

## Quartz Infrared Zone Heaters

The following information should be considered when installing Quartz Infrared Heaters.

Installation should always be carried out by a qualified electrician or a competent person in accordance with current electrical regulations, protected by a suitably rated isolator and fuse or type3 mcb.

- The heaters should always be installed using the mounting brackets provided to ensure adequate clearance from the wall.
- A minimum air gap of 450mm should always be allowed between the top of the heater and the ceiling or roof.
- A safety distance of 1mtr should always be left in front of a 1.5KW heater. Heaters of 3KW and 4.5KW should have a safety distance of at least 1.5mts and the 6KW heater leave 2mts.
- You also should ensure no flammable material could come into contact with the heater.
- Heaters should not be installed in areas where hazardous vapours may be present as defined in BS5345
- It is recommended the heaters be operated with a guard in front of the lamp and should always be fitted to units mounted below 2.2mtrs.
- The heater should only be installed in an indoor or weather protected environment.

The essential element of the heater is the halogen filled quartz linear lamp with a tungsten element. This operates at about 2200°C and is housed in a ruby quartz sleeve to filter out the white light and emit short wave infrared radiant heat. The lamp operates at full output almost instantly and emits a radiant energy of 1.2microns.

**Quartz heaters are recommended by The Electricity council and Building Services Research Association for General space heating, Zone heating and localised spot heating.**

## HN4500 / 6000 Series Heating



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**Before installing this heater, please read all the enclosed instructions carefully and follow any recommendations regarding installation and use.**

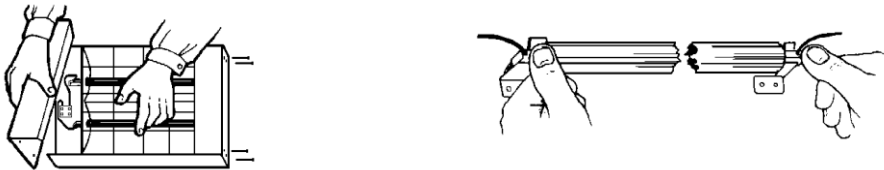
### **Electrical installation**

- Three-lamp heater models are factory wired 220/240v single phase but can easily be converted to 3 phase and neutral.
- To convert the fitting from single phase to 3 phase remove the RED link cables on the right hand side of the heater.
- High temperature silicon rubber flexible cable conforming to BS 6500 having a temperature rating of 180°C must be used to connect the heater.
- Appliances must be earthed.
- It is advised that Type 3 (Type C) MCBs are used. In multi-lamp single phase and 3Phase installations, in order to prevent the initial inrush current causing nuisance tripping, MCBs over rated by 60 - 70% may be required.

The fitting has been packed with a separate wall mounting bracket and lamp(s) ready for attachment and fitting to the heater. Please leave the lamp(s) in transit packing until ready to fit.

### **Lamp Installation (If required) or replacement**

- 1) Undo the 4 screws on each end cover, and remove covers.
- 2) Unscrew the 4 screws securing the guard, remove guard and slide out the end reflectors.
- 3) If replacing lamp unscrew lamp leads and remove lamp.
- 4) Carefully remove new lamp from its box making sure you don't touch the glass part of the lamp, centre lamp to brackets with leads pointing downwards.
- 5) Insert each end of lamp halfway under each spring clip.
- 6) Push slowly each end of lamp with equal thumb pressure fully into clips.



N.B. Any inadvertent finger marks on the tube glass sleeve can be removed using methylated spirits on a soft cloth

- 7) Connect lamp leads to connector blocks. Tighten screws
- 8) Re-assemble heater by sliding the end reflectors back, then secure the guard in position.
- 9) Refit the end covers making sure no wires are trapped before tightening the screws.

### **Location**

- Heaters should be ideally angled at 30° to 45° from the vertical whether wall or ceiling mounted.
- There must always be a minimum clearance of 450mm between top of heater and ceiling.

### **Wall mounting**

- Avoid mounting heaters on structures liable to vibrate.
- Recommended mounting heights and safety distances should always be observed.

#### **Recommended wall mounting heights**

| Model  | Wall mounting Height (Metres) |             |         | Safety distance from Heater (mts) |
|--------|-------------------------------|-------------|---------|-----------------------------------|
|        | Minimum                       | Recommended | Maximum | Minimum                           |
| HN4500 | 3.0                           | <b>3.5</b>  | 4.5     | 1.5                               |
| HN6000 | 3.5                           | <b>4.0</b>  | 5.5     | 2.0                               |
|        |                               |             |         |                                   |

### **Commissioning**

- Perform Insulation and Earth continuity Tests.
- Switch on heater(s) and confirm that lamp(s) operating.
- Ensure each heater aims its warmth into the target area by adjusting heater angle(s) as necessary then tighten bracket bolts when satisfactory coverage is achieved.
- Check that lamp(s) remain in a horizontal plane for all angles of heater(s).
- Lamps must only be operated within 5° of the horizontal plane.
- The user/customer should be made aware of all aspects of operation and safety and strongly advised to retain these instructions for reference.
- In unoccupied premises it is recommended that the heating system is switched off and isolated from the electrical supply.

### **Maintenance**

BN Thermic infrared quartz heaters contain no moving parts and therefore very little maintenance is required other than to ensure that there is no excessive build-up of dust/dirt on the reflectors or lamps as this can cause overheating and premature lamp failure. Depending on siting conditions a heater should be regularly inspected, but at least once per year.

### **Before any maintenance work is carried out**

- Allow heater case/lamp to cool to avoid injury.
- Always isolate appliance(s) from electrical power supply.
- Re-read instructions prior to lamp replacement.

### **Warranty**

Your BN Thermic product is guaranteed for one year from date of purchase. We will repair or replace at our discretion any part found to be defective. We cannot assume any consequential liability. This guarantee in no way prejudices your rights under common law and is offered as an addition to consumer liability rights