## **IMPORTANT INSTRUCTIONS**



**Read Carefully** - These instructions are written in an effort to prevent potential difficulties that might arise during installation. Studying the instructions first may save you considerable time and money later. Observing the following procedures will keep installation time to a minimum. **Save these instructions for future use**.

# **IMPORTANT INSTRUCTIONS**

When using electrical heating appliances, basic precautions should always be followed to reduce the risk of fire, electric shock and injury to persons, including the following:

#### 1. Read all instructions before using this heater.

- ▲ 2. WARNING: This heater is hot when in use. To avoid burns, do not let bare skin touch hot surfaces. Keep combustible materials, such as furniture, pillows, bedding, papers, clothes, etc. and curtains at least 3 feet (0.9 m) from the front of the heater and keep them away from the sides and rear.
- 3. Extreme caution is necessary when heater is used by or near children or invalids and whenever the heater is left operating and unattended.
- 4. Always unplug heater when not in use.
- ▲ 5. WARNING: Do not operate heater with damaged cord or plug, after it malfunctions, has been dropped, or damaged in any manner. Discard heater or return to authorized service facility for examination and/or repair.
- ▲ 6. This heater is not intended for use in bathrooms, laundry and similar indoor areas. Never locate heater where it can fall into a bathtub or other water container.

- WARNING: Do not run cord under carpeting. Do not cover cord with throw rugs, runners, or similar coverings. Do not route cord under furniture or appliances. Arrange cord away from traffic area and where it will not be tripped over.
- **8** 8. To disconnect heater, turn controls to off, then remove plug from outlet to prevent arching.
- 9 Connect to properly grounded outlets only.
- ▲ 10. WARNING: Do not insert or allow foreign objects to enter any ventilation or exhaust opening as this may cause an electric shock or fire, or damage the heater.
- 11. WARNING: To prevent a possible fire, do not block air intakes or exhaust in any manner.
- ▲ 12. WARNING: A heater has hot and arcing or sparking parts inside. Do not use it in areas where gasoline, paint, or flammable vapors or liquids are used or stored.
- ▲13. Use this heater only as described in this manual. Any other use not recommended by the manufacturer may cause fire, electric shock, or injury to persons.
- ▲ 14. Always plug heater into a wall outlet receptacle or cord connector. Never use with an undersized extension cord or relocatable power tap, outlet, or power strip.

## SAVE THESE INSTRUCTIONS

# PCKF SETUP INSTRUCTIONS

#### Figure 2

**CAUTION!** Turn OFF breaker to remove and un-plugging the heater while setting up or placing in new location.

#### Figure 3



- 1. Setting up Your Heater:
- Unpack and inspect your heater for any damage. Any damage discard heater or return to authorized service facility immediately.
- Place heater at least 6" (15cm) away from vertical surfaces and keep the intake and exhaust clear of obstructions. Keep all combustible materials, such as furniture, papers, clothes, drapes, and curtains at least 3 feet (0.9 m) from the front of the heater and keep them away from the sides and rear.
- Route power cord away from traffic areas to avoid tripping. NEVER route power cord under carpets, rugs, drop cloths, furniture or other equipment.
- Plug power cord into a grounded wall outlet only DO NOT use an extension cord or power strip.
- 6. Wiring diagram located in wiring compartment.

#### Weatherproof plug and connectors Hubble Models: Figure 5

50A IP20 AC 3-pole 4 wire plug

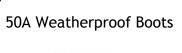


Part# CS6365C 480V 3 phase Part# CS8265 240V 3 phase

50A 125/250V AC 3-pole 4 wire connector



Part# CS6364C 480V 3 phase Part# CS8264C 240V 3 phase





#### Part# HBL7717C



Part# HBL7716C



- WARNING: This heater is floor ONLY and should not be tipped on side, placed upside down, mounted on or inserted into a wall. A tip over auto disconnect switch will activate when tipped more then 30°.
- DO NOT use heater in areas where gasoline, paint, or other flammable liquids are used.
- 10. Make sure covers are fastened with the provided rubber sealing washers for the access door.
- 11. Store unplugged and in a dry indoor location.
- 12. The proper twist lock cord connection has been provided and longer cords can be added. Do not coil up the extention cord while the heater is in operation, heat is multiplied with every turn and will melt the cord.

## Figure 6

30A 125/250V AC 3-pole 4 wire plug



## Part# 21414B 30A 600V AC 250V 3-pole 4 wire connector



Part# HBL21415B

## 30A Weatherproof Boots



#### Part# HBL20424B



Part# HBL20425

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## **Unit or Series**

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### General information and Guidelines:

This heater must be properly placed before it is used. DO NOT tamper with or change the operating of this heater. All service should be preformed by a authorized service representative. Only replace components with King approved replacement parts.

### **Operation:**

 After the electric heater has been safely located, thermostat should be turned to LOW or NO HEAT. Plug unit into grounded outlet, wait 3 to 5 minutes and check to see that the heater is not operating. If operating, disconnect power and check for improper wiring. If not operating then turn thermostats to highest position and wait 3 to 5 minutes. Check to see that the heater is operating. Should it not be operating, disconnect power and check wiring.

- Allow entire system to operate steadily for 1/2 hour. This should remove oily residue from manufacturing. (Some smoking may occur from element).
- 3. Select the setting for comfort or your job requirement.
- 4. A safety limit control is provided to turn off the heater elements automatically if it is blocked or otherwise overheats due to an abnormal condition. DO NOT bypass or remove this safety limiting device from the electrical circuit. During normal use, this safety control should not operate. If you find that this control is operating, make sure the heater is not being blocked or filter is plugged. If it continues to cycle the heater elements off, disconnect power to heater and have it checked and repaired by a qualified electrician.

#### Table 1

### Troubleshooting Chart for Electric Heaters

SYMPTOM	PROBLEM	SOLUTION
Breaker Trips	<ol> <li>Short Circuit</li> <li>Overloaded Circuit</li> <li>Improper Voltage</li> </ol>	<ol> <li>Find source of short. Trace heater circuit and verify the heater is wire properly.</li> <li>Reduce wattage in circuit. Refer to circuit sizing table for maximum wattage.</li> <li>Verify the heater voltage matches the supply voltage.</li> </ol>
Heater not working	<ol> <li>No Power</li> <li>Loose Connections</li> <li>Defective Limit</li> </ol>	<ol> <li>Turn Breaker ON, turn thermostat ON, check that the breaker is position properly on panel bus-bar. A 2-Pole breaker must be connected to both bus- bars (AtB phase) to produce 240V power.</li> <li>Tighten wire connections.</li> <li>By-pass the limit to test. If heater works, replace the limit.</li> </ol>
Heater Smokes	<ol> <li>Oil on Element</li> <li>Needs Cleaning</li> </ol>	<ol> <li>It is normal for the element to burn off some light finishing oil used in the manufacturing process when first energized. Open windows and allow room to vent until it stops, usually within a few minutes.</li> <li>Remove any dust or dirt accumulations.</li> </ol>
Room Temperature does not match thermostat setting	<ol> <li>Thermostat affected by another heat source.</li> <li>Improper calibration</li> </ol>	<ol> <li>Sunlight or other heat sources can affect the thermostat. Move the thermo stat to another location or remove the heat source.</li> <li>Remove cover and adjust calibration screw.</li> </ol>
Room Temperature swings from too hot to too cold	1. Defective or low quality thermostat	1. Replace with a better quality thermostat. Anticipated thermostats are fair- ly accurate; an electronic thermostat is best.

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