Warren Electric Heater Model WLE Series WLN Series	**INSTALLATION AND OPERATING INSTRUCTIONS** WARREN TECHNOLOGY Date: 10-20-99	**LENNOX ECB18 Series** CHA15, CHP15 Package Units CB18,CBS18 Blower Coils **LENNOX ECB19 Series** CB19,CBH19,B19 Blower Coils

GENERAL

This Warren Technology electric heater is engineered, designed, and approved to be installed in the Lennox ECB18 Series (CHA15, CHP15 Package Units & CB18, CBS18 Blower Coils) and the LENNOX ECB19 Series(CB19, CBH19 B19 Blower Coils). 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.

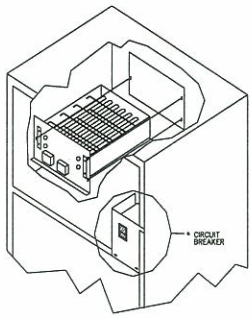
WARNING ⚠

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***

HEATER INSTALLATION

INSTALL HEATER AS FOLLOWS:

1. Refer to the base unit installation instructions as required.
2. Remove blower section access panel of air handler.
3. Remove internal heater cover plate. Save sheet metal screws.
4. Install heater assembly into the air handler access opening. Secure with sheet metal screws from cover plate.
5. Connect heater pigtail leads to corresponding terminals. in the air handler. Affix Warren installer label to equipment access door.
6. Romove the conduit knockout in blower cabinet for electrical connections. Install the appropiate size conduit connector.



*** HEATERS WITH CIRCUIT BREAKERS:**

Remove circuit breaker knockout(s) in unit access panel as required. Cut out insulation in opening. Mount circuit breaker with two self tap screws to the far right hand side of the air handler opening. Use side-to-side adjustments for proper alignment with panel knockout. Position the upper right support tab against the outside of the unit frame. For B/CB19 - 51/65 models break off bottom portion of the circuit breaker mounting plate and align to the far right hand side of the heater opening. For B/Cb 19-26 unscrew (4) back circuit breakers support plate, bend tab back and slide circuit breakers one tab to the right for proper alignment with access panel. Bend tabs down on both sides to secure circuit breakers.

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.***

ELECTRICAL CONNECTIONS

CONNECT HEATER AS FOLLOWS:

Refer to air handler unit instructions for recommended wiring procedures.
All electrical connections, wire sizes and conduit sizes must comply with the requirements of State and Local codes and the National Electric Code. For all other heaters, the branch circuit must be protected by a fuse or a circuit breaker supplied by others. Make all wire spliced connections inside air handler unit. Separate all wires from incoming power leads.

Check that all electrical connections, clamps, screws, etc. are tight before start-up.

HEATERS WITH CIRCUIT BREAKERS ONLY

Heaters with circuit breakers that do not meet local code requirements for a unit disconnect switch must include a separate disconnect switch (es) located within sight of the unit.

All power within the cabinet will be "off" when circuit breakers are in the "off" position (except for power supply connections to the circuit breaker).

GROUNDING

Permanently ground heaters in accordance with State and Local Codes and the National Electric Code. Connect copper conductor, supplied with the heater, to ground connection. For multiple circuit models, connect a ground for each circuit.

OVERCURRENT PROTECTION

Recommended sizes for fuses or circuit breakers are listed in the ELECTRICAL DATA TABLE in the column labeled "Maximum Overcurrent Protection".

STAGING

Sequences control the staging for the heater elements in 10KW increments (or less, for odd multiples of 5KW).

The wire that control the electric heat stages are indentified on the wiring diagrams. Some electronic indoor thermostats can be used to stage the heater for multiple stages of electric heat. When using the electronic indoor thermostat, refer to the wiring diagram to select wires to connect for proper staging sequence.

NOTE

When using an indoor thermostat for staging, make sure that staging occurs by breaking the 24V "common leg" and not the "hot" leg.