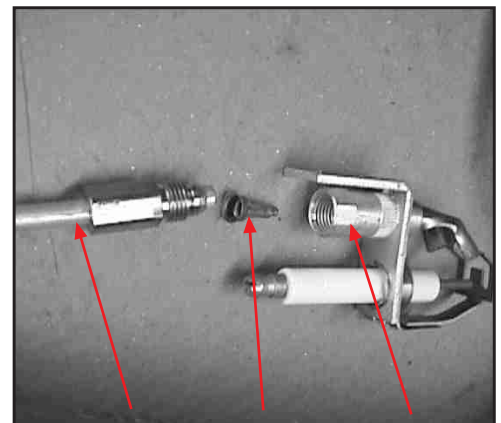
(fig.7 venturi and mounting plate)



(fig.8 high voltage lead, mounting screws)



(fig.9 electrode, 1/8" gap)

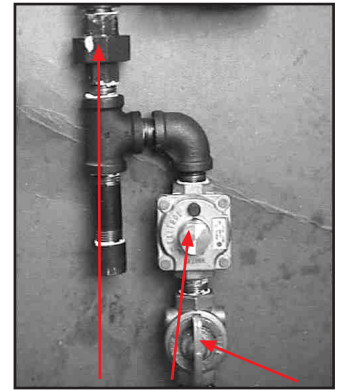


(fig.10 pilot tube, pilot orifice, gas tube port)

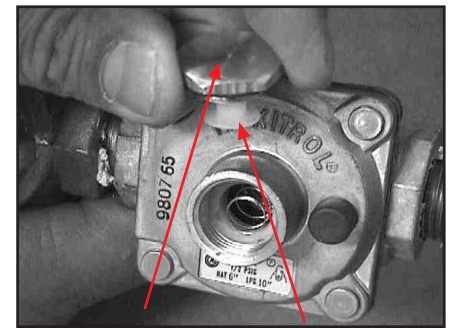
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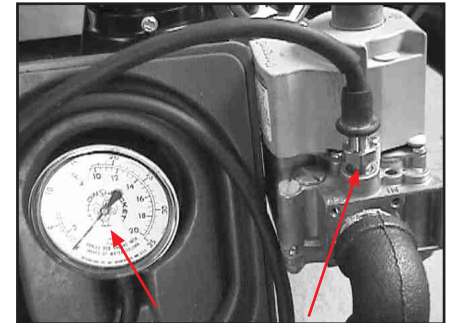
7. To convert the inline regulator (fig.11): Remove the hex cap from the regulator, and hold the hex cap so that the top of the cap is up and the stem points down (fig.12), check the flat spot on the stem for which type of gas the regulator is set for. The regulator in (fig.12) is set for LP gas. To convert the regulator, pull the stem out of the cap invert it, and snap it back into the cap.
8. The gas information on the junction box cover (fig.15) needs to be changed: Apply the “gas pressure information label”, and the “type of gas label”, supplied with the kit, over the existing information. If the conversion was to LP gas, apply the LP gas sticker, supplied with the valve kit, to the gas valve. If the conversion is to natural gas, remove the LP gas sticker from the valve.
9. Double check all the gas fittings to be sure they are tight and make sure all four mounting plate screws and the two orifice flange nuts are tight.
10. Turn on the gas supply to the burner and check for leaks.
11. Using a manometer, check the supply line pressure going to the burner. There are two ports to check the pressure, first at the inline gas shut off (fig.11), and second on the inlet side of the gas valve (fig.13). The pressure must be within the limits stated on the gas pressure label on the burner junction box cover. If it is not the pressure must be corrected before proceeding.
12. Connect the manometer to the manifold pressure tap (fig.14), and check the manifold pressure. The burner will have to be fired up to get a reading. The manifold pressure must be within the limits stated on the gas pressure label. If it is not, remove the PRV cap screw (fig.16) and adjust the pressure with the PRV adjusting screw (fig.17). Turning the screw clockwise increases pressure, turning it counter clockwise decreases it.



(fig.11 union, regulator, shut off)



(fig.12 cap, stem)



(fig.13 manometer, pressure tap fitting)

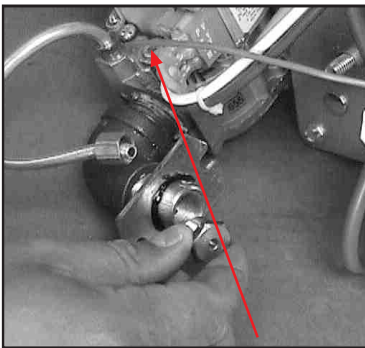
Gas Pressure Specifications

LP (Propane) Gas

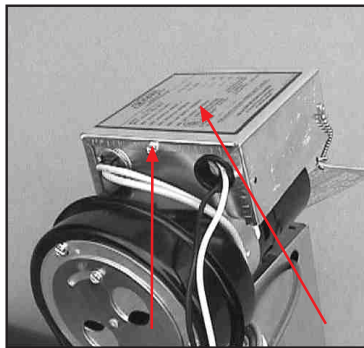
Max. Manifold Pressure: 10.0" W.C.
Min. Manifold Pressure: 9.5" W.C.
Max. Gas Supply Pressure: 13.0" W.C.
Min. Gas Supply Pressure: 11.0" W.C.

Natural Gas

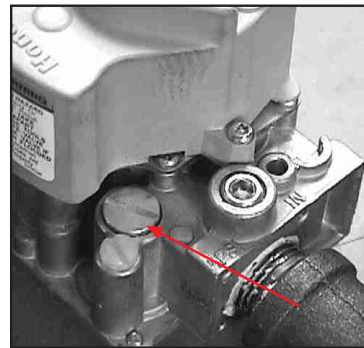
Max. Manifold Pressure: 3.5" W.C.
Min. Manifold Pressure: 3.0" W.C.
Max. Gas Supply Pressure: 10.5" W.C.
Min. Gas Supply Pressure: 4.5" W.C.



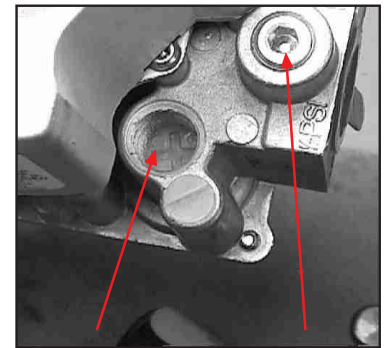
(fig.14 manifold pressure tap)



(fig.15 junction box cover, information)



(fig.16 PRV cap screw)



(fig.17 PRV adjusting screw, pressure tap)

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ORIFICE AND DRILL SIZE CHART

BMJ-200-I (50,000BTU)

natural gas- #30 drill (.128)
propane (LP) gas- #45 drill (.082)

PILOT ORIFICES

#18 L.P. orifice
#24 Nat. orifice

SPK-280, SPK-500, BBR79-1 , BBR-79-2, BBR-79-3, XLR-350, BMJ-350-I, BMJ-1000, and UXR100 (75,000BTU)

natural gas - #19 drill (.166)
propane (LP) gas- #41 drill (.096)

SPK-700 (100,000BTU)

natural gas - #14 drill (.182)
propane (LP) gas- #35 drill (.110)

BBR-79(SE) or BBR-700-FL(SE), XLR-1600-SLSE or XLR-1400-SLSE (125,000BTU)

natural gas - #5 drill (.205)
propane (LP) gas- 1/8" drill (.125)

XLR-1600-4

SINGLE BURNER (200,000 BTU)
natural gas drill (.261)
propane (LP) gas- #22 (.157)

DUAL BURNER (150,000 BTU) each burner

natural gas - #1 drill (.288)
propane (LP) gas- #29 (.136)

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