

## OPERATING INSTRUCTIONS

Place the test tube blocks into the heating chamber, it is important to use blocks that have been machined flat to ensure good thermal contact with the heating plate.

- ⇒ Connect the power cord to a properly grounded 3-pin outlet.
- ⇒ Press the power switch to on (situated on the rear panel).
- ⇒ The display will show the software version number, then indicate the current block temperature.

### **To check temperature settings**

- ⇒ Push SELECT once to show set temperature (digit flashing).
- ⇒ Push SELECT again to revert back to current block temperature.

### **To set or change temperature**

- ⇒ To set temperature push and hold down SELECT wait for second beep, (approx 2 seconds).
- ⇒ The flashing digit may be changed as required with the INCREASE/ DECREASE keys.
- ⇒ Push SELECT once moves flashing digit to the next left.
- ⇒ Push SELECT again to revert back to current temperature

**Note:** Holding down the INCREASE/ DECREASE keys will allow the display to scroll.

### **Alarm operation**

The over temperature alarm is incorporated as a safety feature in the event of controller failure.

The alarm will operate at set temperature plus alarm value.

For example, if the set temperature is 37° and alarm setting is 5.0°, the alarm will operate at 42°.

### **To set the alarm value**

- ⇒ Push and hold the SELECT and INCREASE keys simultaneously until the second beep is heard.
- ⇒ Adjust alarm value using the INCREASE or DECREASE keys.
- ⇒ Once set, push SELECT to return to normal control mode.

**NOTE:** When the set temperature is reset below the current block temperature, the alarm will be disabled until the temperature in the block cools to the set temperature.

The alarm will then operate as normal.

## SPECIFICATIONS

Power requirements:	240v AC 165 watt.
Heating element:	High efficiency cartridge
Capacity:	2 standard Ratek test tube blocks 95 x 75 x 50mm
Control type:	Custom Digital Microprocessor with LED display
Temperature control Range:	Ambient + 5° to 150°C.
Control stability:	0.2°C
Display resolution:	1 °C
Safety features:	Adjustable over temperature alarm. Mechanical auto reset over temperature cut out

Temperature control and stability figures assume that Ratek machined blocks are used.

### **SERVICE**

Should the unit fail to operate correctly, any service work should be carried out by a qualified technician.

Unauthorised tampering will invalidate the manufacturer's guarantee.

### **MAINTENANCE**

Regular cleaning is the only maintenance required.

## PRODUCT WARRANTY

Ratek equipment is covered by a 12 month parts and labour warranty effective from the date of purchase.

This warranty covers the repair or replacement of any parts or components found to be defective, subject to the service options listed below.

This warranty excludes any defect resulting from misuse, neglect, accidental damage, improper voltage, or any alteration which affects the performance of the equipment.

- Does not extend to any costs associated with the delivery, damage, or loss incurred during transport.
- Is in addition to any Statutory regulations and provisions implied by the Trade Practices Act and any relevant State or Federal Government obligations.

For warranty service the following options are available:

- Contact the supplier from where the equipment was purchased to arrange for service.
- Return the equipment direct to Ratek Instruments, 60 Wadhurst Drive, Boronia, Vic 3155.

Warranty repairs not returned to Ratek can be undertaken by authorised service personnel but are limited to a parts only warranty.

Note: Proof of purchase is required for all warranty repairs.



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FOR

DBH20D DRY BLOCK HEATER



FOR ADDITIONAL INFORMATION / TECHNICAL SUPPORT

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