

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. Please ensure instructions remain with your customer for their reference.



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. 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.

- 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 or a competent person in accordance with current electrical regulation.
- Ensure that the insulation of all the cables on the appliance is undamaged and safe, before connecting it to the power supply.
- Ensure that the cables are always protected against short circuit and overload.
- Regularly inspect the power supply cables and plugs etc. 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 and that a correctly rated fuse is fitted.
- DO NOT use worn or damaged cables, plugs or connectors. Immediately have any faulty item repaired or replaced by a qualified electrician.
- The unit should be protected by a suitably rated isolator and fuse or MCB.
- This dimmer is IP55 rated and is suitable for indoor or outdoor use.
- If any holes are made in the casing of the dimmer they must be sealed to IP55 specification using silicon sealant.

1.2 GENERAL SAFETY INSTRUCTIONS

- ✓ Remove all packaging and store it away from children.
- ✓ Familiarise yourself with the applications and limitations of the dimmer.
- X **DO NOT** use in areas where hazardous gasses or dusts may be present.
- X **DO NOT** mount the dimmer into a recess the dimmer must be mounted proud on a wall.
- X **DO NOT** disassemble the dimmer for any reason. This dimmer must be checked by qualified personnel only.
- X **DO NOT** use this dimmer to perform a task for which it has not been designed.



2. INTRODUCTION & SPECIFICATION

The VR-2 dimmer offers variable control of mains-driven loads.

Suitable for use with our Shortwave infrared Halogen Heaters, Ceramic Heaters, Terrace Heaters or Patio Heaters up to a total load of 3kW.

The dimmer is waterproof rated IP55 and as such may be used indoors or outdoors. The dimmer incorporates an ON / OFF switch and is totally variable from 30% power to 100% power.

Installation is fairly easy and once installed is maintenance free.

Applications

Typical applications include Gardens, Patios, Pub Patio Areas, Smoking Shelters, Restaurants, Warehouses, and Workshops.

Specification

Model	VR-2
Input Supply	220-240V 50Hz ac
Maximum Power	3000W
Dimensions (W x D x H)	115 x 90 x 58mm Deep (80mm Including Knob)
Max Terminal Capacity	2.5mm ²
Max Terminal Torque	0.5 Nm max
Operating Temperature	-20°C to 50°C
Output Levels	Fully Variable between 30-100%
Waterproof Rating	IP55
Weight	0.4kg

CE Marking

This unit carries a 'CE' mark and incorporates a filter (complies to BS EN55022 Class B) to address the EMC directive.

3. INSTALLATION

Mechanical Fixing

ISOLATE MAINS SUPPLY BEFORE COMMENCING ANY INSTALLATION WORK. Carefully remove the four screws which secure the front panel of the controller, taking care not to damage the Earth wire attached to the back of the box. The front panel & Earth Cable can be disconnected from the back box whilst wall-fixing is carried out but must be replaced before refitting the front panel.

If using Cable Glands it may be easier to drill the hole for these before mounting the box – See information below about cable glands.

It is recommended that the VR-2 controller should be mounted securely & horizontally on a Solid wall with suitable wall-fixings.

If used outside any additional holes drilled into the enclosure **MUST** be sealed by silicon rubber to maintain the IP rating of the controller. If this is not done and the unit is used outside it will invalidate the warranty.

4. ELECTRICAL CONNECTIONS.

Please make sure you have read the Safety instructions and that you are a suitably qualified electrician before continuing.

Drawings show connections inside the VR-2 Controller. **Do NOT use power tools to undo or do up terminal screws or front cover screws.**

Please Note:- Specified cable sizes are for typical installations, correction factors may need to be used when determining actual cable sizes.

Cable Glands

If using outside these **MUST** rated IP55 or higher and of the correct size for the cable you are using to maintain the IP rating of the dimmer.

Drill suitable size hole in the box. If mounting outside it is recommended that these holes are either on the sides or the bottom of the box.

Wiring

This Dimmer **MUST** be earthed.

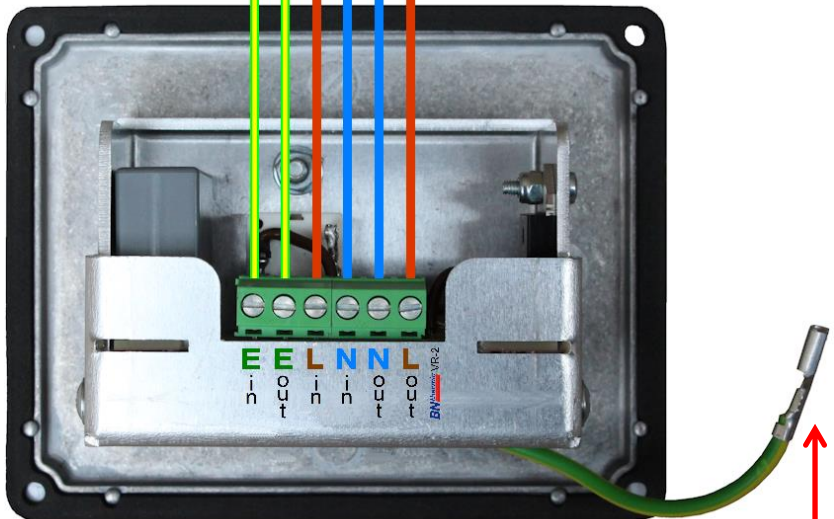
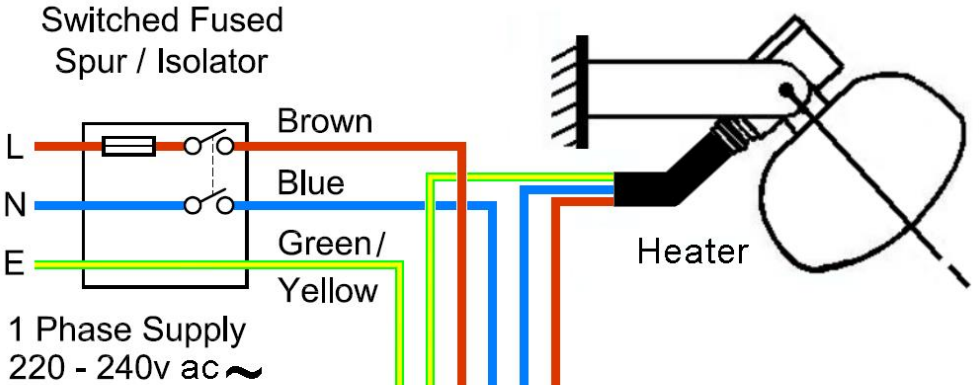
Do not use more than one single 3-core cable in each cable gland.

Use a separate cable gland for the Supply connection and one for the Load.

Connect the cables to the correct terminals as marked below the terminal block and on the drawing to the right.

Tighten the cable-glands, making sure that the rubber seal is tightly gripping the outer insulation of the cables.

The front cover should be replaced ensuring, the earth wire is securely connected to the back of the box and that the seal is seated properly in the groove on the lid.



Before refitting the lid this Earth lead **MUST** be reconnected to the back of the box.

5. OPERATION.

To turn on and increase power twist knob clockwise.

To turn off or decrease power twist knob anticlockwise.

Power is variable from approximately 30% up to 100%.

It is normal for the aluminium case to get warm and is part of the design of the dimmer.

Do not use the dimmer as a way of electrically isolating the heater.

If any maintenance is needed to the heater or dimmer the power supply must be isolated before starting.

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.



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.

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

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.

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