

<p align="center">Electric Heater Model WCN Series</p>	<p align="center">INSTALLATION INSTRUCTIONS Date: 04/09/03</p>	<p align="center">Air Handler Model Package AC & Heat Pumps PAC 024-060 Straight cool series PHP 024-060 Heat Pump Series</p>
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GENERAL

This Warren Technology electric heater is designed to be installed in the Coleman PHP packaged Heat Pumps & PAC packaged Air Conditioners. The **WCN** heater comes in two parts; a control plate and an element section. Before proceeding, check the heater label for correct voltage and KW requirements. Refer to base unit installation instructions as required.

WARNING: Use of other than specified duct materials may pose a fire hazard. Use sheet metal or U.L. 181 listed flexible duct.

HEATER INSTALLATION

CAUTION: Disconnect all electric power before proceeding. Failure to do so may result in electrical shock. The unit must have an uninterrupted or unbroken electrical ground to minimize personal injury if an electrical fault should occur. Ground may consist of an electrical wire or approved conduit when installed in accordance with local codes and ordinances.

1. Inspect the heating elements to verify that shipping and handling have not shorted elements to grounded metal parts.
2. Remove blower assembly access panel and blower control compartment cover.
3. Remove the blower top plate - remove and discard the cover plate attached to the blower top plate (save the (4) removed screws for mounting the heater).
4. Remove the heater cover to allow installation onto the blower top plate.
5. Insert the heater element section into the blower top plate and secure it using the screws removed in step 3.
6. Secure the heater cover previously removed.
7. Re-install the blower top plate with the heater assembly attached.
8. Route the heater element section wiring by the blower and up to the control panel entry hole and secure it with wire ties to keep it clear of the fan blades (secure wire bundle adjacent to the blower motor bracket next to the brown fan motor wire, see Fig. 1 - Do not mount wire bundle on top of blower motor bracket).
9. Install the heater control plate in the unit electrical control compartment.

CONTROL PLATE INSTALLATION

1. Install the heater control plate with (4) screws provided.
2. Trim away insulation to ease installation in the unit control compartment.
3. Feed the wires from the heater element section through the control panel entry.
4. Connect the heater element leads as follows:

For models WCN0502 & WCN0502B –

- (A) Connect heater element lead marked "CONT 1" (Red) to empty gold spade on contactor labeled "CONT 1" (see wiring diagram).
- (B) Connect heater element lead (red) marked "TB1" (or "CB1") to the terminal block labeled "TB1" (to the circuit breaker labeled "CB1") (see wiring diagram)

For models WCN0752, WCN0752B, WCN1002, WCN1002B –

- (A) Connect heater element lead marked "CONT 1" (Red) to empty gold spade on contactor labeled "CONT 1" (see wiring diagram).
- (B) Connect heater element lead marked "CONT 1A" (Black) to empty spade on contactor labeled "CONT 1A" (see wiring diagram).
- (C) Connect heater element leads(2 RED) marked "TB1" (or "CB1") to the terminal block labeled "TB1" (or the circuit breaker labeled "CB1") (see wiring diagram).

For models WCN1502B –

- (A) Connect heater element lead marked "CONT 1" (Red) to empty gold spade on contactor labeled "CONT 1" (see wiring diagram).
- (B) Connect heater element lead marked "CONT 1A" (Black) to empty spade on contactor labeled "CONT 1A" (see wiring diagram).

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- (C) Connect heater element lead marked "CONT 2" (Yellow) to empty spade on contactor labeled "CONT 2" (see wiring diagram).
- (D) Connect heater element leads (2 Red) marked "CB1" to the circuit breaker labeled "CB1" (see wiring diagram).
- (E) Connect heater element leads (1 Orange) marked "CB2" to the circuit breaker labeled "CB2" (see wiring diagram).

5. To Wire the Blower Motor:

- (A) Disconnect the red and orange blower motor lead wires from the contactor and route up to the heater control plate. Connect the red wire to the blower relay terminal "5".
- (B) Connect the orange wire to the terminal block "TB1" on the side with the red wire(s) (or to the circuit breaker "CB1" on the side with the red wire(s)). (see wiring diagram)
- (C) Route the black wire connected to blower relay terminal "2" through the same control box hole used for the red and orange blower motor leads and up to the blower motor.
- (D) If the red wire is connected "red" or low on the blower motor, connect the black wire to the blower motor at the position next to red wire (the next highest speed). If the red wire is not connected to "red" or low on the blower motor, remove the red wire and re-install it at "red" or low on the blower motor, install the black wire at the position previously used by the red wire.

6. To wire the Thermostat please refer to the air handler installation instructions.

ELECTRICAL CONNECTIONS

1. All electrical connections, wire sizes and type and conduit sizes shall comply with the National Electric Code and State and Local Codes. Recommended minimum wire sizes, circuit fusing, etc. are listed on the corresponding schematic diagram. **USE COPPER CONDUCTORS ONLY.**
2. Make all wire spliced connections inside air handler unit. Separate all wires from incoming power leads. Route wires away from uninsulated parts.
3. Factory branch circuit wiring and fusing is in accordance with the National Electrical Code maximum of 48 amps per circuit. Heaters with factory installed fuses or circuit breakers may be installed on a branch circuit protection by either a fuse or a circuit breaker. For all other heater, the branch circuit must be protected by a fuse or a circuit breaker supplied by others.
4. Connect heater wiring as shown in the corresponding schematic diagram. All connections should be made inside the air handler.
5. As shipped by factory this unit is shipped to operate as a dual branch circuit. A single circuit supply is possible

START-UP and CHECK-OUT

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

1. Check that all fuse and circuit breaker short circuit interrupting ratings are adequate.
2. With thermostat set to the "Off" position, turn on unit and heater power.
3. Set thermostat to call for heat and check operation of heater. **NOTE:** There is an inherent delay before the blowers and first element will energize.
4. Check for proper thermostat operation.
5. Check that air flow across heater is at or above minimum recommended fan speed. Adjust as required.
6. Any modification or repair to this equipment without written permission from the factory will be done at the installer's own risk and expense.

PACKAGE CONTENTS:

- 1) Wiring diagram on adhesive paper
- 2) Installation Instructions
- 3) (2) #10 Ga. wire jumpers
- 4) (3) wire ties (except model WCN1502B)
- 5) Heater and Control assembly
- 6) (8) mounting screws
- 7) (1) single point connection jumper bar (model WCN1502B only)

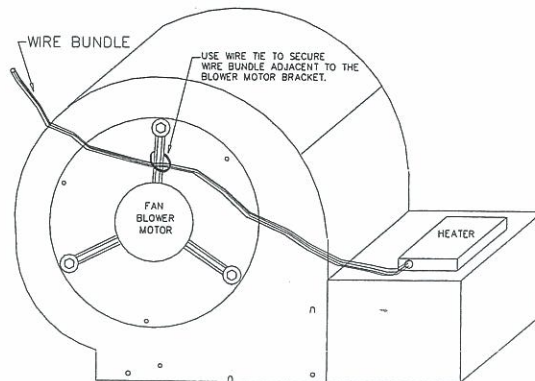


FIG. 1