# INSTALLATION INSTRUCTIONS HONEYWELL, ROBERTSHAW OR WHITE RODGERS VALVE W/STANDING PILOT OR ELECTRIC IGNITION

## BEFORE INSTALLING THIS KIT, CHECK THE "CONVERSION KIT INDEX" TO BE SURE YOU HAVE THE RIGHT KIT FOR THE FURNACE MODEL YOU ARE CONVERTING

#### TO CONVERT FROM NATURAL TO LP GAS USE KIT NUMBER FP15

	DESCRIPTION	PART NUMBER	QUANTITY
S	Installation Instructions	92-22999-81	1
	Conversion Label	92-18153-05	1
TS	Conversion Kit #54300 (Robertshaw)	60-23647-01	1
Ŕ	Conversion Kit #92-06549 (White Rodgers)	60-21193-01	1
A	Conversion Kit #396221-2 (Honeywell)	60-22513-01	1
	Burner Orifice	62-22175-54	6

NOTE: If this kit is to be used in a standing pilot application, then pilot orifice 62-22834-04 (.009 LP Gas, Honeywell) or 62-22832-03 (.008 LP Gas, Robertshaw) must be ordered and used.

# RECOGNIZE THIS SYMBOL AS AN INDICATION OF IMPORTANT SAFETY INFORMATION!

### **A**WARNING

THIS CONVERSION KIT IS TO BE INSTALLED BY A QUALIFIED SERVICE PROFESSIONAL IN ACCOR-DANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND ALL CODES AND REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION. FAILURE TO FOLLOW INSTRUCTIONS COULD RESULT IN SERIOUS INJURY OR PROPERTY DAMAGE. THE QUALIFIED PERSONNEL PERFORMING THIS WORK ASSUMES RESPONSIBILITY FOR THIS CONVERSION.

### **A**WARNING

TURN OFF ELECTRICAL POWER AND MAIN GAS SUPPLY BEFORE BEGINNING MODIFICATION. FAILURE TO DO SO CAN RESULT IN ELECTRICAL SHOCK OR EXPLOSION CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

IMPORTANT: DAMAGE TO THE PRODUCT RESULTING FROM FAILURE TO FOLLOW INSTRUCTIONS OR USE OF UNAUTHORIZED PARTS MAY BE EXCLUDED FROM THE MANUFACTURER'S PRODUCT WARRANTY COVERAGE.

**IMPORTANT NOTE FOR ALTITUDES ABOVE 7,999 FEET:** The main burner orifice in this kit is sized for nameplate input and intended for installations at elevations up to 7,999 feet only. For elevations above 7,999 feet, the burner orifices must be sized as shown in Chart III in the Conversion Kit Index, or in Table 1 of these instructions.

**IN USA:** All gas piping must comply with the latest NFPA 54 National Fuel Gas Code and all state and local codes. All electrical wiring must comply with the latest NFPA 70, National Electrical Code and all state and local codes.

**IN CANADA:** All gas piping must comply with the latest CAN 1-B149-1 & 2 installation codes for gas burning appliances and all provincial and local codes, Part 1 - CSA Standard C22.1 and all provincial and local codes.

### WHEN CONVERTING NOx MODELS:

This furnace does not require the stainless steel inserts located in the burner tube in order to meet SCAQMD NOx emission levels when run on LP gas. Carefully remove these inserts and 1/8" diameter retaining rod before firing this furnace on LP gas with the NOx inserts in place.

To remove the inserts, CAREFULLY remove the hot surface ignitor mounted to the furnace center panel (see Figure 1). The NOx inserts will follow the burner tray assembly out as they are hooked over the 1/8" diameter retaining rod.

Discard the NOx inserts and rod.

Replace the burner tray assembly first and carefully reattach the hot surface ignitor to the center panel.

# KIT INSTALLATION (SEE ILLUSTRATION):

- 1. Disconnect the gas line at the union ahead of the combination gas valve.
- 2. Remove burners from assembly.

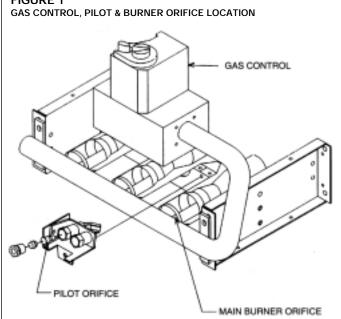
A. To Change Pilot Orifice (Standing Pilot Only)

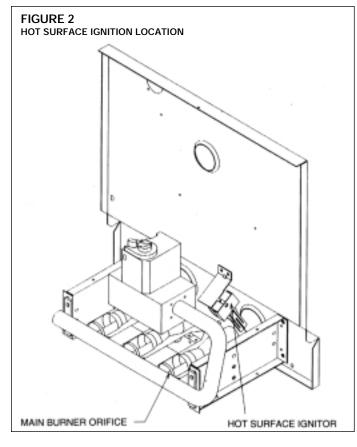
Disconnect the pilot tubing to remove the natural gas pilot orifice. See **Figure 1**. Replace the pilot orifice with the appropriate LP gas orifice for the Honeywell pilot or Robertshaw pilot.

B. To Change Burner Orifice

Remove each burner orifice from the manifold. See Figure 2. Refer to Table 1 (or to Chart III in the Conversion Kit Index) and verify the correct burner orifice size required. Open the burner orifice envelope marked with the orifice drill size required and install in the burner when the unit is converted to LP gas.



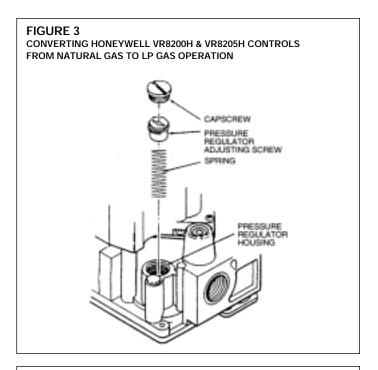




C. Convert Gas Valve to LP Gas (See Figures 3, 4 & 5) See Honeywell envelope kit #396221-2, White Rodgers envelope kit #F92-0659, or Robertshaw kit #54300 for proper LP regulator spring and instructions.

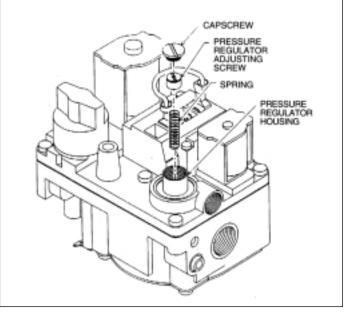
Manifold gas pressure must be adjusted to 10" W.C. after valve conversion to LP gas with furnace in operation and proper gas supply pressure (see rating plate). The gas supply line pressure should be between 11" and 14" W.C. at the appliance.

NOTE: Use a pipe compound resistant to the action of the liquefied petroleum gases at all threaded pipe connections.



#### FIGURE 4

CONVERTING WHITE RODGERS 36E37-214 CONTROLS FROM NATURAL GAS TO LP GAS OPERATION



3. Place the conversion label adjacent to the CSA rating plate.

#### DO NOT REMOVE OR DEFACE ORIGINAL RATING PLATE.

- 4. Turn on gas supply and electrical supply.
- Check unit thoroughly for gas leaks with soap and water not with a flame.
- 6. Follow lighting instructions to put furnace into operation.
- 7. Operate thermostat to check unit operation for ignition and extinction characteristics.

#### **COMPLETING CONVERSION**

- 1. Using a ballpoint indelible pen, record the following information on label 92-18153-05 provided in this kit.
  - a. Date of conversion.
  - b. Installer's name, address and telephone number.
  - c. Burner orifice size.
- 2. Place completed conversion label next to the rating plate.
- 3. Install the burner compartment access door.
- 4. Run furnace through a complete cycle to assure proper operation.

# FIGURE 5 CONVERTING ROBERTSHAW 7222 CONTROLS FROM NATURAL GAS TO L.P. GAS OPERATION C SPRING B SCREW A CAP

#### TABLE 1

#### BURNER ORIFICE SIZE

Use the following chart to verify the size of all burner orifices and to select the correct orifice for high altitude derating for 78% & 80% models only.

Use the furnace rating plate gas input rating and the altitude of the installation to select the correct natural gas or LP Gas orifice size.

IMPORTANT: NEVER ATTEMPT TO INCREASE THE GAS FURNACE FIRING RATE BY USING LARGER ORIFICES THAN SPECIFIED. ALTHOUGH FURNACE DIMENSIONS MAY APPEAR SIMILAR, INTERNAL DIFFERENCES CAN CAUSE POOR COMBUSTION AND PREMATURE EQUIPMENT FAILURE.

RATING PLATE	ELEVATION		RATING PLATE	ELEVATION	
BTU/HR	0 TO 7,999 FT. (0 TO 2,438 METERS)	8,000 FT. AND ABOVE (2,439 METERS AND ABOVE)	INPUT BTU/HR	0 TO 7,999 FT. (0 TO 2,438 METERS)	8,000 FT. AND ABOVE (2,439 METERS AND ABOVE)
NATURAL GAS	ATURAL GAS HEATING VALUE @ 1,000 BTU/FT <sup>3</sup> , SPECIFIC GRAVITY 0.62 MANIFOLD PRESSURE @ 3.5" W.C.		L.P. GAS	HEATING VALUE @ 2,475 BTU/FT <sup>3</sup> , SPECIFIC GRAVITY 1.52 MANIFOLD PRESSURE @ 10.0" W.C.	
45,000	43	45	45,000	54	55
50,000	42	43	50,000	54	55
67,500	43	45	67,500	54	55
75,000	42	43	75,000	54	55
100,000	42	43	100,000	54	55
125,000	42	43	125,000	54	55
150,000	42	43	150,000	54	55

Note: Optional orifices must be purchased from factory distributor.