

WARREN ELECTRIC HEATER MODEL WZH	INSTALLATION INSTRUCTIONS Date: 01/05/07	CARRIER 50ZPA/564B/PA3Z (24-60) Electrical Cooling 50ZHA/664B/PH3Z (24-60) Heat Pump
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GENERAL

This electric heater series is engineered, designed, and approved to be installed in the **CARRIER 50ZPA/564B/PA3Z (24 through 60) series electrical cooling** and **50ZHA/664B/PH3Z (24-through 60) series heat pumps**. Before proceeding, check the heater label for correct voltage and KW requirements (see TABLE 2).

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. **Verify that all elements are properly secure in their ceramic holders.**

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 to access control box and blower compartment.
3. Disconnect wiring to blower motor by removing speed selection plug and power plug.
4. Remove rear blower support bracket and remove screws securing blower to the front blower support. Slide blower out of the unit.
5. Heater module is installed onto the blower assembly (see fig. 1). Secure the heater to the standoffs on the blower inlet with (3) screws and (3) washers provided.
6. Reinstall blower motor to unit (see fig. 2).

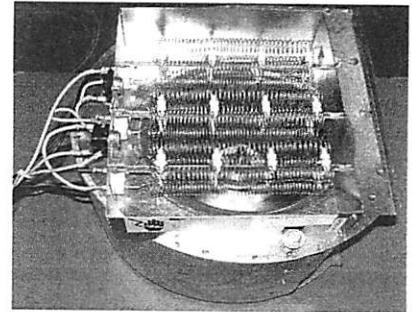


FIG. 1- Heater mounted onto the blower assembly.

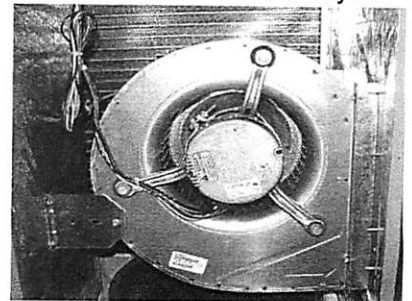


FIG. 2- Blower motor installed

CONTROL PANEL INSTALLATION

1. Remove the unit control box cover to install the heater control plate.
2. Secure heater control plate to the upper left side of the unit control panel box with (4) screws provided (see fig. 3).
3. Connect the **(5-pin)** low voltage harness plug to the fan control board at position **P4** located inside the unit control box compartment (see fig. 3).
4. Connect Black & Yellow "pigtailes" from control panel to Black & Yellow "pigtailes" from unit contactor using (2) connectors provided with heater.

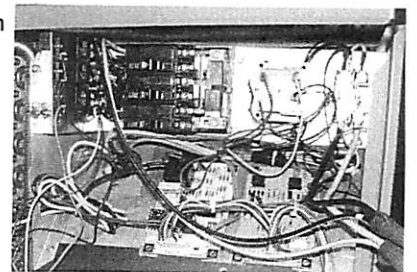


FIG. 3- Control panel installed.

IMPORTANT

Use flexible duct to prevent transmission 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.

STAGING AND MOTOR SPEED SELECTION

1. Refer to unit installation instructions for staging options.
2. The blower speed is preset at factory. For optimum system performance refer to the motor speed selection chart and base unit instructions for changing the factory set motor speed.

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. Route the heater low voltage harness into the unit control box. Connect the **5-pin plug** from the control panel to the fan control circuit board located at position 4 in the unit control box. Connect Black & Yellow "pigtailes" from unit contactor using the connectors provided with the heater.
4. Heater module wires are connected to heater control section of heater through panel mounted plugs. Use plug attachment plate to secure wires to unit. Insure that plug labels and color wires (yellow & black wires) match. Secure wires to fan wires with wire ties provided.
5. Be sure that all electrical terminal connections, clamps, screws, etc. are tight before proceeding. **Verify that there are no possible shorts to ground.**
6. Check wiring diagram supplied with heater for specific connections and information. Affix the wiring diagram to the "fishpaper" insulation cover in the control box. 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 (see table 1).
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.

UNIT TYPE	Minimum Airflow (CFM)				
	WZH0602(S)	WZH0762(S)	WZH1002(S)	WZH1602S	WZH2002S
Electric Cooling					
80ZPA/864B/PA3Z					
24	400	550	650		
30	450	600	800	850	
36	450	600	800	850	900
42	450	600	800	850	900
48	450	600	800	850	900
60	450	600	800	850	900
Heat Pump					
80ZHA/864B/PH3Z					
24	500	650	750		
30	600	800	1050		
36	600	800	1050	1150	1200
42	600	800	1050	1150	1200
48	600	800	1050	1150	1200
60	600	800	1050	1150	1200

TABLE 1 - Min. Airflow operation chart

SERVICE

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.*

PACKAGE CONTENTS

1. Heater assembly
2. Installation Instructions
3. Installer label
4. Wiring Diagram
5. (3) sets (screws + washers)
6. (1) Plug attachment plate
7. S/M Screws + Connectors

UNIT TYPE	WZH602	WZH0602S	WZH762	WZH0762S	WZH1002	WZH1002S	WZH1602S	WZH2002S
Electric Cooling								
80ZPA/864B/PA3Z								
24	X	X	X	X	X	X		
30	X	X	X	X	X	X	X	
36	X	X	X	X	X	X	X	X
42	X	X	X	X	X	X	X	X
48	X	X	X	X	X	X	X	X
60	X	X	X	X	X	X	X	X
Heat Pump								
80ZHA/864B/PH3Z								
24	X	X	X	X		X		
30	X	X	X	X		X		
36	X	X	X	X		X	X	X
42	X	X	X	X		X	X	X
48	X	X	X	X		X	X	X
60	X	X	X	X		X	X	X

TABLE 2 - Heater Application Chart