

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 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 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 thermostat is suitable for indoor or outdoor use.



1.2 GENERAL SAFETY INSTRUCTIONS

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

2. INTRODUCTION & SPECIFICATION

The PROSTAT3 thermostat is a highly accurate electronic temperature controller suitable for heavy duty use in public areas.

The black bulb sensor absorbs radiant heat from its surroundings. Because it absorbs heat in the same way human skin does, it reflects how warm the space feels rather than solely measuring air temperature. As a result, the thermostat may switch off the heating when the sensed radiant temperature is higher than the actual air temperature. This reduces energy consumption but may not be suitable for all applications.

Optional remote sensors are available if air temperature control is required or you wish to mount the thermostat in a separate room.

Applications

32A Industrial heater control where tamper resistant temperature control is required.

Typical applications include Shops, Schools, Restaurants, Warehouses, Church Halls and Workshops.

Model	PROSTAT3
Input Supply	220-240V 50Hz ac
Maximum Power	7200W 32A
Contacts	Single pole, single throw
Dimensions (W x H x D)	125mm x 140mm x 78mm
Ingress Protection	IP65
Weight	0.32kg
Temperature Ranges	0°C to 20°C or 10°C to 30°C (Selectable)
Differential	1°C
Sensor	Integral 'black bulb'
Special Features	Window opening option. Supplied with 2 x M20 cable glands. Electronic soft start – Stops the relay contacts arching when turning on and off. This often occurs when switching high currents, so prolongs relay life.

3. MOUNTING / ELECTRICAL CONNECTIONS

Do NOT use power tools to undo or do up electrical terminal screws or front cover screws.

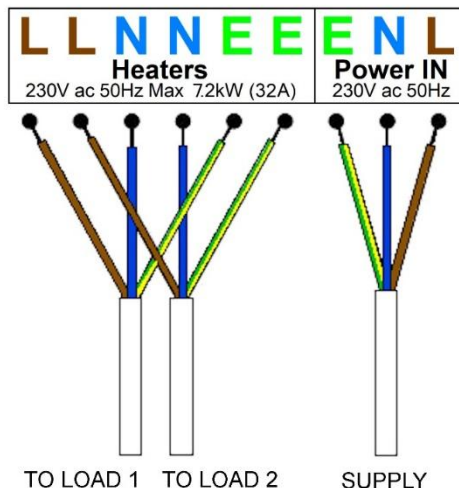
Please Note:- This Thermostat will only switch a maximum 32A load (7.2kW), if you require it to switch a greater load a contactor **MUST** be used in the circuit (contactors available from BN Thermic).

Mounting / Sighting of Thermostat

The black bulb sensor absorbs infrared heat produced by heaters especially if installing with ESP2 or RP radiant panel heaters. This tends to turn the heating off before the air temperature is reached. If this is a problem and you wish it to detect air temperature mount the thermostat as far away from the panel heaters as possible or add an air temperature sensor.

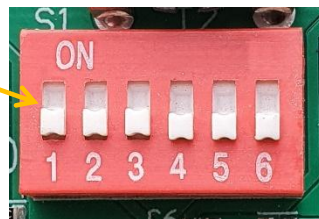
Installing

- 1) Remove front cover by undoing the four corner screws. Remove lid with care as there is a flexible cable link between the switch and circuit board.
- 2) Use the 4 holes in the corners to attach the controller to a suitable surface as these will maintain the IP65 rating.
- 3) Drill box to accept cable glands. We supply 2 x M20 cable glands with each controller these require a 20mm hole to be drilled for them. If you need to drill additional holes remember to waterproof these holes or use suitable IP rated cable glands to maintain the IP65 waterproof rating (should you require).
- 4) Connect wiring as shown in diagram below.
- 5) Do NOT use power tools to tighten up the terminal screws but ensure the screws are correctly tightened.



4. CONFIGURATION.

1. Ensure the metal link is present in the small green terminal block marked J2.
2. Select which temperature range you require by using switch No 1.
ON = 0°C to 20°C and uses the white rotary knob to set the temperature.
OFF = 10°C to 30°C and uses the black rotary knob to set the temperature.
3. Decide if you require window opening (see section 7)
4. Fit cover securely using all 4 corner screws.

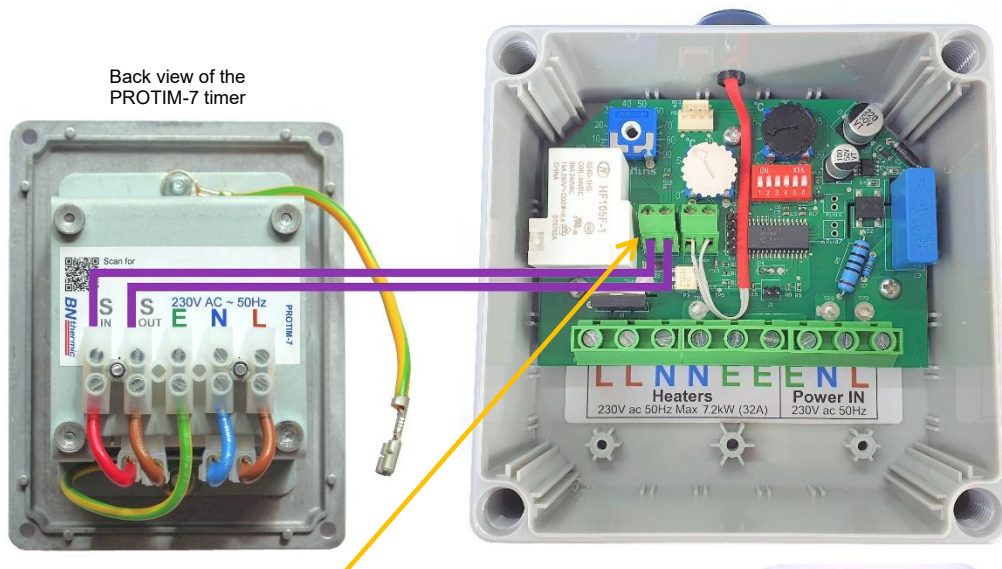


When the power is turned on, the thermostat will start to turn the heating ON / OFF maintaining temperature set point.

NOTE:- Switch's 3 - 6 are disabled and have no function.

5. USING WITH A REMOTE VOLT-FREE TIMER OR BMS.

The time switch takes over controlling when the thermostat operates.



1. Remove the metal link in the small green terminal block marked J2.
2. Connect the PROTIM-7 so that one wire runs between S-in to one of the green J2 terminal blocks and another wire between S-out and the other J2 green terminal as shown in picture above. DO NOT CONNECT THESE 2 WIRES TO A 240V SUPPLY. Please note there is only 5V DC present so doorbell wire can be used to connect between the controllers.
3. Wire PROTIM-7 to suitable fused supply as per timer's instructions.

BMS – Building management system

The controller can also be connected to a zero-volt relay controlled by a building management system. When the relay is open thermostat is OFF, when relay is closed thermostat turns ON.



Optional PROTIM-7
7 Day Time Switch

6. INSTALLING A REMOTE SENSOR.

If you wish to place the thermostat in a separate area such as an adjacent room or cupboard from the room you are heating, a remote sensor will be required to detect the temperature.

There are four different sensors available.

- 1) Black Bulb Sensor (Part No. BBS) – Used for detecting the infrared heat given out by your heaters.
- 2) Black Bulb Sensor IP Rated (Part No. BBSIP) – Used for detecting the infrared heat given out by your heaters but is rated IP65 for use in damp, wet conditions.
- 3) Air Sensor (Part No. CXS) – Used for detecting the air temperature.
- 4) Air Sensor IP rated (Part No CXSIP) – Rates IP65 for use in damp, wet conditions.

Connecting a Remote Sensor

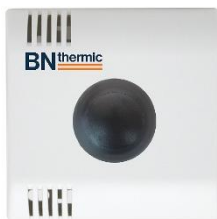
- 1) Disconnect the thermostat's built-in sensor wires making sure the wire ends cannot come into contact with anything live by insulating them.
- 2) Using any insulated copper wire connect the remote sensor to the green sensor terminals marked J3 on the circuit board as per picture.



BBSIP Sensor



CXS/CXSIP Sensor



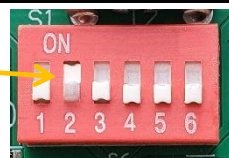
BBS Sensor



7. WINDOW OPENING.

There is an energy saving feature built into this controller if required. Should the temperature suddenly drop indicating that an outside window or door is open, the heaters will turn off for a short period of time before returning to full power.

This may be useful if you are using a single heater in a small room. By default, this function is OFF but if you require it, just move switch No.2 to the ON position on the circuit board when setting the thermostat.



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.

BN Thermic Ltd,
34 Stephenson Way,
Crawley, RH10 1TN
Tel: 01293 547361
sales@bnthermic.co.uk
www.bnthermic.co.uk

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