ACCESSORY KIT INSTALLATION INSTRUCTIONS

PROPANE CONVERSION - INDUCED COMBUSTION FURNACES – 1NP0347

FOR USE WITH 90% MODELS:

GF9S, GY9S, GM9S, PS9, FL9S, FC9S, PT9, FL9T, FC9T, GM9T, PV9, FL9V, FC9V, GM9V, TG9S, GG9S,

FOR USE WITH 80% MODELS:

GY8S, GM8S, GR8S, PS8, FL8S, FC8S, PT8, FL8T, FC8T, GM8T, PV8, FL8V, FC8V, GM8V, LF80, LY8S, LM8S, LL8S, LC8S, LL8V, LC8V, LM8V, TG(8,L)S, GG(8,L)S,

⚠WARNING

This conversion kit shall be installed by a qualified service agency in accordance with these instructions and all applicable codes and requirements of the authority having jurisdiction. If the information in these instructions is not followed exactly, a fire, an 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 kit. The installation is not proper and complete until the operation of the converted appliance is checked as specified in these instructions supplied with the kit.

⚠ CAUTION

The conversion of new certified central heating gas appliances must conform to directions outlined in this instruction.

Installation must be made in accordance with American National Standard National Fuel Gas Code, ANSI Z223.1-latest edition, unless superseded by local codes. For Canadian installations, the conversion shall be carried out in accordance with the requirements of the Provincial authorities having jurisdiction and in accordance with the CAN1-B149.1 and .2 installation codes.

The manufacturer accepts no responsibility for malfunctions due to improper conversions

⚠ CAUTION

Lo-NOx furnaces requiring propane (LP) gas must have the NOx screens removed prior to operation. Failure to do so may result in operational problems and/or reduced heat exchanger life. Follow the instructions below for removal of the NOx screens.

GENERAL

This kit is intended for the conversion of new equipment only, from natural gas to propane gas operation.

NOTE: For the 130,000 BTU, 33” series only: Use a #56 orifice propane Kit S1-1NP0501 is needed.

All unit installations above 2,000 ft. (610 m) must be field derated as required by the National Fuel Gas Code, ANSI Z223.1 (latest edition), or in Canada, CAN/CGA B149.1 or .2 and all other applicable local codes and utility requirements.

This instruction covers the conversion of this unit when it is equipped with a White-Rodgers gas valve. The installation instruction supplied with the unit is to be used for all other aspects of the installation.

⚠WARNING

Improper installation, adjustment, service or maintenance can cause injury or property damage; therefore, only a qualified installer or qualified service personnel should perform this conversion.

IMPORTANT - These instructions are for the use of qualified individuals specially trained, experienced and certified in the installation of this type of equipment and related systems components. Installation and service personnel are required by some states to be licensed. Persons not qualified shall not install this equipment nor interpret these instructions.

This is a safety alert symbol. When you see this symbol on labels or in manuals, be alert to the potential for personal injury.

Understand and pay particular attention to the signal words DANGER, WARNING, or CAUTION.

DANGER indicates an imminently hazardous situation, which, if not avoided, **will result in death or serious injury**.

WARNING indicates a potentially hazardous situation, which, if not avoided, **could result in death or serious injury**.

CAUTION indicates a potentially hazardous situation, which, if not avoided **may result in minor or moderate injury**. It is also used to alert against unsafe practices and hazards involving only property damage.

CONTENTS OF KIT		
DESCRIPTION	**PART NUMBER**	**QTY**
Gas Line Pressure Switch	17471	1
Tapped Gas Pipe Nipple	18095	1
Propane Gas Orifice, 55#	18081	7
Wire Harness	20461	1
Installation Instructions	247585	1
Valve Conversion Kit	7614 (WR #92-0923)	1
Label, Bar Code	11931	1
Label, Conversion	255424	1
Label, Carton	255426	1
Label, Conversion Rating Plate	255417	1

⚠WARNING

An overpressure protection device, such as a pressure regulator, which conforms to the National Fuel Gas code, ANSI Z223.1 (U.S.) or CAN-B149.1 or.2 (Canada) and acts to limit the downstream pressure to value that does not exceed 0.5 PSI (14" w.c.), must be installed in the gas piping system upstream of the furnace. Failure to do so may result in a fire or explosion or cause damage to the furnace or some of its components.

FURNACE CONVERSION

⚠ CAUTION

The gas supply shall be shut off prior to disconnecting the electrical power, before proceeding with the conversion.

1. Shut off gas supply at shutoff valve upstream of the furnace or at meter as required.
2. Disconnect gas supply piping from gas valve at furnace.
3. On 33” & 40” series: Remove the upper access door.
   On 40” series only: 90% AFUE units, remove the burner box cover.
4. On 33” & 40” series: Carefully remove the wires from the gas valve and note their location so they may be properly replaced. Remove the screws that hold the manifold to the manifold brackets and slide the manifold off the burners.
   On 40” series only: 90% AFUE units, the manifold is retained by two screws at the bottom and hooks in at the top of the burner box.
5. Remove the main burner orifices from the manifold and retain for future use.
6. Install the propane main burner orifices in the manifold and tighten them. After installing a propane orifice in each location, any leftover orifices may be discarded. If a stainless steel burner kit was purchased, refer to the kit instructions for the burner change out.
7. Reinstall the manifold in the assembly by reversing the removal process.
8. Reconnect the wires to the proper terminals on the gas valve.
9. On 33” & 40” series: When installing gas piping on 80% AFUE units, insert tapped gas pipe nipple (supplied with kit) into inlet fitting of gas valve. If using the right side cabinet knock out, the nipple can be either be installed before or after making the u-bend.
   On 40” series only: 90% AFUE units, install a field provided elbow into the inlet fitting on the gas valve and then install the tapped gas pipe nipple.
10. Install (thread) the gas line pressure switch (supplied with kit) into the 1/8 NPT tapped hole in nipple applying pipe dope to the switch fitting prior to installation. Tighten the switch making sure the connection does not leak.

NOTE: The gas line pressure switch will cause the furnace to lock out if the gas supply pressure drops below 6” w.c. The ignition control will display a fault code 7 and will reset after one hour.

11. Disconnect the purple wire from the flame sensor.
12. Using the wire harness (supplied with kit) connect the purple wire from the flame sensor into the insulated male connector; connect the two 1/4” insulated terminals to the pressure switch; and connect the remaining insulated terminal to the flame sensor.
13. Convert the gas valve for LP (propane) gas operation by following the instructions and using the components supplied in the envelope. These instructions cover both single stage and two stage units. Apply the label supplied in the kit to the gas valve to show that it has been converted.
14. Reattach the manifold and orifices to the furnace, making sure that the orifices are pointing properly down the center of the burners.
15. Reconnect the electrical wires to the gas valve using the wiring diagram as a guide
16. Reconnect the gas supply piping to the gas valve and insure that all gas connections are tight.
17. Turn on gas supply to furnace and check all gas connections with suitable leak detector.
18. Install the propane gas conversion label as described in the LABELS section of this instruction.
19. Refer to the unit installation instructions to complete the installation before continuing with these procedures.

NOX SCREEN REMOVAL (Lo-NOx 80% Models Only)

1. Make sure that the electrical power to the unit is turned off and that the gas supply is turned off at the shutoff valve.
2. Remove the blower compartment and burner compartment access doors.
3. Disconnect the gas supply piping at the union to permit removal of the entire burner and gas control assembly from the vestibule panel. Use the wrench boss on the gas valve when removing or installing this piping.
4. Unplug the ignitor from the wire harness. Disconnect the flame sensor wires located on top of the air shield. Unplug the gas valve from the wiring harness.

5. Remove the ignitor and ignitor bracket. Handle the ignitor very carefully since it is fragile and easily broken.
6. Remove the screws holding the burner assembly to the vestibule panel. It may be necessary to remove the rollout switch bracket(s) to gain access to one or more of these screws.
7. Remove the burner assembly. It should be possible to swing the burner assembly out of the way without disconnecting the remaining wires.
8. With the burner assembly out of the way, simply slide the NOx screens out of the heat exchanger tubes and discard the screens.
9. Replace all components in reverse order. Reconnect all wiring.

TESTS AND ADJUSTMENTS

⚠DANGER

PROPANE AND HIGH ALTITUDE CONVERSION KITS

It is very important to choose the correct kit and/or gas orifices for the altitude and the type of gas for which the furnace is being installed.

Only use natural gas in furnaces designed for natural gas. Only use propane (LP) gas for furnaces that have been properly converted to use propane (LP) gas. Do not use this furnace with butane gas.

Incorrect gas orifices or a furnace that has been improperly converted will create an extremely dangerous condition resulting in premature heat exchanger failure, excessive sooting, high levels of carbon monoxide, personal injury, property damage, a fire hazard and/or death.

High altitude and propane (LP) conversions are required in order for the appliance to satisfactory meet the application.

An authorized distributor or dealer must make all gas conversions.

In Canada, a certified conversion station or other qualified agency, using factory specified and/or approved parts, must perform the conversion.

The installer must take every precaution to insure that the furnace has been converted to the proper gas orifice size when the furnace is installed. Do not attempt to drill out any orifices to obtain the proper orifice size. Drilling out a gas orifice will cause misalignment of the burner flames, causing premature heat exchanger burnout, high levels of carbon monoxide, excessive sooting, a fire hazard, personal injury, property damage and/or death.

GAS ORIFICE CONVERSION FOR PROPANE (LP)

This furnace is constructed at the factory for natural gas-fired operation, but may be converted to operate on propane (LP) gas by using a factory-supplied LP conversion kit. Follow these instructions when converting the furnace.

IMPORTANT - The inlet gas pressure operating range table specifies what the minimum and maximum gas line pressures must be for the furnace to operate safely.

The gas line pressure **MUST BE**

- 11” W.C. (2.74 kPA) for Propane (LP) Gas

in order to obtain the BTU input specified on the rating plate and/or the nominal manifold pressure specified in these instructions and on the rating plate.

ADJUSTMENT OF MANIFOLD GAS PRESSURE FOR 90% FURNACES (40” MODELS)

Manifold gas pressure may be measured by two different procedures. It may be measured with the burner box cover in place or it may be measured with the burner box cover removed. Follow the appropriate section in the instructions below. Refer to Figure 1 or 2 for a drawing of the locations of the pressure ports on the gas valve.

Turn gas off at the ball valve or gas cock on gas supply line before the gas valve. Find the pressure ports on the gas valve marked OUT P and IN P.

1. The manifold pressure must be taken at the port marked OUT P.
2. The inlet gas line pressure must be taken at the port marked IN P.
3. Using a 3/32” (2.4 mm) Allen wrench, loosen the setscrew by turning it 1 turn counter clockwise. DO NOT REMOVE THE SET SCREW FROM THE PRESSURE PORT.

Read the inlet gas pressure using either of the two methods below.

Reading the gas pressure with the burner box cover in place:

1. Disconnect the pressure reference hose from the right side of the burner box. Using a tee fitting and a short piece of hose, connect the negative side of the manometer to the burner box as described below.
2. Remove one end the 5/16” (7.94 mm) ID flexible tubing over the pressure port on the burner box.
3. Insert the end of the 5/16” (7.94 mm) tubing, that has the 1/8” (3.175 mm) adapter at the end of the tube, in to the 1/8” (3.175 mm) tee.
4. Connect the 1/8” (3.175 mm) tee to the burner box adapter and to the negative side of a U-tube manometer or digital pressure measuring equipment with 2 – 1/8” (3.175 mm) tubes.
5. Use the 5/16” (7.94 mm x 1/8” (3.175 mm) reducing coupling and a 4” (101.6 mm) piece of 1/8” (3.175 mm) tubing to connect the positive side of the manometer to the gas valve pressure reference port. Refer to Figures 3 and 4 for connection details.

Reading the gas pressure with the burner box cover removed - Remove the screws securing the burner box front cover plate. Remove the cover. The gasket and may stick in place. Connect the positive side of the manometer to the gas valve as described in E above. There will be no second connection to the manometer, as it will reference atmospheric pressure. Refer to Figures 3 and 4 for connection details.

IMPORTANT - The cap for the pressure regulator must be removed entirely to gain access to the adjustment screw. Loosening or tightening the cap does not adjust the flow of gas.

ADJUSTMENT OF MANIFOLD GAS PRESSURE FOR 80% FURNACES (40" OR 33" 80% MODELS) OR 33" 95% MODELS

Inlet and manifold gas pressure may be measured by connecting the "U" tube manometer to the gas valve with a piece of tubing. Follow the appropriate section in the instructions below. Refer to Figure 1 for a drawing of the locations of the pressure ports on the gas valve.

Turn gas off at the ball valve or gas cock on gas supply line before the gas valve. Find the pressure ports on the gas valve marked Out P and In P.

1. The manifold pressure must be taken at the port marked OUT P.
2. The gas line pressure must be taken at the port marked IN P.
3. Using a 3/32" (2.4 mm) Allen wrench, loosen the set screw by turning it 1 turn counter clockwise. DO NOT REMOVE THE SET SCREW FROM THE PRESSURE PORT.

Read the inlet gas pressure

Connect the positive side of the manometer to the IN P Tap on the gas valve. Do not connect any tubing to the negative side of the manometer, as it will reference atmospheric pressure. Refer to Figure 1 for connection details.

1. Turn gas and electrical supplies on and follow the operating instructions to place the unit back in operation.

TABLE 1: Inlet Gas Pressure Range

INLET GAS PRESSURE RANGE		
	Natural Gas	Propane (LP)
Minimum	4.5" W.C. (1.12 kPa)	8.0" W.C. (1.99 kPa)
Maximum	10.5" W.C. (2.61 kPa)	13.0" (3.24 kPa) W.C.

IMPORTANT - The inlet gas pressure operating range table specifies what the minimum and maximum gas line pressures must be for the furnace to operate safely. The gas line pressure **MUST BE** a minimum of

- 7" W.C. (1.74 kPA) for Natural Gas
- 11" W.C. (2.74 kPA) for Propane (LP) Gas

in order to obtain the BTU input specified on the rating plate and/or the nominal manifold pressure specified in these instructions and on the rating plate.

2. Once the correct gas inlet pressure has been established, see Table 1, turn the gas valve to OFF and turn the electrical supply switch to OFF; then remove the flexible tubing from the gas valve pressure tap and tighten the pressure tap plug using the 3/32" (2.4 mm) allen wrench.
3. Turn the electrical and gas supplies back on, and with the burners in operation, check for gas leakage around the gas valve pressure port for leakage using an approved non-corrosive gas leak detection fluid, or other non-flammable leak detection methods.

Read the manifold gas pressure

Connect the positive side of the manometer to the adapter previously installed in the OUT P Tap on the gas valve. Do not connect any tubing to the negative side of the manometer, as it will reference atmospheric pressure. Refer to Figures 3 and 4 for connection details.

IMPORTANT - The cap for the pressure regulator must be removed entirely to gain access to the adjustment screw. Loosening or tightening the cap does not adjust the flow of gas.

NOTE: The regulated outlet pressures, both low and high, have been calibrated at the factory. Additional pressure adjustment should not be necessary. If adjustment is necessary, set to the following specifications. After adjustment, check for gas leakage.

1. Refer to Figure 1 for location of pressure regulator adjustment cap and adjustment screws on main gas valve.
2. Turn gas and electrical supplies on and follow the operating instructions to place the unit back in operation.
3. Adjust manifold pressure by adjusting gas valve regulator screw for the appropriate gas per the following:

SINGLE STAGE GAS VALVE MODELS

1. Refer to Figure 1 or 2 for location of pressure regulator adjustment cap and adjustment screw on main gas valve.
2. Turn gas and electrical supplies on and follow the operating instructions to place the unit back in operation.
3. Adjust manifold pressure by adjusting gas valve regulator screw for the appropriate gas per the following table.

TABLE 2: Nominal Manifold Pressure -Two Stage Valve (High Fire) or Single Stage Valve

Single/Second Stage Manifold Pressures (in wc)				
		Altitude (feet)		
		0-7999	8000-8999	9000-9999
Gas Heating Value (BTU/cu ft.)	2500 (LP)	9.8	8.2	7.5
Single/Second Stage Manifold Pressures (kpa)				
		Altitude (m)		
		0-2437	2438-2742	2743-3048
Gas Heating Value (MJ/cu m)	93.2 (LP)	2.44	2.03	1.86

TABLE 3: Nominal Manifold Pressure - Two Stage Valve (Low Fire)

First Stage Manifold Pressures (in wc)				
		Altitude (feet)		
		0-7999	8000-8999	9000-9999
Gas Heating Value (BTU/cu ft.)	2500 (LP)	4.1	3.8	3.5
First Stage Manifold Pressures (kpa)				
		Altitude (m)		
		0-2437	2438-2742	2743-3048
Gas Heating Value (MJ/cu m)	93.2 (LP)	1.03	0.95	0.87

⚠DANGER

An overpressure protection device, such as a pressure regulator, must be installed in the gas piping system upstream of the furnace and must act to limit the downstream pressure to the gas valve so it does not exceed 0.5 PSI (14" w.c.) (3.48 kPa). Pressures exceeding 0.5 PSI (14" w.c.) (3.48 kPa) at the gas valve will cause damage to the gas valve, resulting in a fire or explosion or cause damage to the furnace or some of its components that will result in property damage and loss of life.

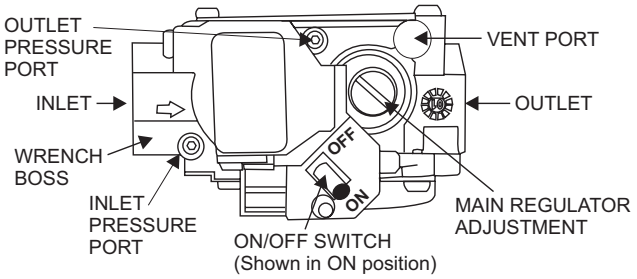

FIGURE 1: Single Stage Gas Valve

TWO STAGE GAS VALVE MODELS (40" MODELS)

NOTE: The regulated outlet pressures, both low and high, have been calibrated at the factory. Additional pressure adjustment should not be necessary. If adjustment is necessary, set to the following specifications. After adjustment, check for gas leakage.

1. Refer to Figure 2 for location of pressure regulator adjustment cap and adjustment screws on main gas valve.
2. Turn gas and electrical supplies on and follow the operating instructions to place the unit back in operation.
3. Adjust manifold pressure by adjusting gas valve regulator screw for the appropriate gas per the following:

IMPORTANT - If gas valve regulator is turned in (clockwise), manifold pressure is increased. If screw is turned out (counterclockwise), manifold pressure will decrease.

4. After the manifold pressure has been adjusted, re-calculate the furnace input to make sure you have not exceeded the specified input on the rating plate. Refer to "CALCULATING THE FURNACE INPUT (NATURAL GAS)". Refer to calculations on Page 6.
5. Once the correct BTU (kW) input has been established, turn the gas valve to OFF and turn the electrical supply switch to OFF; then remove the flexible tubing and fittings from the gas valve pressure tap and the pressure reference hose from the right side of the burner box and tighten the pressure tap plug using the 3/32" (2.4 mm) Allen wrench. For 90% models, replace the burner box front cover (if it was removed) and place the pressure reference hose back on the gas valve.
6. Turn the electrical and gas supplies back on, and with the burners in operation, check for gas leakage around the gas valve pressure port for leakage using an approved gas detector, a non-corrosive leak detection fluid, or other leak detection methods.

⚠WARNING

The manifold pressure must be checked with the screw-off cap for the gas valve pressure regulator in place. If not, the manifold pressure setting could result in an over-fire condition. A high manifold pressure will cause an over-fire condition, which could cause premature heat exchanger failure. If the manifold pressure is too low, sooting and eventual clogging of the heat exchanger could occur. Be sure that gas valve regulator cap is in place and burner box to gas valve pressure reference hose is connected.

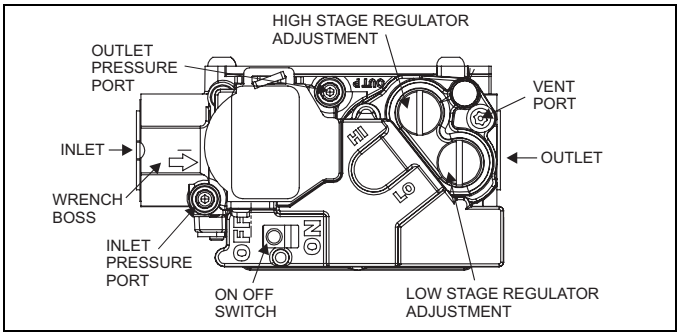

FIGURE 2: Two Stage Gas Valve

CALCULATING THE FURNACE INPUT (NATURAL GAS)

NOTE: Burner orifices are sized to provide proper input rate using natural gas with a heating value of 1030 BTU/Ft^3. If the heating value of your gas is significantly different, it may be necessary to replace the orifices.

1. Turn off all other gas appliances connected to the gas meter.
2. At the gas meter, measure the time (with a stop watch) it takes to use 2 cubic ft. (0.0566 m^3) of gas.
3. Calculate the furnace input by using one of the following equations.

CALCULATING THE FURNACE INPUT (PROPANE GAS)

NOTE: Burner orifices are sized to provide the proper input rate using propane gas with a heating value of 2500 BTU/Ft^3. If the heating value of your gas is significantly different, it may be necessary to replace the orifices with different size orifices. Follow the procedure below to calculate the furnace input.

1. Turn off all gas appliances connected to the gas meter.
2. Start the furnace.
3. Use a stop watch to measure the time it takes for the furnace to burn 1 cubic ft. of gas.
4. Calculate the furnace input by using one of the following equations.

In the USA use the following formula to calculate the furnace input.

For natural gas multiply the heat content of the gas BTU/SCF or Default 1030 BTU/SCF (38.4 MJ/m^3), times 2 cubic ft. (0.056 m) of gas measured at the gas meter, times a barometric pressure and temperature correction factor of 0.960; times 3600, then divided by the time (In seconds) it took to measure 2 cubic ft. (0.056 m) of gas from the gas meter.

For propane (LP) gas multiply the heat content of the gas BTU/SCF or Default 2500 BTU/SCF (93.13 MJ/m^3), times 1 cubic ft. (0.028 m) of gas measured at the gas meter, times a barometric pressure and temperature correction factor of 0.960; times 3600, then divided by the time (In seconds) it took to measure 1 cubic ft. (0.028 m) of gas from the gas meter.

The formula for US input calculation using a cubic foot gas meter:

$\frac{BTU/ft^3 \times 2\ cu.ft. \times 0.960 \times 3600}{Seconds\ it\ took\ to\ measure\ the\ 2\ cu.ft.\ of\ gas}$ =	BTU/H	$\frac{BTU/ft^3 \times 1\ cu.ft. \times 0.960 \times 3600}{Seconds\ it\ took\ to\ measure\ the\ 1\ cu.ft.\ of\ gas}$ =	BTU/H
NATURAL GAS INPUT CALCULATION EXAMPLE: $\frac{1030 \times 2 \times 0.960 \times 3600}{90.5}$ = Natural Gas BTU/SCF 1030	78,666.90	**PROPANE (LP) GAS INPUT CALCULATION** EXAMPLE: $\frac{2500 \times 1 \times 0.960 \times 3600}{108}$ = Propane Gas BTU/SCF 2500	80,000.00

In Canada you will use the following formula to calculate the furnace input if you are using a cubic foot gas meter.

For Natural Gas multiply the Heat content of the gas MJ/m^3 (or Default 38.4), times 2 cubic ft. of gas x 0.028 to convert from cubic feet to cubic meters measured at the gas meter, times a barometric pressure and temperature correction factor of 0.960; times 3600, then divided by the time it took to measure 2 cubic ft. (0.056 m) of gas from the gas meter.

For Propane (LP) Gas multiply the Heat content of the gas MJ/m^3 (or Default 93.13), times 1 cu. ft. of gas x 0.028 to convert from cubic feet to cubic meters measured at the gas meter, times a barometric pressure and temperature correction factor of 0.960; times 3600, then divided by the time it took to measure 1 cubic ft. (0.028 m) of gas from the gas meter.

The formula for metric input calculation using a cubic foot gas meter:

$\frac{MJ/m^3 \times 2\ cu.ft. \times 0.028 \times 0.960 \times 3600}{Seconds\ it\ took\ to\ measure\ the\ 2\ cu.ft.\ of\ gas}$	=	MJ/H	x	0.2777	=	kW	x	3412.14	=	BTU/H
NATURAL GAS INPUT CALCULATION EXAMPLE: $\frac{38.4 \times 2 \times 0.028 \times 0.960 \times 3600}{90.5}$ Natural Gas BTU/SCF 1030 = 38.4 MJ/m^3	=	82.12	x	0.2777	=	22.80	x	3412.14	=	77,796.80
PROPANE (LP) GAS INPUT CALCULATION EXAMPLE: $\frac{93.13 \times 1 \times 0.028 \times 0.960 \times 3600}{108}$ Propane Gas BTU/SCF 2500 = 93.13 MJ/m^3	=	83.44	x	0.2777	=	23.17	x	3412.14	=	79,063.70

In Canada use the following formula to calculate the furnace input if you are using a gas meter that measures cubic meters.

For Natural Gas multiply the Heat content of the gas MJ/m^3 (or Default 38.4), times 0.10 m^3 of gas measured at the gas meter, times a barometric pressure and temperature correction factor of 0.960; times 3600, then divided by the time it took to measure 0.10 m^3 of gas from the gas meter.

For Propane (LP) Gas multiply the Heat content of the gas MJ/m^3 (or Default 93.13), times 0.10 m^3 of gas measured at the gas meter, times a barometric pressure and temperature correction factor of 0.960; times 3600, then divided by the time it took to measure 0.10 m^3 of gas from the gas meter.

The formula for metric input calculation using a cubic foot gas meter:

$\frac{MJ/m^3 \times m^3 \times 0.960 \times 3600}{Seconds\ it\ took\ to\ measure\ the\ 0.10\ m^3\ of\ gas}$	=	MJ/H	x	0.2777	=	kW	x	3412.14	=	BTU/H
NATURAL GAS INPUT CALCULATION EXAMPLE: $\frac{38.4 \times 0.1 \times 0.960 \times 3600}{160}$ Natural Gas BTU/SCF 1030 = 38.4 MJ/m^3	=	82.94	x	0.2777	=	23.03	x	3412.14	=	78,581.60
PROPANE (LP) GAS INPUT CALCULATION EXAMPLE: $\frac{93.13 \times 0.1 \times 0.960 \times 3600}{387}$ Propane Gas BTU/SCF 2500 = 93.13 MJ/m^3	=	83.17	x	0.2777	=	23.09	x	3412.14	=	78,805.20

DO NOT ADJUST the manifold pressure regulator if the actual input is equal to or within 8% less than the furnace input specified on the rating plate or if the furnace rise is above the specified rise range on the rating plate.

If the actual input is significantly higher than the furnace input specified on the rating plate then replace the gas orifices with the gas orifices of the proper size for the type of gas you are using.

For altitudes above 2,000 ft. (610 m) the furnace input MUST BE DERATED. Refer to the GAS CONVERSION FOR PROPANE (LP) AND HIGH ALTITUDES IN SECTION IV for information on high altitude conversions.

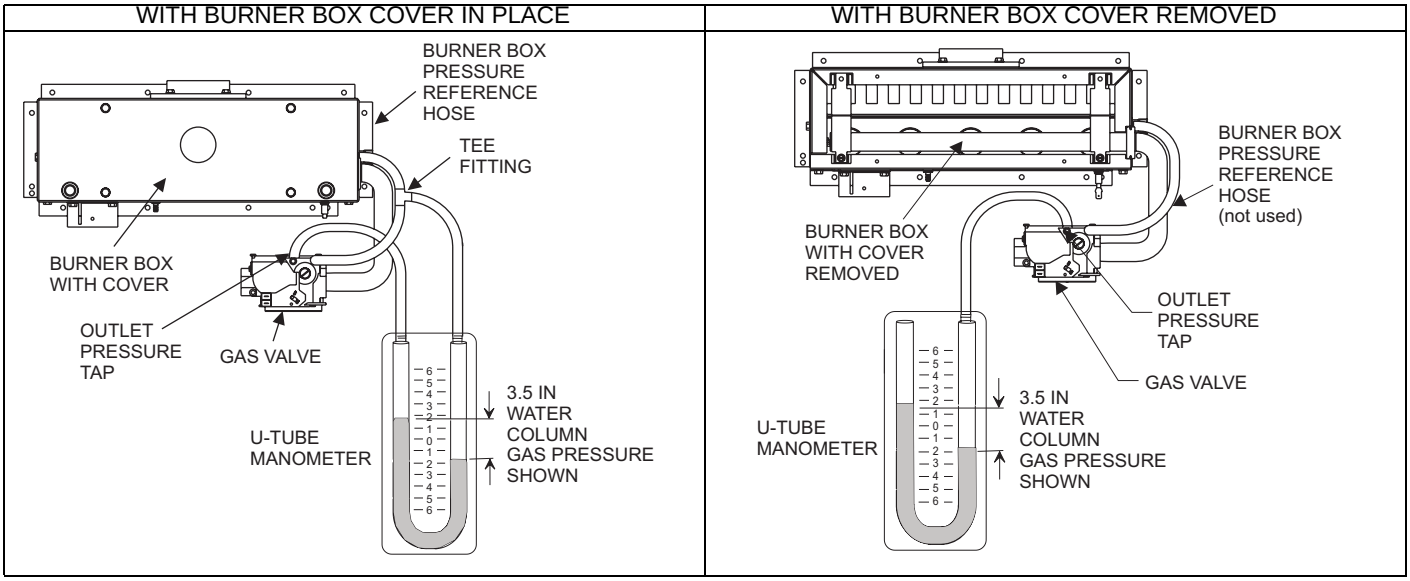

FIGURE 3: Reading Gas Pressure - 90% Furnace Models (40” Models)

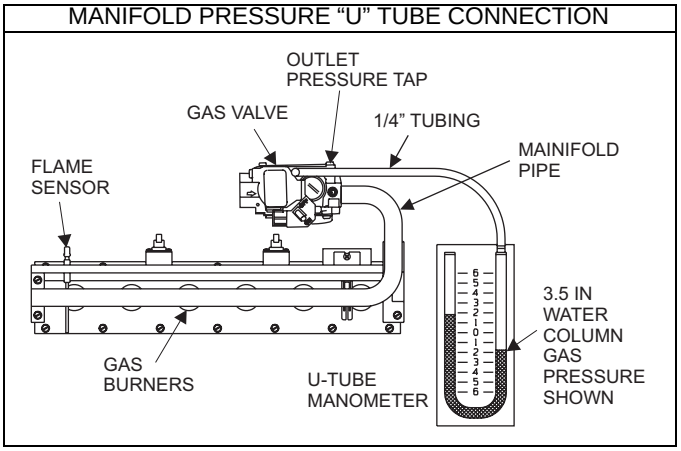

FIGURE 4: Reading Gas Pressure - 80% 40” & 33” Models

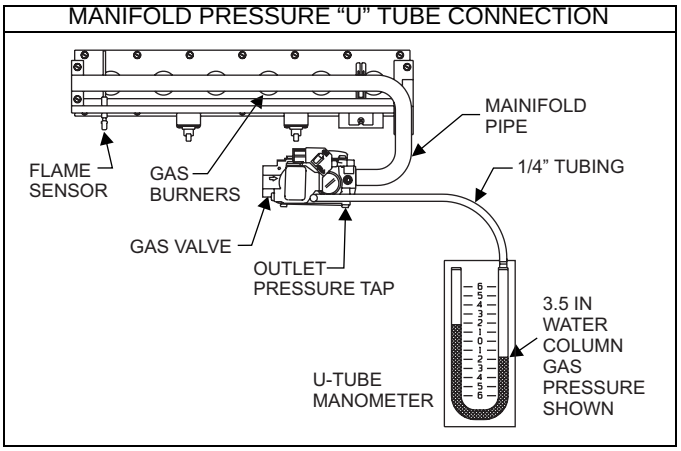

FIGURE 5: Reading Gas Pressure - 95% 33” Models

⚠ CAUTION

Be sure to relight any gas appliances that were turned off at the start of this input check.

LABELS

1. Remove conversion rating plate label from the shipping box. Check the natural gas to propane box. If in Canada, check the appropriate box for respective conversion station.
2. Place the conversion rating plate label 255424 as close to the rating plate as possible.
3. On the gas appliance conversion label, write the following:
   a. Kit number, located on the outside of the kit box.
   b. Stamp or write in the name of the organization making conversion, address, city, state, month, and year.
4. Remove label backing and affix label adjacent to the rating plate.

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