Warren Electric Heater Model: WNH Series	INSTALLATION AND OPERATING INSTRUCTIONS	York/Luxaire/Fraser Johnston/Coleman
5.0 - 25 KW 208/240 (60) / 1 208/240 (60) / 3 460 (60) / 3 600 (60) / 3	WARREN TECHNOLOGY Date: 07-01-10	BUQ 024-060 / BUX 024-060 / BUP 024-060 BUZ 024-060 / BHQ 024-060 / BHX 024-060 B1HA 018 - 060 / B1HH 018 - 060 D1EB 01- 060 / D1EM 01 - 060 D1EH 018-060 / DAPB 018-060 DAPH 018 - 060 / DAPM 01 - 060 BAUA 018 - 060 / BAUH 018 - 060 BHP 024 - 060 / BHZ 024-060 DEQ/DEZ 024-060, DEX 024-048, DEY 060

GENERAL

This Warren Technology electric heater is engineered, designed, and ARL listed to be installed in the York/ Luxaire/Fraser Johnston/ Coleman. B1HA, B1HH, B1EH, D1EB, D1EM, DAPB, DAPH, DAPM, BAUA, BAUH, BHP, BUP, BUZ, BHZ, DEQ, DEZ, DEX, DEY, BHQ, BHX, BUQ, BUX.

Before installing the heater, inspect thoroughly for shipping damage. Notify carrier immediately if any damage is found. Check all porcelain insulators for breakage and inspect heater element wires to see that none have been deformed. Clean all dirt, dust, and moisture from equipment. Check for proper clearances of live parts, between phases, and to ground. Make sure that all required barriers are in place. Check that conductors run in multiple to insure that they are properly phased.

WARNING

Before performing service or maintenance operations on system, turn off all main power switches. There may be more than one disconnect. Turn off accessory heater power switch if applicable. Electrical shock can cause personal injury. ***TAG DISCONNECT SWITCH(ES) WITH A SUITABLE WARNING LABEL.***

HEATER INSTALLATION

This electric resistance heater is designed for field installation in the discharge air compartment of the above referenced air handler units.

INSTALL HEATER AS FOLLOWS:

1. Refer to the base unit installation instructions as required.
2. Remove the heater/fan motor access panel of air handler.
3. From the plenum side remove the internal cover plate. Save sheet metal screws. Discard cover plate (for 4 & 5 ton units remove cover plates 1 &2 see fig. 3).
4. Install heater assembly into access opening located in the front vestibule of the air handler. Be sure the heater mounting plate is flush with base unit and heating elements are not in contact with any object. Secure with sheet metal screws from the cover plate.
5. For three phase applications, install the electric heat cover over the contactor relay with the screws supplied.

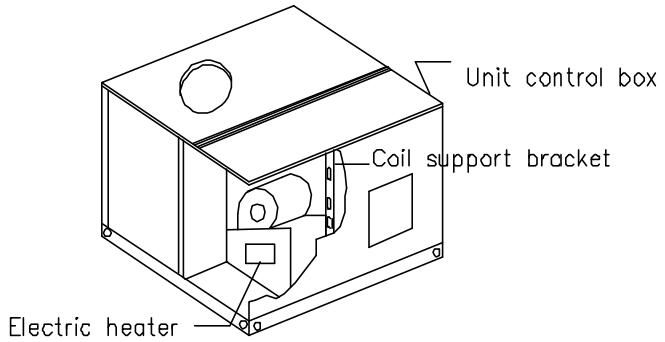

Fig. 1

ELECTRICAL CONNECTIONS

CONNECT HEATER AS FOLLOWS:

1. All electrical connections, wire sizes and type of conduit meet the National Electric Code, State and Local Codes. power supply, minimum wire sizes, circuits, fusing, etc. is shown on the schematic wiring diagrams.
2. Refer to air handler unit instructions for recommended wiring procedures.
3. Route the high voltage harness from the heater through the coil support bracket to the control box see fig. 1.
4. Disconnect wire # **701** and **#702** from the heater element and route from the **control box** through the coil support bracket. Re-connect wires # **701** and **#702** to the heater element spades.
5. Install the fuse block or terminal block assembly in the control box as shown in figure 2, using the sheetmetal screws provided.

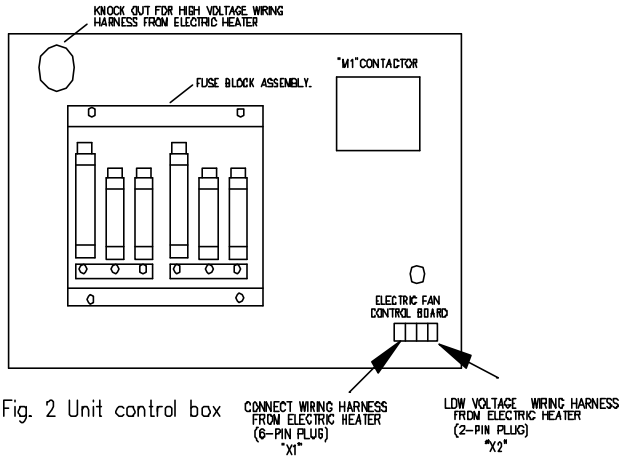

Fig. 2 Unit control box

6. Route the # 709 & # 710 wires from the fuseholder to the "M1" contactor as designed in the unit wiring diagram.
7. Route the high voltage wiring harness from step 3 to the fuse holder and connect the appropiate fuses identified in the unit wiring diagram.
8. Remove wire 204 from the 6-pin receptacle on the electric HEAT/FAN control board in the control box.
9. Connect the high voltage wiring harness(with the 4-pin plug "X1") and the low voltage wiring harness (with the 6-pin plug " X2") into the control box and plug into the the control board see fig. 2.
10. Route the power supply wiring to the fuse holder as outlined in the unit installation instructions.
11. Connect low voltage control wires as shown in the schematic diagram.
12. Connect power wiring as shown in schematic diagram. All connections should be made inside the heater control box and comply with National Electric Codes, State and Local Codes. Heater with factory installed fuses or circuit breakers may be installed on a branch circuit protected by either a fuse or a circuit breaker. For all other heaters, the branch circuit must be protected by a fuse or a circuit breaker supplied by others.
13. Make all power wire spliced connections inside heater control box. Separate all wires from incoming power leads.
14. Be sure that all electrical terminal connections, clamps, screws, etc. are tight before proceeding.

WARNING

Before performing service or maintenance operations on system, turn off all main power switches. There may be more than one disconnect. Turn off accessory heater power switch if applicable. Electrical shock can cause personal injury. ***TAG DISCONNECT SWITCH(ES) WITH A SUITABLE WARNING LABEL.***

START-UP and CHECK-OUT

CAUTION: Before proceeding, verify that all wiring is correct per factory approved schematic. Notify factory immediately of any discrepancies.

1. Refer to base unit installation instructions as required.
2. Check for loose terminal connections.
3. Be sure that all electrical terminal connections, clamps, screws, etc. are tight before proceeding. **Verify that there are no possible shorts to ground.**
4. Check that all fuse and circuit breaker short circuit interrupting ratings are adequate.
5. Turn on unit and heater power.
6. Set thermostat to call for heat.
7. Check operation of heater.
8. Check that air flow across heater is at or above minimum recommended fan speed. Adjust as required.
9. Any modifications or repairs to this equipment without written permission from the factory will be done at the installer's own risk and expense.

IMPORTANT

Use flexible duct to prevent tansmission of vibration. Use suitable gaskets to ensure weather tight and air tight seal. If flexible duct is used, insert a sheet metal sleeve inside duct. Heat resistant duct connector (or sheetmetal sleeve) must extend 24-in. from the unit connection flanges into the duct work.

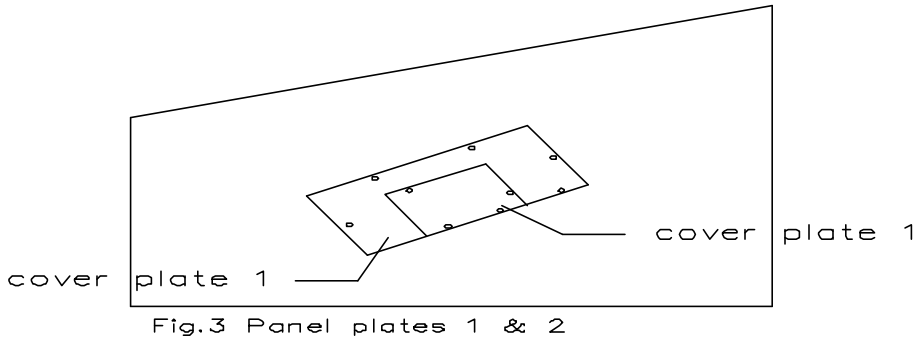

Fig.3 Panel plates 1 & 2

WARNING: AUTO LIMIT LOCATION IS CRITICAL, MUST BE 1" FROM ELEMENT.