

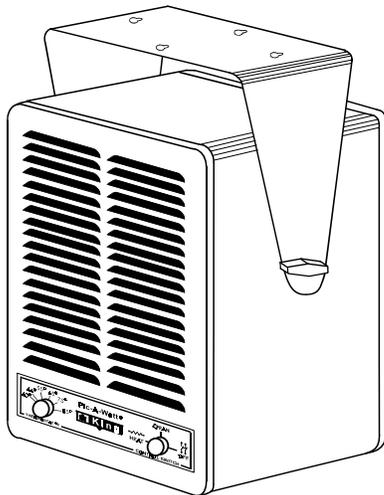


electrical mfg. company

9131 - 10th Avenue South Seattle Washington 98108

# INSTALLATION & MAINTENANCE MANUAL

## Model: **KBP2406** 240V-1phase Unit Heater



### Unpack & Inspect Your New Heater

Remove the heater from the box and inspect it for any damage. Verify that you have received the mounting bracket and accessories.

### Tools Needed

You will need the following tools to install your unit heater:  
Screwdriver - (Phillips & Slotted), Wire Cutters, Pliers, Adjustable Wrench, Electric Drill

### Hardware Needed

You will need the following hardware:

- Adequate gauge & length of wire for your application
- Proper size fuses or breakers to handle amperage
- Proper wire connectors for your application
- Fasteners appropriate size to mount heater.

In certain applications, conduit may be required by code. Check local electrical codes. If you want to be able to turn the heater, be sure to use flexible conduit.

### Mounting Height

When the air flow of the heater is directed vertically or horizontally, the minimum mounting height is 6 feet in USA and 8 feet in Canada. Mounting heights depend upon building utilization and heater KW capacity.

### Distance From Walls

Maintain 6" minimum clearance to side walls and 2" to ceiling in back of the heater (Air Intake Side). Maintain 18" clearance in front of the heater (Discharge Side.)

## WARNING

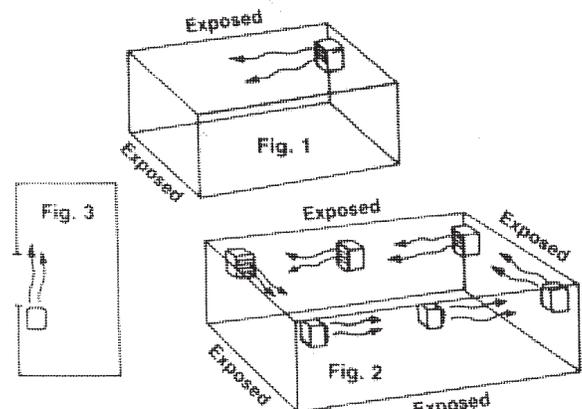
Model: KBP2406 is 240 volt. It is important that you verify the power supply voltage is the same as the nameplate voltage of the heater. Improper installation or failure to follow the procedures as outlined in this manual can result in damage to the heater. Note that the KBP2406 will operate at 208 volt but will produce 25% less wattage and draw 13% less amps. Disconnect all power from the heater at the main service panel before attempting to install or service this unit. All electrical wiring must conform to local electrical codes. Heater circuit must be properly protected.

### Mounting Heater

Locate a stud in ceiling or wall and securely fasten bracket with a minimum of two #12 fasteners 1-1/4" long. Attach heater to bracket with 3/8" x 1" wing nut & lock washer supplied. Install the lock washer between the bracket and heater, do not put lock washer on the plastic wing nut. After desired air discharge position has been determined, tighten wing nut so that heater will not pivot.

### Location of Heater

The heater should be installed out of the reach of persons. The direction of air flow should not be restricted by machinery, beams, etc., and the air flow should wipe exposed walls, rather than blowing directly at them. When more than one heater is used in an area, the heaters should be arranged so that the air discharge of each heater supports the air flow of the others to provide best circulation of warm air. (See Air Flow Chart)



## Wiring Heater

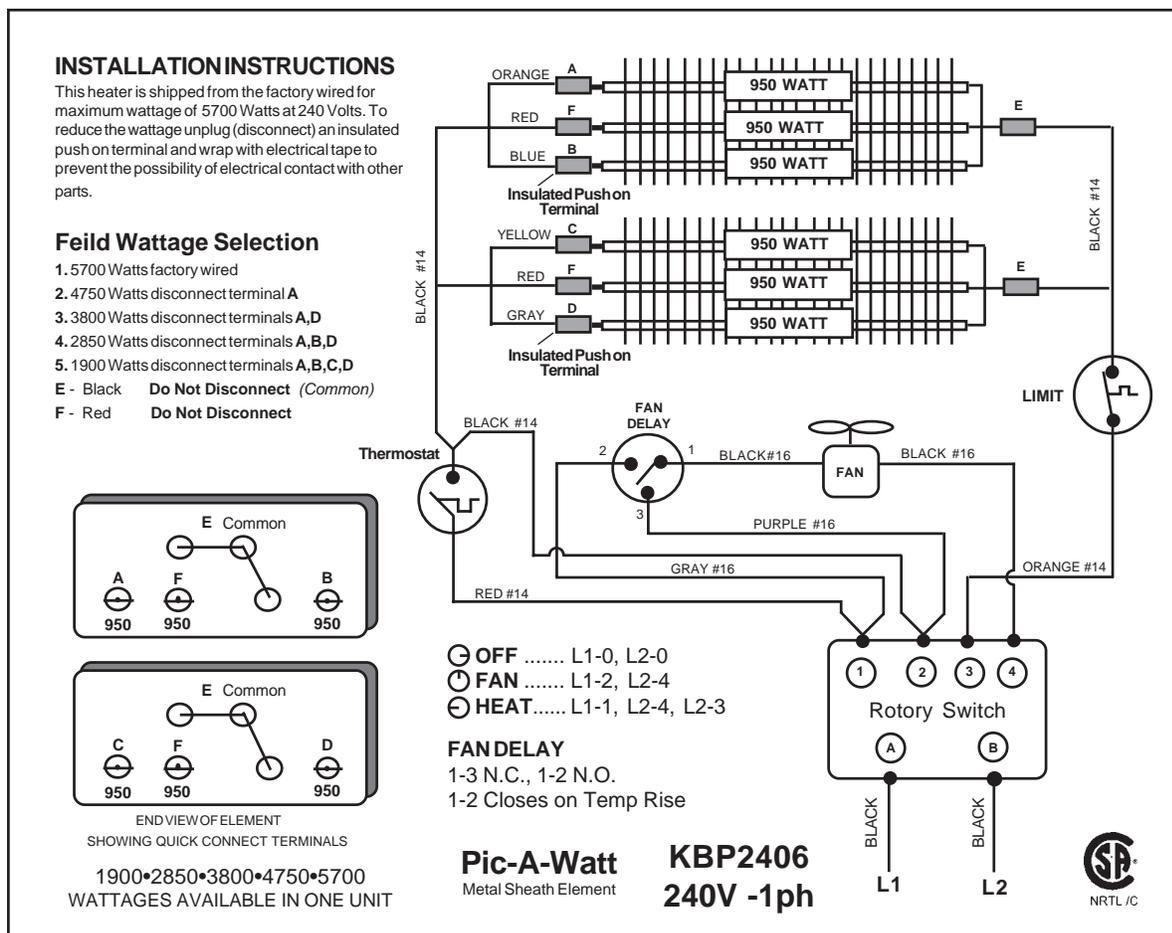
**WARNING - Before proceeding further with the installation of this heater, turn off the power and lock the supply line for the heater at the main service box.**

- 1) Remove wiring compartment cover.
- 2) Remove one of the knock outs from back of unit. It is not necessary to remove grill covers.
- 3) Size service wire to adequately handle amp load of heater. Refer to the Circuit Sizing Table for proper wire size and circuit protection.
- 4) Connect supply wire to L1 & L2 as shown in the diagram below.
- 5) Secure power supply cable with clamps.
- 6) Connect ground wire to the green pig tail.
- 7) Reinstall wiring compartment cover.
- 8) Adjust the heater to the desired position.

### CIRCUIT SIZING TABLE

Watts	BTUH	Volts	Amps 1-Phase	Wire Size	Circuit* Protection
1,900	6,484	240	8	#14/2	15A-2P
2,850	9,727	240	12	#14/2	15A-2P
3,800	12,969	240	16	#12/2	20A-2P
4,750	16,211	240	20	#10/2	30A-2P
5,700	19,454	240	24	#10/2	30A-2P

\*Per the National Electric Code heating circuits are considered a continuous load and therefore must be derated by 20%. For example a 20 amp heating circuit cannot have more than 16 amps of load connected. If heater is operated at 208V it will draw 13% less amps and produce 25% less wattage.



kbp2406,pm65 rev 02/03

### Maintenance & Warranty Information:

The high quality and superior design of the Pic-a-Watt heater will provide years of trouble free performance. Each year the heater should be checked and cleaned for lint and dust accumulation. We recommend using a soft bristled brush such as a paint brush to assist in removing contaminants from the heater. The motor is permanently lubricated and does not need servicing. King Mfg. Co. will repair or replace, without charge any KBP2406 heater found to be defective or malfunctioning for five years after purchase to the original owner.