

WARREN ELECTRIC HEATER MODEL WPH	INSTALLATION INSTRUCTIONS Date: 07/28/03	AMANA PACKAGE UNITS PHD / PHC
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GENERAL

This electric heater series is engineered, designed, and approved to be installed in the (24 through 60) single package units. Before proceeding, check the heater label for correct voltage and KW requirements (use **MAX KW CHART** see Table 1).

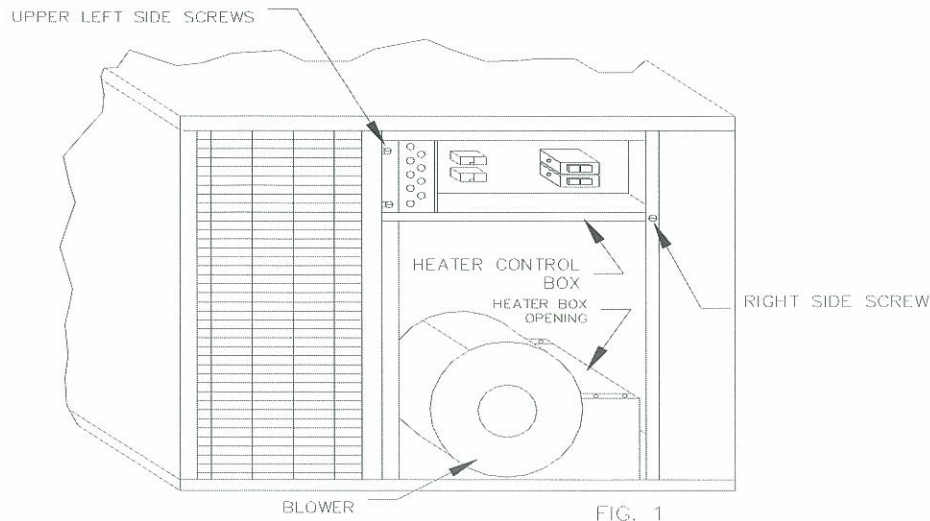
Installation and servicing of this equipment should only be performed by trained and qualified personnel. Before proceeding with the heater installation, inspect thoroughly for shipping damage. Notify the shipper immediately if any damage is found. Check all porcelain insulators for breakage and inspect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

1. Refer to the base unit installation instructions as required
Affix Warren Installer label to the equipment access panel.
2. Remove the blower section access panel of the air handler.
3. Remove cover plate covering the heater box opening (see fig 1).
4. Slide the heater assembly into the heater box opening (mounting position is important , chek the "**Air Flow**" label for correct mounting position. Secure the heater assembly into place with screws removed from the cover plate.
5. Mount the heater control box on the upper left side of the panel opening (see fig 1)
loosen (2) screws on the upper left side and slide the heater under the screws.
Secure the right side of the control box to the cabinet with screw provided.
Retighten the (2) upper left side screws.



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. Connect the 9-pin connector from the unit to the bottom of the heater control box.
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.
8. Adjust the unit **FAN SPEED** according to the **ELECTRIC HEAT FAN CHART** (see Table 2)

NOTE: Single Point Power supply kits may be used with all heater kits, contact factory for availability.

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.

MAXIMUM KW. vs. UNIT SIZE	
UNIT SIZE	MAXIMUM Kw.
PHB/PHD 024	10 Kw.
PHB/PHD 030	10 Kw
PHB/PHD 036	15 Kw
PHB/PHD042	15 Kw
PHB/PHD 048	20 Kw
PHB 060	20 Kw
TABLE 1	

ELECTRIC HEAT						
PHB / PHD FAN SPEED / MAX ESP						
UNIT SIZE	034	030	036	042	048	060
FAN SPEED	LOW	LOW	LOW	LOW	LOW	NORMAL
MAX. ESP	796	750	750	1263	1204	1500
TABLE 2						

ELECTRIC HEATER PACKAGE CONTENTS

1. Heater assembly
2. Installation Instructions
3. Installer label
4. Wiring Diagram
5. (4) Mounting screws