48K Large Rooftop Units
Gas Heating/Electric Cooling
LP Gas Conversion Kit
20 to 60 Ton

Installation Instructions

Part No: CRLPKIT5001A00, CRLPKIT5002A00, CRLPKIT5004A00, CRLPKIT5006A00

CONTENTS

SAFETY CONSIDERATIONS

Installation and servicing of air-conditioning equipment can be hazardous due to system pressure and electrical components. Only trained and qualified service personnel should install, repair, or service air-conditioning equipment.

Untrained personnel can perform basic maintenance functions of cleaning coils and filters and replacing filters. All other operations should be performed by trained service personnel. When working on air-conditioning equipment, observe precautions in the literature, tags and labels attached to the unit, and other safety precautions that may apply.

Follow all local building codes and appropriate national electrical codes (in USA, ANSI/NFPA 70, National Electrical Code (NEC); in Canada, CSA C22.1) for special requirements. Wear safety glasses and work gloves. Use quenching cloth for unbrazing operations. Have fire extinguisher available for all brazing operations.

It is important to recognize safety information. This is the safety-alert symbol ⚠. When you see this symbol on the unit and in instructions or manuals, be alert to the potential for personal injury.

Understand the signal words DANGER, WARNING, CAUTION, and NOTE. These words 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 **may** 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

Before beginning any modification, close main gas supply shutoff valve. Be certain that the main line electrical disconnect switch is in the OFF position. Electric shock or fire could result. Tag disconnect switch and gas valve with suitable warning labels.

⚠ CAUTION

Ensure clearances are in accordance with local installation codes, the requirements of the gas supplier and the manufacturer's installation Instructions.

⚠ ATTENTION

Assurez-vous que les dégagements sont conformes aux codes d'installation locaux, aux exigences du fournisseur de gaz et aux instructions d'installation du fabricant.

Installation of this furnace at altitudes above 2000 ft (610 m) shall be made in accordance with the Listed High Altitude Conversion Kit available with this furnace.

L'installation de ce générateur de chaleur à des altitudes supérieures à 2000 pi (610 m) doit être effectuée conformément aux instructions accompagnant la trousse de conversion pour haute altitude fournie avec cet appareil.

INSTALLATION

Step 1 — Modify Burner Assembly

To modify the burner assembly with the LP gas conversion kit, perform the following:

1. Shut off manual gas valve (in unit).
2. Shut off power to unit.
3. Remove gas heat access panels. See Fig. 1.

   NOTE: Steps 4 to 7 refer to all of the gas sections of the unit. Each step must be done for each gas section.
4. Separate burners from frame by removing screws. Save screws. See Fig. 2.
5. Replace orifices with those provided in accessory LP conversion kit. See usage and contents in Tables 1 and 2.
6. Remount burners to support frame. Make sure the end burners are in their original location. The tabs at the flame end should interlock. Use screws saved from Step 4. See Fig. 2 detail “D.”
7. Check spark gap (Fig. 3).
8. Attach conversion label next to gas label on inside of left gas heat access panel.
9. Attach warning label to corner post. See Fig. 1 for location of warning label.
10. Perform Step 2 — Check Unit Operation and Make Necessary Adjustments section.

NOTE: Save all natural gas parts removed during accessory installation. It is recommended that these parts be saved in the event that the unit needs to be converted back to natural gas.

Table 1 — Package Usage

ACCESSORY PART NO.	USAGE		
	Model	Unit Size	Heat Level
CRLPKIT5001A00	48K2,K3,K4,K5	20-30	All
		35	Low
CRLPKIT5002A00	48K2,K3,K4,K5	35	High
		40-50	All
CRLPKIT5004A00	48K2,K3,K4,K5	60	Low
	48K2,K3	60	High
CRLPKIT5006A00	48K4,K5	60	High

Table 2 — Package Contents

ACCESSORY PART NO.	CONTENTS	QTY
CRLPKIT5001A00	Wire Ties	6
	Burner Orifices (Size No. 43)	15
	Conversion Label	1
	Warning Label	1
CRLPKIT5002A00	Wire Ties	6
	Burner Orifices (Size No. 42)	20
	Conversion Label	1
	Warning Label	1
CRLPKIT5004A00	Wire Ties	6
	Burner Orifices (Size No. 42)	30
	Conversion Label	1
	Warning Label	1
CRLPKIT5006A00	Wire Ties	6
	Burner Orifices (Size No. 44)	30
	Conversion Label	1
	Warning Label	1

Step 2 — Check Unit Operation and Make Necessary Adjustments

1. Remove manifold pressure tap plug from manifold and connect pressure gauge or manometer.
2. Turn on electrical supply.
3. Turn on unit main gas valve.
4. In the SmartVu control, enable Service Run mode and command the heater capacity to 100%. See "Service Run Mode For Gas Heat Testing" on page 5, in Appendix A for details on accessing and operating service run mode.
5. When all burners ignite, adjust regulator for 3.5 in. wg manifold pressure. Check manifold and orifices for leaks.

⚠ WARNING

FIRE OR EXPLOSION HAZARD

Failure to follow the safety warnings exactly could result in serious injury, death or property damage.

Never test for gas leaks with an open flame. Use a commercially available soap solution made specifically for the detection of leaks to check all connections. A fire or explosion may result causing property damage, personal injury or loss of life.

⚠ AVERTISSEMENT

RISQUE D'INCENDIE OU D'EXPLOSION

Si les consignes de sécurité ne sont pas suivies à la lettre, cela peut entraîner la mort, de graves blessures ou des dommages matériels. Ne jamais vérifier la présence de fuites de gaz au moyen d'une flamme nue. Vérifier tous les raccords en utilisant une solution savonneuse commerciale conçue spécialement pour la détection de fuites. Un incendie ou une explosion risque de se produire, ce qui peut entraîner la mort, des blessures ou des dommages matériels.

6. Check firing rate and readjust pressure if necessary. See nameplate.

⚠ WARNING

This unit is designed to operate at 3.5 in. wg (± 0.3 in. wg) manifold pressure with LP gas. Exceeding this pressure will cause explosion or injury.

7. Shut off manual gas valve and shut off power to unit.
8. Remove pressure gauge or manometer and replace manifold pressure tap plug.
9. Turn on power to unit, then main gas valve. With burners ignited, check pressure tap for gas leaks. Repair if necessary.
10. Replace gas heat access panels.
11. Remove warning tags from disconnect switch and gas supply shutoff valve.

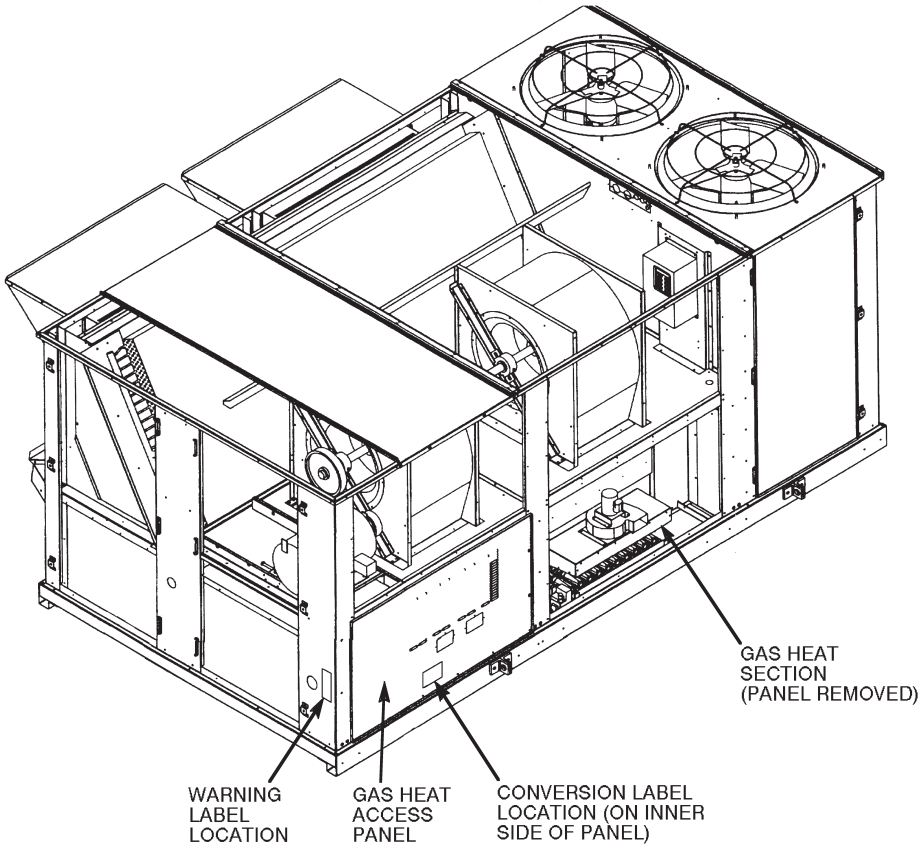

Fig. 1 — Typical Gas Heating Unit (20 Ton Unit Shown)

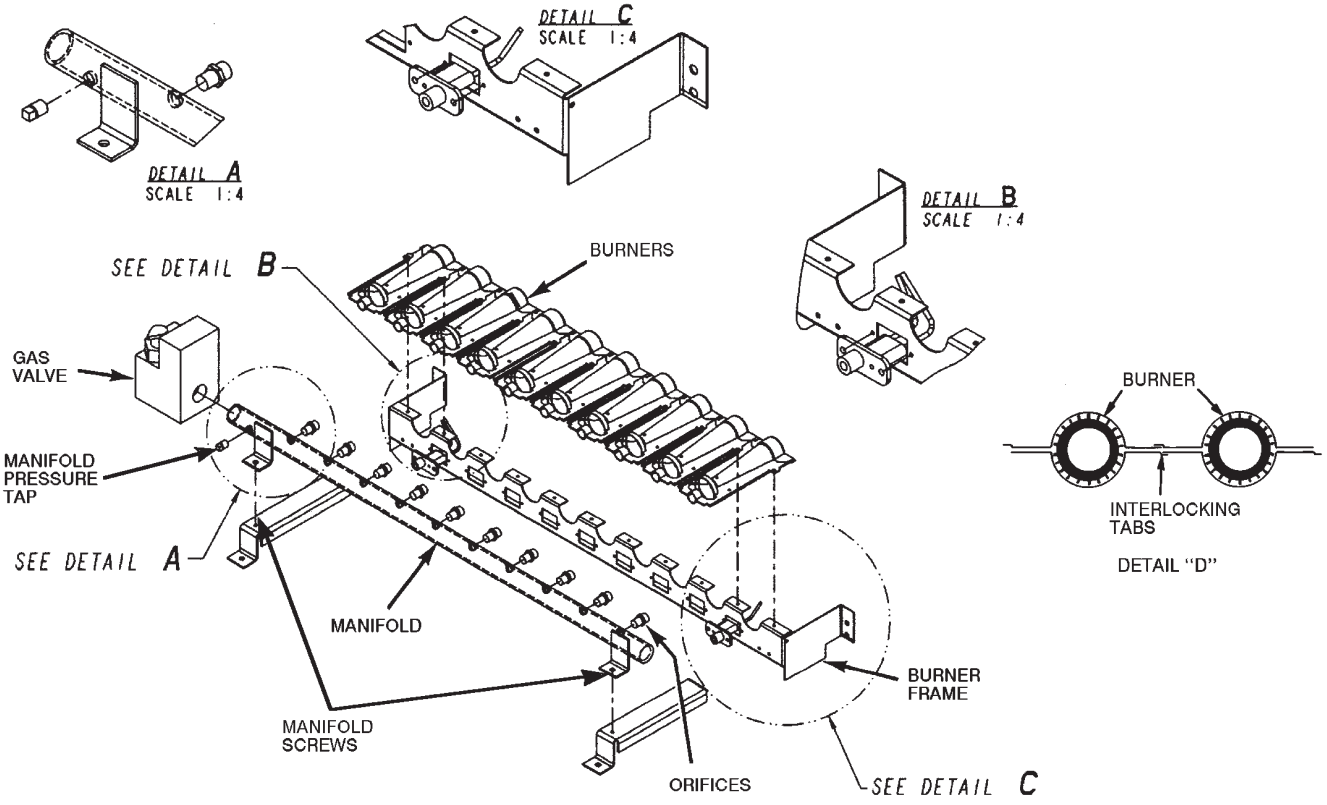

Fig. 2 — Main Burner Removal (High Heat Shown)

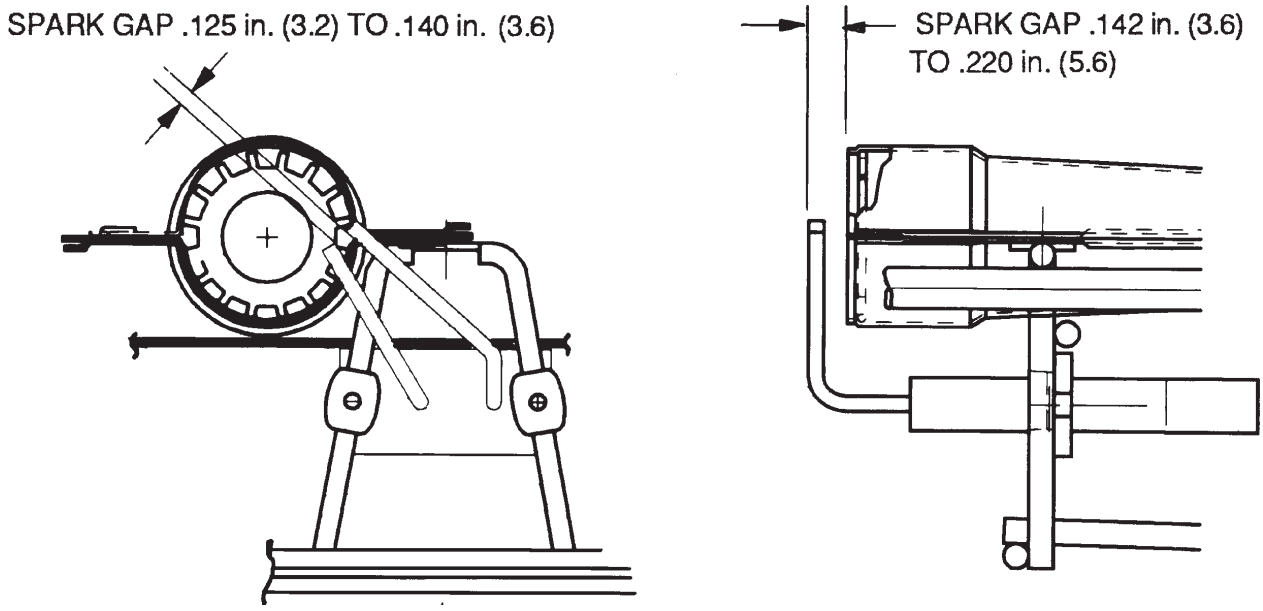

Fig. 3 — Spark Gap

APPENDIX A — SERVICE RUN MODE FOR GAS HEAT TESTING

OVERVIEW

The SmartVu™ controls include test modes that can be used as part of the installation and start-up process. See below for guidance on initiating Service Run Mode to test the heat system.

Step 1 — Login with User Access Level

The User access level is required to enable component tests and set configurations and setpoints. To login, navigate to the User Login screen (*press on the top bar→**User Login***), Click on to bring up the keyboard and enter the user password (1111 default).

Step 2 — Enable Service Run Mode

Service can be used to enable and test systems, such as cooling, dehumidification, and heating. The unit must be in Service Run mode to perform system tests.

Prior to enabling Service Run, it is recommended to disable unit operation. To disable unit operation, navigate to the Start/Stop screen (*press on the top bar)* and press disable unit. This will disable all unit components prior to starting Service Run. See Fig. A for Start/Stop screen layout

To enable Service Run mode, navigate to the Start/Stop screen (*press on the top bar*). Click on the Service Run button to enable Service Run mode. The Service Test Menu link will appear on the Start/Stop screen when Service Run mode is enabled.

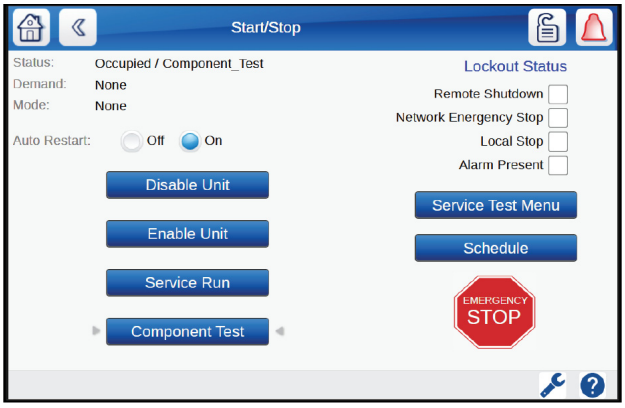

Fig. A — Start/Stop Screen in Test Mode

Step 3 — Test Heater Using Service Run

Click on the Service Test Menu button on the Start/Stop screen to navigate to the Service Test Menu and click on the Test Air System icon to get to the Air System Test screen.

See Fig. B for Test DX Circuit and Test Air System screen layout when Service Run is enabled.

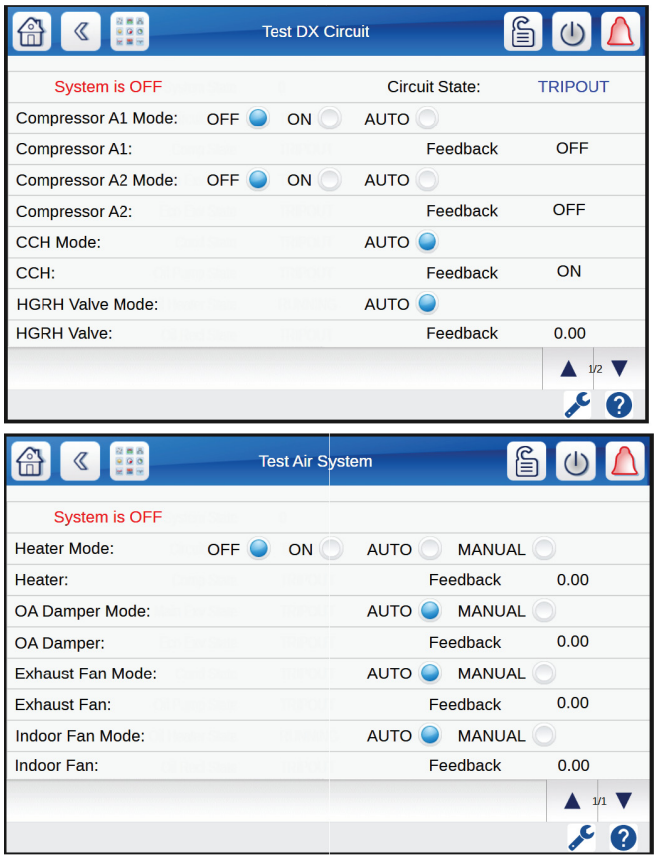

Fig. B — Test DX Circuit and Test Air System Screens (Service Run)