

CRBTMPWR001A01 and CRBTMPWR002A01

SMALL ROOFTOP UNITS THRU-THE-BOTTOM CONNECTION GAS HEATING/ELECTRIC COOLING, ELECTRIC COOLING, AND HEAT PUMP UNITS 3 TO 12-1/2 TONS (50/60 HZ)

Installation Instructions

IMPORTANT: Read and become familiar with all instructions before beginning installation.

PACKAGE CONTENTS

QTY	PART NUMBER	CONTENTS
2	LF48ZZ050	1/2-in. Coupling
1	LF48ZZ075	3/4-in. Coupling (CRBTMPWR001A01 only)
2	LF48ZZ125	1 1/4-in. Coupling (CRBTMPWR002A01 only)
3	AL48AM217	Screws (10 AB x 5)
1	50DK400117	Gas Plate Assembly


PACKAGE USAGE

UNIT SIZE	KIT NUMBER
3 to 6 Tons	CRBTMPWR001A01
7 1/2 to 12 1/2 Tons	CRBTMPWR002A01

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 the basic maintenance functions. 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 safety codes. Wear safety glasses and work gloves.

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, and CAUTION. 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 a hazard 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

ELECTRICAL SHOCK HAZARD

Failure to follow this warning could result in personal injury and/or death.

Before performing service or maintenance operations on unit, turn off main power switch to unit. If gas unit, shut off gas supply *before* shutting off main power. TAG DISCONNECT SWITCH WITH A SUITABLE WARNING LABEL.

GENERAL

The thru-the-bottom power connection accessory package reduces the number of penetrations in the roof. It provides the capability to draw power and control wiring through the basepan and field supplied gas piping connections through the roof curb.

Each accessory contains 3 bulk head connectors. The 1/2-in. diameter bulk head connector enables the low voltage control wires to pass through the basepan. The 2 larger bulk head connectors allow the high voltage power wires and accessory convenience outlet wires (if convenience outlet is powered separately from unit power) to pass through the basepan.

INSTALLATION

Make sure the roof curb is installed in accordance with the instructions provided.

The thru-the-bottom power connection accessory package must be used with a roof curb that has an opening in the insulated panel. This opening allows power and control wires to pass through the roof curb and into the rooftop unit. Refer to Table 1 for roof curbs that can be used with a thru-the-bottom power connection accessory package.

Table 1 – Accessory Roof Curb Data

UNIT	ROOF CURB ACCESSORY PACKAGE NUMBER	NOMINAL ROOF CURB HEIGHT (in.)
3 to 6 Tons	CRRFCURB001A01	14
	CRRFCURB002A01	24
7 ¹ / ₂ to 12 ¹ / ₂ Tons	CRRFCURB003A01	14
	CRRFCURB004A01	24

IMPORTANT: The accessory thru-the-bottom power connection package must be installed before the unit is set on the roof curb.

Step 1 — Creating Holes in the Raised Surface

Each rooftop unit is equipped with a raised surface in the basepan. This area is located in the compressor compartment of the unit, directly below the control box. (See Fig. 1.) Holes can be field cut in the raised surface so that power and control wires can be routed through the unit's basepan and roof curb. (See Table 2.)

The raised surface contains three small dimples that can be used to mount a chassis punch or hole saw. Use a chassis punch or hole saw to create holes in the raised surface.

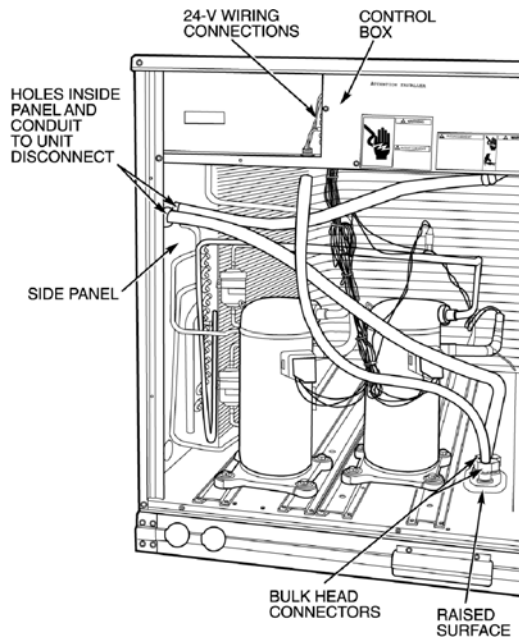


Fig. 1 - Typical Conduit Installation

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Table 2 – Hole Size Requirements

COUPLING SIZE	USAGE	REQUIRED HOLE SIZE (MAX)
1/2-in.	24-V Control Wiring	7/8-in. (22.2 mm)
3/4-in.	High Voltage Power Wiring and Accessory Convenience Outlet Wiring† (3 to 6 ton units)	1 1/8-in. (28.4 mm)
1 1/4-in.	High Voltage Power Wiring and Accessory Convenience Outlet Wiring† (7 1/2 to 12 1/2 ton units)	1 3/4-in. (44.4 mm)
Gas Service Plate	Gas Line	2-in. (50.8 mm)*

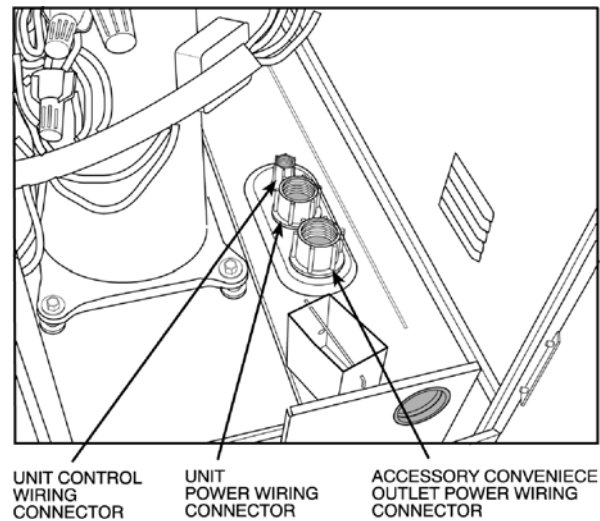
*Hole for gas service plate is pre-drilled in roof curb part numbers CRRFCURB001A–004A.

†Used when convenience outlet requires a separate power supply from the unit power.

Step 2 — Mounting the Bulk Head Connectors

Once the holes have been cut, insert the bulk head connectors. Place one half of the bulk head connector beneath the basepan and mount the other half above the basepan. Screw the connector halves together to make a tight seal. (See Fig. 2.)

When the bulk head connectors are in place, field supplied and installed liquid-tight conduit with electrical wires may be drawn through the connectors into the rooftop unit.



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Fig. 2 - Bulk Head Connector Installation

IMPORTANT: Liquid-tight conduit must be used on outdoor appliances

Step 3 — Install the Unit on Roof Curb

Make all appropriate connections to install the unit on the roof curb. See the installation instructions provided with the roof curb for specific information.

If a field-installed thru-the-curb gas connection is required, use the supplied $\frac{3}{4}$ -in. pipe coupling and gas plate assembly to mount the coupling to the roof curb before the unit is installed. A knockout hole is provided in the roof curb. The hole is aligned to pass through the fork lift hole in the base rail of the unit. (See Fig. 3 and 4.) The wood nailer must be cut to form a frame around the coupling. Plate should be installed before flashing is applied.

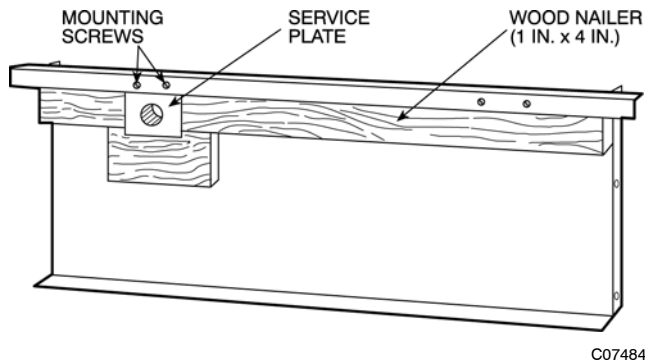
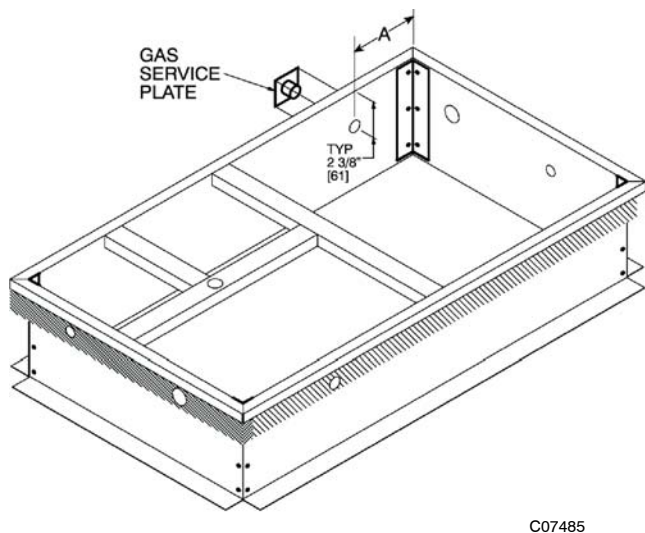


Fig. 3 - Installed Thru-the-Curb Gas Service Plate



UNIT SIZE	DIMENSIONS — ft-in. (mm)	
	A	
3 to 6 Tons	1-4 ¹³ / ₁₆ (427)	
7 ¹ / ₂ to 12 ¹ / ₂ Tons	1-11 ¹ / ₄ (590)	

Fig. 4 - Accessory Thru-the-Curb Gas Connection

Step 4 — Make Gas Connections (If Required)

Gas connections to the unit must be field-installed after the unit is installed on the roof curb. Run gas piping through coupling and fork lift hole. (See Fig. 5.)

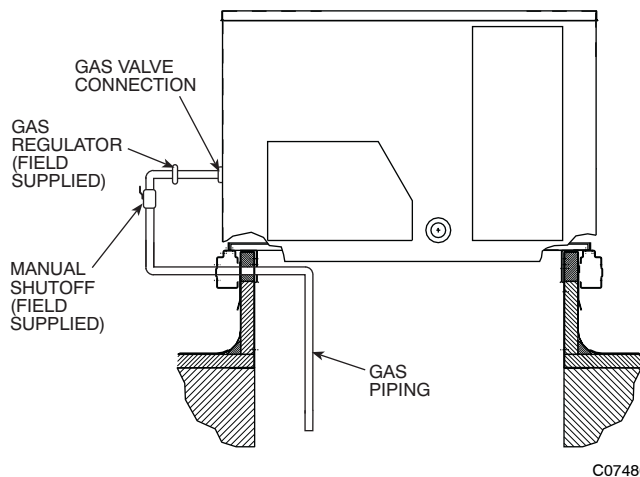


Fig. 5 - Thru-the-Curb Gas Connections

Step 5 — Unit Disconnect Connections

A unit disconnect must be field supplied and installed or factory supplied and installed.

One knockout panel is provided in the unit side panel (on the left side of the compressor). (See Fig. 1.) The knockout panel must be removed so that conduit may be run through the hole. A second hole must be field cut so that the power wiring can be run to/from the unit disconnect.

Run the field supplied and installed liquid-tight conduit from the bulk head connectors through the holes in the side panel. Connect the conduit to the unit disconnect.

Step 6 — Make Wiring Connections

A hole must be field cut in the sheet metal underneath the control box on the left side so that 24-v connections can be made. Field supplied and installed wiring must be provided for the 24-v connections. (See Fig. 1.) Make the power and control wiring connections based on the wiring schematic found on the rooftop unit.

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