

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](http://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. A Residual Current Circuit Breaker (RCCB) should be incorporated in the main distribution board. If in any doubt consult a qualified electrician. You must also read and understand the following instructions concerning electrical safety.
- 1.1.1 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.
- 1.1.2 Ensure that the insulation of all the cables on the appliance is safe before connecting it to the power supply.
- 1.1.3 Ensure that the cables are always protected against short circuit and overload.
- 1.1.4 Regularly inspect the power supply cables and plugs etc. for wear or damage and check all connections to ensure that none are loose.
- 1.1.5 Important: Ensure that the voltage marked on the appliance matches the power supply to be used and that a correctly rated fuse is fitted.
- 1.1.6 Installation should always be carried out by a qualified electrician in accordance with current electrical regulation, protected by a suitably rated isolator and fuse or mcb.

### 1.2 GENERAL SAFETY INSTRUCTIONS

- ✓ Remove all packaging and store it away from children, check the package and heater for visible damage or tampering.
- ✓ Familiarise yourself with the applications and limitations of the heater.
- ✓ 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.
- ✓ Disconnect from mains and allow to cool before attempting any cleaning.
- X **DO NOT** use in hazardous areas.
- X **DO NOT** use if ambient temperatures exceed 30°C.
- X **DO NOT** use in areas where water vapour or dampness contains high concentrations of salt, cleaning agents, etc as it speeds up the corrosion of metal parts. Examples of unsuitable areas are car washes, some water treatment areas and close to the sea.
- X **DO NOT** touch the heating segments at any time as the radiant surfaces will become dirty (if necessary when installing then use clean textile gloves) or the supplied plastic gloves.
- X **DO NOT** cover the heater or restrict free circulation of air around it.
- X **DO NOT** locate the heater below the power outlet unless there is a gap of 1m.
- X **DO NOT** install this heater against combustible low-density fibre board surfaces.
- 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!** 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 there is no possibility of inflammable materials coming into contact with the heater



## 2. INTRODUCTION & SPECIFICATION

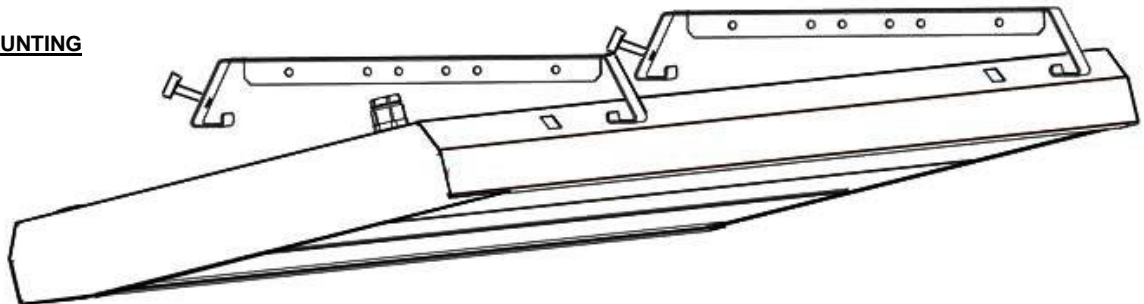
ESP2 Radiant Cassettes are designed for heating larger spaces. They are recommended mainly for industry, workshops, storage areas, shops, sports halls etc. They are not normally recommended as spot heaters. The Cassettes can be ceiling or wall mounted and are class I, IP44 rated. ESP2 Cassettes should be used with a suitable control system. BN Thermic's RD16, RT16 or RT26 programmable thermostats are ideal.

Model	Voltage	Power	Dimensions (mm)			Mounting Height	Weight	Optional wall brackets
			Width	Length	Depth			
ESP2-09	230V	900W	150	1550	60	3 to 8m	5.8kg	ESP2-B
ESP2-12	230V	1,200W	150	1550	60	3 to 8m	5.8kg	ESP2-B
ESP2-18	230V	1,800W	250	1550	60	3.5 to 8m	9.9kg	ESP2-B
ESP2-24	230V	2,400W	250	1550	60	3.5 to 8m	9.9kg	ESP2-B
ESP2-30	230v or 400v / 3P+N	3,000W	350	1550	60	3.5 to 8m	13.9kg	ESP2-B
ESP2-36	230v or 400v / 3P+N	3,600W	350	1550	60	3.5 to 8m	13.9kg	ESP2-B

## 3. MOUNTING / INSTALLATION

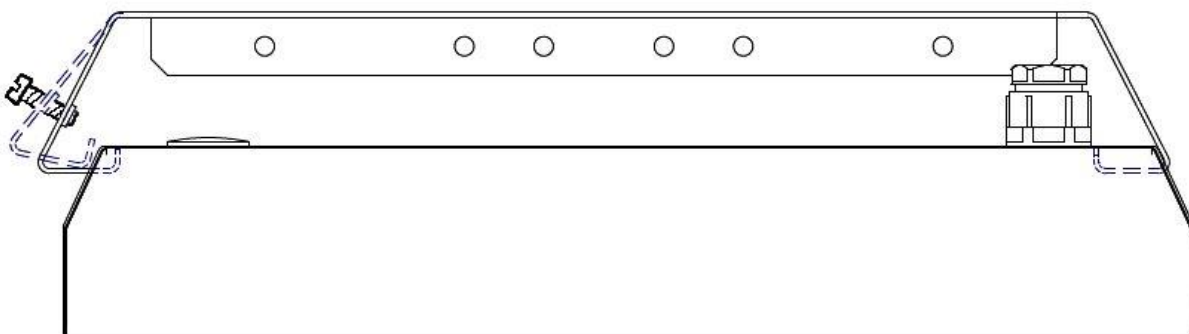
- ❑ **IMPORTANT!** Ensure that the mounting surface is capable of supporting the weight of the heater.
- ❑ **IMPORTANT!** ESP2 Radiant Cassettes are not recommended where ceiling heights exceed 10m.
- X **DO NOT** place heater directly below any electrical socket / connection. Leave at least 1m gap.
- X **DO NOT** allow any flammable objects to come within 1m of the front radiant surface and 0.25m from the back.
- X **DO NOT** allow other services' / equipment to be positioned above the panel heaters.
- X **IMPORTANT!** When installing a panel with standard mounting brackets, pay general attention to the temperature resistance of the wall / ceiling materials. In continuous operation, temperatures of up to 90°C can occur behind the panels (at a room temperature of 25°C). In the case of temperature sensitive ceiling materials, hanging on cables or chains is an effective way to prevent the temperature from rising by increasing the distance between the heating panel and the ceiling.
- X **IMPORTANT!** When installed on wood, temperatures behind the panels can lead to drying out, which may result in fading, cracking and even deformation of the wood. This effect depends on the type of wood, the humidity of the wood and the relative humidity in the room. Pay attention to the professional and safe installation of the panel, especially for these substrates.
- X **IMPORTANT!** When ceiling mounting observe recommended minimum mounting height of 3.0 metres and do not mount closer than 1.5m to any wall.

### 3.1 CEILING MOUNTING



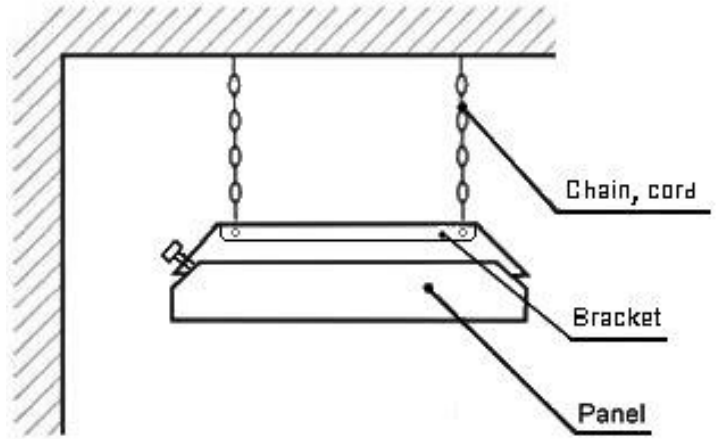
Panels can be mounted directly on to a suitable ceiling (see warnings above).

- 3.1.1 Use the mounting brackets (supplied) and mount onto ceiling using a minimum of 2 suitable screws (not supplied) in each bracket.
- 3.1.2 Attach suitable electrical cable to the heater following instructions below. Do not connect other end of cable to mains supply until Cassette is installed and secured to the ceiling.
- 3.1.3 Slide the Cassette into the brackets as shown.
- 3.1.4 The screw in each bracket must be fully tightened after installation to ensure that it will not drop out of the bracket should it get knocked.



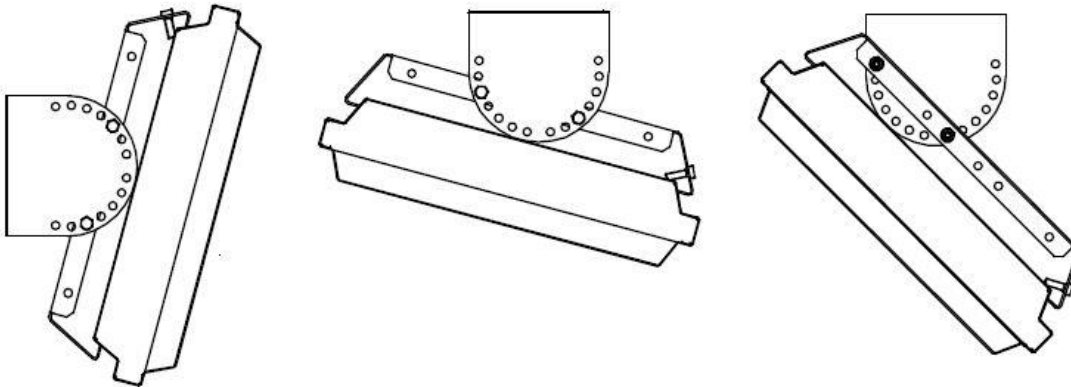
### 3.2 HUNG MOUNTING

Panels can be hung from a suitable ceiling or beam using chains or cords which must be attached to the supplied brackets on the back of the Cassette. Attach the chain or cord to the two holes furthest apart on each bracket.



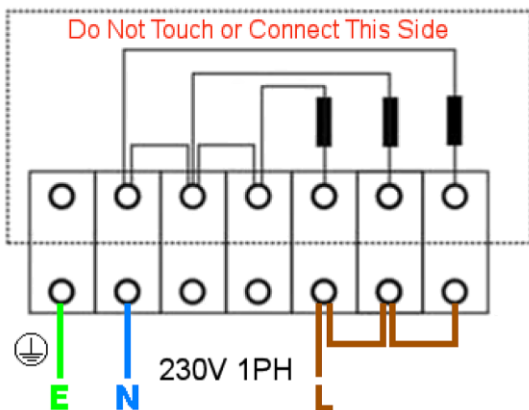
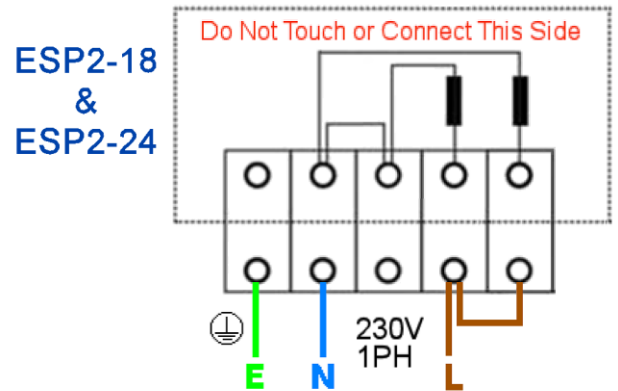
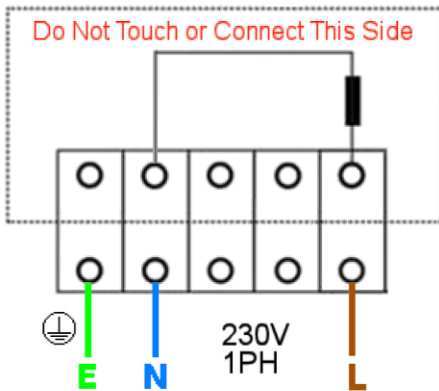
### 3.3 WALL MOUNTING

The cassette can be wall mounted or ceiling mounted at an angle using the ESP2-B optional brackets

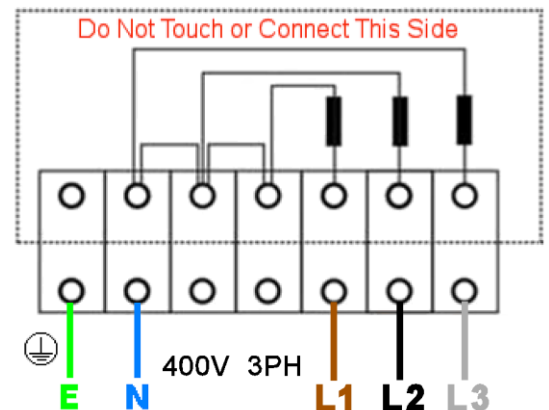


## 4. ELECTRICAL CONNECTION

- ❑ **IMPORTANT!** Ensure you have read the Safety instructions and you are a suitably qualified electrician before continuing.
- ❑ **IMPORTANT!** The voltage marked on the heater must correspond to the supply voltage.
- ❑ **IMPORTANT!** To comply with the I.E.E. Wiring Regulations, the appliance must be earthed; the supply circuit must be adequate for the input of the appliance, and the circuit protected by a suitable fuse. If the heater is to be connected to a fixed electricity supply, a suitable termination must be provided adjacent to the final position of the appliance. In this instance, such a termination must be a double pole switch with a contact separation of at least 3mm in all poles.



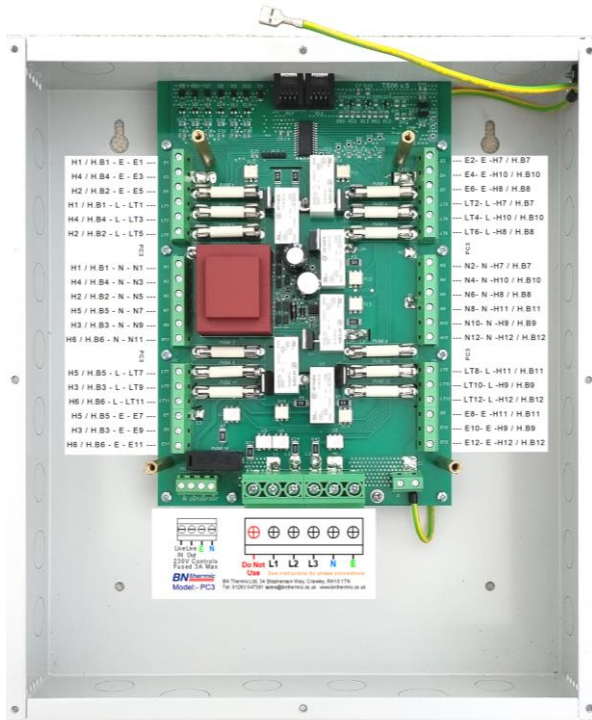
**ESP2-30 & ESP2-36**  
Can be wired single or three phase



- 4.1 Follow the above diagrams making sure you use the correct diagram for the model you are wiring. Incorrect wiring may damage the unit and is not covered by the guarantee.

## 5. USING MULTI HEATER CONTROL SYSTEM

Using our PC range of multi heater control boxes you can connect many ESP2 heaters together controlling them from one source. This approach allows the heating of the building to be adjusted by means of a simple wall-mounted controller, enhancing comfort and improving economy. It incorporates "soft start" which reduces shock loads on the power supply. Each control box can accommodate various quantities of heaters but by using additional PC control boxes, linked together, the number of heaters controlled from a single point is almost endless. All control connections are made by Cat5 cable for super-quick and error-free installation. Frost thermostats can easily be added to make this controller fully compatible with your exact requirements. Each system requires a minimum of one control box and one PC-C1 wall controller. If you require further information on multi-heater controllers, please contact us using the number below.



PC-C1 - Wall Controller

## 6. OPERATION

When energised the heater panel will provide its maximum output in around 5 Minutes. During the first heating of the panel, burning out of the material takes place, which can cause a harmless smell and (smoke) for a maximum period of 60 minutes. This is perfectly normal and only occurs for the first hour of use.

## 7. MAINTENANCE

BN Thermic Electric Heaters are factory assembled, tested and are non-user serviceable. They are designed to operate for many years, problem free. Maintenance is limited to dusting and wiping with a damp cloth and detergent. DO NOT clean the radiant surface. Note: - Before carrying out any cleaning ensure the heater has cooled down and is disconnected from the mains supply.



This product conforms to EU Directive 2012/19/EU.

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](http://www.bnthermic.co.uk) and retain this installation data for future reference.

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