SMALL PACKAGED PRODUCTS DUAL POINT ELECTRIC HEATERS 5-20 Kw 60 Hz PRODUCT

Installation Instructions

NOTE: Read the entire instruction manual before starting the installation.

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.

Read these instructions thoroughly and follow all warning or cautions included in literature and attached to the unit. Consult local building codes, the current editions of the National Electrical Code (NEC) NFPA 70. In Canada refer to the current editions of the Canadian Electrical Code CSA C22.1.

Recognize safety information. This is the safety-alert symbol $\underline{\wedge}$. 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 cause personal injury or death.

Before performing installation, service or maintenance operations on this system, turn off main power to system. There may be more than one disconnect switch. Turn off accessory heater power switch if applicable. Lockout and tag switch with a suitable warning label.

A CAUTION

CUT HAZARD

Failure to follow this caution may result in personal injury. Sheet metal parts may have sharp edges or burrs. Use care and wear appropriate protective clothing, safety glasses and gloves when handling parts and servicing units.

DESCRIPTION AND USAGE

This document provides the required information to install an electric heater with a dual point circuit connecting scenario. A dual point circuit allows you to power the electric heater and unit contactor separately by having two individual field power supply circuits connected respectively (see Fig. 1). An extra warning label and an electrical rating label for the dedicated circuit to electric heater are provided.

NOTE: See electrical heat accessory kit for electric heat models, start-up instructions, troubleshooting, and accessory kit package content.

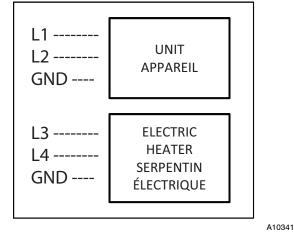


Fig. 1 - Power Supply Circuits

Table 1 – Kit Contents

ITEM	QUANTITY
Installation Instructions	1
Electrical Rating Label	1
Warning Label	1

INSTALLATION

NOTE: Complete heater installation process as described in the Electric Heater Kit Installation Instructions before completing the following steps.

- 1. Open all electrical disconnects and install lockout tag before beginning any installation or service work.
- 2. Remove electric access panel (see Fig. 3), check to make sure there is clearance on the inside of control box above the existing high voltage knockout. Using a knockout punch and die combination, make a 7/8-in. hole on the Electrical Heat access panel for second power circuit (see Fig. 2). A knockout punch and die combination or equivalent tool is required to make this hole. Other types of drill bits or standard hole saws are not acceptable.
- 3. Attach warning and rating labels in the selected location (see Fig. 3).

- 4. Mark the main unit nameplate with an "X" next to the accessory heater "none". Mark the dual point rating label installed at step 3 with an "X" for the electrical heater size being installed. Refer to the electrical data marked with an "X" on each nameplate for wire and maximum over current protection sizing.
- 5. Remove power line connection from heater to unit contactor and compressor (see Fig. 4 and Fig. 5). These are the stripped end wires black and yellow, with opened ends.

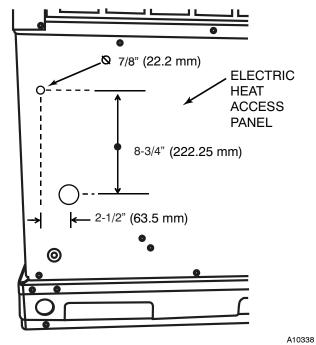


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Fig. 3 - Panel and Label Location

Fig. 2 - Second Power Line Access Hole Location

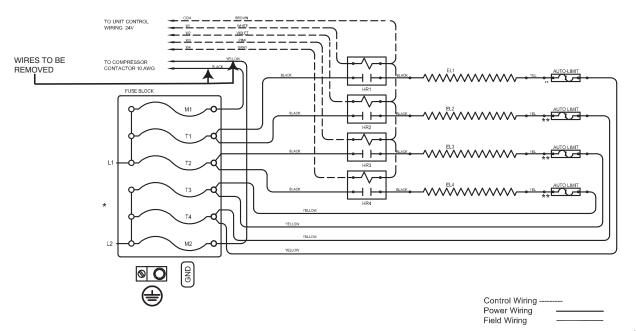


Fig. 4 - Wiring Diagram Example for Fused Heater

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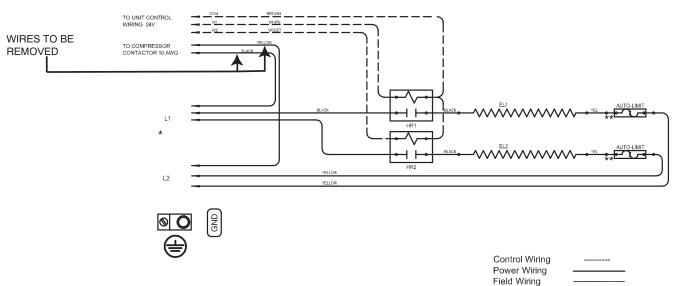


Fig. 5 - Wiring Diagram Example for Non-Fused Heater

Electrical Connections

NOTE: All electrical connections, wire sizes and type of conduit shall meet the National Electric Code (NEC) and state and local codes (or International Electric Code) as applicable.

NOTE: Use minimum 75°C copper wire only.

- 1. Make sure all disconnects are still open and tagged out as required previously.
- 2. Connect low voltage wires as shown in unit schematic diagrams found on the base unit installation instructions. These connections must be made in the 24v barrier section inside the unit panel (see Fig. 6 or Fig. 7).
- 3. Insert first field power line through the electrical heater access panel bottom hole (see Fig. 6 or Fig. 7) and connect to electric heater as shown in their respective wiring diagram found on the heater accessory kit. Fused electrical heaters field lines will be connected to the fuse block lugs and non fused electric heater field lines will be connected to heater leads using wire nuts. Ground electrical equipment in the appropriate locations.

IMPORTANT: Heaters with factory installed fuses may be installed on a branch circuit protected by either a fuse or circuit breaker. For all other heaters, the branch circuit must be protected by a fuse or circuit breaker supplied by others.

NOTE: Dress wires with wire ties provided. For fused heaters, use pre-mounted wire ties inside of fuse box cover to secure and strain relieve wires.

- 4. Insert second field power line through the electrical heater access panel top hole (see Fig. 6 or Fig. 7) and connect to unit contactor black and yellow leads using wire nuts. Ground electrical equipment in the appropriate locations.
- 5. Separate all wires from incoming power leads.
- 6. Close electrical access panel.

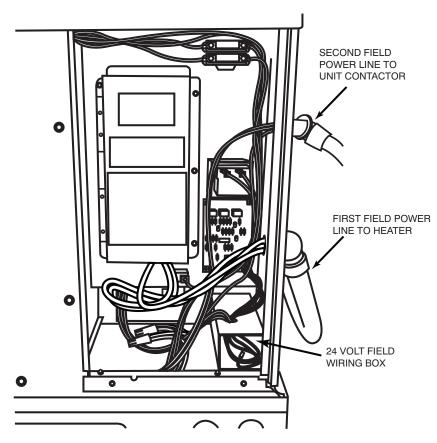


Fig. 6 - Dual Point Connections for Fused Heater

SECOND FIELD POWER LINE TO UNIT CONTACTOR 0 FIRST FIELD POWER LINE TO HEATER 0 24 VOLT FIELD WIRING BOX

Fig. 7 - Dual Point Connection for Non-Fused Heater

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