



Laboratory Equipment Pty Ltd

INSTRUCTION MANUAL FOR BOILING BATHS

Laboratory Equipment Pty Ltd
"Proudly Australian Owned and Operated."
26 Farr Street, Marrickville NSW 2204
Phone +61 02 95602811 Fax +61 02 95606131
www.labec.com.au

I. Introduction

Thermostat water bath is widely used for dryness, concentration, distillation and impregnation chemical reagents, impregnated medical products and biological products. In addition, thermostat water bath is also used in water-bath thermostat and other temperature tests. Therefore, thermostat water bath is an indispensable tool in the fields of biology, heritance, aquaculture, environmental protection, medical care, hygiene, biochemistry laboratory, analysis room, education and scientific research.

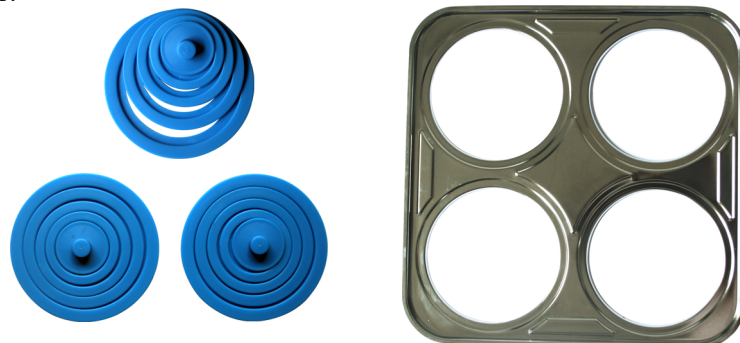
II. Features

1. Temperature controller is covered with protection frames with male and female faces to prevent boiling water overflowing from the controller during the heating and resulting in damage or destroy temperature controller. Control panel has an inclined angle to increase the comfort of operator. Double-row blue LED display screens shows bright and soft digitals.



2. The liner of thermostat water bath is made by using one-step forming technology to keep the entire liner free from any joints or welds, so as to eliminate the problems of rust, corrosion and water leakage from the welds on the former water bath. Four corners of this water bath is arc-shaped and without dead ends, so that it is easy to clean and extend service life.

3. The liner and cover plate of thermostat water bath are made of imported high-quality 304 stainless steel. The surface is featured with anti-corrosion and rust-free after accepting re-treatment. The size of beaker hole can be arbitrarily changed to meet the users' needs.



4. The drain valve at the outlet is easy for use and beautiful in appearance.



III. Technical Parameters

Product Name	Specification & Model	Temperature Control Range	Power	Distinguishing Ability	Dimensions of Working Chamber
Digital Display Thermostat Water Bath	BEM1D	Room temperature~100°C	300W	0.1°C	160*160*130mm
	BEM2D	Room temperature ~100°C	600W	0.1°C	305*160*130mm
	BEM4D	Room temperature ~100°C	800W	0.1°C	305*305*130mm
	BEM6D	Room temperature ~100°C	1200W	0.1°C	470*305*130mm
	BEM8D	Room temperature ~100°C	1500W	0.1°C	600*290*130mm
Power supply: 220v. 50HZ Constant temperature: room temperature+5°C-100°C					

1. Set the temperature:

Press the SET button to set the temperature. Press the digitrons under the SET button to make data flash (normal temperature measurement above the SET button). In this moment, make the instrument to enter the state of setting temperature. Press the Δ button to increase the set value, press the Δ button to reduce the set value and then press the SET button to make the instrument back to normal operation state and complete temperature setting process.

2. Correct sensor errors:

Press the SET button for three seconds to enter in the instrument menu, select the parameter SC and then press Δ button or \square button to correct the error. For the sensor with display resolution of 0.1°, keep the sensor error correction range as $\pm 19.9^\circ$; and for the sensor with display resolution of 1°, keep the sensor error correction range as $\pm 50^\circ$. Complete the correction and then press the SET button again to exit. The correction value is 0 when the instrument out of the factory.

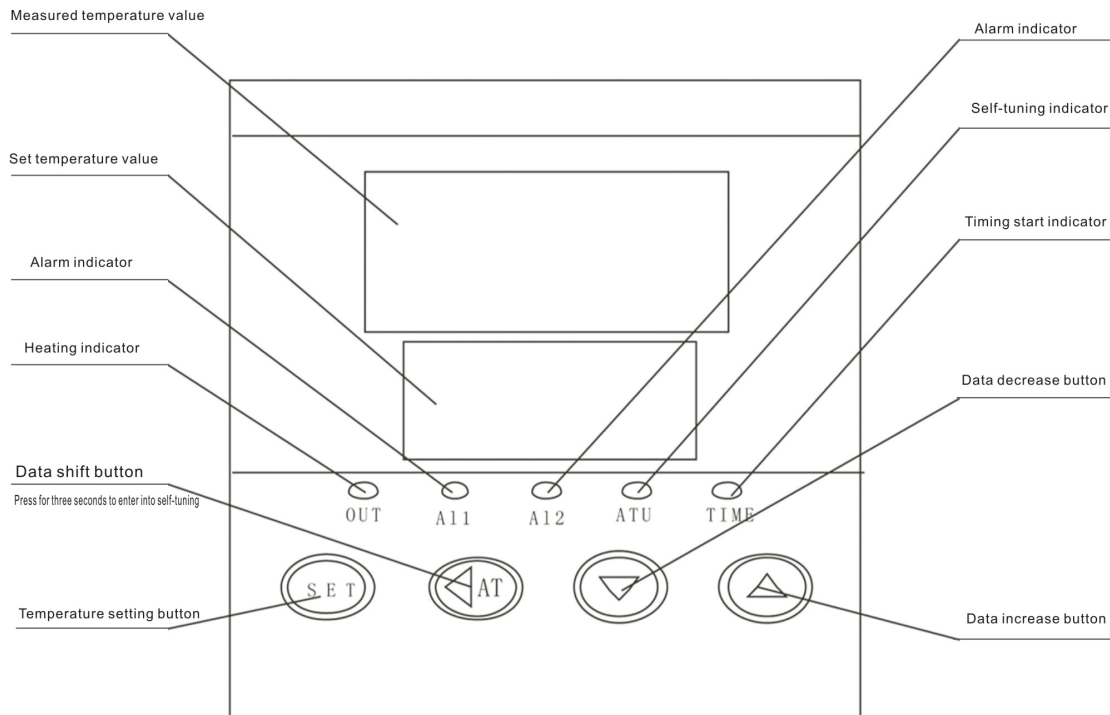
3. Start self-tuning

This product can match with majority control systems. Self-tuning can be started only when control effect is particularly unsatisfactory.

Method 1: Supply the power to the instrument and then press SHIFT button for three seconds to start self-tuning.

Method 2: Press the SET button for three seconds to enter the instrument menu, select the

parameter At and press the Δ button to regulate the lower row into 1 and then press SET button for three seconds to start self-tuning. When self-tuning is activated, Atu indicator keeps flashing. The process shows that the instrument's heating control system fluctuates twice in the vicinity of the set point. When Atu indicator turns off, self-tuning is completed and new PID parameters are latched and saved in the chip.



Create the perfect, pursue the excellence

V. Precautions

If the water batch fails to in normal work, the faults may occur as follows:


1. When the instrument gives normal display but temperature is suddenly out of control, check whether short circuit or open circuit occurs on the external load.
2. When the instrument shows that HHH measured value exceeds the upper limit of measurement range or temperature sensor is disconnected, check whether the displayed LLL measured value is lower than the lower limit of measurement range.


VI. After-sales service


1. Our company is responsible for providing warranty for any problems caused by the product quality within one year after the date of purchasing the product. However, our company will not assume any and related maintenance costs incurred by any product defaults caused by improper use or man-made damage by the user.
2. The product must accept the warranty service by depending on the warranty sheet.
3. Once the product's internal structure or the parts that is indicated for prohibiting disassembly in the User's Manual is disassembled, it shall be deemed as man-made damage.
4. The user shall pay maintenance costs incurred beyond the warranty period.


Safety Guide





 **Warning:** The symbol reminds the user that the current operation is dangerous or harmful to person body.


 **Note:** The symbol reminds the user that the current operation is an importance operation or maintenance instruction.


 Do not attempt to disassemble the product without authorization.


 Do not attempt to replace the power cord without authorization.

 Without our company's explicit permission, any changes or modifications to the product are likely to inconvenient and harmful to the user.

 When any unusual circumstance occurs in the process of work, immediately turn off the instrument and disconnect the power. If necessary, appoint the qualified service personnel for maintenance.

 Before cleaning or moving the water bath, turn off the power and pull out the plug.

 The product does not apply to culture the toxic substances and articles containing volatile chemical solvents, low-concentration explosive gases and low-ignition-point gases.

 In order to make the product work normally and prevent unnecessary accidents, pay attention to storage condition; avoid tilting and maintain balance; and try to avoid using the product in a cold environment.