

3 Phase Electrical Heater Kits

Installation Instructions

3 Pole Dual Electrical Circuit Adaptor Kit #917468

INTRODUCTION

These instructions are primarily intended to assist qualified individuals experienced in the proper installation of heating and/or air conditioning appliances. Before beginning the installation, read these instructions thoroughly and follow all warnings and cautions in the instructions and on the unit. Improper installation, service, adjustment, or maintenance can cause explosion, fire, electrical shock, or other conditions which may result in personal injury or property damage.

The 3 Pole Dual Circuit Adaptor Kit is designed for use in all 6 through 10 Ton Single Package Air-Conditioner and Heat Pump products when installing electric heat modules. Factory single electrical circuit supply connections may be converted to dual (Cooling and Heating) electrical supply connections if desired.

NOTE: This kit is specifically designed for Cooling Operation only. (Circuit "A")

See the unit rating label for proper high voltage wiring requirements. Over-current protection must be provided at the branch circuit distribution panel and sized as shown on the unit rating label and according to the National Electrical Code (ANSI/NFPA 70), Canadian Electrical Code Part 1 (CSA C.22.1), and all applicable local codes.

NOTE: Circuit Breakers installed in the unit with the addition of heater kits are for short circuit protection of the internal heater element circuit wiring and NOT to serve as a disconnect. The circuit breakers DO NOT provide over-current protection of the supply wiring.

KIT CONTENTS

1. 632348 – 3-pole terminal block
2. 632575 – terminal block insulator plate
3. 600004 – #10 1" long screws (2 ea)
4. 631915 – insulated, 1/4" female quick connect terminal, blue, for wire gauges 14-16 (3 ea)
5. 631764 – insulated, 1/4" female quick connect terminal, red, for wire gauges 18-22 (3 ea)
6. 6 ea. zip ties & 12 ea. push ties

INSTALLATION SEQUENCE

WARNING:

To avoid risk of electrical shock, personal injury, or death, disconnect electrical power to the unit before performing any maintenance or service. The unit may have more than one electric power supply.

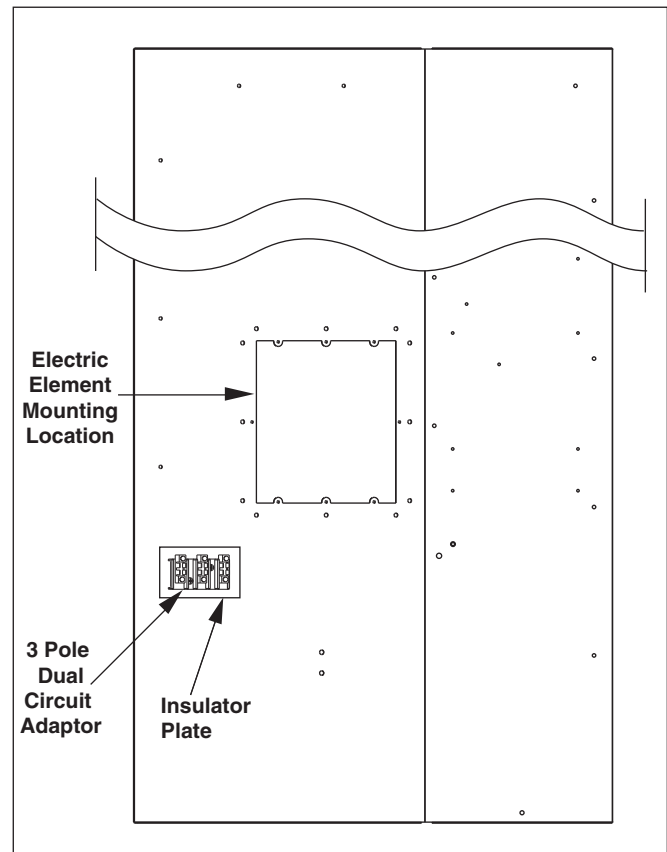


Figure 1. Terminal Board Location

SYSTEM CHECK ON STARTUP

Note: Unit is equipped with 3 Phase Scroll compressors and Evaporator blower motor. If refrigerant pressures are abnormal and blower is rotating opposite direction of the arrow, shut off main power to the unit and switch any two field wires at the disconnect or terminal block.

DO NOT ALTER UNIT WIRING.

Ensure proper rotation of both compressors and blower motor. Listen for any unusual noises. Locate the source and correct as needed.

The installation sequence is as follows:

1. Read these installation instructions completely before proceeding.
2. Disconnect all power to the unit.
3. Remove the Element/Field Wiring Access panel.
4. Using the supplied screws, install the 3-pole terminal block with the insulator plate between the sheet metal panel and the terminal block. The terminal block should be installed to the bottom left side of the element mounting location, on the left side of the panel. See figure 1. Tighten the screws hand tight, enough to securely fasten the terminal block and insulator plate to the panel and prevent any movement of the terminal block. Over-tightening can crack the terminal block.

Note: For convenience both the factory installed terminal board and the newly installed terminal block are horizontally aligned when installed. In this orientation, L1, L2 and L3 are installed in that order from left-to-right.

5. Remove the unit control panel, access cover.
6. Carefully remove the zip-ties securing the main unit wiring harness together on the upper right side and top of the element mounting panel. (see picture 1)
7. Trace back & identify the Stage 1 and Stage 2 (if equipped) compressor feed wires from the compressor contactors to the factory installed terminal board.
8. Transfer the compressor feed wires from the factory terminal board to the top box screw lugs of the newly

installed terminal block. Ensure that the factory phase orientation is maintained during the transfer. Refer to the unit wiring diagram to verify the proper orientation if necessary.

For two-stage equipment, it is allowable to install both compressor feed wires into the same box screw lug, but the installer must ensure that both wires are secured properly in the lug and that they can not short to the panel.

- a. On some models, with the optional indoor motor overload protector installed, there are three additional feed wires connected to the factory installed terminal board for the indoor blower motor. If so equipped, remove the blower feed wires from the factory terminal board, and terminate the wires with the proper gauge (supplied) insulated female quick connector. Then install the terminated wire onto the newly installed terminal block spade connector for the proper phase. Verify the new wiring matches the unit wiring diagram for phase orientation.
9. Ensure all connections are secure.
 10. Bundle all of the recently moved feed wires back together into a neat harness and secure as needed using the wire ties and panel mounted push ties to route the harness up the left side of the panel to the unit control panel. Then replace any other push-ties along the top of the panel and down the right side of the panel to re-secure the low voltage wiring harness. Ensure all harnesses are routed away from any heater elements and/or other objects which could come in contact with the wiring harnesses.
 11. Connect the unit input power wires from the unit disconnect to the bottom box screw lugs of the newly installed terminal block.
 12. Replace the control panel cover and Element access panel
 13. Return power to the unit.
 14. Verify unit operates properly.

See **Circuit "A" - Electrical Data (Cooling)** on unit rating label or in the Installation Instruction of the heater kit for proper high voltage wiring requirements.

Mark the unit rating label with a permanent marker to indicate the appropriate heater kit that is installed.

