## WARREN ELECTRIC

HEATER MODEL WBCS SERIES

# INSTALLATION INSTRUCTIONS

Date: 5-14-2001

#### ARMSTRONG

PACKAGE UNITS BCU / BCZ 18 - 36

## **GENERAL**

This electric heater series is engineered, designed, and approved to be installed in the (18 through 36) single package units. Before proceeding, check the heater label for correct voltage and KW requirements.

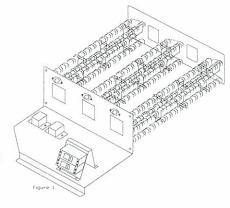
Installation and servicing of this equipment should only be performed by trained and qualified personnel. Before proceeding with the heater installation, inspect thoroughly for shipping damage. Notify the shipper immediately if any damage is found. Check all porcelain insulators for breakage and inspect 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**

- 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 the (4) # 8 x 1/2" screws from the cover plate in front of the blower assembly. Retain the (4) screws to be used for installing the heater assembly.
- Slide heater assembly (fig. 1 into the blower section through the acces pening. Secure heater into place with screws removed from the cover plate.
- 5. Using (2) screws provided, secure the front of the heater assembly to the top frame of the air handler.
- 6. Remove the suppled wiring diagram backing and place it on the control box for future reference.



#### **HEATERS WITH CIRCUIT BREAKERS:**

NOTE: CIRCUIT BREAKERS MUST BE COVERED. (COVER PLATE PROVIDED W/ AIRHANDLER)
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 and cut out the insulation in the opening.

#### WARNING

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### **ELECTRICAL CONNECTIONS**

- 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. Route the 12-pin plug and wiring harness through the 2" hole the top frame and connect to the 12-pin wire harness.
- 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

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

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

**Sequencers-** Malfunction will not allow heater to come on or shut off. Replace faulty sequencers. Do not attempt to replace coil or dress contacts.

## ELECTRIC HEATER PACKAGE CONTENTS

- 1. Heater assembly
- 2. Installation Instructions
- 3. Installer label
- 4. Schematic