Installation Instructions

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IMPORTANT: Read these instructions completely before attempting to install this accessory.

PACKAGE CONTENTS-
ELECTRIC HEATER

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<td>1</td>
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<tr>
<td>1</td>
<td>Red wire (10 gauge)*</td>
</tr>
<tr>
<td>1</td>
<td>Splice connector*</td>
</tr>
<tr>
<td>1</td>
<td>Wire tie*</td>
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* Supplied with electric heater packages CRHEATER101A00, CRHEATER102A00, CRHEATER103A00, and CRHEATER104A00 only.

PACKAGE CONTENTS-
SINGLE POINT KIT*

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<td>1</td>
<td>Tube clamp (used only on 3 and 4 ton heat pump units)</td>
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<td>Terminal Blocks (TB10A and TB10B)**</td>
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<td>2</td>
<td>Screws (for TB10’s)**</td>
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* Single point kit not required on standard efficiency, 2 to 6 ton cooling units with an MOCP of 60 or lower. Heater wires are to be terminated inside unit control box.
** Supplied with single point boxes CRSINGLE039A00, 045, 049, and 051 only.

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 or death. Turn off power to unit and install lockout tag.
INSTALLATION

1. Remove electric heater modules and single point box from packaging and inspect for damage.

NOTE: If there is a “1” or a “3” in the ninth position of the heater part number, it indicates that the heater is in a carton. For example, CRHEATER105A00 is heater CRHEATER005A00 in a carton, and CRHEATER364A00 is heater CRHEATER264A00 in a carton.

2. Remove indoor and outdoor access panel. (See Fig. 1 and 2.) Save panels and screws.

3. Remove control box cover and center post. Save screws. (See Fig. 3)

4. Remove the single point box cover. Secure single point box to the underside of the control box with the 2 screws provided. (See Fig. 4.)

   • On R-410A units, which use single point boxes CRSINGLE039A00, 045A00, 049A00, and 051A00, two terminal blocks (TB10A and TB10B) and two attachment screws are provided. Install the two terminal block into the control box and terminate the two - 3 wire power pigtails as follows (see Fig. 7):
     — Pigtail #1 (from top fuse block; long blue wire with female terminal) — Connect black wire to C1-11 screw terminal, connect yellow wire to C1-13 screw terminal, connect blue wire to TB10A terminal block and move Compressor 1 blue wire from IFC-13 to TB10A terminal block.
     — Pigtail #2 (from second fuse block; long yellow wire with female terminal) — Connect black wire to IFC-11 screw terminal, connect blue wire to IFC-13 screw terminal, connect yellow wire to TB10B terminal block and move ID Fan yellow wire from C1-13 to TB10B terminal block.
     — Remove black jumper wire from C1-11 to IFC-11.
5. Secure the conduit drip boot bracket assembly to the back of the single point box with 2 of the screws provided. (See Fig. 4.) The channel portion of the bracket assembly extends to the top panel behind the control box. Secure all wires to bracket with field-supplied wire tie as shown. (See Fig. 8.)

NOTE: The conduit drip boot and bracket are not used on standard efficiency 2 to 6 ton electric cooling units and R-410A 3-6 ton electric cooling units.

6. Remove heater cover(s) from heater mounting bracket. Save screws. Install single module electric heat option in location 1 (nearest the single point box). (See Fig. 9, and Fig. 10.)
NOTE: Modules CRHEATER105A00, CRHEATER109A00, CRHEATER112A00, CRHEATER114A00, CRHEATER115A00, and CRHEATER119A00 are keyed and must be installed in location 1 even when used as part of a 2-module option. (See Fig. 9 for 2 to 6 ton units or Fig. 10 for 7½ to 12½ ton units.)

NOTE: Modules (480-v) CRHEATER265A00 through CRHEATER269A00 are keyed and must be installed in location 2. In addition, these modules are always used as a single module option. (See Fig. 11; R-410A 6 ton high efficiency units only.)

7. To install module, engage flange on heater with track in unit and slide heater through mounting bracket opening. Fasten heater module to heater mounting bracket with the 4 screws saved from Step 6. (See Fig. 4.)

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Fig. 8 - Typical Conduit Installation

NOTE: All 208/230-v heaters (except CRHEATER 105A00) are factory-wired for 3-phase applications but can be converted to single-phase by changing one wire as described in Step 8.

Three-phase applications: Skip to Step 9.

8. On single-phase applications, rewire the heater as follows (Fig. 13 and Fig. 14):
   a. Connect 10-gauge red wire to splice connector.
   b. Remove yellow wire from heater contactor terminal 11 and connect to splice connector.
   c. Using the wire tie provided, fasten red wire to heater power wire harness near existing wire tie on heater module. This provides strain relief for the red wire.
9. Route power wires from heater module(s) through the foam bushing in the center partition and into the single point box. (See Fig. 4.) If no single point box is required for the unit and heater combination, run the heater high voltage power wiring through the grommet holes to the field-supplied disconnect (or optional factory-supplied 80 amp disconnect). Heater control wiring should be run to the control box section.

10. Install bushing in hole between control box and single point box. Route unit power pigtails through bushing. (See Fig. 4.)

Fig. 12 - Typical 3-Phase Wiring Installed

Fig. 13 - Single-Phase Heater Wiring

11. All fuses are 60 amp, time delay type, except for CRSINGLE025A00 which are 30 amps. All heaters are single bank heaters except CRHEATER011A00 and 012A00 which are dual bank heaters. The CRHEATER011A00 and 012A00 will be wired as two heaters (i.e., 6 leads). Fusing is shown pictorially on the unit wiring schematic label.

The optional factory-supplied disconnect has a maximum rating of 80 amps. Above 80 amps a field-supplied disconnect is required.

Single point boxes CRSINGLE001A00, 006A00, 011A00, 037A00, 042A00, and 047A00 do not include fuses and fuses are not required per the National Electric Code in these single point boxes since sub-fusing is not required below 60 amps. Field-supplied pressure connectors are required to connect wires on CRSINGLE001A00, 006A00, and 011A00, R-410A single point boxes CRSINGLE037A00, 042A00, and 047A00 have a terminal block for heater termination.

12. Run control wires from heater module(s) to the control wire terminal block located next to the heater module(s). Connect the control wires as follows:

- **Heat Pump Units**
  - The electric heat is internally wired as the second stage of heat.

- **Electric Cooling Units**
  - Electric cooling units with 2 electric heater modules can be wired for one- or 2-stage options as shown on the unit wiring schematic label. Connect single module heater option control wire (violet) to TB4 terminal 1.

13. Replace the center post and secure the single point box to the center post with one screw. (See Fig. 3.)
14. Remove knockouts for appropriate size conduit from unit block-off panel and single point box. Install conduit (rigid or electro-metallic tubing) through conduit drip boot as shown. (See Fig. 8.) Drip boot will accept conduit sizes 3/4-in. to 1-1/2 inches. The drip boot eliminates the need for water-tight conduit fittings at the single point box.

**NOTE:** Supply wiring must comply with NEC (National Electric Code) and all local requirements.

15. Place adhesive-backed wiring label on flanged side of heater cover.

16. Fasten heater cover to heater module with 2 screws provided with heater. Flanges of cover should face out.

17. Set manual reset limit switch by depressing button located between the terminals on the switch. (See Fig. 3.)

18. Close single point box cover and secure with one screw.

19. Replace control box cover, using remainder of screws saved from Step 3.

20. Replace indoor and outdoor panels with screws saved from Step 2.

21. Turn on unit power.

22. Mark the appropriate block on the unit nameplate for the accessory heater kW installed.