WARREN ELECTRIC HEATER MODEL W4H	INSTALLATION INSTRUCTIONS Date: 03/01/02	NORDYNE AIR HANDLERS B3BM / B3BV

GENERAL

This electric heater series is engineered, designed, and approved to be installed in the (24 through 60) single package units. Before proceeding, check the heater label for correct voltage and KW requirements.

Installation and servicing of this equipment should only be performed by trained and qualified personnel. Before proceeding with the heater installation, inspect thoroughly for shipping damage. Notify the shipper immediately if any damage is found. Check all porcelain insulators for breakage and inspect heater element wire 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 conductors run in multiple to insure that they are properly wired. Refer to installation instructions for complete unit installation details.

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

1. Refer to the base unit installation instructions as required Affix Warren Installer label to the equipment access panel.
2. Remove blower section access panel of air handler.
3. Remove cover plate in front of blower assembly.
4. Heaters are equipped with an alignment tab (located on the endcap) Bend the tab 90 degrees out (see fig. 1) and slide the heater assembly into blower section through the access opening. The alignment tab should slide into the alignment holes in the back of the air handler box. Secure heater into place with screws from cover plate.
5. Remove the conduit knockout in unit cabinet for electrical connections Install the appropriate size conduit connector.

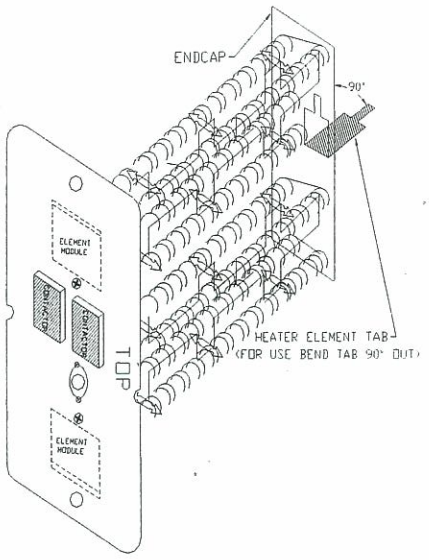

FIG.1

HEATERS WITH CIRCUIT BREAKERS:

***NOTE:** Circuit breakers installed in the unit are for short-circuit protection of the internal wiring. The circuit breakers DO NOT provide over-current protection of the supply wiring. Whether or not circuit breakers are used in the units, 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 Electric Code, Canadian Electrical Code and applicable local codes. In most cases, the over-current protection specified on the unit rating label is less than the 60 amp rating of the circuit breakers used in the P3 / Q3 units. This is because the function of the over-current protection required at the distribution panel (field supplied) and the unit mounted breakers is different. When internal circuit breakers are used, they must be used on all circuits.

WARNING!
INSTALLER MUST INSPECT HEATING ELEMENTS BEFORE INSTALLATION TO VERIFY THAT SHIPPING & HANDLING HAVE NOT SHORTED ELEMENTS TO GROUNDED METAL PARTS. ALWAYS VERIFY BY MEASUREMENT THAT THERE IS NO CURRENT FLOW WHEN HEATER IS DE-ENERGIZED.

NOTE: CIRCUIT BREAKERS MUST BE COVERED. COVER PLATE PROVIDED CIRCUIT BREAKERS MUST BE SEALED TIGHT TO AVOID ELECTRICAL SHOCK.

1.Circuit breakers are rated for heater only. Unit circuit breaker space is provided.

2. Remove circuit breaker knockout(s) in unit access panel as required. Cut out insulation in opening. Mount circuit breaker bracket with two screws using mounting holes provided.

ENDCAP INSTRUCTIONS

To use the heating element alignment tab (located on the endcap), bend the tab 90 degrees out and slide into the alignment hole of the air handler

ELECTRICAL CONNECTIONS

1. All electrical connections, wire sizes and type and conduit sizes shall meet the National Electric Code, State and Local Codes. Main power supply, minimum wire sizes, circuits, fusing, etc. is shown on schematic wiring diagrams.
   NOTE: Use copper wire only.
2. Refer to base unit instructions for recommended wiring procedures.
3. Connect heater plug to corresponding plug in the air handler.
4. Separate all wires from incoming power leads.
5. Be sure that all electrical terminal connections, clamps, screws, etc. are tight before proceeding.
6. Check wiring diagram supplied with heater for specific connections and information.
7. Check operation as described in start-up section.

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. Check that all fuse and circuit breaker short circuit interrupting ratings are adequate.
4. Turn on unit and heater power.
5. Set thermostat to call for heat.
6. Check operation of heater.
7. Check that air flow across heater is at or above minimum recommended fan speed.
8. Any modification or repairs to this equipment without written permission from the factory will be done at the installer's own risk and expense.

SERVICE

Fuses/Circuit Breaker - Malfunction will interrupt power to unit. Check for cause of failure, correct, and replace fuses or reset circuit breaker.

Limit Switch/Fusible Link - Malfunction prevents heating element(s) from being energized. Replace switch if malfunction occurs.

Relay - Malfunction will cause heater to not come on or shut off. Replace faulty relay. Relays utilize **22VDC** coils, replace with factory authorized parts only. ***Do not attempt to replace coil or dress contacts.***

ELECTRIC HEATER PACKAGE CONTENTS

1. Heater assembly
2. Installation Instructions
3. Installer label
4. Wiring Diagram

WARNING!
INSTALLER MUST INSPECT HEATING ELEMENTS BEFORE INSTALLATION TO VERIFY THAT SHIPPING & HANDLING HAVE NOT SHORTED ELEMENTS TO GROUNDED METAL PARTS. ALWAYS VERIFY BY MEASUREMENT THAT THERE IS NO CURRENT FLOW WHEN HEATER IS DE-ENERGIZED.