Small Rooftop Units
Thru-the-Bottom Electric Connections
Thru-the-Curb Gas Connection
Gas Heating/Electric Cooling, 3 to 6 Tons (50/60 Hz)

Installation Instructions

PART NO. CRBTMPWR008A01

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

SAFETY CONSIDERATIONS

Installation of this accessory can be hazardous due to system pressures, electrical components, and equipment location (such as a roof or elevated structure). Only trained, qualified installers and service technicians should install, start-up, and service this equipment.

When installing this accessory, observe precautions in the literature, labels attached to the equipment, and any other safety precautions that apply:

- Follow all safety codes
- Wear safety glasses and work gloves
- Use care in handling and installing this accessory

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.

⚠ DANGER

ELECTRICAL SHOCK HAZARD

Failure to follow this warning will result in personal injury or death.

Before performing service or maintenance operations on unit, turn off main power switch to unit and install lock(s) and lockout tag(s). Ensure electrical service to rooftop unit agrees with voltage and amperage listed on the unit rating plate. Unit may have more than one power switch.

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. Refer to Table 1 for package contents.

Each accessory contains 3 bulkhead connectors. Two 1/2 in. diameter bulkhead connectors: one for the 24-v low voltage control wires and one for 115-v wiring required when the unit is equipped with the optional non-unit powered convenience outlet. The 2 larger bulkhead connectors allow the high-voltage power wires and optional powered convenience outlet wires to pass through the basepan. Refer to Table 2 for package usage.

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 3 for roof curbs that can be used with a thru-the-bottom power connection accessory package.

Table 1 — Package Contents

QTY	PART NUMBER	CONTENTS
2	LF48ZZ050	1/2 in. Coupling
1	LF48ZZ075	3/4 in. Coupling
3	AL48AM217	Screws (#10 x 5/8 in.)
1	50DK400117	Gas Plate Assembly
1	48TC500043	Cover
1	48TC500044	Cover
1	48TC500041	Gasket

Table 2 — Package Usage

KIT NUMBER	MODELS
CRBTMPWR008A01	48/50FC 04-07 48/50GC 04-06 48/50HC 04-06* 48/50JC 04-06 48/50KC04-06* 48/50LC 04-06* 48/50TC 07* 50FCQ 04-07 50GCQ 04-06 50HCQ 04-06* 50KCQ 04-06* 50LCQ 04-06* 50TCQ 07*
	581/551/549K 04-06 582/559/547K 04-07 582/559/548J 04-06* 581/551/549J 04-06* 580/558/548J 07*
	RGW/RAW/RHW 036-060 RGV/RAV/RHW 036-072 RGX/RAX/RHX 036-060* RGH/RAH/RHH 036-060* RGS/RAS/RHS 072*

*For models built on or after April 15, 2019.

Table 3 — Accessory Roof Curb Data

UNIT	ROOF CURB ACCESSORY PACKAGE NUMBER	NOMINAL ROOF CURB HEIGHT (IN.)
3 to 6 Tons	CRRFCURB001A01	14
	CRRFCURB002A01	24

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

UNITS WITH COVER PLATE IN BASEPAN

Step 1 — Mount the Cover Plate

The cover plate is located in the compressor compartment of the unit, directly below the control box (see Fig. 1).

1. Remove the blank cover plate from the unit. Discard the blank cover plate but reserve the screws. Depending on the number of connectors required, select either the (2) hole cover plate or the (3) hole cover plate.
2. Adhere the gasket to the underside of the selected cover plate.
3. Attach the desired bulkhead connectors to the cover plate (see Table 4) and then, using the reserved screws, attach the cover plate with the bulkhead connectors to the opening in the basepan.

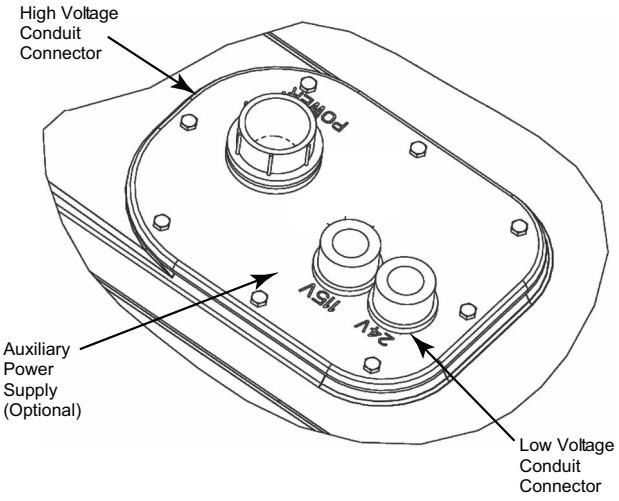


Fig. 1 — Thru-the-Curb Gas Connection Fittings

Table 4 — Hole Size Requirements

COUPLING SIZE	USAGE	REQUIRED HOLE SIZE (MAX)
1/2 in.	24-v Control Wiring	7/8 in. (22.2 mm)
1/2 in.	115-v Accessory 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)
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.

Step 2 — Run Wiring and Connect Conduit

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

Attach the conduit to the appropriate bulkhead connectors.When the connector cover plate with the bulkhead connectors is in place, field-supplied and field-installed liquid-tight conduit with electrical wires may be drawn through the connectors into the rooftop unit. (See Fig. 2.)

The blank cover plate on the basepan is located in the outdoor compartment of the unit, directly below the control box. (See Fig. 3.) NOTE: The compressor is on the other side of the coil.

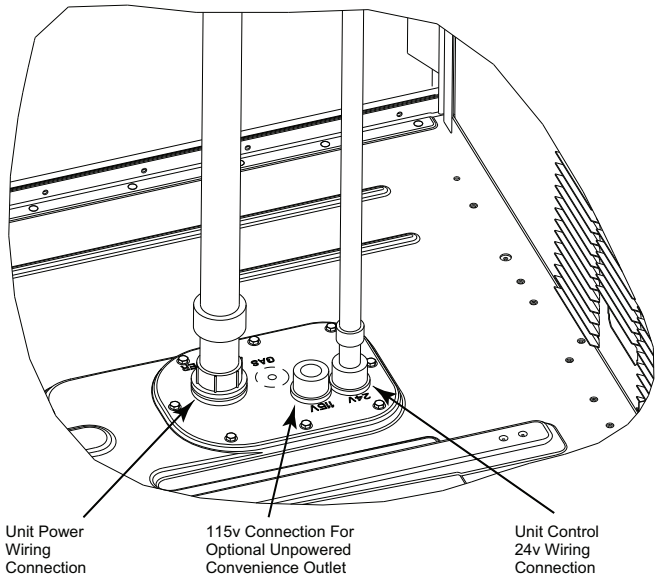


Fig. 2 — Bulkhead Connector Installation

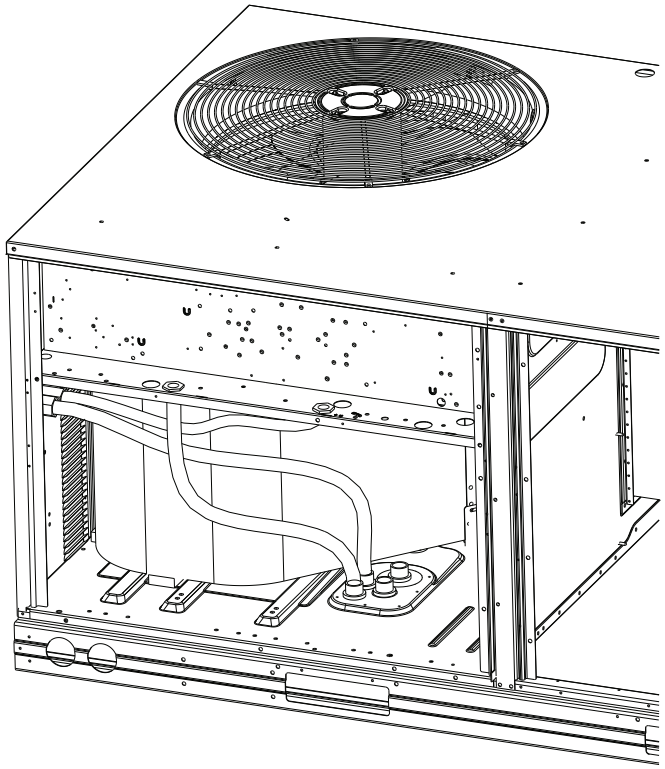


Fig. 3 — Typical Conduit Installation

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 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. 4 and 5.) The wood nailer must be cut to form a frame around the coupling. Plate should be installed before flashing is applied.

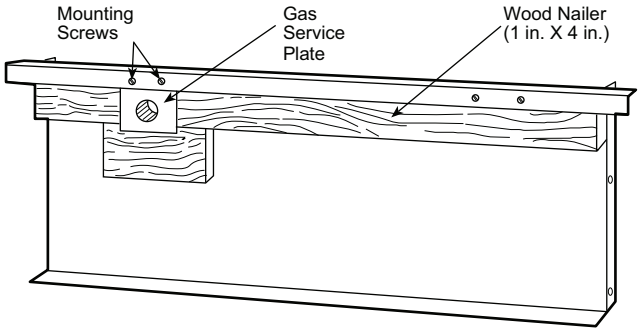
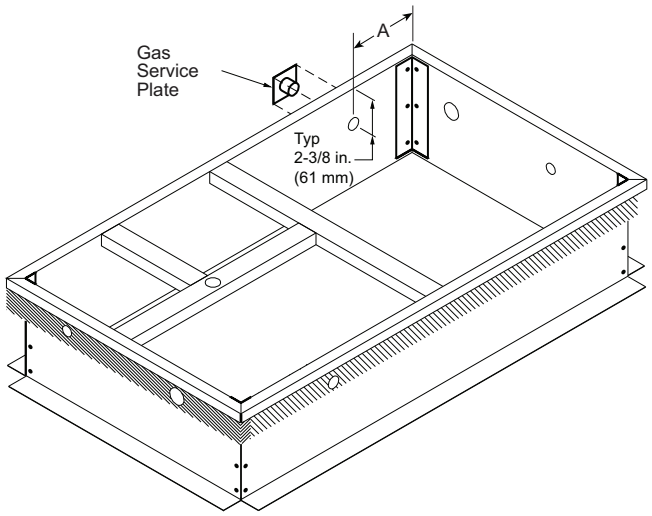


Fig. 4 — Installed Thru-the-Curb Gas Service Plate



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

Fig. 5 — Accessory Thru-the-Curb Gas Connection

Step 4 — Make Gas Connections

Gas connections to the unit must be field-installed after the unit is installed on the roof curb. Run gas piping through coupling and forklift hole. (See Fig. 6.)

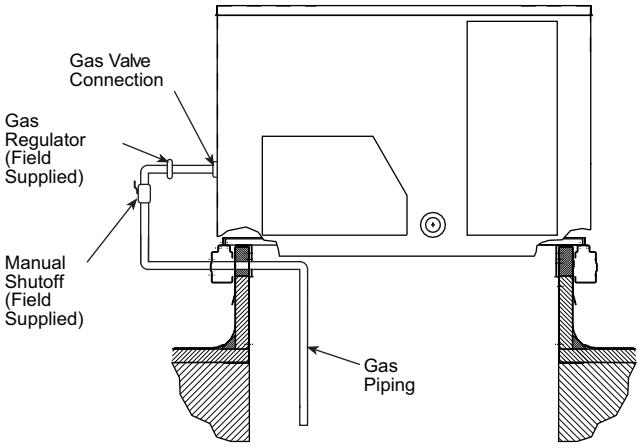


Fig. 6 — Thru-the-Curb Gas Connections

Step 5 — Connect Unit Disconnect

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

One knockout panel is provided in the unit side panel (on the left side of the compressor). (See Fig. 3.) 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 or from the unit disconnect.

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

Step 6 — Make Wiring Connections

FACTORY-OPTION THRU-BASE ELECTRICAL CONNECTIONS

This service connection kit consists of a 1/2 in. electrical bulkhead connector and a 3/4 in. electrical bulkhead connector, all factory-installed in the embossed (raised) section of the unit basepan in the condenser section. The 3/4 in. bulkhead connector enables the low-voltage control wires to pass through the basepan. The 1/2 in. bulkhead connector allows the high-voltage power wires to pass through the basepan. (See Fig. 1.)

Check tightness of connector lock nuts before connecting electrical conduits.

Field-supplied and field-installed liquid tight conduit connectors and conduit may be attached to the connectors on the basepan. Pull correctly rated high voltage and low voltage through appropriate conduits. Connect the power conduit to the internal disconnect (if unit is so equipped) or to the external disconnect (through unit side panel). A hole must be field-cut in the main control box bottom on the left side so the 24-v control connections can be made. Connect the control power conduit to the unit control box at this hole.

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