

Installation Instructions

Gas Conversion Kit Natural-to-Propane For All Condensing Furnaces and Variable and 2-Speed Non-Condensing Furnaces

KGANP2701LPS



NOTE: Read the entire instruction manual before starting the installation.

This symbol → indicates a change since the last issue.

SAFETY CONSIDERATIONS

Installing and servicing heating equipment can be hazardous due to gas and electrical components. Only trained and qualified personnel should install, repair, or service heating equipment.

Untrained personnel can perform basic maintenance functions such as cleaning and replacing air filters. All other operations must be performed by trained service personnel. When working on heating equipment, observe precautions in the literature, on tags, and on labels attached to or shipped with the unit, and other safety precautions that may apply.

Follow all safety codes. In the United States, follow all safety codes including the National Fuel Gas Code (NFGC) NFPA No. 54-1999/ANSI Z223.1-1999. In Canada, refer to the National Standard of Canada, Natural Gas and Propane Installation Codes (NSCNGPIC), CAN/CGA-B149.1 and .2-M00.

Wear safety glasses and work gloves. Have a fire extinguisher available during start-up, adjustment procedures, and service calls.

Recognize safety information. This is the safety-alert symbol . When you see this symbol on the furnace and in instructions or manuals, be alert to the potential for personal injury.

Understand the signal words DANGER, WARNING, CAUTION, and NOTE. The words DANGER, WARNING, and CAUTION are used with the safety-alert symbol. DANGER identifies the most serious hazards which **will** result in severe personal injury or death. WARNING signifies hazards which **could** result in personal injury or death. CAUTION is used to identify unsafe practices which **would** result in minor personal injury, or product and property damage. NOTE is used to highlight suggestions which **will** result in enhanced installation, reliability, or operation.

 **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 is responsible for the proper installation of this furnace with this kit. The installation is not proper and complete until the operation of the converted appliance is checked as specified in the manufacturer's instructions supplied with the kit.

 **AVERTISSEMENT:** Cette trousse de conversion ne doit être installée que par le représentant d'un organisme qualifié et conformément aux instructions du fabricant et à tous les codes et exigences pertinents de l'autorité compétente. Les instructions du présent guide doivent être suivies afin de réduire au minimum au risque d'incendie ou d'explosion de dommage matériels, de blessure ou de mort. L'organisme qualifié responsable de l'installation adéquate de cette trousse. L'installation n'est pas adéquate ni complète tant que le bon fonctionnement de l'appareil converti n'a pas été vérifié selon les instructions du fabricant fournies avec la trousse.

INTRODUCTION

This instruction covers the installation of gas conversion kit Part No. KGANP2701LPS to convert the following furnaces from natural gas usage to propane gas usage. See appropriate section for your furnace type.

- Section 1—Models 58DXT, 58TMA, 58TUA, 58UHV, 58UXT, 58UXV, 330AAV, 330JAV, 331AAV, 331JAV, 333BAV, and 333JAV Induced-Combustion, Hot-Surface Ignition, 2-Stage, 2-Speed and Variable-Speed, Non-Condensing Furnaces. This kit is designed for use in furnaces with 40,000 through 140,000 Btuh gas input rates.

- • Section 2—Models 58MVP, 58MTA, 355MAV, and 352MAV Direct-Vent, Multipoise, Hot-Surface Ignition, 2-Stage, 2-Speed and Variable-Speed, Condensing Furnaces. This kit is designed for use in furnaces with 40,000 through 120,000 Btuh gas input rates.
- • Section 3—Models 58MCA, 58MSA, 58MXA, 340MAV, 345MAV, 350MAV, 490AAV, and PG9MAA Multipoise, Hot Surface Ignition, Fixed-Speed, Condensing Furnaces. This kit is designed for use in 040 through 140 size furnaces. The gas valve will be a White-Rodgers 36E with either an electric control switch or a manual control knob.

IMPORTANT: This kit can replace conversion kit KGANP26012SP, as specified on unit rating plate, when gas valve is replaced with Two-Stage Gas Valve P/N EF33CW198 (White-Rodgers 36E55). Replacement gas valve available through RCD.

⚠ WARNING: Improper installation, adjustment, alteration, service, maintenance, or use can cause carbon monoxide poisoning, explosion, fire, electrical shock, or other conditions which could result in personal injury or death. Consult a qualified installer, service agency, local gas supplier, or your distributor or branch for information or assistance. The qualified installer or agency must use only factory-authorized kits or accessories when modifying this product. Failure to follow instructions could result in serious injury or property damage.

⚠ CAUTION: Gas supply **MUST** be shut off before disconnecting electrical power and proceeding with conversion.

DESCRIPTION AND USAGE

This kit is designed for use in the furnaces listed above. See Table 1 for kit contents. More parts are shipped in kit than will be needed to complete conversion. When installation is complete, discard extra parts.

→ **Table 1—Kit Contents**

DESCRIPTION	PART NO.	QUANTITY
Main Burner Orifice (Drill Size 1.25mm)	LH32DB209	7
Main Burner Orifice (Drill Size No. 55)	LH32DB201	7
Main Burner Orifice (Drill Size No. 56)	LH32DB206	7
Diverter Plate	323184-301	1
Low Gas Pressure Switch (Propane) (LGPS)	HK02LB018	1
Pipe Nipple (1/8 in. X 1-1/2 in.)	CA01CA006	1
90° Street Elbow (1/8 in.)	CA15RA001	1
Splice Connector (1/4 in. Male, Both Ends)	6617D55	1
Splice Connector (3/16 in. Male, Both Ends)	HY89SC047	1
Orange Wire Assembly (18 in.)	W183X23-04-018	2
Yellow Wire Assembly (6 in.)	W183Y66-11-006	1
Yellow Wire Assembly (14 in.)	W183Y66-11-014	1
Wire Tie	HY76TB125	1
Conversion Rating Plate Label—Non-Condensing Furnaces	326752-201	1
Conversion Rating Plate Label—Condensing Furnaces	326752-204	1
Conversion Responsibility Label	326752-205	1
Gas Control Conversion Label (adjusted)	326752-202	1
Gas Control Conversion Label (converted)	326752-203	1
Installation Instructions	AG-GANP-25	1
Regulator Spring Kit (White—Propane) for White-Rodgers 36E Valve	EF39ZW023	1

INSTALLATION

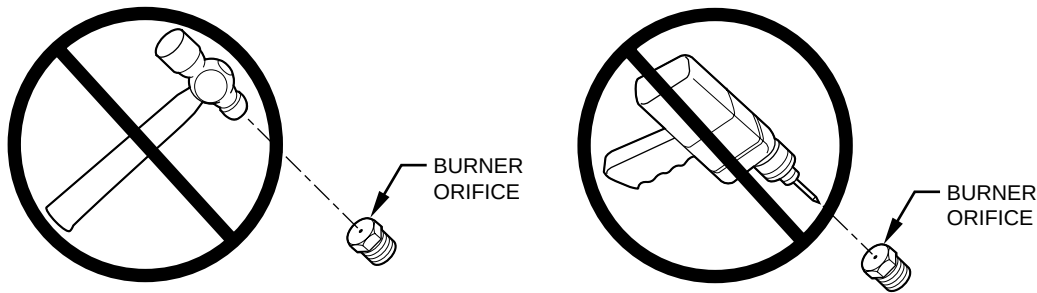
SECTION 1—MODELS 58DXT, 58TMA, 58TUA, 58UHV, 58UXT, 58UXV, 330AAV, 330JAV, 331AAV, 331JAV, 333BAV, AND 333JAV INDUCED-COMBUSTION, HOT-SURFACE IGNITION, 2-STAGE, 2-SPEED AND VARIABLE-SPEED, NON-CONDENSING FURNACES

PROCEDURE 1—INSTALL MAIN BURNER ORIFICES

NOTE: See Fig. 2 or 3 for component location.

⚠ CAUTION: DO NOT redrill burner orifices. Improper drilling (burrs, out-of-round holes, etc.) can cause excessive burner noise and misdirection of burner flames. This can result in flame impingement of the burners and heat exchangers, causing failure. Obtain new orifices if orifice size must be changed. (See Fig. 1.)

1. Turn off furnace gas and electrical supplies.
2. Remove control access door.
3. Turn furnace gas valve switch to OFF position.
4. Remove burner hold-down bracket.
5. Remove burners from manifold.



A96249

Fig. 1—Burner Orifice

6. Remove and discard orifices from manifold.
7. Refer to conversion kit rating plate 326108-201 to determine main burner orifice size.
Furnace gas input rate on rating plate is for installations at altitudes up to 2000 ft.
In the U.S.A., the input rating for altitudes above 2000 ft must be reduced by 4 percent for each 1000 ft above sea level.
In Canada, the input rating must be derated by 10 percent for altitudes of 2000 ft to 4500 ft above sea level.
8. Install main burner orifices. Do not use Teflon tape. Finger-tighten orifices at least 1 full turn to prevent cross-threading, then tighten with wrench. There are enough orifices in each kit for largest furnace. Discard extra orifices. Orifices of other sizes must be field supplied and are available through your local distributor.
9. Reinstall main burners on manifold. Burners should be installed left (flame sensor side) to right (ignitor side) to ensure proper alignment of the burner crossover slot. (See Fig. 5 for ignitor position.)
10. Reinstall burner hold-down bracket.

11. For models 58DXT, 58UXT, 58UXV, 330JAV, 331JAV, and 333JAV only, remove NO_x emissions-reducing device as follows:

NOTE: Models 58DXT, 58UXT, 58UXV, 330JAV, 331JAV and 333JAV are supplied with NO_x emissions-reduction devices necessary for use with Natural Gas in NO_x emissions-regulated areas.

⚠ CAUTION: Furnace models 58DXT, 58UXT, 58UXV, 330JAV, 331JAV, and 333JAV, must have low NO_x coils removed prior to operating furnace on propane gas.

⚠ CAUTION: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation.

⚠ ATTENTION: Lors des opérations d'entretien des commandes, étiqueter tous les fils avant de les déconnecter. Toute erreur de câblage peut être une source de danger et de panne.

- a. Be sure gas and electrical supplies to furnace are off.
- b. Remove wires from gas valve. Note location for reassembly.
- c. Remove wires from flame sensor and flame rollout safety switch(es). Disconnect ignitor wire connector.
- d. Remove 4 screws that hold gas control assembly to heat exchanger cell panel and remove gas control assembly.
- e. Using needle nose pliers, remove coil from bracket on each heat exchanger cell inlet plate. (See Fig. 6.)
- f. Replace gas control assembly and secure to heat exchanger cell panel using 4 previously removed screws.
- g. Reconnect wires to flame sensor and flame rollout safety switch(es), and reconnect ignitor wire connector. See furnace wiring label to ensure proper location of wires.
- h. Reconnect wires to gas valve. See wiring label on furnace to ensure proper location of wires.
- i. Reconnect gas supply pipe to gas valve using backup wrench on gas valve to prevent rotation and improper orientation.

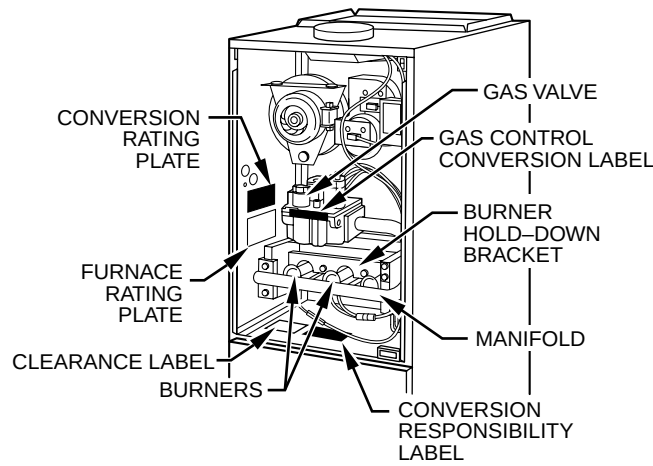
NOTE: Use propane-gas resistant pipe dope to prevent gas leaks. DO NOT use Teflon tape.

PROCEDURE 2—PRE-ADJUST GAS VALVE

⚠ CAUTION: The gas valve must be pre-adjusted before operating on propane gas. Failure to follow this caution could result in excess underfire and flashback. If left this way sooting and corrosion will occur leading to early heat exchanger failure.

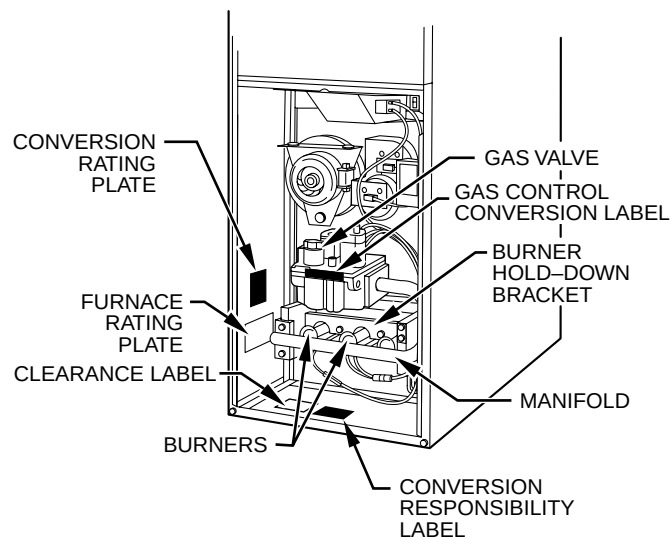
→ **NOTE:** The 2-stage gas valve does not require a regulator spring change.

1. Be sure gas and electrical supplies to furnace are off.
2. Remove caps that conceal adjustment screws for high- and low-heat stage gas-valve regulators. (See Fig. 4.)
3. Turn **low-heat** stage adjusting screw (3/32-in. hex allen wrench) **clockwise (in) 1 full turn**. This will increase the manifold pressure closer to the propane low-heat set point.



A99219

Fig. 2—Upflow and Upflow/Horizontal, 2-Speed and Variable-Speed, Non-Condensing Furnace Components and Conversion Label Location



A99220

Fig. 3—Downflow and Downflow/Horizontal, 2-Speed, Non-Condensing Furnace Components and Conversion Label Location

4. Turn **high-heat** stage adjusting screw (3/32-in. hex allen wrench) **clockwise (in) 2 full turns**. This will increase the manifold pressure closer to the propane high-heat set point.
5. Replace caps that conceal gas-valve regulator adjustment screws.

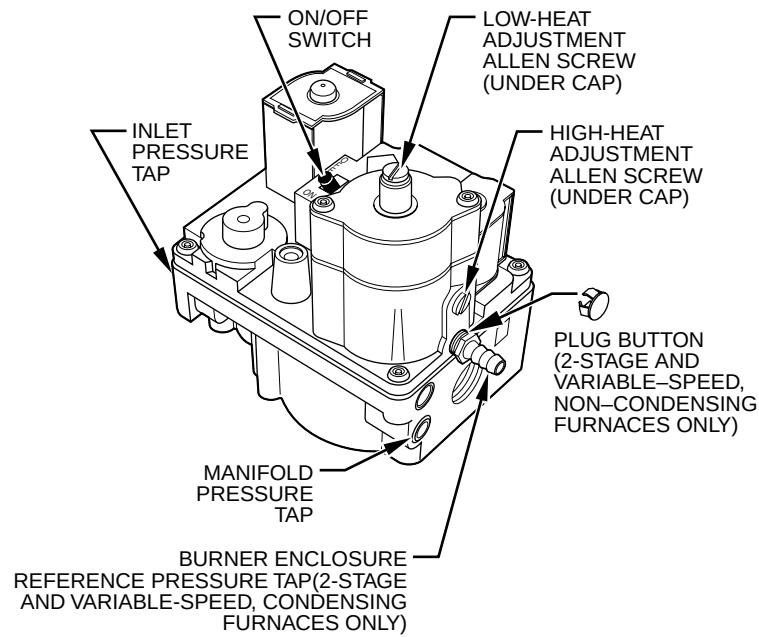
PROCEDURE 3—CHECK INLET GAS PRESSURE

NOTE: This kit is to be used only when inlet gas pressure is between 11.0-in. wc and 13.6-in. wc.

1. Be sure main gas and electric supplies to furnace are off.
2. Remove 1/8-in. pipe plug from inlet pressure tap on gas valve. (See Fig. 4.)
3. Attach manometer to inlet pressure tap on gas valve. (See Fig. 19.)

⚠ CAUTION: DO NOT operate furnace more than 1 minute to check inlet gas pressure as conversion is not complete at this time.

4. Turn on furnace power supply.
5. Turn gas supply manual shutoff valve to ON position.
6. Turn furnace gas valve switch to ON position.
7. Jumper R-W/W1 and R-W2 thermostat connections on control. (See Fig. 7.) This runs the furnace in high heat.
8. When main burners ignite, confirm inlet gas pressure is between 11.0-in. wc and 13.6-in. wc.
9. Remove jumper across R-W/W1 and R-W2 thermostat connections to terminate call for heat.
10. Turn furnace gas valve switch to OFF position.



A01069

**Fig. 4—Redundant Automatic 2-Stage Gas Valve
(No Regulator Spring Change Required)**

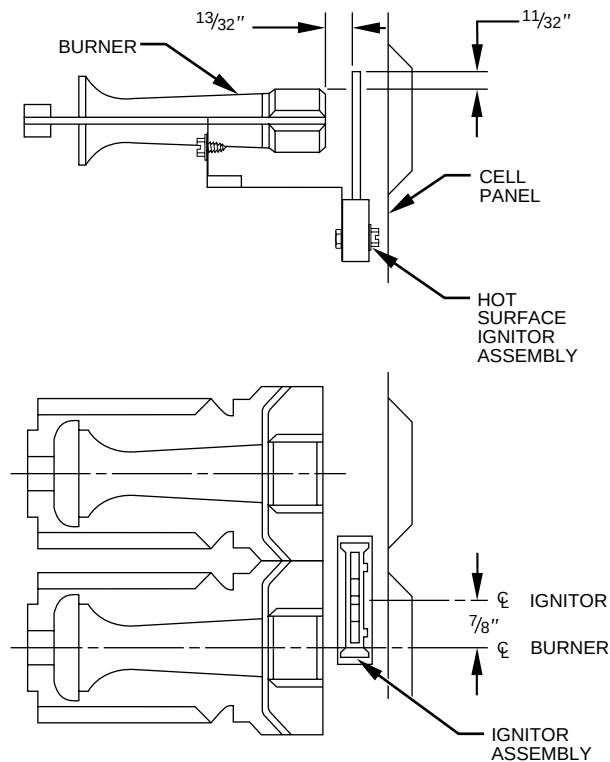


Fig. 5—Position of Ignitor to Burner

A93347

11. Turn gas supply manual shutoff valve to OFF position.
12. Turn off furnace power supply.
13. Remove manometer, but do not reinstall gas-valve inlet pressure-tap plug. (See Fig. 4.)

PROCEDURE 4—INSTALL LOW GAS PRESSURE SWITCH (LGPS)

NOTE: The inlet gas pipe must be disconnected from valve so pressure switch can be installed.

NOTE: Use propane-gas-resistant pipe dope on all connections to prevent gas leaks. DO NOT use Teflon tape.

1. Apply pipe dope sparingly to both ends of pipe nipple (provided in kit) and install nipple in 1/8-in. tapped opening in gas valve. Finger tighten. (See Fig. 9.)

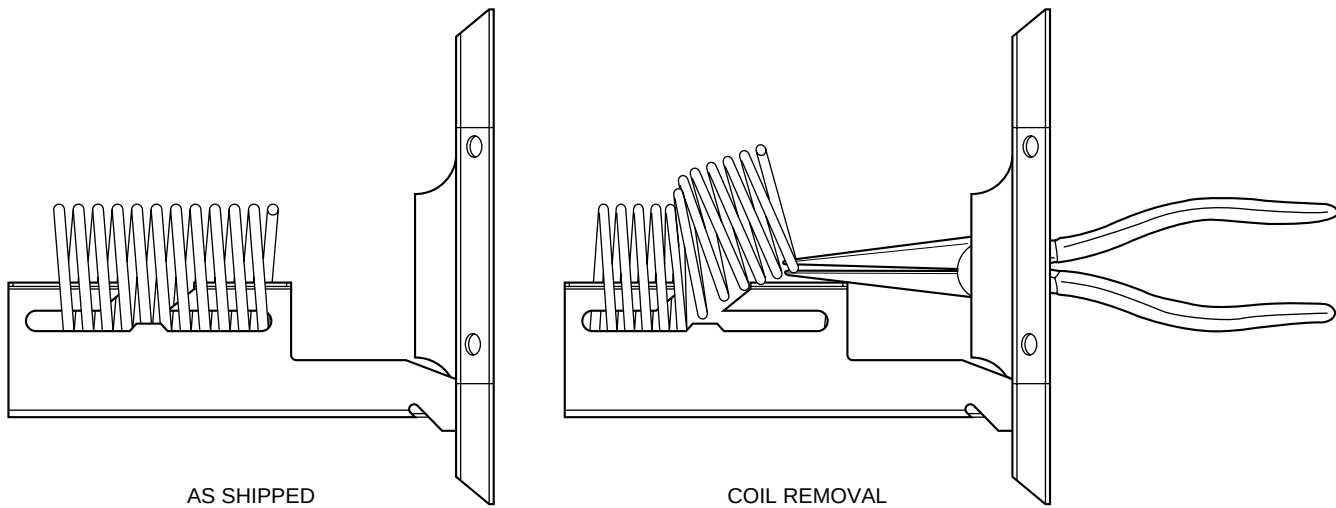
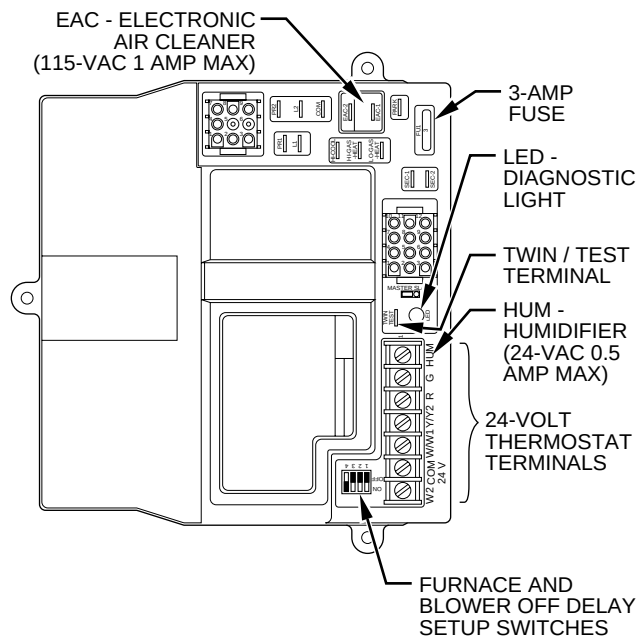


Fig. 6—Removal of Low NO_x Coil

A95171



A93348

Fig. 7—Furnace Control for 2-Speed Condensing Furnace and 2-Speed / Variable-Speed, Non-Condensing Furnaces

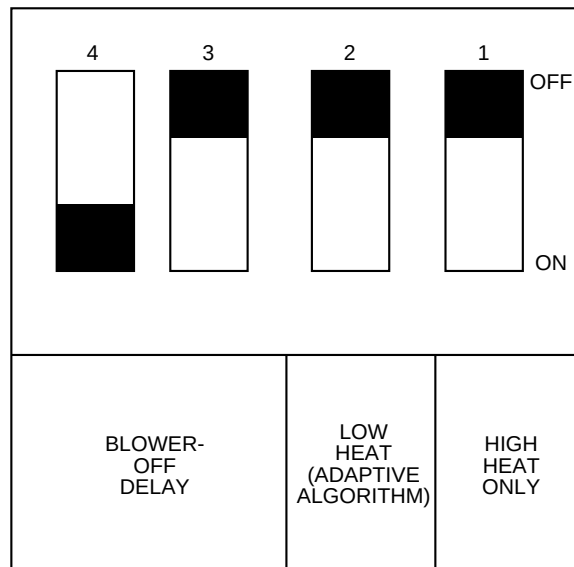
2. Apply pipe dope sparingly to threaded end of street elbow (provided in kit) and install elbow on nipple. Finger tighten. Use a small pipe wrench for final tightening.
3. Point male end of street elbow vertically up. (See Fig. 9.)
4. Install propane low gas pressure switch (provided in kit) on street elbow. After switch has been finger tightened, use small wrench on base of pressure switch for final tightening. When pressure switch is tight, switch terminals should point as shown in Fig. 9 relative to gas valve and clear control compartment access door.
5. Apply pipe dope sparingly to end of inlet gas pipe and reconnect pipe to gas valve.

PROCEDURE 5—MODIFY PRESSURE SWITCH WIRING

1. Disconnect yellow wire from low-heat pressure switch LPS on inducer housing. Add 3/16-in. splice connector to this wire.
2. Connect uninsulated terminal of 6-in. yellow wire (provided in kit) to splice connector. Connect other end to C terminal on low gas pressure switch LGPS.
3. Connect insulated terminal of 14-in. yellow wire (provided in kit) to NO terminal on low gas pressure switch LGPS. Connect other end to pressure switch LPS located on inducer housing.
4. Route yellow wires along wire harness. Secure with wire tie provided in kit.

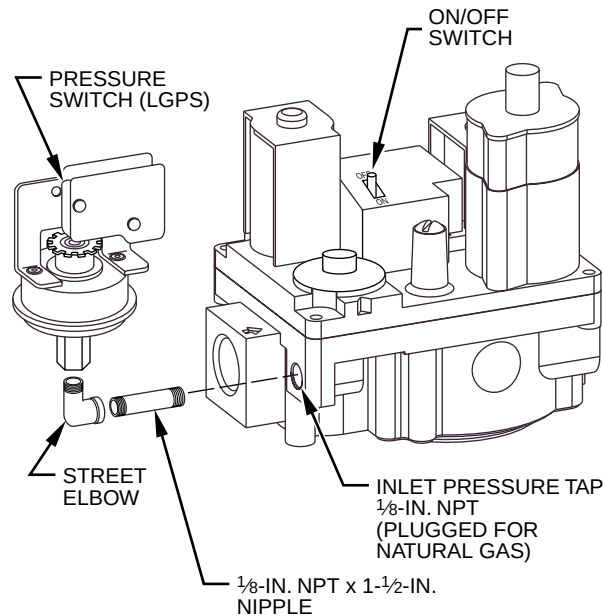
PROCEDURE 6—CHECK FURNACE OPERATION AND MAKE NECESSARY ADJUSTMENTS

1. Be sure main gas and electric supplies to furnace are off.
2. Remove 1/8-in. pipe plug from manifold pressure tap on downstream side of gas valve. (See Fig. 4.)
3. Attach manometer to manifold pressure tap on gas valve. (See Fig. 19)



A96402

Fig. 8—Setup Switches on Furnace Control for 2-Speed Condensing Furnace and 2-Speed / Variable-Speed, Non-Condensing Furnaces (Factory Settings Shown)



A99222

Fig. 9—Installation of Low Gas Pressure Switch on 2-Stage Gas Valve

4. Turn gas supply manual shutoff valve to ON position.
5. Turn furnace gas valve switch to ON position.
6. Check all threaded pipe connections for gas leaks.

⚠ WARNING: NEVER use matches, candles, flame, or other sources of ignition to check for gas leakage. Use a soap-and-water solution to check for leaks. Failure to follow this warning could result in fire, explosion, personal injury, or death.

7. Turn on furnace power supply.
8. Turn setup switch SW-2 on control board to ON position. (See fig. 7 and 8.) This keeps furnace in low-heat.
9. Jumper R and W/W1 thermostat connections to call for heat. (See Fig. 7.)
10. Check manifold orifices for gas leaks when main burners ignite.

PROCEDURE 7—SET GAS INPUT RATE

→ The gas-input rate for propane is the same as for natural gas. See furnace rating plate for input rate. The input rate for propane is determined by manifold pressure and orifice size. The gas-valve regulator must be set for high heat and set for low heat. (See kit rating plate 326752-201, Fig. 10.)

CONVERSION KIT RATING PLATE - CARRIER CORP.

THIS APPLIANCE HAS BEEN CONVERTED TO USE PROPANE GAS FOR FUEL. REFER TO KIT INSTRUCTIONS FOR CONVERSION PROCEDURES. USE PARTS SUPPLIED BY CARRIER CORPORATION AND INSTALLED BY QUALIFIED PERSONNEL. SEE EXISTING RATING PLATE FOR APPLIANCE MODEL NO. AND INPUT RATING.

NOTE: Furnace gas input rate on rating plate is for installations up to 2000 ft above sea level. In U.S.A. the input rating for altitudes above 2000 ft must be derated by 4% for each 1000 ft above sea level. In Canada the input rating must be derated by 10% for altitudes of 2000 ft to 4500 ft above sea level.

KIT NO. KGANP2701LPS FUEL USED: PROPANE GAS INLET PRESSURE (min - max): 11.0 - 13.6 in. wc

APPLIANCE MODELS		ALTITUDE OF INSTALLATION (FT. ABOVE SEA LEVEL) U.S.A. *								
		0 to 2000	2001 * to 3000	3001 to 4000	4001 to 5000	5001 to 6000	6001 to 7000	7001 to 8000	8001 to 9000	9001 to 10000
331AAV, 331JAV, 58DXT, 58TMA	Orifice No.	55	55	1.25mm	1.25mm	1.25mm	56	56	56	57
	Mnfld Press	11.0 /	10.0 /	11.0 /	11.0 /	10.0 /	11.0 /	11.0 /	10.0 /	11.0 /
	High / Low	4.7	4.2	4.7	4.5	4.2	4.9	4.6	4.2	5.3
330AAV, 330JAV, 333BAV, 333JAV, 58TUA, 58UHV, 58UXT, 58UXV	Orifice No.	55	1.25mm	1.25mm	1.25mm	56	56	56	57	57
	Mnfld Press	10.0 /	11.0 /	10.5 /	10.0 /	11.0 /	11.0 /	10.0 /	11.0 /	11.0 /
	High / Low	4.3	4.6	4.4	4.2	4.9	4.5	4.2	5.3	4.9

* For Canadian Installations from 2000 to 4500 ft use U.S.A. column 2001 to 3000 ft.

326752-201 REV. A

A01072

**Fig. 10—Rating Plate for Non-Condensing Furnaces
(Use for Orifice Size Selection for Propane)**

Furnace gas input rate on rating plate is for installations at altitudes up to 2000 ft.

In the U.S.A., the input rating for altitudes above 2000 ft must be reduced by 4 percent for each 1000 ft above sea level.

In Canada, the input rating must be derated by 10 percent for altitudes of 2000 ft to 4500 ft above sea level.

Furnace input rate must be within ± 2 percent of input on furnace rating plate.

1. Adjust gas manifold pressure.

a. Remove caps that conceal adjustment screws for gas-valve regulators. (See Fig. 4.)

b. Adjust low-heat input rate manifold pressure for propane gas. (See kit rating plate 326752-201, Fig. 10.) Turn low-heat adjusting screw (5/64 hex allen wrench) counterclockwise (out) to decrease input rate or clockwise (in) to increase input rate.

c. Jumper R and W2 thermostat connections on control. (See Fig. 7.) This keeps furnace in high-heat.

d. Adjust high-heat input rate manifold pressure for propane gas. (See kit rating plate 326752-201, Fig. 10.) Turn high-heat adjusting screw (5/64 hex allen wrench) counterclockwise (out) to decrease input rate or clockwise (in) to increase input rate.

e. Remove jumper across R and W2 after high-heat adjustment.

f. Replace caps that conceal gas-valve-regulator adjustment screws.

g. Main burner flame should be clear blue, almost transparent. (See Fig. 11.)

⚠ CAUTION: DO NOT redrill burner orifices. Improper drilling (burrs, out-of-round holes, etc.) can cause excessive burner noise and misdirection of burner flames. This can result in flame impingement of the burners and heat exchangers, causing failure. Obtain new orifices if orifice size must be changed. (See Fig. 1.)

2. Remove jumper across R and W/W1 thermostat connections to terminate call for heat.

3. Turn setup switch to SW-2 to OFF position.

4. Turn furnace gas valve switch to OFF.

5. Turn off furnace power supply.

6. Remove manometer and replace manifold pressure tap plug. (See Fig. 4.)

NOTE: Use propane-gas-resistant pipe dope to prevent gas leaks. DO NOT use Teflon tape.

7. Turn on furnace power supply.

8. Turn furnace gas valve switch to ON position.

9. Set room thermostat to call for heat.

10. Check pressure tap plug for gas leaks when main burners ignite.

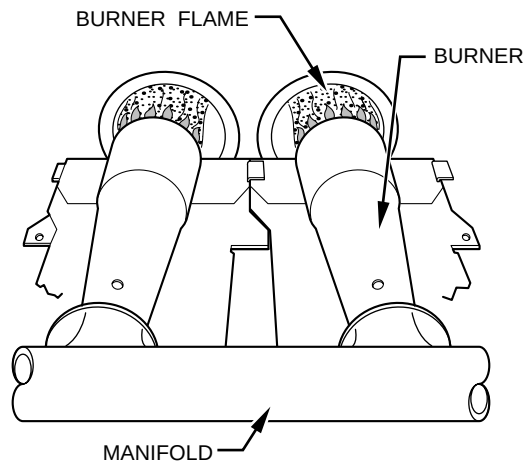
11. Check for correct burner flame. (See Fig. 11.)

12. Observe unit operation through 2 complete heating cycles. See sequence of operation in furnace Installation, Start-Up, and Operating Instructions.

13. Set room thermostat to desired temperature.

PROCEDURE 8—CHECK LOW GAS PRESSURE SWITCH OPERATION

The newly installed low gas pressure switch is a safety device used to guard against adverse burner operating characteristics that can result from low gas supply pressure.



A89020

Fig. 11—Burner Flame

→ This switch also prevents operation when the propane tank level is low which can result in gas with a high concentration of impurities, additives, and residues that have settled to the bottom of the tank. Operation under these conditions can cause harm to the heat exchanger system.

This normally open switch closes when gas is supplied to gas valve under normal operating pressure. The closed switch completes control circuit. Should an interruption or reduction in gas supply occur, the gas pressure at switch drops below low gas pressure switch setting, and switch opens. Any interruption in control circuit (in which low gas pressure switch is wired) quickly closes gas valve and stops gas flow to burners.

When normal gas pressure is restored, the system must be electrically reset to reestablish normal heating operation.

Before leaving installation, observe unit operation through 2 complete heating cycles. During this time, turn gas supply to gas valve off just long enough to completely extinguish burner flame, then instantly restore full gas supply. To ensure proper low gas pressure switch operation, observe that there is no gas supply to burners until after hot surface ignitor begins glowing.

PROCEDURE 9—LABEL APPLICATION

NOTE: See Fig. 2 or 3 for label location.

- 1. Fill in Conversion Responsibility Label (326752-205) and apply to inside of furnace as shown. Date, name, and address of organization making this conversion are required.
- 2. Attach Conversion Rating Plate Label (326752-201, Fig. 10.) near existing furnace rating plate.
- 3. Apply Gas Control Conversion Label (326752-202) to gas valve as shown. (Do not use 326752-203, which is similar.)
- 4. Check for correct normal operating sequence of the ignition system as described in furnace Installation, Start-Up, and Operating Instructions.
- 5. Replace control access door.

→ **SECTION 2—MODELS 58MVP, 58MTA, 355MAV AND 352MAV DIRECT-VENT, MULTIPOISE, HOT-SURFACE IGNITION, 2-STAGE, 2-SPEED AND VARIABLE-SPEED, CONDENSING FURNACES**

PROCEDURE 1—INSTALL MAIN BURNER ORIFICES

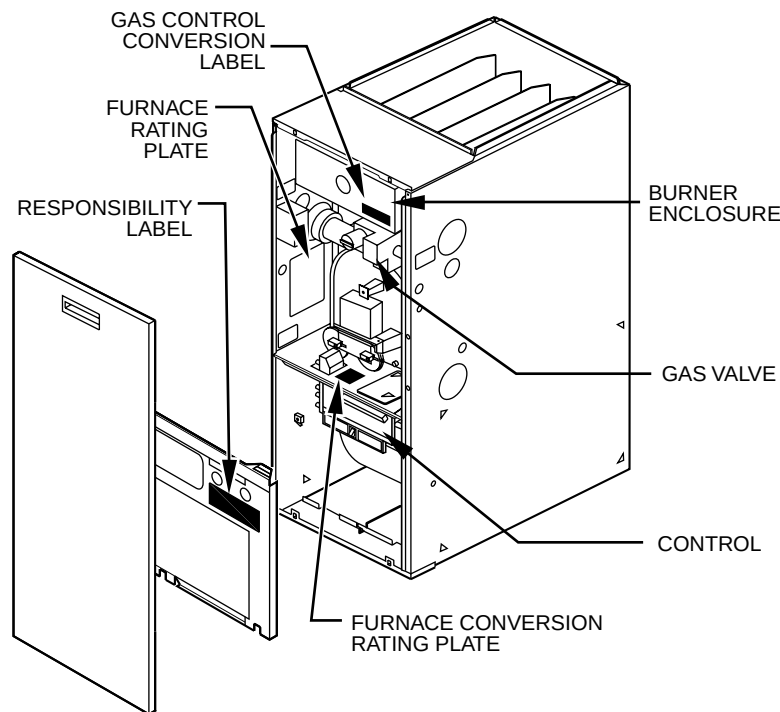
NOTE: See Fig. 12 for component location in upflow furnaces. Reorient component arrangement when furnace is installed in other positions.

1. Turn off furnace gas and electrical supplies.
2. Remove main furnace door.
3. Turn furnace gas valve switch to OFF position.
4. Remove burner enclosure front.
5. Remove gas supply pipe from gas valve.
6. Remove wires from gas valve. Note location for reassembly.

⚠ CAUTION: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation.

⚠ ATTENTION: Lors des opérations d'entretien des commandes, étiqueter tous les fils avant de les déconnecter. Toute erreur de câblage peut être une source de danger et de panne.

7. Remove burner-box pressure tube from gas-valve burner enclosure; reference pressure-tap fitting. (See Fig. 4.)
8. Remove screws that secure manifold to burner box and remove manifold, orifices, and gas valve as 1 assembly.
9. Remove and discard orifices from manifold.



A01025

Fig. 12—Condensing Furnace Component and Conversion Label Location (Upflow Orientation Shown)

- 10. Refer to conversion kit rating plate (326752-204, Fig. 13) to determine main burner orifice size. Furnace gas input rate on rating plate is for installations at altitudes up to 2000 ft. In the U.S.A., the input rating for altitudes above 2000 ft must be reduced by 2 percent for each 1000 ft above sea level. In Canada, the input rating must be derated by 5 percent for altitudes of 2000 ft to 4500 ft above sea level.
11. Install main burner orifices. Do not use Teflon tape. Finger-tighten orifices at least 1 full turn to prevent cross-threading, then tighten with wrench. There are enough orifices in each kit for the largest furnace. Discard extra orifices. Orifices of other sizes must be field-supplied and are available through your local distributor.

NOTE: DO NOT reinstall the manifold, orifices, gas-valve assembly, and burner enclosure front at this time.

→ **PROCEDURE 2—REPOSITION AIR SHUTTER (VARIABLE SPEED 355MAV060120 AND 58MVP120-20 ONLY)**

1. Remove 2 screws holding air shutter in natural gas usage (NAT) position.
2. Reposition air shutter to propane gas usage (PROP) position. (See Fig. 14.) Screws will now be located in the shutter next to the PROP stamp.

CAUTION: DO NOT redrill burner orifices. Improper drilling (burrs, out-of-round holes, etc.) can cause excessive burner noise and misdirection of burner flames. This can result in flame impingement of the burners and heat exchangers, causing failure. Obtain new orifices if orifice size must be changed. (See Fig. 1.)

NOTE: Air opening above burners will now be partially obstructed by air shutter.

PROCEDURE 3—INSTALL DIVERTER PLATE

1. Install diverter plate (provided in kit) above combustion air intake box as follows:
 - a. Remove front 2 screws on combustion air intake box. (See Fig. 15.)
 - b. Remove combustion air intake box and set aside. (See Fig. 15.)
 - c. **Variable Speed 58MVP and 355MAV Only.** If air diffuser has a solid center, remove center section of air diffuser.
 - Remove burners.
 - Remove center solid portion of air diffuser. (See Fig. 16.) Use tin snips to cut center portion of air diffuser. Do not overly distort air diffuser. The air diffuser is Tog-L-Locked to burner box.
 - Replace burners.
 - d. Install diverter plate Part No. 323184-301 provided in kit. (See Fig. 17.)
 - e. Reinstall combustion air intake box and replace 2 screws to ensure diverter plate is properly installed. (See Fig. 17.)
2. Reinstall manifold, orifice, and gas-valve assembly in burner box. Ensure manifold seal grommet is installed properly and burners fit over orifices. (See Fig. 18 for ignitor position.)
3. Reconnect wires to gas valve. Refer to furnace wiring schematic for proper wire location.
4. Reinstall burner box pressure tube to gas-valve regulator fitting.

CONVERSION KIT RATING PLATE - CARRIER CORP.

THIS APPLIANCE HAS BEEN CONVERTED TO USE PROPANE GAS FOR FUEL. REFER TO KIT INSTRUCTIONS FOR CONVERSION PROCEDURES. USE PARTS SUPPLIED BY CARRIER CORPORATION AND INSTALLED BY QUALIFIED PERSONNEL. SEE EXISTING RATING PLATE FOR APPLIANCE MODEL NO. AND INPUT RATING.

NOTE: Furnace gas input rate on rating plate is for installations up to 2000 ft above sea level. In U.S.A. the input rating for altitudes above 2000 ft must be derated by 2% for each 1000 ft above sea level. In Canada the input rating must be derated by 5% for altitudes of 2000 ft to 4500 ft above sea level.

KIT NO. KGANP2701LPS

FUEL USED: PROPANE GAS

INLET PRESSURE (min - max): 11.0 - 13.6 in. wc

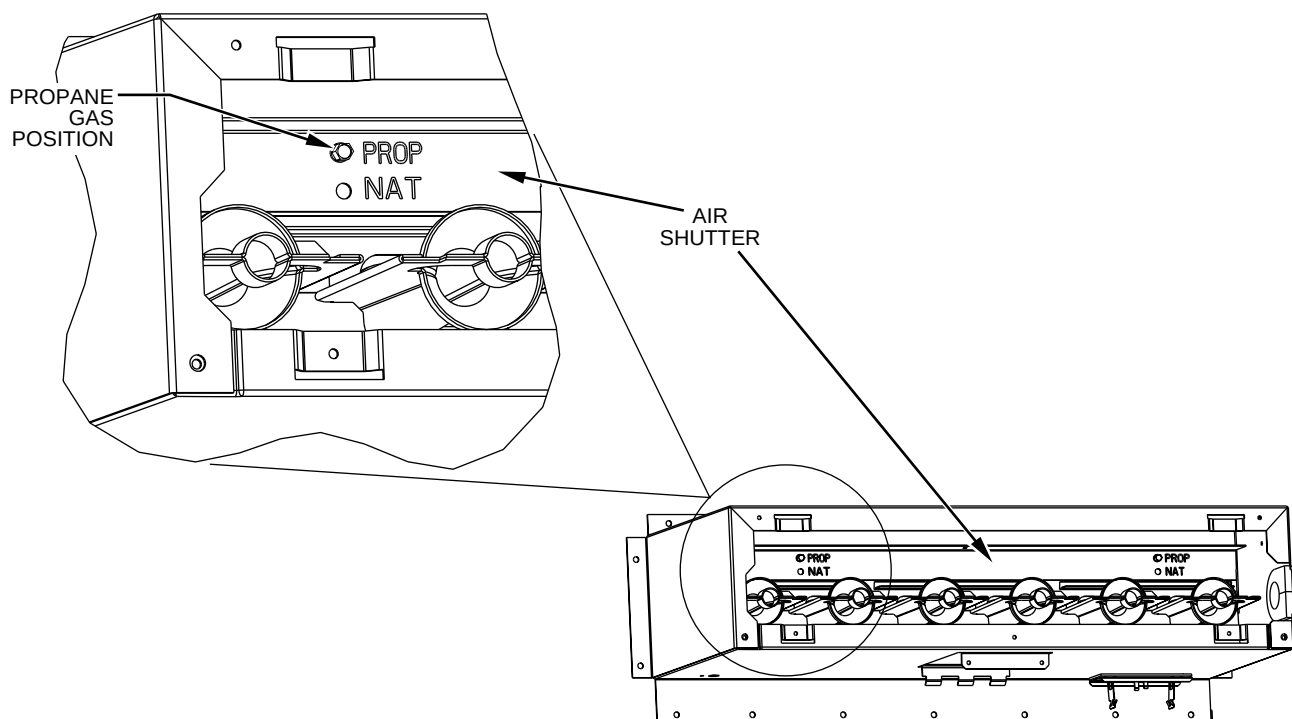
APPLIANCE MODELS		ALTITUDE OF INSTALLATION (FT. ABOVE SEA LEVEL) U.S.A. *								
		0 to 2000	2001* to 3000	3001 to 4000	4001 to 5000	5001 to 6000	6001 to 7000	7001 to 8000	8001 to 9000	9001 to 10 000
58MXA, 58MCA, 58MSA, 340MAV, 350MAV, 345MAV, 490AAV, PG9MAA (All model sizes EXCEPT 140)	Orifice No.	55	55	55	55	1.25mm	1.25mm	1.25mm	1.25mm	1.25mm
	Mnflld Press	10.0	10.0	10.0	10.0	11.0	11.0	11.0	11.0	11.0
58MXA, 58MCA, 340MAV, 350MAV, 490AAV, PG9MAA (140 Model Size ONLY)	Orifice No.	54	54	54	54	54	54	54	54	54
	Mnflld Press	11.0	10.5	10.5	10.0	10.0	10.0	10.0	10.0	10.0
352MAV, 355MAV, 58MTA, 58MVP	Orifice No.	1.25mm	1.25mm	1.25mm	1.25mm	1.25mm	1.25mm	1.25mm	1.25mm	1.25mm
	Mnflld Press	11.0 /	11.0 /	11.0 /	11.0 /	11.0 /	11.0 /	11.0 /	11.0 /	11.0 /
	High / Low	5.4	5.1	5.1	5.1	5.0	5.0	5.0	4.9	4.9

* For Canadian Installations from 2000 to 4500 ft use U.S.A. column 2001 to 3000 ft.

326752-204 REV. B

A01071

Fig. 13—Rating Plate for Condensing Furnaces (Use for Orifice Size Selection for Propane)



A96264

Fig. 14—Air Shutter in Propane Gas Usage (PROP) Position (355MAV060120 and 58MVP120-20 Units Only)

- Reconnect gas supply pipe to gas valve using backup wrench on gas valve to prevent rotation and improper orientation.

NOTE: Use propane-gas-resistant pipe dope to prevent gas leaks. DO NOT use Teflon tape.

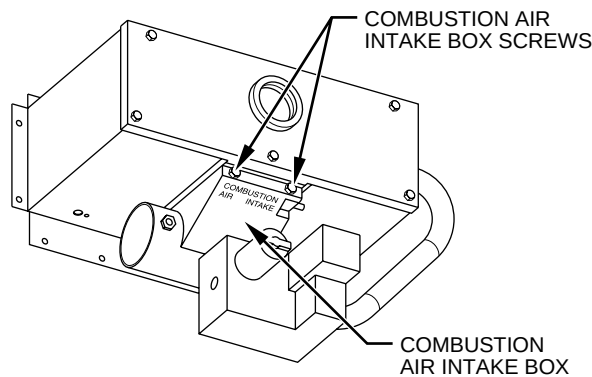
NOTE: DO NOT reinstall burner enclosure front at this time.

PROCEDURE 4—PRE-ADJUST GAS VALVE

CAUTION: The gas valve must be pre-adjusted before operating on propane gas. Failure to follow this caution could result in excess underfire and flashback. If left this way sooting and corrosion will occur leading to early heat exchanger failure.

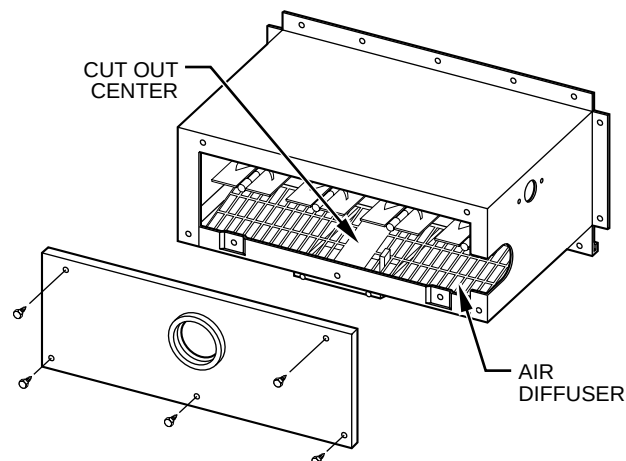
→ **NOTE:** The 2-stage gas valve does not require a regulator spring change.

- Be sure gas and electrical supplies to furnace are off.
- Remove caps that conceal adjustment screws for high-and low-heat stage gas valve regulators. (See Fig. 4.)
- Turn **low-heat** stage adjusting screw (3/32-in. hex allen wrench) **clockwise (in) 1 full turn**. This will increase the manifold pressure closer to the propane low-heat set point.



A95443

Fig. 15—Removing Combustion Air Intake Box



A95449

**Fig. 16—Removing Center Section of Air Diffuser
(Variable Speed 58MVP and 355MAV Only)**

4. Turn **high-heat** stage adjusting screw (3/32-in. hex allen wrench) **clockwise (in) 2 full turns**. This will increase the manifold pressure closer to the propane high-heat set point.
5. Replace caps that conceal gas valve regulator adjustment screws.

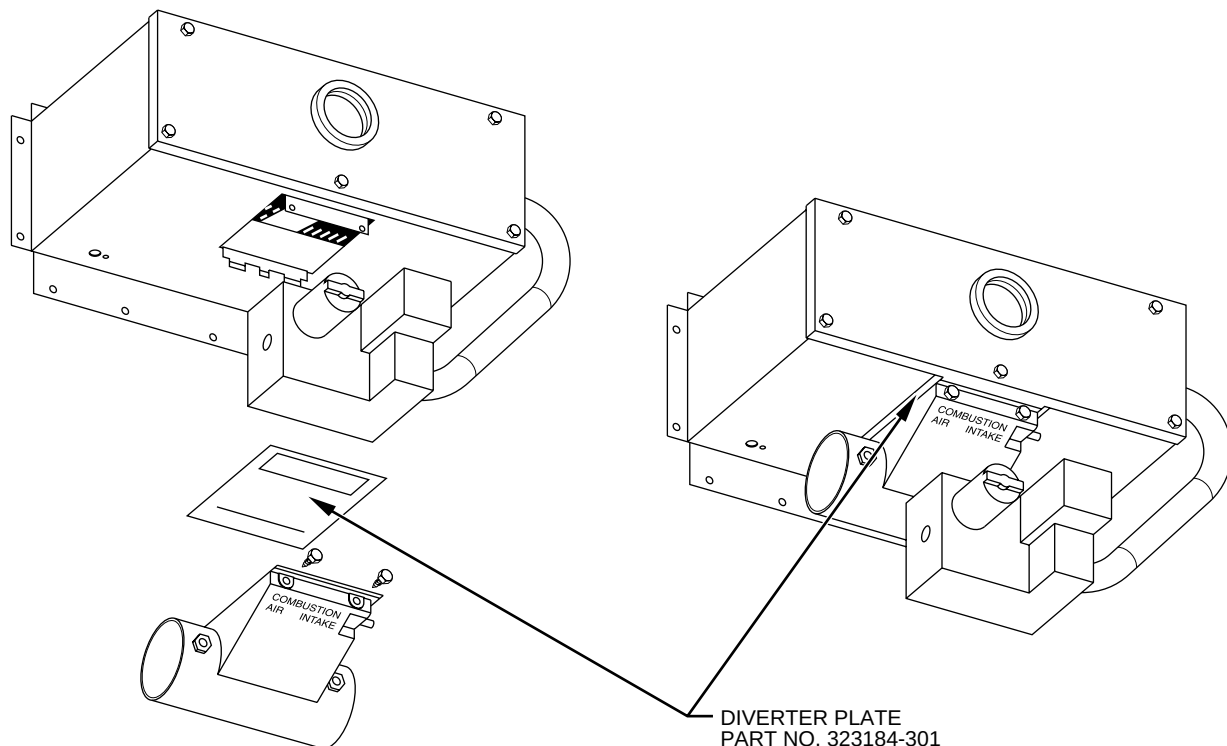
PROCEDURE 5—CHECK INLET GAS PRESSURE

NOTE: This kit is to be used only when inlet gas pressure is between 11.0-in. wc and 13.6-in. wc.

1. Be sure main gas and electrical supplies to furnace are off.
2. Remove 1/8-in. pipe plug from inlet pressure tap on gas valve. (See Fig. 4.)
3. Attach manometer to inlet pressure tap on gas valve. (See Fig. 19.)

⚠ CAUTION: DO NOT operate furnace more than 1 minute to check inlet gas pressure as conversion is not complete at this time.

4. Turn on furnace power supply.
 5. Turn gas supply manual shutoff valve to ON position.
 6. Turn furnace gas valve switch to ON position.
 7. Jumper R-W/W1 and R-W2 thermostat connections on control. (See applicable Fig. 7 or 20.) This runs the furnace in high-heat operation.
 8. When main burners have ignited, confirm inlet gas pressure is between 11.0-in. wc and 13.6-in. wc.
 9. Remove jumper across R-W/W1 and R-W2 thermostat connections to terminate call for heat.
 10. Turn furnace gas valve switch to OFF position.
 11. Turn gas supply manual shutoff valve to OFF position.
 12. Turn off furnace power supply.
 13. Remove manometer, but do not reinstall gas valve inlet pressure tap plug. (See Fig. 4.)
- NOTE:** Use propane-gas-resistant pipe dope to prevent gas leaks. DO NOT use Teflon tape.



A95450

Fig. 17—Installing Diverter Plate

PROCEDURE 6—INSTALL LOW GAS PRESSURE SWITCH (LGPS)

NOTE: The inlet gas pipe must be disconnected from valve so pressure switch can be installed.

NOTE: Use propane-gas-resistant pipe dope on all connections to prevent gas leaks. DO NOT use Teflon tape.

1. Apply pipe dope sparingly to both ends of pipe nipple (provided in kit) and install nipple in 1/8-in. tapped opening in gas valve. Finger tighten. (See Fig. 21.)
2. Apply pipe dope sparingly to threaded end of street elbow (provided in kit) and install elbow on nipple. Finger tighten. Use a small pipe wrench for final tightening.
3. Point male end of street elbow so it matches the orientation relative to gas valve shown in Fig. 21.
4. Install propane low gas pressure switch (provided in kit) on street elbow. After switch has been finger tightened, use small wrench on base of pressure switch for final tightening. When pressure switch is tight, switch terminals should point as shown in Fig. 21 relative to gas valve.
5. Apply pipe dope sparingly to end of inlet gas pipe and reconnect pipe to gas valve.

PROCEDURE 7—MODIFY PRESSURE SWITCH WIRING

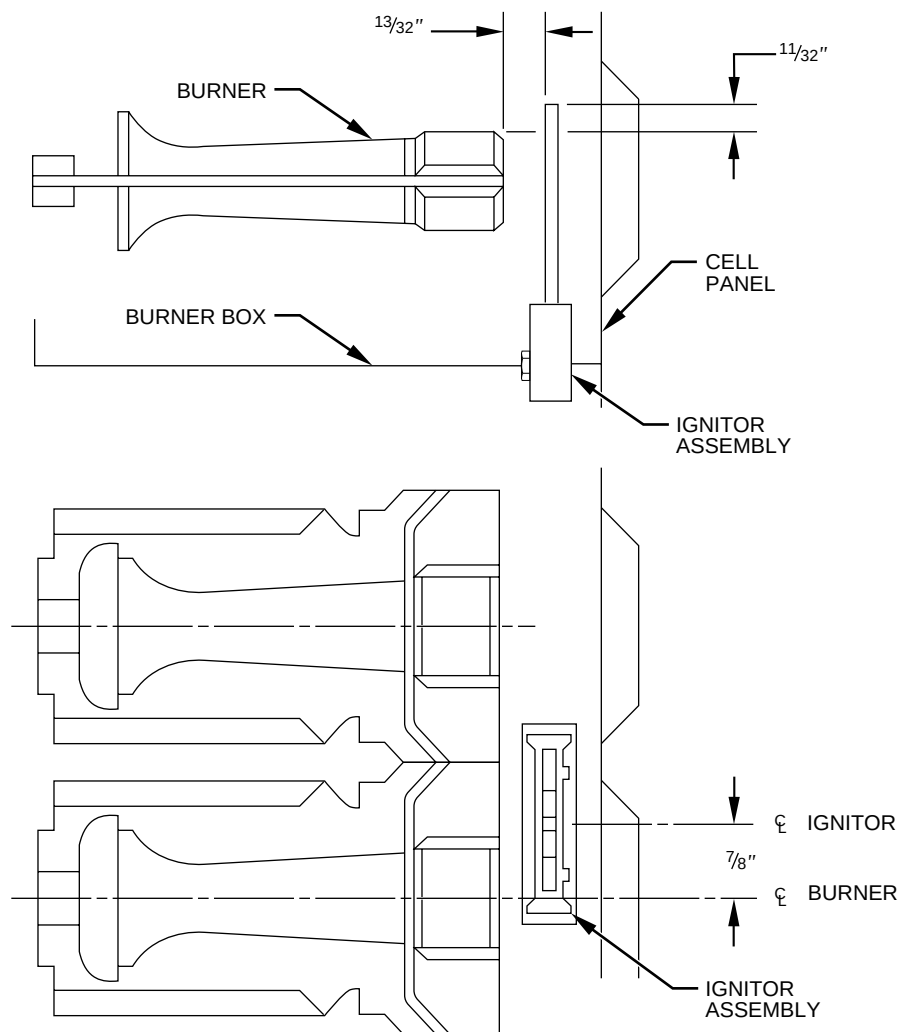
1. Disconnect orange wire from low-heat pressure switch LPS on inducer housing. Add 1/4-in. splice connector to this wire.
2. Connect uninsulated terminal of 1 orange wire (provided in kit) to splice connector. Connect other end to C terminal on low gas pressure switch LGPS.
3. Connect insulated terminal of second orange wire (provided in kit) to NO terminal on low gas pressure switch LGPS. Connect other end to pressure switch LPS located on inducer housing.
4. Route orange wires along wire harness. If possible, secure with wire tie provided in kit.

PROCEDURE 8—CHECK FURNACE OPERATION AND MAKE NECESSARY ADJUSTMENTS

1. Be sure main gas and electric supplies to furnace are off.
2. Remove 1/8-in. pipe plug from manifold pressure tap on downstream side of gas valve. (See Fig. 4.)
3. Attach manometer to manifold pressure tap on gas valve. (See fig. 4 and 19.)
4. Turn gas supply manual shutoff valve to ON position.
5. Turn furnace gas valve switch to ON position.
6. Check all threaded pipe connections for gas leaks.

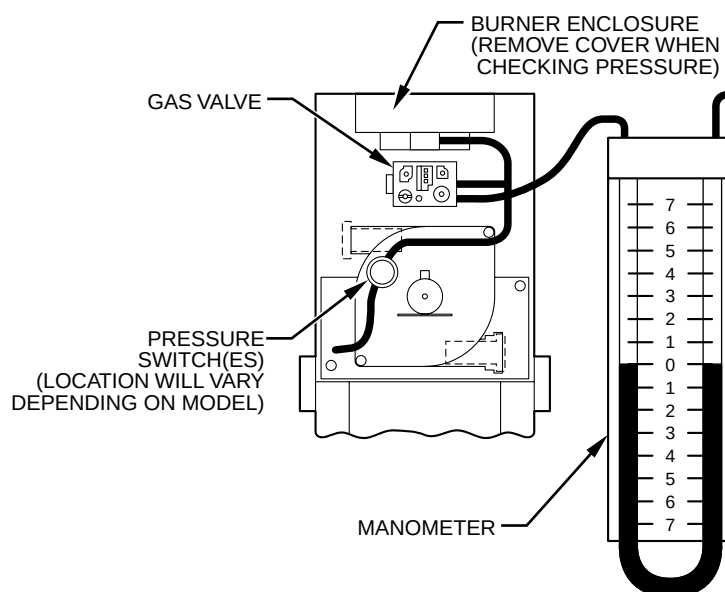
⚠ WARNING: NEVER use matches, candles, flame, or other sources of ignition to check for gas leakage. Use a soap-and-water solution to check for gas leaks. Failure to follow this warning could result in fire, explosion, personal injury, or death.

7. Turn on furnace power supply.
8. Turn setup switch SW-2 on control center to ON position. (See applicable Fig. 8 or 20.) This keeps furnace in low-heat.
9. Jumper R and W/W1 thermostat connections to call for heat. (See Fig. 20.)



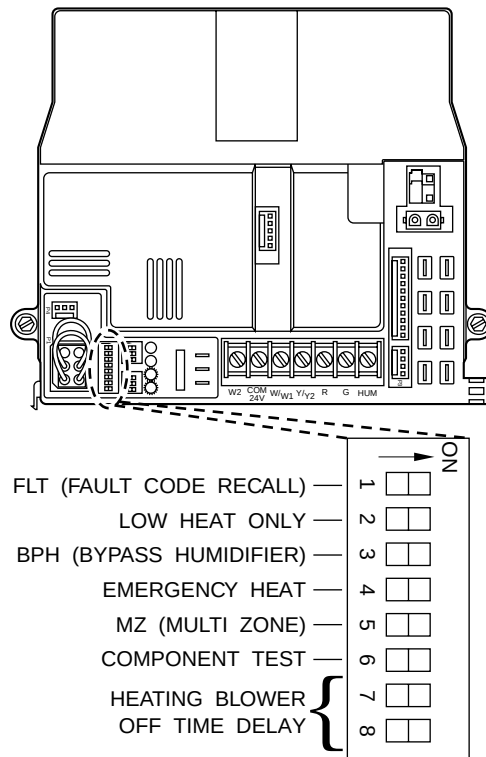
A93260

Fig. 18—Position of Ignitor to Burner



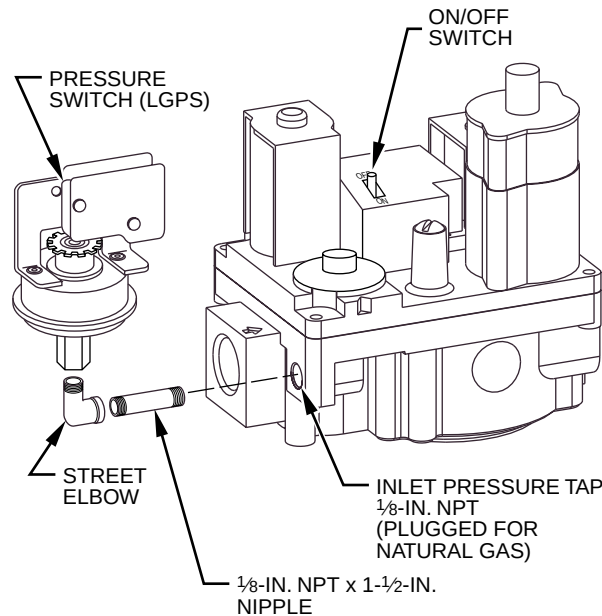
A01070

Fig. 19—Adjusting Manifold Pressure (Manifold Attachment)



A94299

Fig. 20—Furnace Control for Variable-Speed Condensing Furnace



A99222

Fig. 21—Installation of Low Gas Pressure Switch on 2-Stage Gas Valve

10. Check manifold orifices for gas leaks when main burners ignite.

PROCEDURE 9—SET GAS INPUT RATE

The gas input rate for propane is the same as for natural gas. See furnace rating plate for input rate. The input rate for propane is determined by manifold pressure and orifice size. The gas-valve regulator must be set for high heat and set for low heat. (See kit rating plate 326752-204, Fig. 13.)

NOTE: Manifold pressure must always be measured with the burner enclosure front removed. Furnace gas input rate on rating plate is for installations at altitudes up to 2000 ft.

In the U.S.A., the input rating for altitudes above 2000 ft must be reduced by 2 percent for each 1000 ft above sea level.

In Canada, the input rating must be derated by 5 percent for altitudes of 2000 ft to 4500 ft above sea level.

Furnace input rate must be within ± 2 percent of input on furnace rating plate.

1. Adjust gas manifold pressure.
 - a. Remove caps that conceal adjustment screws for gas valve regulators. (See Fig. 4.)
 - b. Adjust low-heat input rate manifold pressure for propane gas. (See kit rating plate 326752-204, Fig. 13.)
 - c. Turn low-heat adjusting screw (5/64 hex allen wrench) counterclockwise (out) to decrease input rate or clockwise (in) to increase input rate.
 - d. Jumper R and W2 on control center thermostat connections. (See Fig. 20.) This keeps furnace locked in high-heat operation.
 - e. Adjust high-heat input rate manifold pressure for propane gas. (See kit rating plate 326752-204, Fig. 13.)
 - f. Turn high-heat adjusting screw (5/64 hex allen wrench) counterclockwise (out) to decrease input rate or clockwise (in) to increase input rate.
 - g. Remove jumper across R and W2 after high-heat adjustment.
 - h. Replace caps that conceal gas-valve regulator adjustment screws.
 - i. Main burner flame should be clear blue, almost transparent. (See Fig. 11.)
2. Remove jumper across R and W/W1 thermostat connections to terminate call for heat.
3. Turn setup switch SW-2 on control center to OFF position.
4. Turn furnace gas-valve switch to OFF position.
5. Turn off furnace power supply.
6. Remove manometer and reattach manifold pressure tap plug. (See Fig. 4 and 19.)
7. Reinstall burner enclosure front.
8. Turn furnace gas-valve switch to ON position.
9. Turn on furnace power supply.
10. Set room thermostat to call for heat.
11. Check pressure tap plug for gas leaks when main burners ignite.
12. Check for correct burner flame (See Fig. 11.)
13. Observe unit operation through 2 complete heating cycles. See sequence of operation in furnace Installation, Start-Up, and Operating Instructions.
14. Set room thermostat to desired temperature.

PROCEDURE 10—CHECK LOW GAS PRESSURE SWITCH OPERATION

The newly installed low gas pressure switch is a safety device used to guard against adverse burner operating characteristics that can result from low gas supply pressure.

- This switch also prevents operation when the propane tank level is low which can result in gas with a high concentration of impurities, additives, and residues that have settled to the bottom of the tank. Operation under these conditions can cause harm to the heat exchanger system.
- This normally open switch closes when gas is supplied to gas valve under normal operating pressure. The closed switch completes control circuit. Should an interruption or reduction in gas supply occur, the gas pressure at switch drops below low gas pressure switch setting, and switch opens. Any interruption in control circuit (in which low gas pressure switch is wired) quickly closes gas valve and stops gas flow to burners.
- When normal gas pressure is restored, the system must be electrically reset to reestablish normal heating operation.
- Before leaving installation, observe unit operation through 2 complete heating cycles. During this time, turn gas supply to gas valve off just long enough to completely extinguish burner flame, then instantly restore full gas supply. To ensure proper low gas pressure switch operation, observe that there is no gas supply to burners until after hot surface ignitor begins glowing.

PROCEDURE 11—LABEL APPLICATION

NOTE: See Fig. 12 for label location.

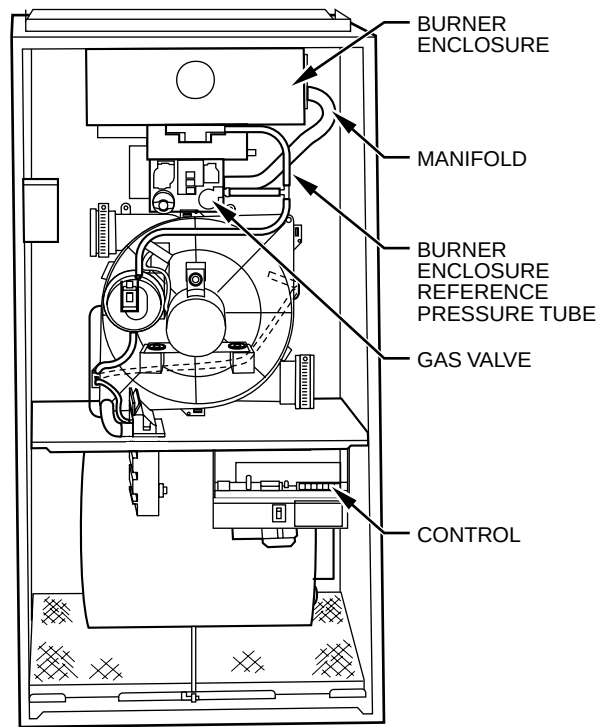
- 1. Fill in Conversion Responsibility Label (326752-205) and apply to blower access panel as shown. Date, name, and address of organization making this conversion are required.
- 2. Attach Conversion Rating Plate Label (326752-204, Fig. 13) on blower shelf as shown.
- 3. Apply Gas Conversion Label (326752-202) to burner box cover as shown. (Do not use 326752-203 which is similar.)
4. Reinstall main furnace door.

→ SECTION 3—MODELS 58MCA, 58MSA, 58MXA, 340MAV, 345MAV, 350MAV, 490AAV AND PG9MAA MULTIPOISE, HOT-SURFACE IGNITION, FIXED SPEED, CONDENSING FURNACES

PROCEDURE 1—INSTALL MAIN BURNER ORIFICES

NOTE: See Fig. 22 for component location in upflow furnaces. Reorient component arrangement when furnace is installed in other position.

1. Turn off furnace, gas and electrical supplies.
2. Remove main furnace door.
3. Turn furnace gas valve control switch or control knob to OFF position.
4. Remove burner enclosure front.



A01081

→ **Fig. 22—Multipoise, Hot-Surface Ignition, Fixed-Speed, Condensing Furnace Component Location (Upflow Orientation Shown)**

5. Remove gas supply pipe from gas valve.
6. Remove wires from gas valve. Note location for reassembly.

⚠ CAUTION: Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation.

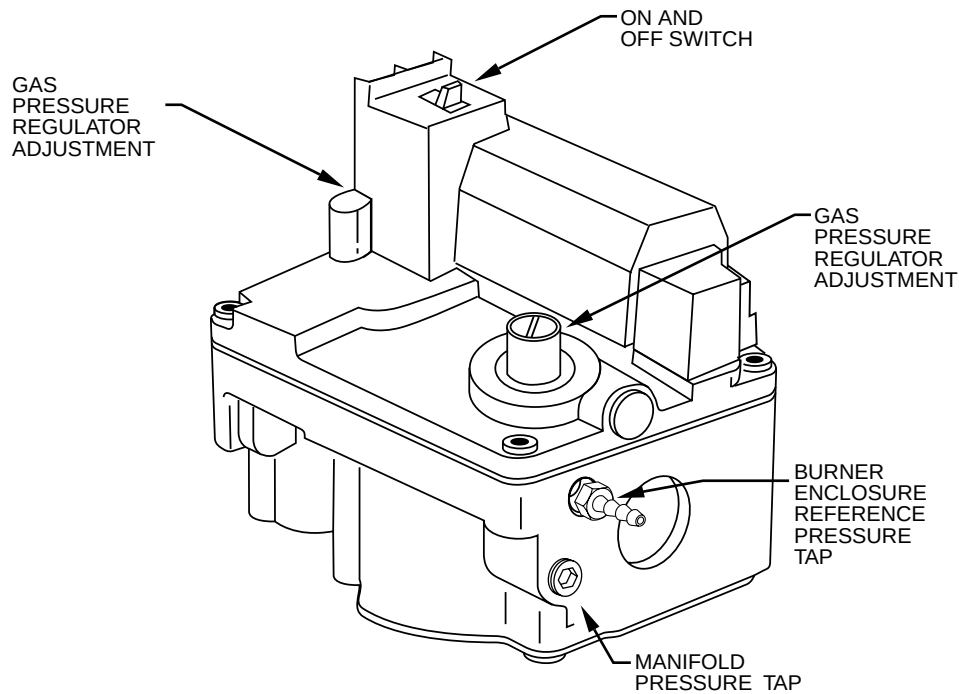
⚠ ATTENTION: Lors des opérations d'entretien des commandes, étiqueter tous les fils avant de les déconnecter. Toute erreur de câblage peut être une source de danger et de panne.

7. Remove burner enclosure pressure tube from gas valve burner enclosure reference pressure tap fitting. (See Fig. 23 or 24.)
8. Remove screws that secure manifold to burner enclosure and remove manifold, orifices, and gas valve as 1 assembly.
9. Remove and discard orifices from manifold.
10. Refer to kit rating plate Fig. 25 to determine main burner orifice size. Furnace gas input rate on rating plate is for installations at altitudes up to 2000 ft. In the U.S.A., the input rating for altitudes above 2000 ft must be reduced by 2 percent for each 1000 ft above sea level. In Canada, the input rating must be derated by 5 percent for altitudes of 2000 ft to 4500 ft above sea level.
11. Install main burner orifices. Finger-tighten orifices at least 1 full turn to prevent cross-threading, then tighten with wrench. There are enough orifices in each kit for the largest furnace. Discard extra orifices. Orifices of other sizes must be field supplied and are available through your local distributor.
12. Reinstall manifold, orifices and gas valve assembly in burner box. Ensure manifold seal is installed properly and burners fit over orifices. (See Fig. 18 for ignitor position.)
13. Reconnect wires to gas valve. Refer to furnace wire schematic for proper wire location.
14. Reinstall burner box pressure tube to gas valve regulator fitting.
15. Reinstall gas supply pipe to gas valve using back-up wrench on gas valve to prevent rotation and improper orientation.

⚠ CAUTION: Do not redrill burner orifices. Improper drilling (burrs, out-of-round holes, etc.) can cause excessive burner noise and misdirection of burner flames. This can result in flame impingement of the burners and heat exchangers, causing failures. Obtain new orifices if orifice size must be changed. (See Fig. 1.)

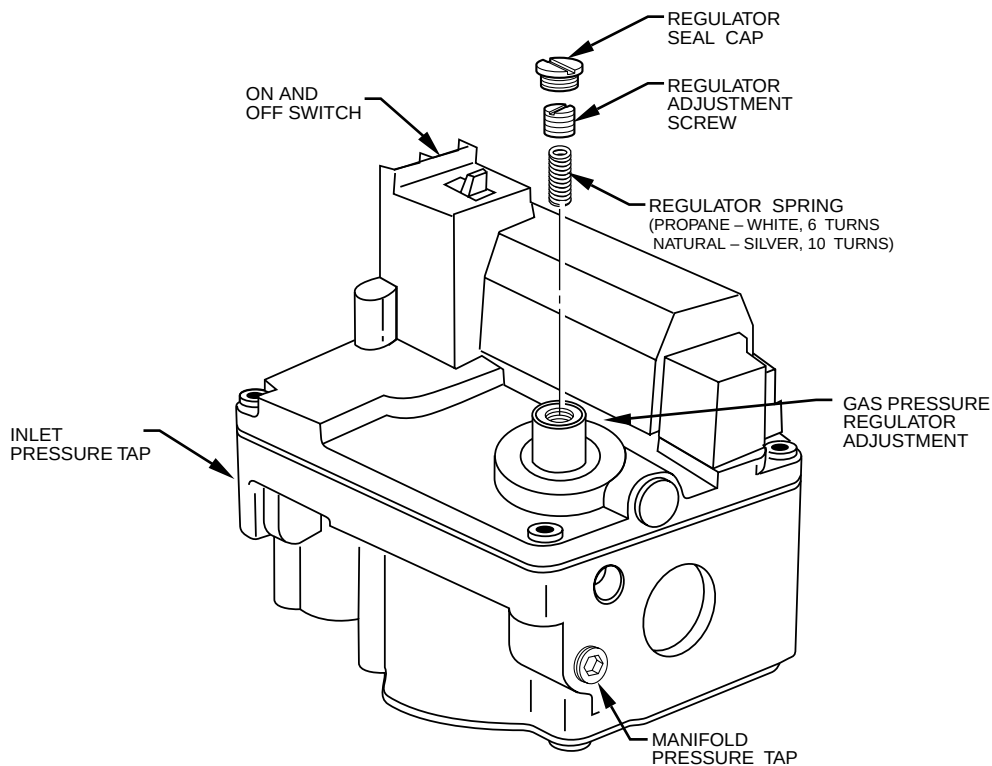
PROCEDURE 2—CONVERT GAS VALVE

1. Be sure main gas and electrical supplies are off.
2. Remove regulator seal cap. (See Fig. 23 or 24.)
3. Remove adjustment screw and natural gas regulator spring (silver).



A01080

→ **Fig. 23—Redundant Automatic Gas Valve (With Electric Control Switch)**



A01073

→ **Fig. 24—Redundant Automatic Gas Valve (With Manual Control Knob)**

4. Install propane gas regulator spring (white) in gas valve.

NOTE: DO NOT reinstall regulator seal cap at this time.

PROCEDURE 3—CHECK INLET GAS PRESSURE

NOTE: This kit is to be used only when inlet gas pressure is between 11.0-in. wc and 13.6-in. wc.

1. Be sure main gas and electrical supplies to furnace are off.
2. Remove 1/8-in. pipe plug from inlet pressure tap on gas valve. (See Fig. 23 or 24.)
3. Attach manometer to inlet pressure tap on gas valve. (See Fig. 19.)

CONVERSION KIT RATING PLATE - CARRIER CORP.

THIS APPLIANCE HAS BEEN CONVERTED TO USE PROPANE GAS FOR FUEL. REFER TO KIT INSTRUCTIONS FOR CONVERSION PROCEDURES. USE PARTS SUPPLIED BY CARRIER CORPORATION AND INSTALLED BY QUALIFIED PERSONNEL. SEE EXISTING RATING PLATE FOR APPLIANCE MODEL NO. AND INPUT RATING.

NOTE: Furnace gas input rate on rating plate is for installations up to 2000 ft above sea level. In U.S.A. the input rating for altitudes above 2000 ft must be derated by 2% for each 1000 ft above sea level. In Canada the input rating must be derated by 5% for altitudes of 2000 ft to 4500 ft above sea level.

KIT NO. KGANP2701LPS

FUEL USED: PROPANE GAS

INLET PRESSURE (min - max): 11.0 - 13.6 in. wc

APPLIANCE MODELS		ALTITUDE OF INSTALLATION (FT. ABOVE SEA LEVEL) U.S.A. *								
		0 to 2000	2001* to 3000	3001 to 4000	4001 to 5000	5001 to 6000	6001 to 7000	7001 to 8000	8001 to 9000	9001 to 10 000
58MXA, 58MCA, 58MSA, 340MAV, 350MAV, 345MAV, 490AAV, PG9MAA (All model sizes EXCEPT 140)	Orifice No.	55	55	55	55	1.25mm	1.25mm	1.25mm	1.25mm	1.25mm
	Mnflld Press	10.0	10.0	10.0	10.0	11.0	11.0	11.0	11.0	11.0
58MXA, 58MCA, 340MAV, 350MAV, 490AAV, PG9MAA (140 Model Size ONLY)	Orifice No.	54	54	54	54	54	54	54	54	54
	Mnflld Press	11.0	10.5	10.5	10.0	10.0	10.0	10.0	10.0	10.0
352MAV, 355MAV, 58MTA, 58MVP	Orifice No.	1.25mm	1.25mm	1.25mm	1.25mm	1.25mm	1.25mm	1.25mm	1.25mm	1.25mm
	Mnflld Press	11.0 /	11.0 /	11.0 /	11.0 /	11.0 /	11.0 /	11.0 /	11.0 /	11.0 /
	High / Low	5.4	5.1	5.1	5.1	5.0	5.0	5.0	4.9	4.9

* For Canadian Installations from 2000 to 4500 ft use U.S.A. column 2001 to 3000 ft.

326752-204 REV. B

A01071

Fig. 25—Conversion Rating-Plate Label—Condensing Furnaces (Used for Orifice Size Selection for Propane)

⚠ CAUTION: DO NOT operate furnace more than 1 minute to check inlet gas pressure as conversion is not complete at this time.

4. Turn on furnace power supply.
5. Turn gas supply manual shutoff valve to ON position.
6. Turn furnace gas valve control switch or control knob to ON position.
7. Jumper R and W thermostat connections to call for heat.
8. When main burners ignite, confirm inlet has pressure is between 11.0-in. wc and 13.6-in. wc.
9. Remove jumper across R and W thermostat connections to terminate call for heat.
10. Turn furnace gas valve control switch or control knob to OFF position.
11. Turn gas supply manual shutoff valve to OFF position.
12. Turn off furnace power supply.
13. Remove manometer and reinstall gas valve inlet pressure tap plug.

NOTE: Use propane-gas-resistant pipe dope to prevent gas leaks. DO NOT use Teflon tape.

PROCEDURE 4—INSTALL LOW GAS PRESSURE SWITCH (LGPS)

NOTE: The inlet gas pipe must be disconnected from valve so pressure switch can be installed.

NOTE: Use propane-gas-resistant pipe dope on all connections to prevent gas leaks. DO NOT use Teflon tape.

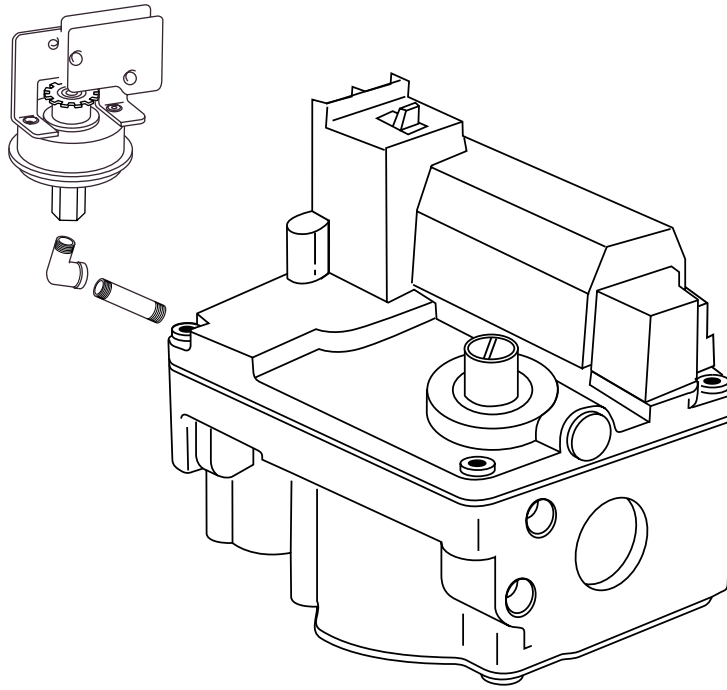
1. Apply pipe dope sparingly to both ends of pipe nipple (provided in kit) and install nipple in 1/8-in. tapped opening in gas valve. Finger tighten. (See Fig. 26.)
2. Apply pipe dope sparingly to threaded end of street elbow (provided in kit) and install elbow on nipple. Finger tighten. Use a small pipe wrench for final tightening.
3. Point male end of street elbow so it matches the orientation relative to gas valve shown in Fig. 26.
4. Install propane low gas pressure switch (provided in kit) on street elbow. After switch has been finger tightened, use small wrench on base of pressure switch for final tightening. When pressure switch is tight, switch terminals should point as shown in Fig. 26 relative to gas valve.
5. Apply pipe dope sparingly to end of inlet gas pipe and reconnect pipe to gas valve.

PROCEDURE 5—MODIFY PRESSURE SWITCH WIRING

1. Disconnect yellow wire from pressure switch PRS on inducer housing. Add 3/16-in. splice connector to this wire.
2. Connect uninsulated terminal of 6-in. yellow wire (provided in kit) to splice connector. Connect other end to C terminal on low gas pressure switch LGPS.
3. Connect insulated terminal of 14-in. yellow wire (provided in kit) to NO terminal on low gas pressure switch LGPS. Connect other end to pressure switch PRS located on inducer housing.
4. Route orange wires along wire harness. Secure with wire tie provided in kit.

PROCEDURE 6—CHECK FURNACE OPERATION AND MAKE NECESSARY ADJUSTMENTS

1. Be sure main gas and electrical supplies to furnace are off.
2. Remove 1/8-in. pipe plug from manifold pressure tap on downstream side of gas valve. (See Fig. 23 or 24.)
3. Attach manometer to manifold pressure tap on gas valve. (See Fig. 19.)



A01068

Fig. 26—Installation of Low Gas Pressure Switch on Single-Stage Gas Valve

4. Turn gas supply manual shutoff valve to ON position.
5. Turn furnace gas valve control switch or control knob to ON position.
6. Check all threaded pipe connections for gas leaks.

⚠ WARNING: NEVER use a match or other open flame to check for leaks. Use a soap-and-water solution. failure to follow this warning could result in personal injury or death.

7. Turn on furnace power supply.
8. Jumper R and W thermostat connections to call for heat.
9. Check manifold orifices for gas leaks when main burners ignite.

PROCEDURE 7—SET GAS INPUT RATE

The gas input rate for propane is the same as for natural gas. See furnace rating plate for input rate. The input rate for propane is determined by manifold pressure only. The gas valve regulator must be set per pressure stated on kit rating plate 326752-204, Fig. 25.

In the U.S.A., the input rating for altitudes above 2000 ft must be reduced by 2 percent for each 1000 ft above sea level.

In Canada, the input rating must be derated by 5 percent for altitudes of 2000 ft to 4500 ft above sea level.

Furnace input rate must be within ± 2 percent of input on furnace rating plate.

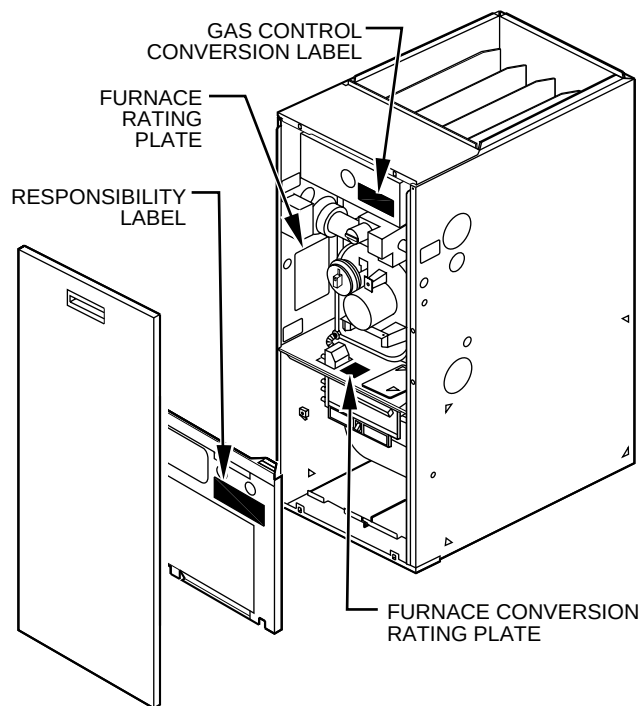
1. Adjust gas manifold pressure.
 - a. Remove burner box cover and gas valve regulator seal cap that conceal adjustment screw. (See Fig. 23 or 24.)

NOTE: Manifold pressure **MUST** always be measured with burner box cover removed.

- b. Turn adjusting screw counterclockwise (out) to decrease manifold pressure or clockwise (in) to increase manifold pressure.

NOTE: Gas valve regulator seal cap **MUST** be in place when checking input rate.

- c. When correct input is obtained, main burner flame should be clear blue, almost transparent. (See Fig. 11.) Be sure regulator seal cap is in place when finished.
 2. Remove jumper across R and W thermostat connections to terminate call for heat.
 3. Turn furnace gas valve control switch or control knob to OFF position.
 4. Turn off furnace power supply.
 5. Remove manometer and replace manifold pressure tap plug. (See Fig. 23 or 24 and 19.)
- NOTE:** Use propane-gas-resistant pipe dope to prevent gas leaks. **DO NOT** use Teflon tape.
6. Reinstall burner box cover.
 7. Turn furnace gas valve control switch or control knob to ON position.
 8. Turn on furnace power supply.



A95025

Fig. 27—Multipoise, Fixed-Speed, Condensing Furnace Conversion Label Location (Upflow Orientation Shown)

9. Set room thermostat to call for heat.
10. Check manifold pressure tap plug for gas leaks when main burners ignite.
11. Observe unit operation through 2 complete heating cycles. See sequence of operation in furnace Installation, Start-up and Operating Instructions.
12. Set room thermostat to desired temperature.

PROCEDURE 8—CHECK LOW GAS PRESSURE SWITCH OPERATION

The newly installed low gas pressure switch is a safety device used to guard against adverse burner operating characteristics that can result from low gas supply pressure.

This switch also prevents operation when the propane tank level is low which can result in gas with a high concentration of impurities, additives, and residues that have settled to the bottom of the tank. Operation under these conditions can cause harm to the heat exchanger system.

This normally open switch closes when gas is supplied to gas valve under normal operating pressure. The closed switch completes control circuit. Should an interruption or reduction in gas supply occur, the gas pressure at switch drops below low gas pressure switch setting, and switch opens. Any interruption in control circuit (in which low gas pressure switch is wired) quickly closes gas valve and stops gas flow to burners.

When normal gas pressure is restored, the system must be electrically reset to reestablish normal heating operation.

Before leaving installation, observe unit operation through 2 complete heating cycles. During this time, turn gas supply to gas valve off just long enough to completely extinguish burner flame, then instantly restore full gas supply. To ensure proper low gas pressure switch operation, observe that there is no gas supply to burners until after hot surface ignitor begins glowing.

PROCEDURE 9—LABEL APPLICATION

NOTE: See Fig. 27 for label location.

1. Fill in Conversion Responsibility Label (326752-205) and apply label to blower access panel as shown. date, name, and address of organization making this conversion are required.
2. Apply Gas Control Conversion Label (326752-203) to burner box cover as shown. (Do not use 326752-202, which is similar.)
3. Apply Furnace Conversion Rating Plate (326752-204, Fig. 25) on blower shelf as shown.

NOTE: Discard labels and instructions packaged with White-Rodgers regulator spring conversion kit.

4. Reinstall main furnace door.

