

LP CONVERSION & INSTALLATION INSTRUCTIONS WHITE RODGERS 36J27 STEPPER MODULATING VALVE DIRECT SPARK IGNITION

**FOR USE WITH ALL (-)97 & (-)98V SERIES
MODULATING FURNACES WITH JZ/KC FUEL CODES**

BEFORE INSTALLING THIS KIT, CHECK THE "CONVERSION KIT INDEX" (92-21519-71) 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 FP37**

PARTS LIST			
DESCRIPTION	PART NUMBER	FP37	
Gas Inlet Pressure Switch	42-105443-01-00	1	
Tapped Gas Pipe Nipple	81-103708-02	1	
Installation Instructions	92-22999-107	1	
Orifice- Burner (1.10 mm) (For all altitudes)	62-22175-90	8	
Jumper Wire	45-105686-01	1	
Conversion Label	92-18153-05	1	
Kit Model Index Sheet	92-21519-71	1	
Stepper Valve LP Conversion Kit	60-21193-05 (WR #F92-1021)	1	

 Recognize this symbol as an indication of Important Safety Information!

▲ WARNING

THIS CONVERSION KIT IS TO BE INSTALLED BY A QUALIFIED SERVICE PROFESSIONAL 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 OR PROPERTY DAMAGE. THE QUALIFIED PERSONNEL PERFORMING THIS WORK ASSUMES RESPONSIBILITY FOR THIS CONVERSION.

RECOMMENDED TOOLS:

Slotted Screwdriver

1/4" Nut driver

Needle-nosed pliers

7/16" Socket or wrench

Pipe dope

Pipe wrench(es)

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.

All 34" Classic 90+ Modulating Gas Furnaces installed at high elevations above 5,000 ft. require the installation of a high altitude kit that includes a new model data card for proper operation.

NOTE: High altitude operation is limited to a maximum altitude of 8,000 ft.

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.

Be sure to check the fuel code of your furnace. The fuel code is adjacent to the serial number. If the fuel code is JZ/KC, this is the correct kit for converting your furnace to LP. All other fuel codes will use a different kit. See the LP conversion kit index that came with your furnace to determine the correct LP conversion kit.

A NOTE ABOUT HIGH ALTITUDE INSTALLATIONS

All altitudes use a 1.10mm orifice. The unique 2% de-rate per 1000 ft. allow the natural de-rate (based on lower barometric pressure) to meet de-rate required.

▲ 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.

KIT INSTALLATION

This kit and instructions cover the conversion of this furnace when it is equipped with a White Rogers 36J27 Modulating Gas Valve.

1. Turn off power to unit and disconnect the gas line at the union ahead of the combination gas valve.
2. Remove the burner compartment access door.
3. Disconnect the wires from the gas valve and remove the screws that attach the manifold, and then remove from assembly.
4. Follow detailed instructions on page 4 to convert the gas valve for LP (Figure is included). Convert the gas valve from natural gas to LP by removing the "NAT" sticker and applying the supplied jumper on the receptacle located beneath the label. Make sure that both prongs of receptacle engage the jumper.
5. Remove the burner orifices from the manifold and replace with the supplied LP orifices.

NOTE: 1.10 mm orifices provided in kit are used in all altitudes. These orifices comply with the 2% de-rate requirements due to the natural de-rate related to lower barometric pressure.

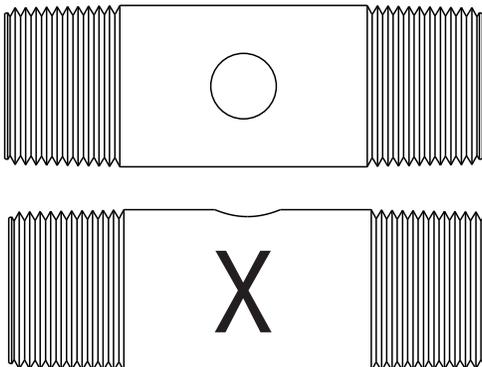
NOTE: Use a pipe compound resistant to the action of the liquefied petroleum gases at all threaded pipe connections.

DO NOT REMOVE OR DEFACE ORIGINAL RATING PLATE.

For US and Canada L.P. Gas Orifice Drill Size
(2% Per 1000ft. De-Rate)
90+ Burner input (per burner)
14,000 @ sea level

Altitude	Input per burner avg.	Orifice size
0 to 2000ft	14000	1.10mm
2001 to 3000ft	13440	1.10mm
3001 to 4000ft	13160	1.10mm
4001 to 5000ft	12880	1.10mm
5001 to 6000ft	12600	1.10mm
6001 to 7000ft	12320	1.10mm
7001 to 8000ft	12040	1.10mm

FIGURE 1



ST-A1195-84

6. Reinstall the manifold assembly by reversing the removal process.
7. Plug the wires into the gas valve.
8. Install the tapped gas nipple supplied with the kit into the inlet of the gas valve. Be sure to apply pipe dope or Teflon tape. After tightening the gas nipple, the tapped hole in the nipple should be in the horizontal position. See **Figure 1**.
9. Install the Inlet Pressure Switch into the tapped hole. Be sure to apply pipe dope or Teflon tape. After tightening, the terminals on the Inlet Pressure Switch should be facing down towards the blower shelf. See **Figure 2**.
10. Remove the connection in the white wire going to the gas valve. Plug the 1/4" female terminal from the gas valve onto the terminal on the Inlet Pressure Switch. Using the supplied jumper wire, connect the remaining 1/4" male terminal on the white wire to the Inlet Pressure Switch. See **Figure 3**.

FIGURE 2

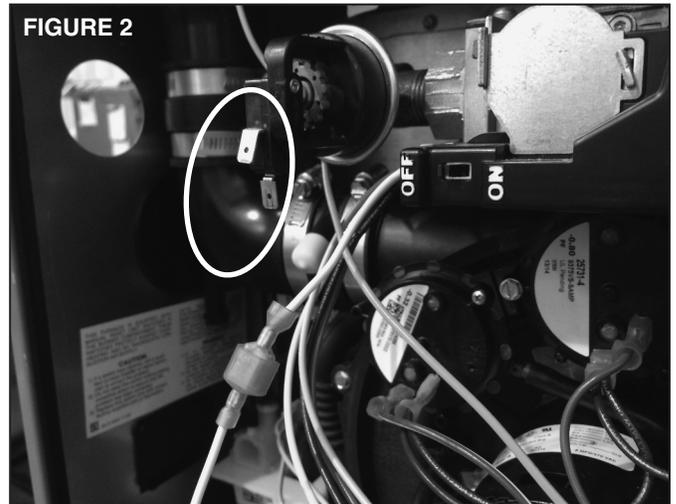
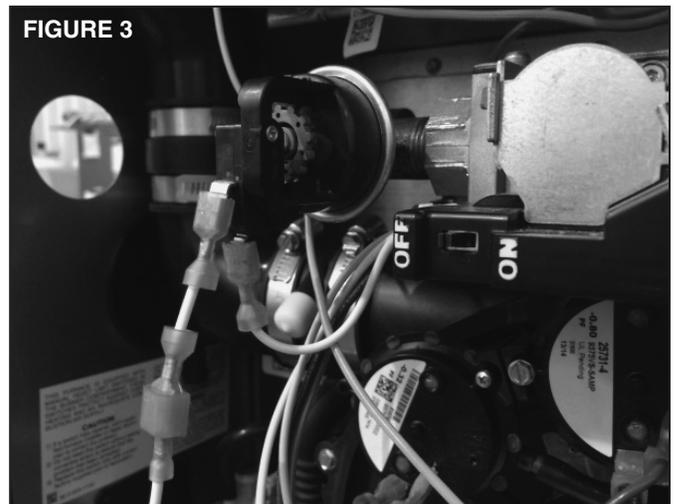


FIGURE 3



11. Reconnect the supply gas line to the furnace.
12. Place the conversion label adjacent to the A.G.A. rating plate.
13. Turn on gas supply and electrical supply.
14. Check unit thoroughly for gas leaks – with soap and water – not with a flame.
15. Follow lighting instructions to put furnace into operation.
16. Operate thermostat to check unit operation for ignition and extinction characteristics.

17. **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 13" W.C. at the appliance.**
18. **NOTE:** The igniter wire must not be routed any closer than 1" from the gas valve. Otherwise, noise from the spark igniter wire could reset the valve during ignition trial resulting in loss of heat.

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.

Installer: Save these instructions for future use!

FAILURE TO READ AND FOLLOW ALL INSTRUCTIONS CAREFULLY BEFORE INSTALLING OR OPERATING THIS CONTROL COULD CAUSE PERSONAL INJURY AND/OR PROPERTY DAMAGE.

⚠ WARNING

- This conversion kit shall be installed by a qualified 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 the work assumes the responsibility for the proper conversion of this appliance with this kit.

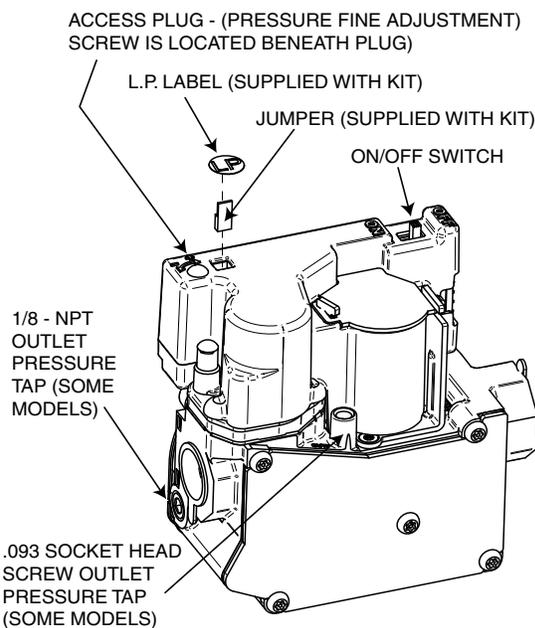


Fig. 1 – 36J27 Modulating Gas Valve

APPLICATION

This modulated Natural Gas to modulated L.P. Gas Conversion kit allows the 36J27 Series gas valves to be used on L.P. applications. **This conversion kit is for use with White-Rodgers 36J27 Series gas valves only.**

TO CONVERT FROM NATURAL TO L.P. GAS

1. Move the switch located on the 36J27 valve to the "OFF" position.
2. Remove the "NAT. GAS" label from the top of the 36J27 gas valve.
3. Using a pair of tweezers or needle nose pliers, place the jumper (supplied with this kit) on the receptacle located beneath the label that was removed in step 1. Use care to make sure that both prongs of receptacle engage the jumper.
4. Place the "LP" label (supplied with this kit) on the gas valve over the opening to the jumper.
5. Attach the "WARNING" label (supplied with this kit) to the gas valve where it can readily be seen.
6. Move the switch located on gas valve back to the "ON" position.
7. Refer to the appliance manufacturer's instructions for other steps necessary to complete the appliance conversion to LP. (Example: Replace the natural gas burner orifices with the manufacturer's specified size orifices for use with LP, etc.)

NOTE: The gas valve outlet pressure was pre-adjusted for LP at the factory, but fine adjustment is possible by removing the access plug and turning the fine-adjustment screw with a 1/8" flat blade screwdriver. Adjustment should only be done while monitoring outlet pressure with a suitable manometer properly attached to the outlet pressure tap. The pressure tap must be leak checked after resealing. (refer to figs. 1 & 3).

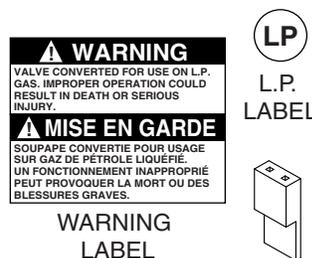


Fig. 2 – Contents of kit

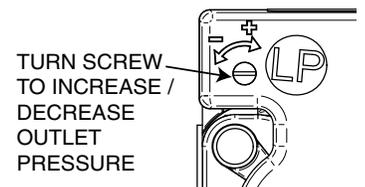


Fig. 3 – Pressure Fine Adjustment