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## INSTRUCTIONS "KCA" Series

### **WARNING**

When using electrical appliances, basic precautions should always be taken to reduce the risk of fire, electrical shock and injury, including the following.

**Read carefully** these instructions before installation, operation of the heater. Failure to adhere to the instructions could result in fire, electric shock, serious personal injury, and death or property damage. Review frequently for continuing safe operation and instruction of future users, if necessary.

## IMPORTANT INSTRUCTIONS

- 1- Read all instructions before installing or using this heater.
- 2- This heater is hot when in use. To avoid burns, do not let bare skin touch hot surfaces. Keep combustible materials, like furniture, pillows, bedding, papers, clothes, and curtains at least 36 in. (915 mm) from the front of the heater.
- 3- Extreme caution is necessary when any heater is used by or near children or invalids and whenever the heater is left operating and unattended.
- 4- Do not operate any heater after it malfunctions. Disconnect power at service panel and have heater inspected by a reputable electrician before reusing.
- 5- Do not use outdoors.
- 6- To disconnect heater, rotate thermostat knob full counter-clockwise and turn off power to heater circuit at main disconnect panel (or operate internal disconnect switch if provided).
- 7- 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.
- 8- To prevent a possible fire, do not block air intakes or exhaust in any way whatsoever.
- 9- This 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.
- 10- The heater has been designed and certified for ambient heating only. The maximum ambient operating temperature is 30 °C (86 °F).
- 11- The heater is not designed for use in a humid environment where condensation may form on the device.
- 12- 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.
- 13- The thermostat should not be considered an infallible device in cases where maintaining a temperature is considered critical. Examples: Hazardous material storage, computer server room, etc. In these particular cases, it is imperative to add a monitoring system to avoid the consequences of a thermostat failure.

## SAVE THESE INSTRUCTIONS

## INSTALLATION INSTRUCTIONS

The installation of this heater must be executed by a qualified person, where required by law.

### CAUTION

- High temperature, risk of fire, keep electrical cords, drapery, furnishings, and other combustibles at least 36 in. (915 mm) from the front of the heater. To reduce the risk of fire, do not store or use gasoline or other flammable vapors and liquids in the vicinity of the heater.
- Never install air outlet less than 24 in. (610 mm) from an opposite surface and/or 12 in. (305 mm) from an adjacent surface.
- Never install air inlet less than 6 in. (152 mm) of an opposite surface.
- In addition to ensuring that the clearance distances set out above are respected, ensure that the framing materials, insulation and finishing which are likely to be in contact with or close to the device can withstand temperatures of at least 90 °C (194 °F).
- Not for residential use in the United States.
- Disconnect all power supplies before working on any circuit.
- Put all covers back on heater before testing.
- Install filters only if regular maintenance will be made.  
Do not install filters in ceiling applications.

### RECESS AND SEMI-RECESS MOUNTING

- 1- Unit must be installed with trim frame of appropriate length.
- 2- Provide an opening of 1 in. (25 mm) on length and height greater than the size of the actual unit.
- 3- Remove front panel and open control section door.
- 4- Remove appropriate knockouts and secure supply and control cables.
- 5- Secure trim frame to unit using the supplied metal piercing screws.
- 6- Secure unit in place without warping using appropriate screws, shim if required. For ceiling application, use 1/2 in. X 13 UNC threaded rods (not supplied).
- 7- Connect the unit according to local and national codes.  
See wiring diagram on control section door.
- 8- Close control section door and put front panel in place.
- 9- Test unit by temporarily setting thermostat at maximum temperature.

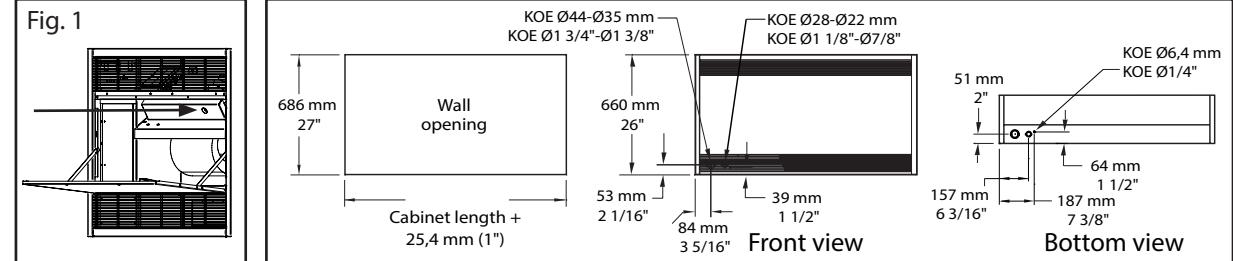
### SUB-BASE MOUNTING

- 1- Unit must be installed on a sub-base of appropriate length.
- 2- Secure sub-base bracket to the floor.
- 3- Secure sub-base to unit using the supplied metal piercing screws.
- 4- Remove front panel and open control section door.
- 5- Remove appropriate knockouts and secure supply and control cables.
- 6- Secure unit and sub-base to sub-base bracket using the supplied screws.
- 7- Follow steps 7 through 9 of recess mounting.

### SURFACE MOUNTING

- 1- Run supply and control cables to the back of the unit.
- 2- Remove front panel and open control section door.
- 3- Remove appropriate knockouts and secure supply and control cables.
- 4- Follow steps 6 through 9 of recess mounting.

Fig. 1



## OPERATING INSTRUCTIONS

- 1- The heater must be properly installed before it is used.
- 2- Turn the power on at the circuit breaker panel.
- 3- Electronic thermostat: be sure to set it on the fan mode.
- 4- Built-in tamperproof thermostat:  
The built-in thermostat can be set with a small screwdriver through the grille.  
To set thermostat at the desired temperature, follow these steps:  
- Set thermostat at maximum temperature (turn clockwise).  
- When the desired temperature is reached, turn the thermostat counter-clockwise slowly until you hear a click.  
- The thermostat will keep this room temperature.

### START UP

On a call for heat from either the remote thermostat or the unit mounted thermostat the elements and fan will be energized.

When the thermostat is satisfied the elements will be deenergized.

The fan will continue to run until the residual heat is removed from the heater. Then the fan will stop.

### MANUAL HI-LIMIT (OPTIONAL)

When the heater includes a manual hi-limit, it can turns the heater out of service if an internal component is excessively hot. When this situation occurs, immediately turn the heater off and inspect for any objects on or adjacent to the heater that may have blocked the airflow or otherwise caused high temperatures to have occurred. If no obstruction is visible, the heater must be checked by a qualified person.

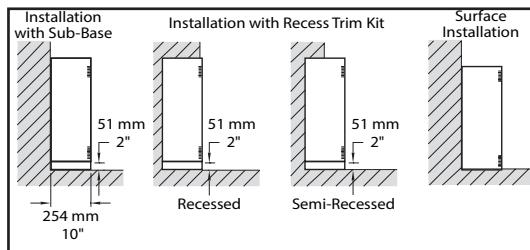
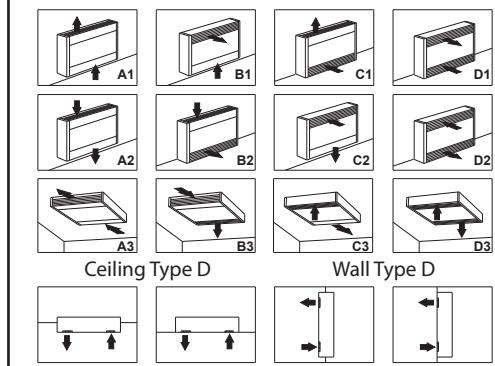
#### How to reset the manual hi-limit:

- Disconnect the power supply of the heater.
- Unscrew and open the front panel.
- Insert a pointed object in the reset hole (See Fig. 1).
- Push firmly until you hear a click.
- Close the front panel and fix with the screws.
- Turn the power back on.

## MAINTENANCE INSTRUCTIONS

- 1- Once a year, remove the front panel and use a vacuum cleaner to remove the dust accumulation inside the heater and through openings of the grilles.
- 2- Cleaning should be done while the heater is disconnected from the main service panel. Wait until the housing and heating element cool before performing maintenance.
- 3- Replace the front panel before energizing.
- 4- Any other servicing should be performed by a qualified technician.
- 5- Factory-lubricated motor. No lubrication required.

### MOUNTING APPLICATIONS



### Location of the 4 welded nuts

Models	mm	in.
2 to 6kW	356	14 1/64
6 to 12kW	864	34 1/64
15 to 18kW	1322	52 3/64
20 to 24kW	1677	66 1/32