

## Gas Conversion Kits CERAMIC HEATER SERIES (1, 2, 3, 4 Burner Units)

### DESCRIPTION

These kits are designed to convert from one gas type to another (eg. from **NATURAL** to **PROPANE** or from **PROPANE** to **NATURAL**) only for new heaters (5 years or newer) by replacing the gas valve spring and main burner orifices. These kits also require outlet gas pressure check and adjustments as required on page 3.

**Note:** These kits will convert heaters using **White-Rodgers** DSI gas valve number **36J22**.

#### **⚠ WARNING**

This conversion kit is to be installed by an authorized distributor or other qualified agency in accordance with the manufacturer's instructions and all codes and requirements of the authority having jurisdiction. **Failure to follow instructions could result in serious injury, property damage or death. The qualified agency performing this work assumes responsibility for this conversion.**

#### **⚠ WARNING**

**FIRE OR EXPLOSION HAZARD CAN CAUSE PROPERTY DAMAGE, SEVERE INJURY, OR DEATH**

Follow these warnings exactly.

1. Disconnect power supply (if equipped) to prevent electrical shock or equipment damage.
2. To avoid dangerous accumulation of fuel gas, turn off gas supply at service valve before starting conversion and perform **Gas Leak Test** after completion of conversion.

### COMPLETE KIT NUMBERS - GAS CONVERSIONS

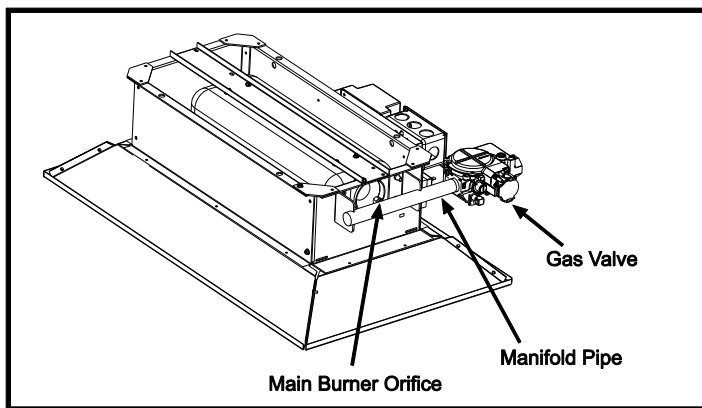
KIT PART NUMBERS	NUMBER OF BURNERS	MODEL BTU	CONVERTS FROM	CONVERTS TO
44505650	1	33M	Natural Gas	Propane Gas
44505660	2	66M	Natural Gas	Propane Gas
44505670	3	100M	Natural Gas	Propane Gas
44505680	4	132M	Natural Gas	Propane Gas
44505690	1	30M	Propane Gas	Natural Gas
44505700	1	35M	Propane Gas	Natural Gas
44505710	1	40M	Propane Gas	Natural Gas
44505720	2	60M	Propane Gas	Natural Gas
44505730	2	70M	Propane Gas	Natural Gas
44505740	2	80M	Propane Gas	Natural Gas
44505750	3	100M	Propane Gas	Natural Gas
44505760	3	120M	Propane Gas	Natural Gas
44505770	4	140M	Propane Gas	Natural Gas
44505780	4	155M, 160M	Propane Gas	Natural Gas

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### REPLACING MAIN BURNER ORIFICE

1. Remove existing orifices from the manifold pipe using a 7/16" open-end or box-type wrench. (see **Figure 1**).
2. Replace orifices with those supplied in kit. Apply pipe joint compound or Teflon tape to threads of new orifice before placing in the manifold pipe. **NOTE:** Orifice sizes are indicated in the parts list of this kit and are stamped on the orifice for identification.
3. Tighten orifices to a snug fit using a wrench.

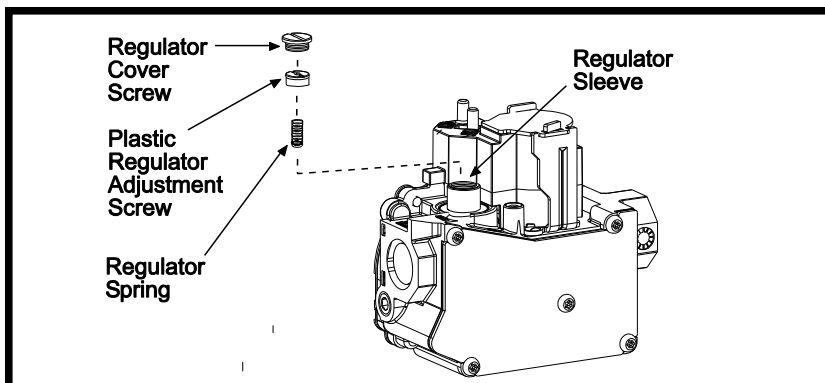
Figure 1  
Single Burner Unit Shown



### REPLACING THE GAS VALVE REGULATOR SPRING

1. Remove regulator cover screw.
2. Remove plastic regulator adjustment screw (beneath the cover screw).
3. Remove the regulator spring from regulator sleeve.
4. Insert the new regulator spring (provided in the conversion kit) into the regulator sleeve.
5. Replace the regulator adjustment screw. Adjust the outlet pressure as specified in the table below.
6. Replace the regulator cover screw.
7. Attach the **WARNING** label (provided in the kit) to the gas valve where it can be readily seen. Also attach the small **NATURAL GAS** or **PROPANE GAS** label to the top of the regulator cover screw.

Figure 2



# Gas Conversion Kits CERAMIC HEATER SERIES (1, 2, 3, 4 Burner Units)

## OUTLET GAS PRESSURE CHECK AND ADJUSTMENTS (WR – DSI GAS VALVES)

Gauges that measure pressure in pounds per square inch are not accurate enough to measure or set the manifold pressure. All measurements **MUST BE** made when the heater and all other gas burning equipment that is connected to the gas supply system are operating at maximum capacity. **Follow the instructions for gas pressure checks.**

### **⚠ WARNING**

Failure to perform gas pressure checks and adjustments can result in improper heater operation and can result in serious injury, property damage or death.

1. Turn off all electrical power to the system prior to connecting manometer hoses.
2. Turn the outlet pressure boss test screw (3/32" Hex allen wrench plug) in the center of the boss **not more than one turn counterclockwise**. Attach a 5/16" hose and manometer over the tapered outlet pressure boss on the valve (see **Figure 3** below). If regulator needs to be adjusted, see instructions below.

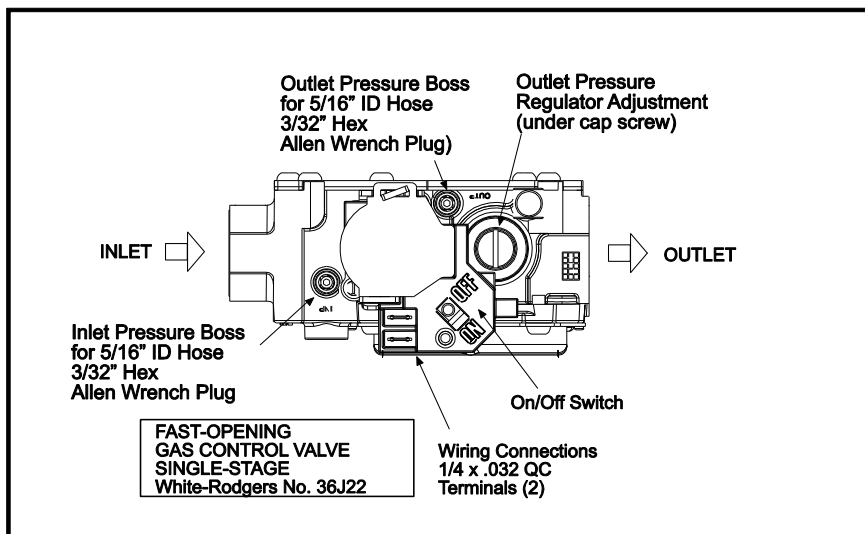
#### To Adjust Regulator:

1. Turn on power and energize the main gas valve. Remove regulator cover screw (see **Figure 3** below). Turn regulator adjustment screw **clockwise** ⤵ to **increase pressure**, or **counterclockwise** ⤴ to decrease pressure. Replace regulator cover screw and tighten securely.

**DO NOT EXCEED THE PRESSURES SHOWN IN THE GAS PRESSURE TABLE.**

2. After testing pressure and adjusting the regulator, turn off all electrical power to the system, remove manometer hoses, turn outlet test screw (3/32" Hex) clockwise to seal pressure port. Tighten to 7 in-lb minimum. Turn on system power.

Figure 3



**Gas Conversion Kits  
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GAS PRESSURE TABLE				
Heater Model BTU	Gas Type	Manifold Pressure	Supply Pressure	
			<i>Minimum*</i>	<i>Maximum</i>
30, 35, 40, 60, 70, 80, 100, 120, 140, ,155, 160	Natural	6" W.C.	7" W.C.	14" W.C.
33, 66, 100, 132	Propane	10" W.C.	11" W.C.	14" W.C.

*\*Minimum permissible gas supply pressure for purpose of input adjustment.*

**GAS LEAK TEST**

Perform the gas leak test using a leak detection solution or soapsuds solution at the orifices, pipe nipples and pressure boss screws or check by one of the methods listed in Appendix D of the National Fuel Gas Code, ANSI 2223.1-(latest edition). Bubbles forming indicate a gas leak. **SHUT OFF GAS AND FIX ALL LEAKS IMMEDIATELY.**

<b>⚠ WARNING</b>
<b>DO NOT OMIT THE GAS LEAK TEST. DO NOT USE AN OPEN FLAME OF ANY KIND TO TEST FOR LEAKS!</b>

**MARKINGS:**

- After conversion is complete, fill out the gas conversion identification label (provided in the kit) and attach on the nameplate or other location where it can be readily seen for future reference.

**Gas Conversion Kits and Components – NATURAL GAS to PROPANE GAS**

<b>Kit Number 44505650</b>	Converts to 33M BTU LPG (1 Burner)
43872520	Main Burner Orifice (#52) 1 each
30755990	LPG Spring Kit #F92-0659
43149000	Gas Conversion ID Label
43133080	Gas Conversion Instructions

<b>Kit Number 44505660</b>	Converts to 66M BTU LPG (2 Burner)
43872520	Main Burner Orifice (#52) 2 each
30755990	LPG Spring Kit #F92-0659
43149000	Gas Conversion ID Label
43133080	Gas Conversion Instructions

<b>Kit Number 44505670</b>	Converts to 100M BTU LPG (3 Burner)
43872520	Main Burner Orifice (#52) 3 each
30755990	LPG Spring Kit #F92-0659
43149000	Gas Conversion ID Label
43133080	Gas Conversion Instructions

<b>Kit Number 44505680</b>	Converts to 132M BTU LPG (4 BURNER)
43872520	Main Burner Orifice (#52) 4 each
30755990	LPG Spring Kit #F92-0659
43149000	Gas Conversion ID Label
43133080	Gas Conversion Instructions

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**Gas Conversion Kits and Components – PROPANE GAS to NATURAL GAS**

<b>Kit Number 44505690</b>	Converts to 30M BTU NG (1 Burner)
43872980	Main Burner Orifice 3/32" <i>1 each</i>
30755980	NG Spring Kit #F92-0656
43149000	Gas Conversion ID Label
43133080	Gas Conversion Instructions

<b>Kit Number 44505700</b>	Converts to 35M BTU NG (1 Burner)
43872410	Main Burner Orifice (#41) <i>1 each</i>
30755980	NG Spring Kit #F92-0656
43149000	Gas Conversion ID Label
43133080	Gas Conversion Instructions

<b>Kit Number 44505710</b>	Converts to 40M BTU NG (1 Burner)
43872380	Main Burner Orifice (#38) <i>1 each</i>
30755980	NG Spring Kit #F92-0656
43149000	Gas Conversion ID Label
43133080	Gas Conversion Instructions

<b>Kit Number 44505720</b>	Converts to 60M BTU NG (2 Burner)
43872980	Main Burner Orifice 3/32" <i>2 each</i>
30755980	NG Spring Kit #F92-0656
43149000	Gas Conversion ID Label
43133080	Gas Conversion Instructions

<b>Kit Number 44505730</b>	Converts to 70M BTU NG (2 Burner)
43872410	Main Burner Orifice (#41) <i>2 each</i>
30755980	NG Spring Kit #F92-0656
43149000	Gas Conversion ID Label
43133080	Gas Conversion Instructions

<b>Kit Number 44505740</b>	Converts to 80M BTU NG (2 Burner)
43872380	Main Burner Orifice (#38) <i>2 each</i>
30755980	NG Spring Kit #F92-0656
43149000	Gas Conversion ID Label
43133080	Gas Conversion Instructions

<b>Kit Number 44505750</b>	Converts to 100M BTU NG (3 Burner)
43872410	Main Burner Orifice (#41) <i>3 each</i>
30755980	NG Spring Kit #F92-0656
43149000	Gas Conversion ID Label
43133080	Gas Conversion Instructions

<b>Kit Number 44505760</b>	Converts to 120M BTU NG (3 Burner)
43872380	Main Burner Orifice (#38) <i>3 each</i>
30755980	NG Spring Kit #F92-0656
43149000	Gas Conversion ID Label
43133080	Gas Conversion Instructions

<b>Kit Number 44505770</b>	Converts to 140M BTU NG (4 Burner)
43872410	Main Burner Orifice (#41) <i>4 each</i>
30755980	NG Spring Kit #F92-0656
43149000	Gas Conversion ID Label
43133080	Gas Conversion Instructions

<b>Kit Number 44505780</b>	Converts to 155M/160M BTU NG (4 Burner)
43872380	Main Burner Orifice (#38) <i>4 each</i>
30755980	NG Spring Kit #F92-0656
43149000	Gas Conversion ID Label
43133080	Gas Conversion Instructions