

<p><b>Warren Electric Heater Model WHX Series</b></p>	<p><b>INSTALLATION AND OPERATING INSTRUCTIONS</b> Date: 08/18/06</p>	<p><b>ICP PAX3 (024-060) PHX3 (024-060) Series</b></p>
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## GENERAL

This Warren Technology electric heater is engineered, designed, and approved to be installed in the International Comfort Products PAX3 series package air conditioners / PHX3 series package heat pumps. 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. **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

### INSTALL HEATER AS FOLLOWS:

1. Refer to the base unit installation instructions as required. Check for proper equipment model from table 1.
2. Remove access panel see fig. 1.
3. Remove cover plate from the blower box. Save the screws
4. Carefully slide heater assembly into blower section through the access opening. Secure heater into place with screws removed from cover plate. Use caution when inserting heater to avoid damage to heater elements.
5. Route low voltage wires along the back of the division panel and over the top edge of the unit control box to the unit Fan Control Board see fig. 2.
6. Connect the low voltage heater plug into the unit Fan Control Board at position P4.
7. For heaters with circuit breakers a separate breaker may be installed for the unit (refer to unit instructions for additional instructions).
8. Re-install access panel.
9. Affix the heater ampacity label and heater wiring diagram provided to the outside of the unit panel. Mark an **X** next to the appropriate heater/unit combination.



**Fig. 1 - Heater access opening.**



**Fig. 2 Installed Electric Heat Accessory.**

## WARNING

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## ELECTRICAL CONNECTIONS

### CONNECT HEATER AS FOLLOWS:

1. All electrical connections, wire sizes and type of 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. Unless an optional single point kit is used, two separate field power supplies **MUST** be provided - one or more for the electric heat accessory and one for the unit. - **NOTE: Use copper wire only.**
2. Refer to base unit instructions for recommended wiring procedures.
3. Connect the 5-pin low voltage heater plug into the unit Fan Control Board (located inside the control box) at position **P4**.
4. For heaters with circuit breakers a separate circuit breaker may be installed (refer to unit base instructions for additional details). If a circuit breaker is used, field supplied wiring should be connected from the input lugs of the contactor in the unit control box to the load lugs of this circuit breaker.
5. Determine minimum Air Flow for safe heater operation from table 2. Adjust motor fan speed as required (refer to base unit instructions for fan motor speed adjustment).
6. Separate all wires from incoming power leads. Be sure that all electrical terminal connections, clamps, screws, etc. are tight before proceeding. Check wiring supplied with heater for specific connections and information. **Verify that there are no possible shorts to ground.**
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 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. Adjust as required.
8. Any modifications or repairs to this equipment without written permission from the factory will be done at the installer's own risk and expense.

MINIMUM AIRFLOW FOR HEATER OPERATION (CFM)					
PAX3	WHX0502(B)	WHX0752(B)	WHX1002(B)	WHX1502B	WHX2002B
24	500	650	750	N/A	N/A
30	750	750	750	1050	N/A
36-60	750	750	750	1050	1450
PHX3					
24	500	650	750	N/A	N/A
30	750	750	750	1050	N/A
36-60	750	750	750	1050	1450

**TABLE 2 - MINIMUM AIRFLOW CHART**

### HEATER PACKAGE CONTENTS:

1. Heater assembly
2. Installation Instructions
3. Installer label
4. Schematic
5. (4) wire ties

UNIT SIZE	HEATER MODEL APPLICATION CHART							
	502	0502B	752	0752B	1002	1002B	1502B	2002B
PAX3-24	X	X	X	X	X	X		
PAX3-30	X	X	X	X	X	X	X	
PAX3-36	X	X	X	X	X	X	X	X
PAX3-42	X	X	X	X	X	X	X	X
PAX-3-48	X	X	X	X	X	X	X	X
PAX3-60	X	X	X	X	X	X	X	X
PHX3-24	X	X		X		X		
PHX3-30	X	X		X		X	X	
PHX3-36	X	X		X		X	X	X
PHX3-42	X	X		X		X	X	X
PHX3-48		X		X		X	X	X
PHX3-60		X		X		X	X	X

**TABLE 1 - MODEL APPLICATION CHART**