



Laboratory Equipment Pty Ltd

INSTRUCTION MANUAL FOR HEAVY ACID HOT PLATES

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

Introduction

Congratulations on the choice of a Labec 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 Hot Plate and should be read before the unit 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 Hot Plate. 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 the interior and exterior of the unit. Check the unit for the 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 unit 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 catalog 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 Hot Plate close to a powerpoint and recommend that double adaptors are not used. Check the total wattage if connecting to multipoint 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.

Location

Select a location free from drafts and away from direct sunlight or other heat sources.

Temperature Control

Labec Hot Plates are fitted with simmerstat controllers to control the hot plate. The controller has been calibrated at 250°C and before any adjustments to temperature settings are made allow the Hot Plate temperature to stabilize for at least one hour. If a digital controller is fitted please read the enclosed operating instructions when setting the controller temperature.

Description of Controls

Set Temp between LO and HI (HIO being always ON).

Caution

Please observe the following safety measures before using your LABEC equipment. Please read and follow the IQOQ document supplied with this Hot Plate each and every use.

1. These units are **NOT FLAME PROOF** and under no circumstances should inflammable, combustible or explosive material be placed in the unit.
2. Low ignition temperature materials and those materials which give off inflammable or explosive vapors should not be placed in the unit.
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 unit's temperature reaching known ignition points.
5. Observe those rules pertaining to wiring and installation of electrical appliances as recommended by the local supply authority.

WARNING

It is detrimental for any of the substances listed below to be inside this equipment. The interior of the unit may be damaged if exposed to any of them. Corrosion of the 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.

ORGANIC SUBSTANCES	SALT	ACIDS	MISCELLANEOUS
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	SULPHURIC	

	HYPOCHLORITE		
	POTASSIUM HYPOCHLORITE	SULPHUROUS	
	SODIUM CHLORIDE	TARTARIC	
	SODIUM HYPOCHLORITE		

Operation

1. Connect the Hot Plate to an alternating current supply of voltage specified on the rating plate mounted on the side or rear of the chamber.

DANGER: THIS UNIT MUST NOT BE CONNECTED TO DIRECT CURRENT SUPPLY

2. Turn on the mains and check to see that the illuminating lamp is illuminated.

3. Set the target temperature or set point temperature using the dial knob or up and down arrows on the front of the controller.

4. Final adjustment of the temperature controller may be required after the Hot Plate has reached operating temperature and this should be checked with a suitable thermometer located in the Hot Plate (A thermometer is not supplied with the unit).

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

Heating

Heating of the unit is by means of heating elements located under the aluminum block

Safety Information

Isolate the unit from the electrical supply before changing elements or thermocouples or undertaking other routine maintenance. Ensure that the Hot Plate is cold.

When reconnecting the Hot Plate, ensure that the electrical connections are sound including earth supply continuity.

Wear appropriate safety clothing when operating the Hot Plate, including a heat resistant face shield (tinted for eye protection), gloves and apron.

Load and unload "hot" work with oven tongs.

Do NOT use the Hot Plate in the presence of inflammable or combustible chemicals: fire or explosion may result. To avoid fire, do not expose combustible materials to heat .

Safety Note Insulation

This Hot Plate contains rockwool fibers in its thermal insulation. The materials used may be in the form of fiber blanket or felt, vacuum formed board or shapes, mineral wool slab or loose fill fiber. Normal use of the Hot Plate will not result in any significant level of airborne dust from these materials; but much higher levels may be encountered in maintenance or repair.

Whilst there is no evidence of any long-term health hazards, we strongly recommend that safety precautions are taken whenever the materials are handled.

Exposure to dust from fiber which has been used at high temperature may cause respiratory disease.

When handling fiber always use an approved mask, eye protection, gloves and long sleeved clothing.

After handling, rinse exposed skin with water and wash work clothing separately.

Before commencing any major repairs we recommend reference to:

- ECFIA Bulletin Number 11

- Guidance Note EH46 (U.K. Health and Safety Executive.)

We will be pleased to provide further information on request. Alternatively our Service Department will quote any repairs to be carried out at your premises or at our works.

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 AS/NZ3820 and EMC Standard AS/NZ1044:1995, and therefore being accredited with a C Tick label.