LPM-06 CONVERSION KIT

TWO-STAGE FURNACE
NATURAL GAS TO L.P. GAS CONVERSION

Attention Installing Personnel

As a professional installer, you have an obligation to know the product better than the customer. This includes all safety precautions and related items.

Prior to actual installation, thoroughly familiarize yourself with this Instruction Manual. Pay special attention to all safety warnings. Often during installation or repair, it is possible to place yourself in a position which is more hazardous than when the unit is in operation.

Remember, it is **your** responsibility to install the product safely and to know it well enough to be able to instruct a customer in its safe use.

Safety is a matter of common sense...a matter of thinking before acting. Most dealers have a list of specific good safety practices...follow them.

The precautions listed in this Installation Manual are intended as supplemental to existing practices. However, if there is a direct conflict between existing practices and the content of this manual, the precautions listed here take precedence.

Description

This natural gas to L.P. (liquid petroleum) gas conversion kit allows White-Rodgers gas valve 36G54 (0151F00000P), 36J54 (0151M00027) or Honeywell VR9205Q (0151M00014 / 0151M00028) to be used on L.P. gas applications.

Use the following parts list to ensure that all parts listed below are present and in an undamaged condition. IF ANY DOUBT EXISTS ABOUT THE CONDITIONS OF ANY COMPONENT WITHIN THIS KIT, DO NOT USE THIS KIT AND CONTACT YOUR SUPPLIER FOR A NEW KIT.

Contents of Kit

PARTS LIST		
Part Number	**Description**	**Quantity**
0163F00000P	White-Rodgers LP Conversion Kit F92-1008	1
0163M00139	Honeywell LP Conversion Kit 50033841	1
B14933151	Conversion Label	1
B4089955	Spud Orifice Assembly	1
IO-735*	LPM-06 Installation Instructions	1
0151K00000S	36G54 Pressure Check Kit Valve	1

With the exception of the natural gas burner orifices, all of the fasteners and other components removed to perform this conversion are to be reused. Any component found to be damaged due to this conversion must be replaced with factory authorized replacement parts before this furnace can be put into operation.

This furnace is equipped for two-stage heating operation. The gas valve manifold pressure must be set with first stage operating at 6" +/-0.3" W.C. manifold pressure and the second stage must be set at 10" +/-0.3" W.C. manifold pressure. The accuracy of these pressures must be checked as shown in steps 25 and 26 of these instructions.

The gas valve is equipped with a 3-pin polarized plug which prevents this wiring from being installed incorrectly.

⚠ CAUTION

LABEL ALL WIRES PRIOR TO DISCONNECTION WHEN SERVICING CONTROLS. WIRING ERRORS CAN CAUSE IMPROPER AND DANGEROUS OPERATION. VERIFY PROPER OPERATION AFTER SERVICING.

NOTE: *Do not use power tools for any adjustments on gas valves.*

CONTENTS

Important Information 2
Conversion Instructions - WR 36G54/36J54 Valve 3
Conversion Instructions - HW VR9205Q Valve 5
NOx Screen Removal 7
Non-Condensing Furnaces & Package Gas-Electric 7

The following tools and supplies are required:

- 2 – Pipe wrenches, properly sized to accommodate the gas piping and connectors
- 1 – 7/16" box wrench or socket wrench
- 1 - 5/16" nut driver
- 1 – 3/16" flat blade screwdriver
- 1 – 1/4" flat blade screwdriver
- 1 – 3/16" allen wrench
- 1 – manometer to read inlet and outlet pressure of the gas valve (Minimum range: 0”-20” W.C.)
- Pipe joint compound or pipe thread tape that is approved for use with L.P. gas
- Gas leak detection solution like a soap and water solution. Always wipe the solution from the joints when testing is completed.

⚠ WARNING

NEVER USE AN OPEN FLAME TO CHECK FOR GAS LEAKS.

Prior to performing this conversion, refer to the National Fuel Gas Code (NFPA 54-02) or in Canada, CAN/CSA-B149.2-05 to ensure that the installation is in compliance with those and all local codes.

IMPORTANT INFORMATION

⚠ WARNING

HIGH VOLTAGE!
DISCONNECT ALL POWER BEFORE SERVICING.
MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



⚠ WARNING

CARBON MONOXIDE (CO) CAN CAUSE SEVER PERSONAL INJURY OR DEATH.

⚠ WARNING

THIS L.P. (LIQUID PETROLEUM) CONVERSION KIT MUST BE INSTALLED BY A QUALIFIED SERVICE PERSON OR AGENCY IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND ALL APPLICATION CODES AND REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION. FAILURE TO FOLLOW THESE INSTRUCTIONS EXPLICITLY MAY CAUSE A FIRE, EXPLOSION OR THE PRODUCTION OF CARBON MONOXIDE (CO), WHICH CAN CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH. THE QUALIFIED PERSON PERFORMING THIS CONVERSION ASSUMES THE RESPONSIBILITY FOR THE PROPER CONVERSION OF THE APPLIANCE.

DANGER
PELIGRO



CARBON MONOXIDE POISONING HAZARD

Special Warning for Installation of Furnaces or Air Handling Units in Enclosed Areas such as Garages, Utility Rooms or Parking Areas

Carbon monoxide producing devices (such as an automobile, space heater, gas water heater, etc.) should not be operated in enclosed areas such as unventilated garages, utility rooms or parking areas because of the danger of carbon monoxide (CO) poisoning resulting from the exhaust emissions. If a furnace or air handler is installed in an enclosed area such as a garage, utility room or parking area and a carbon monoxide producing device is operated therein, there must be adequate, direct outside ventilation.

This ventilation is necessary to avoid the danger of CO poisoning which can occur if a carbon monoxide producing device continues to operate in the enclosed area. Carbon monoxide emissions can be (re)circulated throughout the structure if the furnace or air handler is operating in any mode.

CO can cause serious illness including permanent brain damage or death.

B10259-216

WHITE-RODGERS 36G54 CONVERSION INSTRUCTIONS

⚠ WARNING



HIGH VOLTAGE!
DISCONNECT ALL POWER BEFORE SERVICING.
MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

⚠ CAUTION

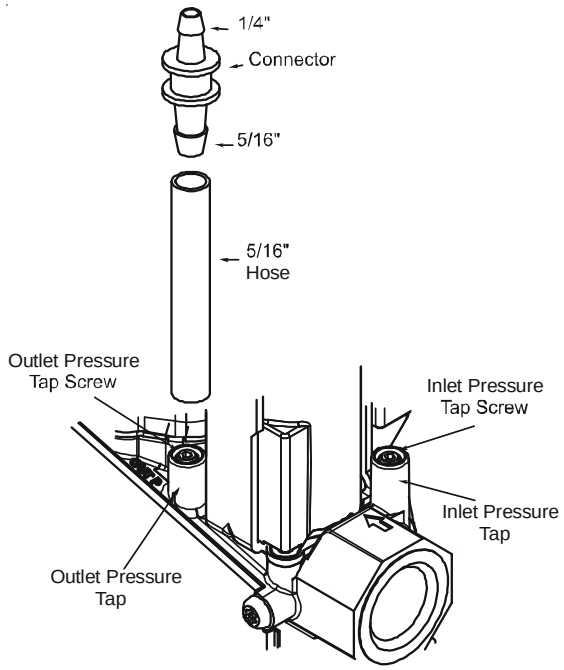
IF NOx SCREENS ARE PRESENT, REMOVE AS PER INSTRUCTIONS IN SECTION "NOx SCREEN REMOVAL".

⚠ CAUTION

TO PREVENT UNSATISFACTORY FURNACE OPERATION, THE PROPER GAS CONVERSION KIT MUST BE USED FOR THE GAS VALVE. USE THE WHITE-RODGERS SPRING KIT ONLY WITH THE WHITE-RODGERS GAS VALVE.

NOTE: For low NOx models, see table of contents for NOx Screen section.

1. Turn off the gas supply to the furnace.
2. Turn off the electrical power to the furnace.
3. Remove the furnace control access panel.
4. Check for the presence of NOx screen and remove per NOx instruction.
5. Separate the gas supply union and remove associated downstream piping.
6. Always use a backup wrench when removing or replacing piping to avoid any undue strains or rotation of controls.
7. Remove the wires from the gas valve.
8. Remove the 4 sheet metal screws that fasten the manifold/gas valve assembly to the burner box.
9. Visually inspect orifices for damage and drill size (marked on face with 55) before installation. Using the 7/16" wrench, remove all existing natural gas orifices and replace with the appropriate marked 55 L.P. gas orifices contained in this kit. Tighten the orifices to prevent gas leaks, but do not overtighten. Retain the natural gas orifices for future reconversion.
10. Install water manometer using Valve Pressure Check Kit P/N 0151K00000S included with this kit. Using the included 3/32" hex wrench, rotate outlet pressure tap screw one revolution counterclockwise. Attach the included 5/16" hose to the inlet and outlet pressure boss of the valve. Hose should overlap boss 3/8". Connect 5/16" side of included connector to the hose on the outlet boss. Connect 1/4" side of the connector to the manometer hose. The manometer must have a scale range of at least 0" to 20" of water column.



11. Remove both regulator cover screws.
12. Using a 1/4" flat blade screwdriver, remove both regulator adjustment screws (beneath the cover screws).
13. Remove both Natural Gas regulator springs (color-coded silver/plain) from regulator sleeves and retain with the Natural Gas orifices for future reconversion.
14. Insert the L.P. regulator springs (provided in the conversion kit and color-coded white) into the regulator sleeves.
15. Replace the High regulator adjustment screw and adjust approximately 12 turns to the bottom stop.
16. Replace the Low regulator adjustment screw and adjust approximately 8 turns.
17. Reinstall the manifold/gas valve assembly into the appliance. Rewire the gas valve.
18. Apply a liberal amount of pipe joint compound or pipe thread tape to the threads and reassemble the piping previously removed.

⚠ WARNING

TO PREVENT THE POSSIBILITY OF GAS LEAKS, THE PIPE JOINT COMPOUND OR PIPE THREAD TAPE MUST BE RESISTANT TO L.P. GAS.

19. Turn on the gas supply.
20. Using a soap and water solution, check for leaks around the gas valve/manifold connection.
21. Turn on the electrical supply.
22. Adjust the room thermostat to obtain a first stage (W1 only) burner operation.

NOTE: For hybrid models, the control board dip switches need to be set to 2 stg position to set and verify first stage heat. (See installation instructions supplied with the unit for dip switch settings.)

⚠ WARNING

NEVER USE AN OPEN FLAME TO CHECK FOR GAS LEAKS.

23. Using a soap and water solution, check for leaks around the gas valve/manifold connection and the burner orifices. Repair any leaks before continuing.
24. **NOTE:** Any other gas-fired equipment should be ON before any adjustments are made.

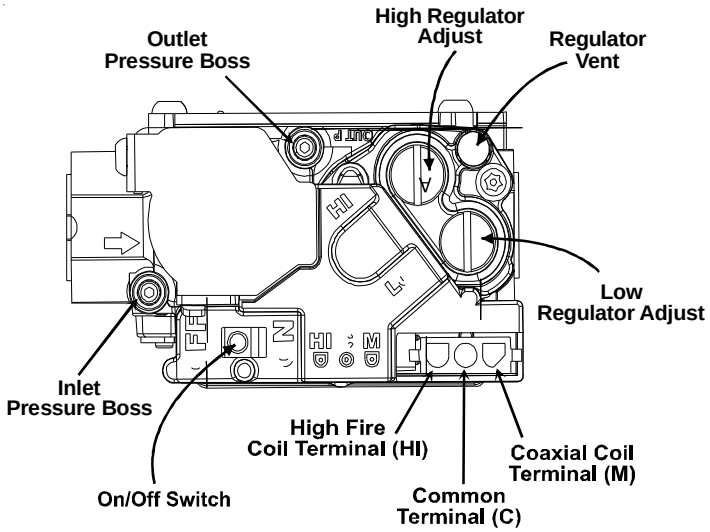
    After the furnace has been in operation for 15 minutes, adjust the gas supply pressure (not manifold pressure) to obtain a range between 11" and 13" W.C. If the gas inlet pressure falls outside of this range, then make necessary L.P. service regulator(s) adjustments; check piping size, etc., and /or consult with L.P. provider.
25. With the furnace operating in its low-fire (W1) condition, the manifold pressure should be 6" W.C. ± 0.30". If necessary, this pressure can be adjusted using the gas valve low regulator adjustment screw. Turn clockwise to increase pressure and counterclockwise to decrease manifold pressure.
26. Readjust the room thermostat to obtain a second stage call for heat (W2). The manifold pressure for the W2 condition should be 10" W.C. ± 0.30" W.C. Adjustments to this pressure can be made using the high regulator adjustment screw.
27. Using the room thermostat to cycle the unit, observe a minimum of three (3) smooth ignition cycles.
28. Turn off gas and electrical supply to the furnace, remove the manometer hose from the pressure tap bosses, and tighten the inlet and outlet pressure tap screws using the 3/32" Allen wrench.
29. Replace both regulator cover screws on the regulator sleeve.

⚠ WARNING

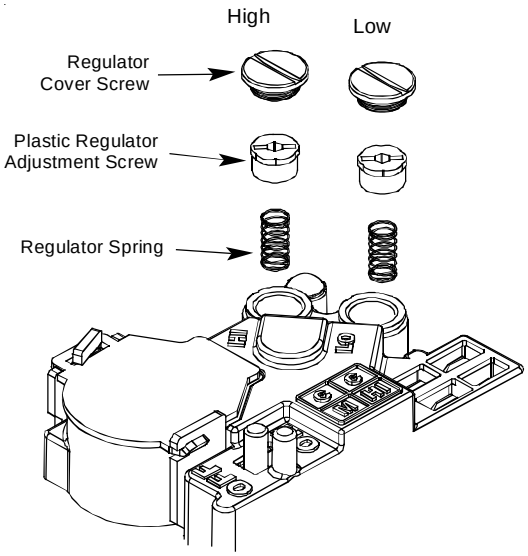
ATTACH THE WARNING LABEL PROVIDED IN THE KIT TO THE GAS VALVE WHERE IT CAN BE READILY SEEN.

ATTACH THE SMALL, ROUND L.P. LABELS TO THE TOP OF THE REGULATOR COVER SCREWS.

30. **IMPORTANT NOTE:** Apply the conversion label (B14933-151) provided with the conversion kit. This label must be attached adjacent to the rating plate.
31. For hybrid models, control board switches may need to be re-set to single stage operation depending on installers preference of operation.
32. Reinstall the access panels.
33. Turn on the gas and electrical supply.
34. Reset all other appliances so they function normally.



White-Rodgers 36G54/36J54



White-Rodgers 36G54/36J54 Springs and Regulator Screws

HONEYWELL VR9205Q CONVERSION INSTRUCTIONS

⚠ WARNING



HIGH VOLTAGE!
DISCONNECT ALL POWER BEFORE SERVICING.
MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.

⚠ CAUTION

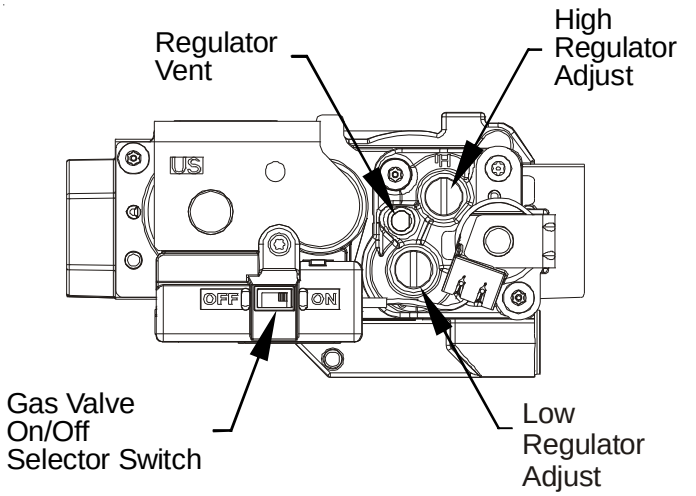
IF NOX SCREENS ARE PRESENT, REMOVE AS PER INSTRUCTIONS IN SECTION "NOX SCREEN REMOVAL".

⚠ CAUTION

TO PREVENT UNSATISFACTORY FURNACE OPERATION, THE PROPER GAS CONVERSION KIT MUST BE USED FOR THE GAS VALVE. USE THE HONEYWELL SPRING KIT ONLY WITH THE HONEYWELL GAS VALVE.

NOTE: For low NOx models,
see table of contents for NOx Screen section.

1. Turn off the gas supply to the furnace.
2. Turn off the electrical power to the furnace.
3. Remove the furnace control access panel.
4. Check for the presence of NOx screen and remove per NOx instruction.
5. Separate the gas supply union and remove associated downstream piping.
6. Always use a backup wrench when removing or replacing piping to avoid any undue strains or rotation of controls.
7. Remove the wires from the gas valve.
8. Remove the 4 shee t metal screws that fasten the manifold/gas valve assembly to the burner box.
9. Visually inspect orifices for damage and drill size (marked on face with 55) before installation. Using the 7/16" wrench, remove all existing natural gas orifices and replace with the appropriate marked 55 L.P. gas orifices contained in this kit. Tighten the orifices to prevent gas leaks, but do not overtighten. Retain the natural gas orifices for future reconversion.
10. Remove both the inlet and outlet plugs on the gas valve, using the 3/16" allen wrench. Install the fittings, which accompany the manometers, into the 1/8" NPT holes of the gas valve. Connect the manometers to the barbed fittings.



Honeywell VR9205Q

11. Remove both regulator cover screws and retain with the Natural Gas orifices for future reconversion.
12. Using a T-25 Torx driver (L Torx tool included in kit) or 3/16" flat head screwdriver, remove both regulator adjustment screws.
13. Remove both silver colored Natural Gas regulator springs from the regulator sleeves and retain with the Natural Gas orifices for future reconversion.
14. Insert the L.P. regulator springs (provided in the conversion kit and color-coded red) into the regulator sleeves.
15. Install the high regulator adjustment screw provided with the kit by threading all the way down until lightly seated and then back off 1 1/2 turns.
16. Install the low regulator adjustment screw provided with the kit by threading all the way down until lightly seated and then back off 1 1/2 turns.
17. Reinstall the manifold/gas valve assembly into the appliance. Rewire the gas valve.

⚠ WARNING

TO PREVENT THE POSSIBILITY OF GAS LEAKS, THE PIPE JOINT COMPOUND OR PIPE THREAD TAPE MUST BE RESISTANT TO L.P. GAS.

18. Apply a liberal amount of pipe joint compound or pipe thread tape to the threads and reassemble the piping previously removed. Note: the pipe joint compound must be resistant to L.P. gas.
19. Turn on the gas supply.
20. Using a soap and water solution, check for leaks around the gas valve/manifold connection.
21. Turn on the electrical supply.
22. Adjust the room thermostat to obtain a first stage (W1 only) burner operation.

NOTE: For hybrid models, the control board dip switches need to be set to 2 stg position to set and verify first stage heat. (See installation instructions supplied with the unit for dip switch settings.)

⚠ WARNING

NEVER USE AN OPEN FLAME TO CHECK FOR GAS LEAKS.

23. Using a soap and water solution, check for leaks around the gas valve/manifold connection and the burner orifices. Repair any leaks before continuing.
24. **NOTE:** Any other gas-fired equipment should be ON before any adjustments are made.

    After the furnace has been in operation for 15 minutes, adjust the gas supply pressure (not manifold pressure) to obtain a range between 11" and 13" W.C. If the gas inlet pressure falls outside of this range, then make necessary L.P. service regulator(s) adjustments; check piping size, etc., and /or consult with local L.P. provider.
25. With the furnace operating in its low-fire (W1) condition, the manifold pressure should be 6" W.C.± 0.30". If necessary, this pressure can be adjusted using the low regulator adjustment screw. Turn clockwise to increase pressure and counterclockwise to decrease manifold pressure.
26. Readjust the room thermostat to obtain a second stage call for heat (W2). The manifold pressure for the W2 condition should be 10" ± 0.30" W.C. Adjustments to this pressure can be made using the high regulator adjustment screw.
27. Using the room thermostat to cycle the unit, observe a minimum of three (3) smooth ignition cycles.
28. Turn off gas and electrical supply to the furnace. Remove the barbed manometer fittings from the 1/8" NPT holes in the gas valve. Seal inlet and outlet plugs removed earlier with pipe joint compound or pipe thread tape and reinstall.

⚠ WARNING

TO PREVENT THE POSSIBILITY OF GAS LEAKS, THE PIPE JOINT COMPOUND OR PIPE THREAD TAPE MUST BE RESISTANT TO L.P. GAS.

29. Install the regulator cover screws provided with the conversion kit.

⚠ WARNING

INSTALL THE ATTENTION LABEL PROVIDED WITH THE CONVERSION KIT TO THE GAS VALVE WHERE IT CAN BE READILY SEEN.

30. **IMPORTANT NOTE:** Apply the conversion label (B14933-151) provided with the conversion kit. This label must be attached adjacent to the rating plate.
31. For hybrid models, control board switches may need to be re-set to single stage operation depending on installers preference of operation.
32. Reinstall the access panels.
33. Turn on the gas and electrical supply.
34. Reset all other appliances so they function normally.

NOx SCREEN REMOVAL

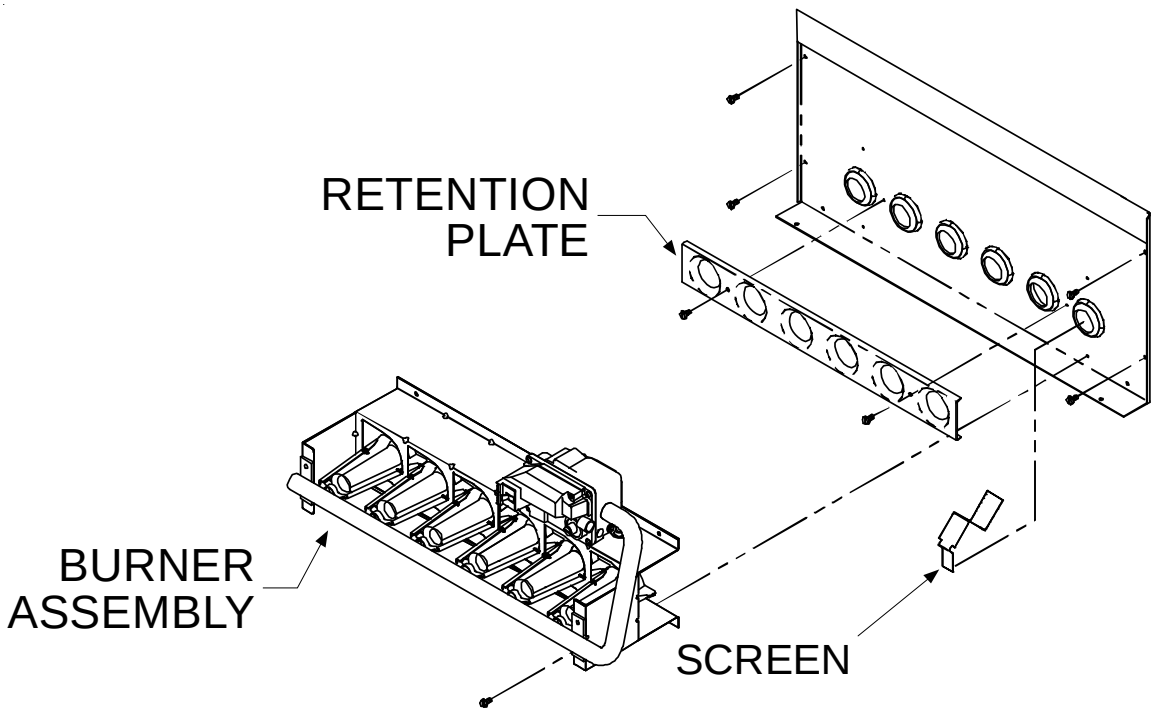
WARNING

ALL METAL SCREENS MUST BE REMOVED FROM THE HEAT EXCHANGER TUBES WHEN USING PROPANE GAS. FAILURE TO COMPLY WITH THIS REQUIREMENT WILL ALSO VOID WARRANTY COVERAGE.

NOTE: To prevent premature heat exchanger failure, follow the instructions below to remove all metal screen inserts from the entrance of heat exchanger tubes during propane conversions. Not all models will have metal screen inserts.

NON-CONDENSING FURNACES AND PACKAGE GAS-ELECTRIC

1. Remove the screws securing the burner box to the partition panel. Separate burner box from unit.
2. Remove the screw(s) securing the NOx screen retention plate and remove the plate.
3. Remove and discard NOx screens.
4. Reinstall the NOx screen retention plate and burner box.



Typical NOx Screen Removal

NOTE: SPECIFICATIONS AND PERFORMANCE DATA LISTED HEREIN ARE SUBJECT TO CHANGE WITHOUT NOTICE

Quality Makes the Difference!

All of our systems are designed and manufactured with the same high quality standards regardless of size or efficiency. We have designed these units to significantly reduce the most frequent causes of product failure. They are simple to service and forgiving to operate. We use quality materials and components. Finally, every unit is run tested before it leaves the factory. That's why we know. . .**There's No Better Quality.**

Visit our website at www.daikincomfort.com, www.goodmanmfg.com or www.amana-hac.com for information on:

- Products
- Warranties
- Customer Services
- Parts
- Contractor Program and Training
- Financing Options

© 2009-2011, 2013-2014 Goodman Manufacturing Company, L.P.

Amana® is a registered trademark of Maytag Corporation or its related companies and is used under license. All rights reserved.