



# INSTRUCTION MANUAL



Laboratory Equipment Pty Ltd

Laboratory Equipment Pty Ltd  
email: [sales@labec.com.au](mailto:sales@labec.com.au)  
Ph: 02 9560 2811 • Fax: 02 9560 6131  
[www.labec.com.au](http://www.labec.com.au)

## **Introduction**

Congratulations on the choice of an Australian made quality product. Labec products are manufactured, tested and calibrated to meet published standard specifications under our strict quality assurance guidelines.

This Instruction Manual is for the guidance of operators of Labec Water Baths and should be read before the water bath is connected to the electricity supply.

It is hoped that this manual will supply all the information that the customer should require for satisfactory operation of the water bath. If, however, there are any questions that remain unanswered then the customer should contact our Service Department.

## **Unpacking**

Remove all packing and protective wrapping from both interior and exterior of the water bath. Check the water bath for any possible transit damage. Ensure all ordered accessories are present. If any physical damage or shortages are evident, do not discard the packaging material until the water bath is inspected by the distributor, agent or manufacturer.

**NOTE: All claims for shortage or damage must be made within fourteen days (14) from delivery.**

Subject to our standard published conditions of sale, we have reasonable grounds to believe that we have ensured, so far as is reasonably practical, that the products listed in our catalogue and brochures have been designed and constructed so as to be safe and without risk to health when properly installed and used in their environment by appropriate and trained personnel, and where applicable, in accordance with our published instructions.

## **Installation**

### **Electrical**

**This equipment must be tagged and tested according to AS/NZS3760:2010 prior to use and thereafter on a regular basis dependent upon the environment.**

It is preferable to locate the bath close to a power point and recommended that double adaptors are not used. Check the total wattage if connecting to multi-point outlets. Check the rating plate for power requirements. Installation is to be carried out by a qualified electrician in accordance with the power requirements of the product specifications. **Ensure the unit is Tag Tested prior to first power up.**

### **Location**

Select a location free from draught and away from direct sunlight or other heat source.

### **Circulating Pump**

If a circulating pump is fitted there will be two small holes at the end of the bath. The upper hole is the inlet and sucks the water in and then pushes it out the lower outlet hole across the heating elements under the tray. Ensure before the bath is ever turned on that the upper inlet holes is well covered at all times. Test the water pump is circulating with your finger and if not you will need to push some water into the inlet hole using a hose or similar to push the airlock out of the pump system.

### **Temperature Control**

LABEC water baths are fitted with either simmerstat/thermostat controls or temperature controller as per Appendix A, connected to the element. The water bath has been stringently tested before shipment to ensure all is in working order.

### Description of Controls

If temperature controller or if a simmerstat/thermostat set the desired temperature or heating level by turning the knob clockwise or adjusting the temperature controller as per Appendix A. An orange heater light will illuminate when power is being supplied to the elements.

### Caution

Please observe the following safety measures before using your LABEC equipment.

1. These water baths are **NOT FLAME PROOF** and under no circumstances should inflammable, combustible or explosive material be placed in the water bath.
2. Low ignition temperature materials and those materials which give off inflammable or explosive vapors should not be placed in the water bath.
3. Avoid heating substances which give off corrosive vapor.
4. Users are advised of the dangers of heating combustible materials. The manufacturer can recommend special types of elements which will prohibit the water baths temperature reaching known ignition points.
5. Observe those rules pertaining to wiring and installation of electrical appliances as recommended by the local supply authority.
6. The pump is not self-priming. Ensure the water level is always above the pump intake to prevent the motor from burning out. Max operating temp for the bath/motor is +85°C.

### WARNING

It is detrimental for any of the substances listed below to be inside this equipment. The interior of the water bath may be damaged if exposed to any of them. Corrosion of the stainless steel and other surfaces will be directly attributable to the presence of one or more of these substances and will not be a defect or failure for which the manufacturer will accept responsibility.

	SALT	ACIDS	MISCELLANEOUS
ORGANIC SUBSTANCES			
ALKAFORM	AMMONIUM BROMIDE	ACETIC	BROMIDE
ANAESTHESIA	AMMONIUM CHLORIDE	BORIC	CHLORINE
CARBON	CALCIUM CHLORIDE	CARBOLIC (PHENOL)	FLUORINE
TETRACHLORIDE	CALCIUM HYPOCHLORITE	CHROMIC	IODINE
FORMALDEHYDE	FERRIC CHLORIDE	HYDROCYAIC	SULPHUR DIOXIDE
LYSOL(CRESOLS ETC)	HYDROGEN PEROXIDE	NITRIC	
TRICHLORETHYLENE	MAGNESIUM CHLORIDE	OXALIC	
	MERCURIC CHLORIDE	HYDROCHLORIC	

	POTASSIUM CHLORIDE	PHOSPORIC	
	POTASSIUM HYPOCHLORITE	SULPHURIC	
	POTASSIUM HYPOCHLORITE	SULPHUROUS	
	SODIUM CHLORIDE	TARTARIC	
	SODIUM HYPOCHLORITE		

### Operation

1. Connect the water bath to an alternating current supply of voltage specified on the rating plate.
2. Ensure the water level is above the elements. On boiling baths connect the constant level device to a water supply and drain.

**DANGER: THIS WATER BATH MUST NOT BE CONNECTED TO A DIRECT POWER SUPPLY**

3. Switch the MAINS on then Turn the simmerstat/thermostat or temperature controller up as required and check the indicating lamp is illuminated.
4. An indicating lamp next to the simmerstat will illuminate when the heaters are operating.
5. Ensure the over heat cut off is set by pressing it in or the overtemperature alarm AL4 is set above the desired operating temperature (depending on which is present)

### Safety Cut/ Overtemperature

If the water bath is fitted with a manual reset button, be sure this is depressed before use. If the water level is too low or runs out the switch will pop out and turn the heaters off until the reset is depressed.

If the water bath is fitted with an inbuilt over heat safety thermostat. It must be set to slightly above the desired setpoint temperature and will prevent overheating. It will maintain the Alarm Set Value. Change the ALM4 value to slightly above the setpoint temperature as set out in the instruction page. The Alarm will be activated if the bath exceeds the ALM4 value or if the sensor is broken or damaged. To restart the bath to heat, acknowledge the alarm by pressing the page and scroll keys simultaneously (left two keys on key pad).

### Maintenance

The casing is finished with stainless steel and to maintain appearance should be wiped over with a non abrasive cleanser.

The interior is also stainless steel and may also be cleaned with a solvent

## Trouble Shooting

SYMPTOM	REMEDY
No Power  (Indicator Light is off)	<ol style="list-style-type: none"><li>1. Check the water bath is plugged in and power switched on.</li><li>2. Ensure mains power supply point is functioning by using a test appliance on power socket.</li><li>3. Check internal RCD has not tripped.</li></ol>
Failure to heat or maintain temperature  (Indicator light is on)	<ol style="list-style-type: none"><li>1. Ensure the temperature controller set point is above ambient.</li><li>2. Check the safety controller fitted is above the main controller setting.</li><li>3. Cut out button has popped out (if fitted).</li></ol>

If the fault cannot be found call your distributor or the manufacturer quoting the serial number of the unit from the manufacturers label.

### Declaration of Conformity

Each product is thoroughly inspected and tested to not only ensure that it meets the specifications provided, but to also meet Australian Electrical Standard AS3820 and EMC Standard AS/NZ1044:1995, and therefore being accredited with a C Tick label.