


WARREN ELECTRIC HEATER MODEL WAM	INSTALLATION INSTRUCTIONS Date: 08/15/2008	ICP PAM3 PACKAGE AIR CONDITIONERS PHM3 PACKAGE HEAT PUMPS (024-054)
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GENERAL

This electric heater series is engineered, designed, and approved to be installed in the **ICP PAM3** (24 through 54) series package air conditioners and **PHM3** (24-through 54) series package heat pumps. Before proceeding, check the heater label for correct voltage and KW requirements.

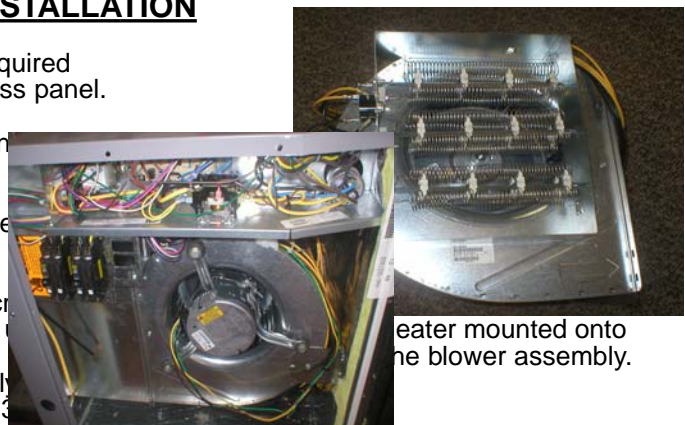
Installation and servicing of this equipment should only be performed by trained and qualified personnel. Before proceeding with the heater installation, inspect thoroughly for shipping damage. Notify the shipper immediately if any damage is found. Check all porcelain insulators for breakage and inspect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

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



Heater mounted onto the blower assembly.

CONTROL PANEL INSTALLATION

1. Secure heater control panel to the left cabinet flange with (2) screws provided.
2. Install spacer support bracket between control panel and the unit discharge duct (see fig. 3).

FIG. 2- Blower motor installed.

BREAKER COVER INSTALLATION

NOTE: CIRCUIT BREAKERS MUST BE COVERED WITH A CLEAR BREAKER BOOT AND BREAKER COVER ASSEMBLY PROVIDED.

1. Remove breaker cover plate screws from the access panel.
2. Align breaker boot and breaker cover lower frame with holes on the access panel. Breaker boot must be installed before the breaker cover lower frame.
3. Attach breaker boot and the breaker cover lower frame to the access panel with screws provided (see fig. 4).
4. Attach the cover hinged section to the access panel with screws provided (see fig. 4).

FIG. 3- Support bracket installed.

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.
4. Heater module wires are connected to heater control section of heater through mating plugs. Insure that plug labels and color wires match. Secure these 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 blower housing.
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 interlocks are closed.
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.
8. Any modification or repairs to this equipment without installer's own risk and expense.



SERVICE

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

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. Breaker support bracket
6. Breaker cover

FIG.4- Installed breaker cover