

# Propane Conversion Instructions

Applies to: Gas Fired Air Curtain Models AB 175 & AB 225

## General and Warnings

### FOR YOUR SAFETY

#### — WHAT TO DO IF YOU SMELL GAS

- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in your building.
- Leave the building immediately.
- Immediately call your gas supplier from a phone remote from the building. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

— Installation and service must be performed by a qualified installer, service agency, or the gas supplier.

### DANGER:

The conversion kit is to be selected and installed by a qualified service person in accordance with these instructions and in compliance with all codes and requirements of authorities having jurisdiction. Failure to follow instructions could result in death, serious injury and/or property damage. The qualified agency performing this work assumes responsibility for this conversion.

In Canada, gas conversion shall be carried out in accordance with the requirements of the Provincial Authorities having jurisdiction and in accordance with the requirements of CSA-B149.1 and .2 installation code.

### WARNING

Improper installation, adjustment, alteration, service, or maintenance can cause property damage, injury, or death. Read the installation, operation, and maintenance instructions thoroughly before installing or servicing this equipment.

**FOR YOUR SAFETY:** Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

### HAZARD INTENSITY LEVELS used in this manual.

1. **DANGER:** Failure to comply will result in severe personal injury or death and/or property damage.
2. **WARNING:** Failure to comply could result in severe personal injury or death and/or property damage.
3. **CAUTION:** Failure to comply could result in minor personal injury and/or property damage.

### DANGER:

The gas burner in this gas-fired equipment is designed and equipped to provide safe, complete combustion. However, if the installation does not permit the burner to receive the proper supply of combustion air, complete combustion may not occur. The result is incomplete combustion which produces carbon monoxide, a poisonous gas that can cause death.

### DANGER

Safe operation of indirect-fired gas burning equipment requires a properly operating vent system which vents all flue products to the outside atmosphere. FAILURE TO PROVIDE PROPER VENTING WILL RESULT IN A HEALTH HAZARD WHICH COULD CAUSE SERIOUS PERSONAL INJURY OR DEATH.

All installations must comply with the combustion air requirements in the installation codes and instructions. Units installed in a confined space must be supplied with air for combustion and ventilation as required by Code and in the heater installation manual. Combustion air at the burner should be regulated only by manufacturer-provided equipment. NEVER RESTRICT OR OTHERWISE ALTER THE SUPPLY OF COMBUSTION AIR TO ANY HEATER. MAINTAIN THE VENT SYSTEM IN PROPERLY OPERATING CONDITION.

## Description and Kit Selection

The natural gas to propane conversion kits contained in these instruction sheets are for Gas Fired Air Curtain Models AB175 & AB225. See pages 5-6 for conversion kit by model size application and their respective components.

**NOTE:** These instructions are to be used in conjunction with the, *Installation, Operation & Spare Parts Manual for Gas Fired Curtains*. Reference form I-A C, Document No 303077.

## Gas Conversion Instructions

- 1. Check kit contents to the parts list.** (Refer to Parts lists on pages 6 & 7)  
Conversion of a unit using these kits will not alter the input rate. Refer to the rating plate on the heater for input rate and other appropriate information.
- 2. Turn off the gas supply at a shutoff valve** upstream of the combination gas valve and turn off the electrical supply. Open the air curtain's burner controls hinged door as noted in step 4, item 1).
- 3. Install the Regulator Spring Kit Gas Valve (P/N 270378).** Access the gas valve (indicated with arrow in picture shown below) through the open hinged door.



### WARNING

**The manufacturer of the regulator spring kit and the gas valve MUST be the same. Spring kits of different manufacturers are not interchangeable, and each spring kit MUST be used only in the valve for which the kit is designated.**

To install a regular spring conversion kit, follow the valve manufacturer's installation instructions that are included with the regulator spring kit. After the new spring kit is installed, it is necessary to adjust the spring for the correct manifold pressure. This adjustment can only be made after the heater is in operation. Instructions are in Step No. 7.

### 4. Install New Propane Gas Injectors

### WARNING

**Do not attempt to drill injector orifices. Use factory-supplied orifices only.**

- 1) Open the hinged door on the right hand side of the unit by removing the two hinged door retaining screws (indicated in circles shown) as shown in the picture below.



2) The hinged door will now swing down as shown in the picture below.



3) Loosen the gas supply line and disconnect it from the pipe nipple then remove the 2 screws (indicated in circles) as shown in picture below. Now the pipe nipple is free to drop down inside the cabinet allowing it to be removed with the gas valve manifold.



4) Access the gas valve manifold pipe coupling from the bottom of the unit through the opened hinged door and disconnect it as shown in the picture below.



5) Remove the two gas valve manifold mounting bracket screws as shown in the picture below.

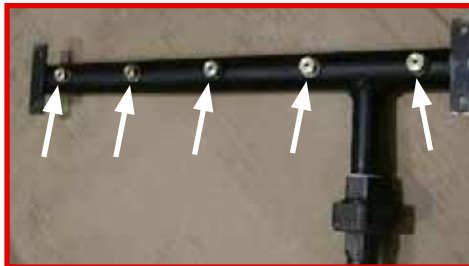


## Gas Conversion Instructions (cont'd)

- 6) Remove the remaining gas valve manifold mounting bracket screws as shown in the picture below.



- 7) The gas valve manifold is now free to drop down for removal. Reference picture shown below.



### 5. Install Propane Gas Injectors into Gas Valve Manifold and Re-Assemble the Unit

Remove the 5 natural gas injectors in the gas valve manifold and replace with propane gas injectors supplied in appropriate kit as shown in the above picture.

Reverse the instructions listed in Step 4 and re-install the gas valve manifold in the unit.

Be certain that the manifold is positioned properly in relationship to the burner rack.

### 6. Check for Gas Leaks

#### WARNING

**All components of a gas system must be leak tested prior to placing equipment in service. NEVER TEST WITH AN OPEN FLAME. Failure to comply could result in personal injury, property damage or death.**

a) Turn on the gas shutoff valve upstream of the combination gas valve. Check for gas leaks between the gas shutoff valve and the combination gas valve. If a leak is detected, tighten the connection and recheck. When there are no leaks, turn the manual shutoff valve off.

b) Turn on the electrical supply. Turn on the gas and follow the instructions on the air curtain to relight the burner. Check all connections for leaks. If a leak cannot be stopped by tightening, turn off the gas and the electric, and replace the part or parts until there are no leaks.

### 7. Measure the Inlet Supply Pressure

**NOTE:** The inlet supply pressure cannot be set until the unit is in operation.

The inlet supply pressure **MUST** be within 12.0 to 14.0 inches water column range both when the air curtain is in operation and on standby for propane gas.

Do not attempt to measure or adjust the air curtain's gas pressure until the inlet supply pressure is within the correct range.

An incorrect inlet pressure setting could result in the unit having too low or too high a gas manifold supply pressure. The pressure change could occur immediately or at a later time.

## WARNING

**Manifold gas pressure must never exceed 10 inches water column for propane.**

### **Instructions for Measuring and Adjusting Manifold Pressure:**

- 1) Locate the 1/8" outlet pressure tap on the valve. Turn the knob on the top of the valve to "OFF". Connect a pressure fitting and a manometer to the 1/8" pipe outlet pressure tap. Use a digital manometer that is readable to the nearest tenth of an inch. (**NOTE:** A digital manometer gauge is recommended rather than a spring type gauge due to the difficulty of maintaining calibration of a spring type gauge.)

Open the valve and operate the air curtain. Measure the gas pressure to the manifold. **If pressure is correct**, remove the manometer and replace the cap. Check for leakage at the pressure tap fitting. Tighten if needed. Continue to Step 8.

**If adjustment is required**, follow instructions in 2) below.

- 2) If adjustment is required:

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**CAUTION: DO NOT bottom out the gas valve regulator adjusting screw. This can result in unregulated manifold pressure causing excess overfire and heat exchanger failure.**

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**High Fire** - Remove the cap from the outlet pressure adjusting screw and adjust the manifold pressure. Adjust pressure by turning the regulator screw IN (clockwise) to increase pressure or OUT (counterclockwise) to decrease pressure.

8. Check for safe and proper operation of the unit by operating the air curtain for at least one cycle. Observe main burners for complete flame carryover.





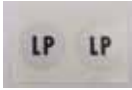
## WARNING

**In the event of improper ignition, wait at least five minutes before attempting to relight the unit.**





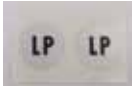



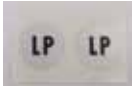



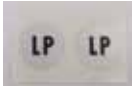
9. Complete the information required on the gas conversion tape and affix the tape to a clean, dry surface near the heater rating plate. Close and secure the hinged door.

**Components -  
Natural to Propane  
Conversion Kits**

**NOTE:** When converting a unit from natural gas to propane, the natural gas components may not be returned for credit.

<b>Conversion Kit P/N 1005716 to convert Air Curtain Model AB175 from natural gas to L.P.</b>		
<b>Item No</b>	<b>Qty</b>	<b>Description</b>
<b>1</b>	<b>1</b>	<b>Nat. to L.P. Conversion Kit, P/N 270374</b> 
<b>Components of kit 270374:</b>		
	<b>Qty</b>	<b>Description</b>
	1	White Rodgers - F92-1008 Installation Instructions 
	2	L.P. Regulator Springs (color coded white) 
	2	Warning Labels 
	2	L.P. Labels 
<b>2</b>	<b>5</b>	<b>Propane Gas Injector (#51 drill), P/N 1001157</b>

**Conversion Kit P/N 1005717 to convert Air Curtain Model AB225  
from natural gas to L.P.**

Item No	Qty	Description										
1	1	<p><b>Nat. to L.P. Conversion Kit, P/N 270374</b></p>  <p><b>Components of kit 270374:</b></p> <table border="1"> <thead> <tr> <th>Qty</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td align="center">1</td> <td> <p>White Rodgers - F92-1008 Installation Instructions</p>  </td> </tr> <tr> <td align="center">2</td> <td> <p>L.P. Regulator Springs (color coded white)</p>  </td> </tr> <tr> <td align="center">2</td> <td> <p>Warning Labels</p>  </td> </tr> <tr> <td align="center">2</td> <td> <p>L.P. Labels</p>  </td> </tr> </tbody> </table>	Qty	Description	1	<p>White Rodgers - F92-1008 Installation Instructions</p> 	2	<p>L.P. Regulator Springs (color coded white)</p> 	2	<p>Warning Labels</p> 	2	<p>L.P. Labels</p> 
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2	5	<b>Propane Gas Injector (1.85 mm), P/N 1001158</b>										

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