

Thank you for purchasing a BN Thermic product. Manufactured to a high standard, this product will, if used according to these instructions and properly maintained, give you years of trouble free performance.



REGISTER: PLEASE REGISTER THIS PRODUCT ONLINE TO ACTIVATE YOUR GUARANTEE AT
www.bnthermic.co.uk



IMPORTANT: PLEASE READ THESE INSTRUCTIONS, NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS, AND CAUTIONS. USE THIS PRODUCT CORRECTLY, AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY.

1. SAFETY INSTRUCTIONS

1.1 ELECTRICAL SAFETY

WARNING! It is the responsibility of the owner and the operator to read, understand and comply with the following:

You must check all electrical products, before use, to ensure that they are safe. You must inspect power cables, plugs, sockets and any other connectors for wear or damage. You must ensure that the risk of electric shock is minimised by the installation of appropriate safety devices.

You must also read and understand the following instructions concerning electrical safety.

- The Health & Safety at Work Act 1974 makes owners of electrical appliances responsible for the safe condition of those appliances and the safety of the appliance operators. If in any doubt about electrical safety, contact a qualified electrician.
- Installation should always be carried out by a qualified electrician in accordance with current electrical regulations.
- Ensure that the cables are always protected against short circuit and overload.
- Regularly inspect the power supply cables for wear or damage and check all connections to ensure that none are loose.
- Important: Ensure that the voltage marked on the appliance matches the power supply to be used.
- The unit should be protected by a suitably rated isolator and type C MCB or RCBO. An inrush current (initial current through the lamp) can be expected at switch on. This current can be as high as 12 times the normal operating current, lasting less than 20 milliseconds. This effect can also vary depending on temperature. In extreme cases, a type D breaker may be required.
- This heater is IP20 rated and is suitable for indoor or under cover use only.
- Ensure that if used the optional mounting brackets are adequately earthed.
- Do not attach this heater to an extension cord it must only be hard wired 3 phase in position.



1.2 GENERAL SAFETY INSTRUCTIONS

- ✓ Remove all packaging and store it away from children, check the package and heater for visible damage or tampering.
- ✓ Ensure the heater is in good order and condition both physically and electrically before use. If in any doubt, do not use the unit and contact your supplier.
- ✓ Only use recommended attachments and parts. To use unauthorised parts may be dangerous and will invalidate your warranty.
- ✓ Check that the lamp guards are in place, undamaged and firmly attached.
- ✓ Keep children and unauthorised persons away from the heater, as it gets **very hot**.
- ✓ Disconnect from the mains and allow to cool before moving or attempting any cleaning or maintenance.
- X **DO NOT** use in areas where hazardous vapours may be present.
- X **DO NOT** locate the heater directly below the power outlet.
- X **DO NOT** move the heater whilst in operation or even when still warm.
- X **DO NOT** touch the heater lamps, even when cold.
- X **DO NOT** disassemble the heater for any reason. This heater must be checked by qualified personnel only.
- X **DO NOT** use this heater to perform a task for which it has not been designed.
- ❑ **WARNING!** Never touch the lamps directly with your fingers. Use a soft clean cloth otherwise the lamps may get damaged.
- ❑ **WARNING!** This heater is not equipped with a device to control the room temperature. Do not use this heater in a small room if it is occupied by people not capable of leaving the room on their own, unless constant supervision is provided.
- ❑ **WARNING!** Ensure you observe the safety distances (see Fig.1) and there is no possibility of inflammable materials coming into contact.

Other Heaters available in this series



HN3-15 – HN3-60

1,2, and 3 Lamp heaters are also available in ivory

2. INTRODUCTION & SPECIFICATION

This heater produces a totally dry heat, no condensation, no gas, no fumes and no smell. It reaches maximum heat output within seconds of being turned on. It has highly polished aluminium reflectors for maximum heat efficiency. We recommend ceiling mounting, but it can also be wall mounted using the optional wall bracket kit (Part No. HXL-WMK).

Model	HXL-135 (B)	HXL-180 (B)
Power	13,500W (13.5kW)	18,000W (18kW)
Input supply	380-415V 3 Phase	380-415V 3 Phase
Loading	19.6A per phase	26.1A per phase
Recommended minimum rating of the ON/OFF isolator	32A per Phase	40A per Phase
Dimensions (W x H x D)	1200 x 626 x 100mm	1200 x 626 x 100mm
Weight	18.5kg	18.5kg
Minimum Mounting Height	6M	7M
Recommended Mounting Height	7.0M	8.0M
Recommended Maximum Mounting Height	7.5M	9.0M
Safety Distance from front of Heater	2.5M	2.5M

3. MOUNTING INSTALLATION

3.1 CEILING MOUNTING (Fig.1 & 2)

The heater is supplied with 4 mounting eye hooks already fitted.

- ❑ **IMPORTANT!** The following points should be noted before mounting the heater to a ceiling: *The heater should always have a minimum clearance of 400mm from a ceiling and at least 2500mm from any object (see table above).*
- ❑ **IMPORTANT!** Ensure that the mounting surface / ceiling can support the weight of the heater.
- ❑ **IMPORTANT!** The heater should be ideally mounted horizontal to the floor (see Fig.1) but can also be mounted at an angle up to 45° ensuring that the lamps stay horizontal to the floor. (see Fig.2). Failure to keep the 6 lamps horizontal to the floor will drastically reduce their life and is not covered by the guarantee.

3.1.1 Dimensional position of the hanging hooks is shown on Fig.4 (to the far right).

3.1.2 Heaters should be hung using suitable steel wire or chain designed to take the heaters weight.

3.2 WALL MOUNTING (Fig.3)

An optional wall mounting kit (Part No. HXL-WMK) is available from your wholesaler.

The kit consists of 2 x wall brackets, 2 x hinges, 2 aluminium spacers and various nuts and bolts.

- ❑ **IMPORTANT!** The following points should be noted before mounting the wall brackets: *The heater should always have a minimum clearance of 400mm from a ceiling and at least 2500mm from any object (see table above). The connection box on the back of the heater MUST be at the bottom of the heater.*
- ❑ **IMPORTANT!** Ensure that the mounting surface can support the weight of the heater.
- ❑ **IMPORTANT!** The heater should be mounted at 30° to 45° from the vertical, when wall mounted. There must be a minimum gap of 30mm between the back corner of the heater and the wall when tightening the brackets.
- ❑ **IMPORTANT!** The mounting brackets must be sufficiently earthed.

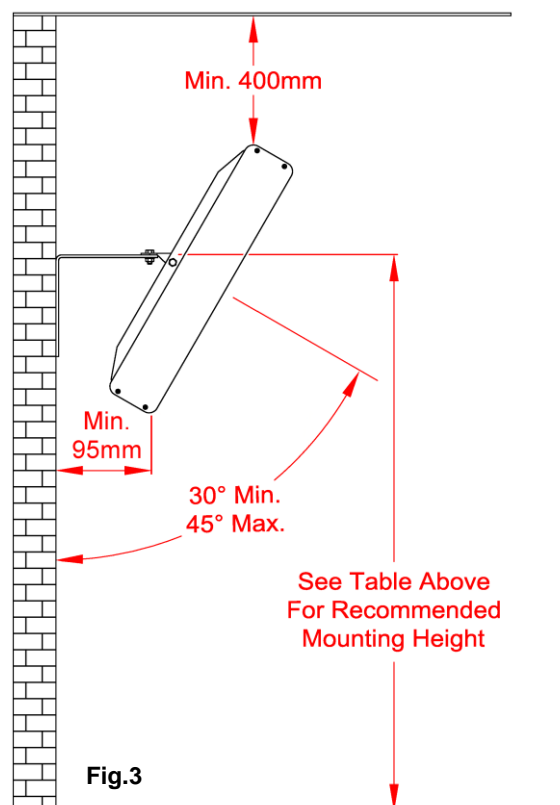
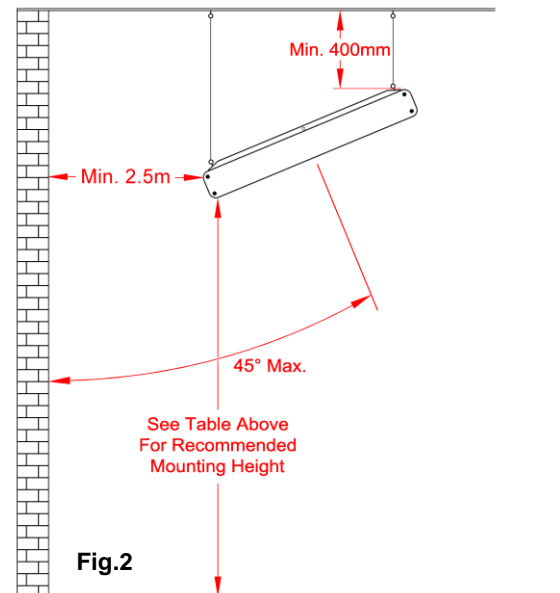
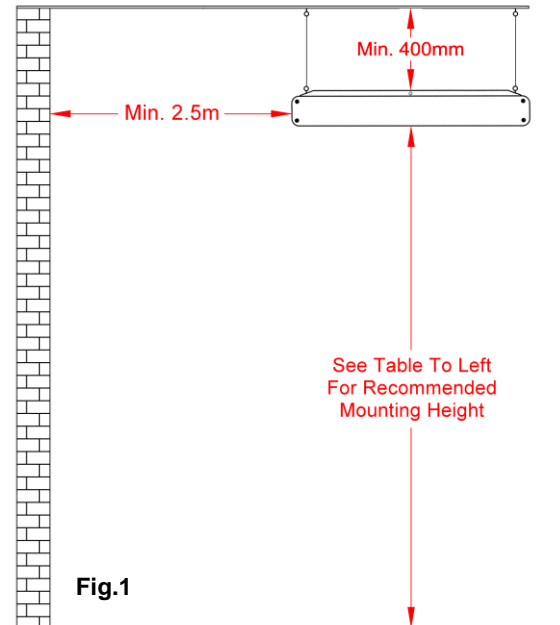
3.2.1 Fit the two swivel brackets ensuring the aluminium spacer and lock washer are in the correct position. (see Fig.4 to the far right)

3.2.2 Before drilling the wall, ensure that there are no wires or water pipes in the area where the heater is to be placed.

3.2.3 Use the drawing to the far right and the brackets as templates mark where the holes need to be drilled. Fix the metal bracket to the wall by means of the three holes and appropriate fixings (not supplied).

3.2.4 Refit the heater onto the brackets using the bolts, lock washers and nuts provided.

3.2.5 Once in position and angle is set ensure all nuts and bolts are tight.



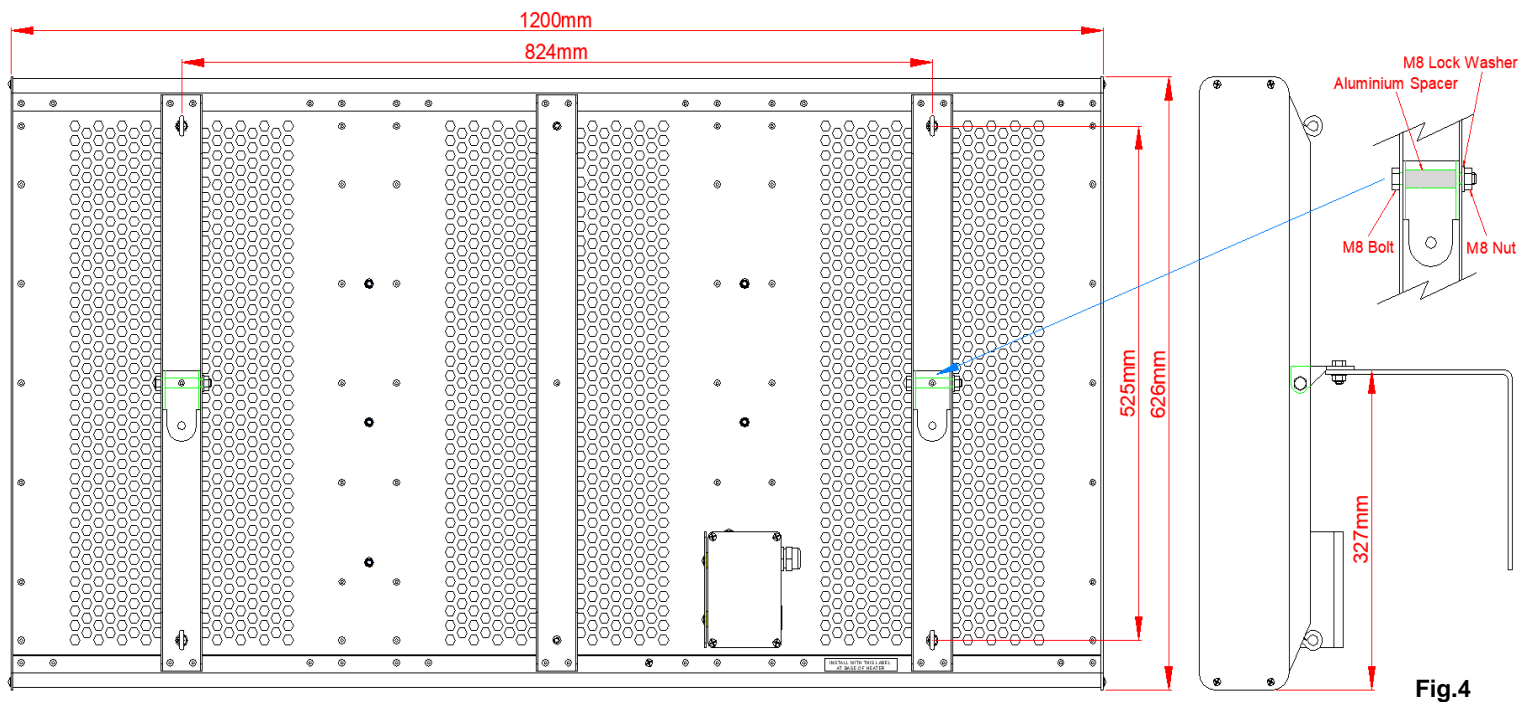
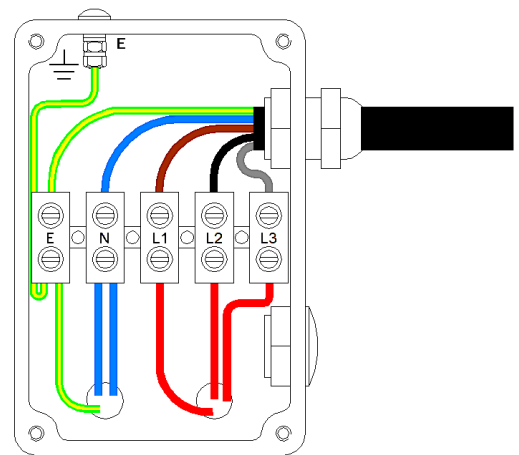


Fig.4

4. ELECTRICAL CONNECTIONS

4.1 THREE PHASE CONNECTION

- 4.1.1 Please make sure you have read the Safety instructions and you are a suitably qualified electrician before continuing. The Heater must only be wired 3 phase.
- 4.1.2 This heater is factory fitted with 2.5mm² 5 core high temperature silicon rubber flexible cable conforming to BS 6500 having a temperature rating of 180°C. If necessary, only replace with the same specification cable or a cable that will withstand 60°C continuous temperatures. Note: If using PVC based cable you may need minimum of 2.5mm² cable for HXL-135 and minimum 4.0mm² for HXL-180 Heaters but please check current and temperature rating of the cable you intend to use with your wholesaler.
- 4.1.3 The Heaters must be earthed.
- 4.1.4 The Heater should be protected by a suitably rated isolator and type C MCB or RCBO. An inrush current (initial current through the lamps) can be expected at switch on. This current can be as high as 12 times the normal operating current, lasting less than 20 milliseconds. This effect can also vary depending on temperature. In extreme cases, a type D breaker may be required. For the same reason we also recommend that the ON/OFF isolator is rated a minimum of 1.5 times the loading on each phase.
- 4.1.5 Colour Coding in the mains lead.
- | | | |
|-------------------------------|-------------------------------|------------------------------|
| Brown Wire – Live 1 / Phase 1 | Black Wire – Live 2 / Phase 2 | Grey Wire – Live 3 / Phase 3 |
| Blue Wire – Neutral | Green & Yellow Wire - Earth | |
- 4.1.6 Please re-check that all the terminal connections are tight in the terminal box before turning on for the first time (10 screws).



5. COMMISSIONING

Note: The infrared lamps in the heater are fragile as such it is important that they are not subjected to any unnecessary shocks or vibration and are not moved when in use. Wait till the heater has cooled down before moving / adjusting.

WARNING! Ensure you read, understand and apply the safety instructions in Section 1 before using the heater.

- 5.1 Perform Insulation and Earth continuity tests.
- 5.2 Switch on the heater(s) and confirm that all the lamps are working.
- 5.3 The User / Customer should be made aware of all aspects of the operation and safety advice. Keep the instructions safely for future reference.
- 5.4 In unoccupied premises it is recommended that the heating system is switched off and isolated from the electrical supply.

6. MAINTENANCE

Note: Before examining or carrying out any maintenance ensure the heater has cooled down and is disconnected from the mains supply.

- 6.1 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 installation conditions, a heater should be regularly inspected, but at least once per year.

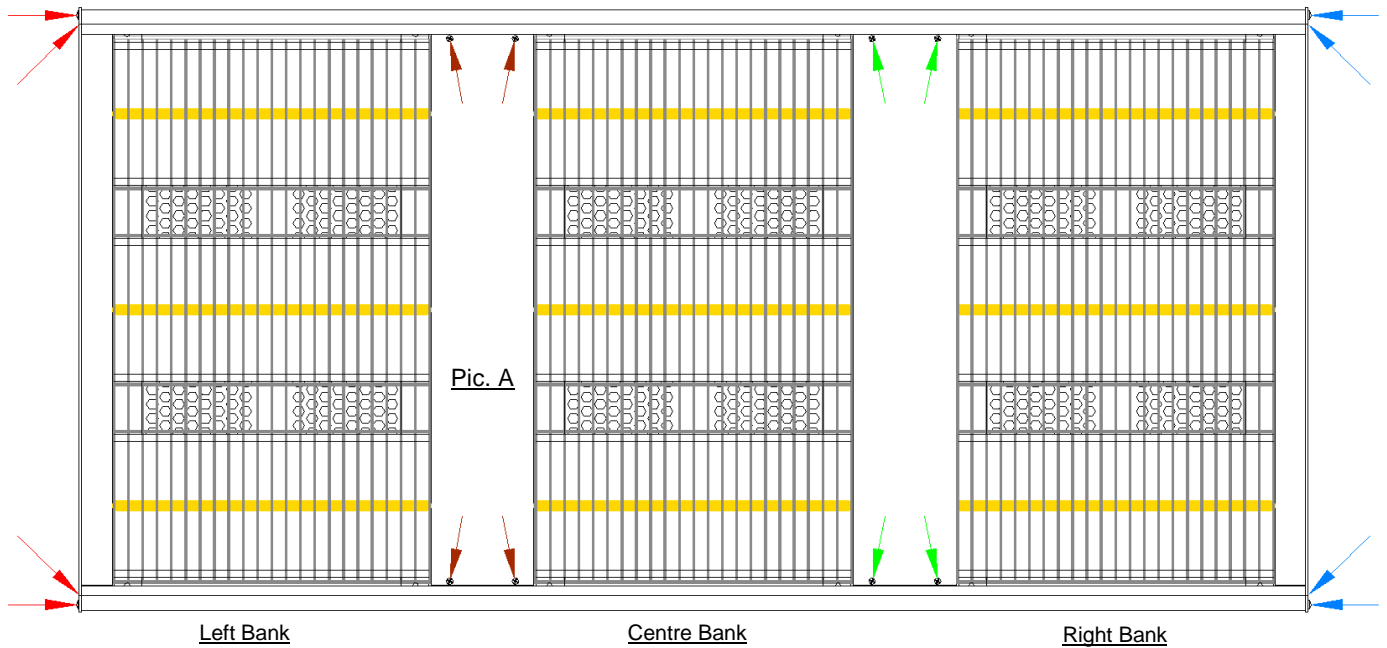
7. REPLACEMENT LAMPS

Note: Spare Lamps are available from your distributor. Please quote the following Lamp codes when requesting spares

Heater Model	HXL-135(B)	HXL-180(B)		
Replacement Lamp Code	RL15GF	RL20GF		

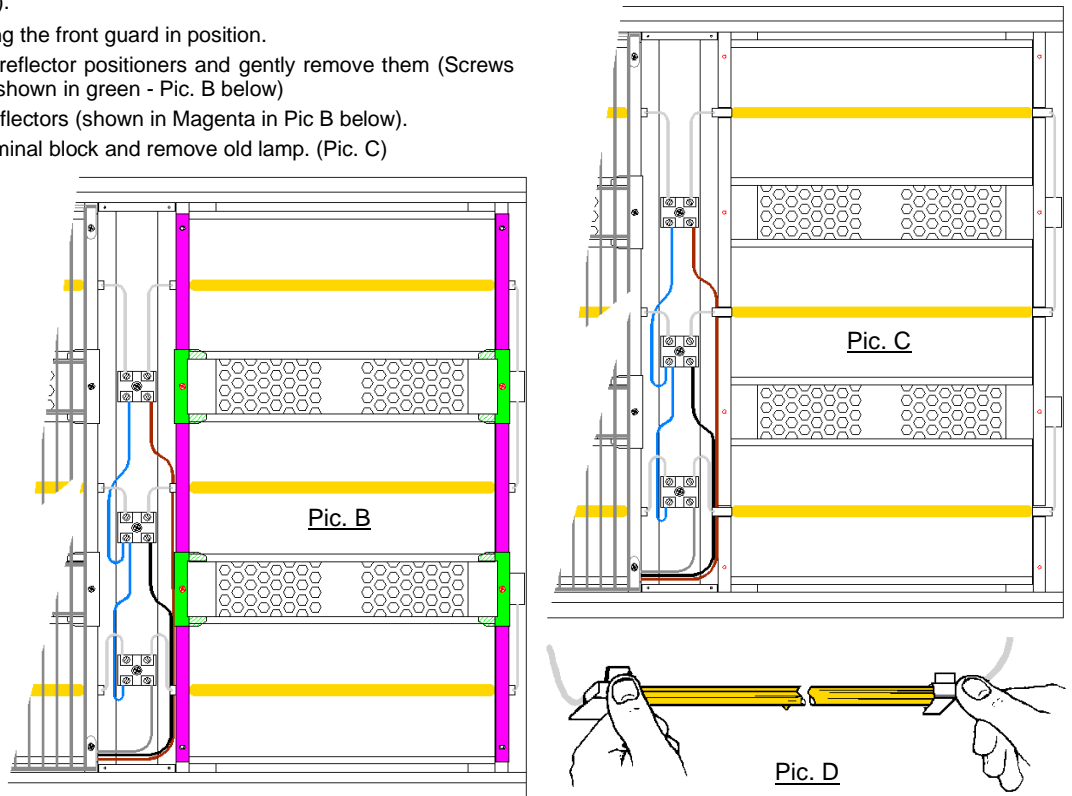
8. LAMP REPLACEMENT

Note: Before examining or carrying out any maintenance ensure the heater has cooled down and is disconnected from the mains supply. The lamp used in the fitting is robust and if knocks and shock vibrations are avoided, will last for around 7000 hours.



Lamp Installation (if required) or replacement

- 1) If failed lamp is in the left bank undo the 4 red screws and remove the left end cover, then remove the 4 brown screws and remove the centre cover. If failed lamp is in the centre bank undo the 4 brown screws and remove the centre cover, then remove the 4 green screws and remove the other centre cover. If failed lamp is in the right bank undo the 4 green screws and remove the centre cover, then remove the 4 blue screws and remove the right end cover. (Pic. A).
- 2) Remove the 4 corner screws holding the front guard in position.
- 3) Remove the 4 screws holding the reflector positioners and gently remove them (Screws shown in red and reflector holders shown in green - Pic. B below)
- 4) Now gently slide out the two end reflectors (shown in Magenta in Pic B below).
- 5) Unscrew lamp leads from each terminal block and remove old lamp. (Pic. C)
- 6) Carefully remove new lamp from its box making sure you do not touch the glass part of the lamp, centre lamp to brackets with leads pointing downwards.
- 7) Insert each end of lamp halfway under each spring clip.
- 8) Push slowly each end of lamp with equal thumb pressure fully into clips (Pic. D). N.B. Any inadvertent finger marks on the glass lamp can be removed using methylated spirits on a soft cloth.
- 9) Connect lamp leads to terminal blocks. Tighten screws.
- 10) Re-assemble heater by sliding the end reflectors back, then secure the 4 reflector positioners (Green in Pic. B) and then the guard using 4 screws.
- 11) Refit the end covers and centre covers making sure no wires are trapped before tightening the screws.



WARNING! Failure to reassemble all the parts and use the guards will invalidate any remaining guarantee and may make the unit dangerous.



WEEE REGULATIONS:

This appliance bears the symbol of the crossed waste bin. This indicates that, at the end of its useful life, it must not be disposed of as domestic waste but must be taken to a collection centre for waste electrical and electronic equipment. It is the user's responsibility to dispose of this appliance through the appropriate channels. Failure to do so may incur penalties established by laws governing waste disposal.

NOTE: It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice.

IMPORTANT: No liability is accepted for incorrect use of this product.

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.

REGISTER: Activate your warranty by registering online at www.bnthermic.co.uk and retain this installation data for future reference.

HXL-9INS-v01

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