



PARAFFIN SECTION MOUNTING BATH

MH8516 MH8516/x1, MH8516/x6

INSTRUCTION BOOK

Please take your time to read this Instruction book in order to understand the safe and correct use of your new Electrothermal product.

It is recommended the Responsible Body for use of this equipment reads this Instruction book and ensures the user(s) are suitably trained in its operation.

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In the interest of continued development Electrothermal reserve the right to alter or modify the design and /or assembly process of their products without prior notification.

This product is manufactured in Great Britian by Electrothermal Engineering Limited. Part of the Bibby Scientific Group of companies. Registered address.

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1. INTRODUCTION.

The MH8516 Paraffin section bath is designed for use as a heated, distilled water floating out bath for the manipulation and location of paraffin wax sections onto glass slides.

The MH8516 Paraffin bath uses an energy regulator designed to supply power to a silicon rubber mat heater in controlled timed pulses in order to maintain accurate water temperatures. A thermal fuse is fitted as an integral part of the heater mat in order to protect against any over temperature conditions.

With a PTFE black interior and stove enameled white aluminium exterior your Electrothermal Paraffin section bath is virtually maintenance free and extremely easy to clean.

This product is supplied with an IEC moulded cord and lead set for ease of operation and the IEC socket houses protection fuses for both the live and neutral power supply lines. A White neon indicates the presence of power while the Amber neon indicates when the heater is in an 'on' state.

2. SYMBOLS AND USING THIS INSTRUCTION BOOK

2.1. Throughout this Instruction book the following symbols are shown to identify conditions which pose a hazard to the user, or to identify actions that should be observed. These symbols are also shown on the product, or its packaging. When a symbol is shown next to a paragraph or statement it is recommended the user takes particular note of that instruction in order to prevent damage to the equipment or to prevent injury to one's self or other people.

To prevent injury or equipment damage it is the manufacturer's recommendation that all persons using this equipment are suitably trained before use.

2.2. Symbols defined.



Caution, risk of danger. See note or adjacent symbol.



Protective conductor terminal to be earthed.
(Do not loosen or disconnect).



Caution / risk of electric shock



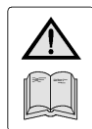
Recyclable Packing Material



Do not dispose of product in normal domestic waste.



Caution. Hot surface.



Refer to Instruction book



This symbol adjacent to an indication lamp means mains power
Off/On when lamp non-illuminated / illuminated



This symbol is used to identify the Bath Heater on Control and bath
heater "ON" indicator.



Bio Chemical Hazard. Caution required. Will require decontamination.

3. SAFETY INFORMATION.

This product has been designed for safe operation when used as detailed in accordance with the Manufacturer's instructions.

NOTE: Failure to use this equipment in accordance with the manufacturer's instructions may compromise your basic safety protection afforded by the equipment and may invalidate the warranty / guarantee. The warranty / guarantee does not cover damaged caused by faulty installation or misuse of the equipment

3.1. Prevention of Fire and Electric Shock.



To prevent a risk of fire or electric shock, **DO NOT** open your product case without authorisation. Only qualified Service personnel should attempt to repair this product.



Replace fuses only with the type as listed in section, 'Technical Specifications and Parts and Accessories' (See fuse type and rating).



Ensure the Mains Power Supply conforms to rating found on the data plate located on the back of this product.



Never Operate this equipment without connection to earth / ground. Ensure the mains supply voltage is correctly earthed / grounded in accordance with current area legislation.

3.2. General Safe Operating Practice.



Always follow good laboratory practice when using this equipment. Give due recognition to your company's safety and legislative health & safety procedures and all associated legislation applicable to your areas of operation.



Only use this equipment for the purpose intended.



Ensure equipment is used on a clean, dry, non-combustible, solid work surface with at least 300mm suitable clearance all around from other equipment.



Do not position the product so that it is difficult to disconnect from the mains supply.



Do not lean or stretch over equipment.



Do not immerse unit in water or fluids.



Do not spill chemicals over this product. If spillage does occur, disconnect unit from mains supply and follow instructions as detailed in Maintenance. (Section 9).



Do not cover this equipment whilst in use or obstruct cooling vents.



Do not leave equipment switched on when empty.



It is not recommended to leave any heating apparatus unattended during operation.



Only use Original Equipment 'Manufacturer's Spares and Accessories'. Ref Section 11.



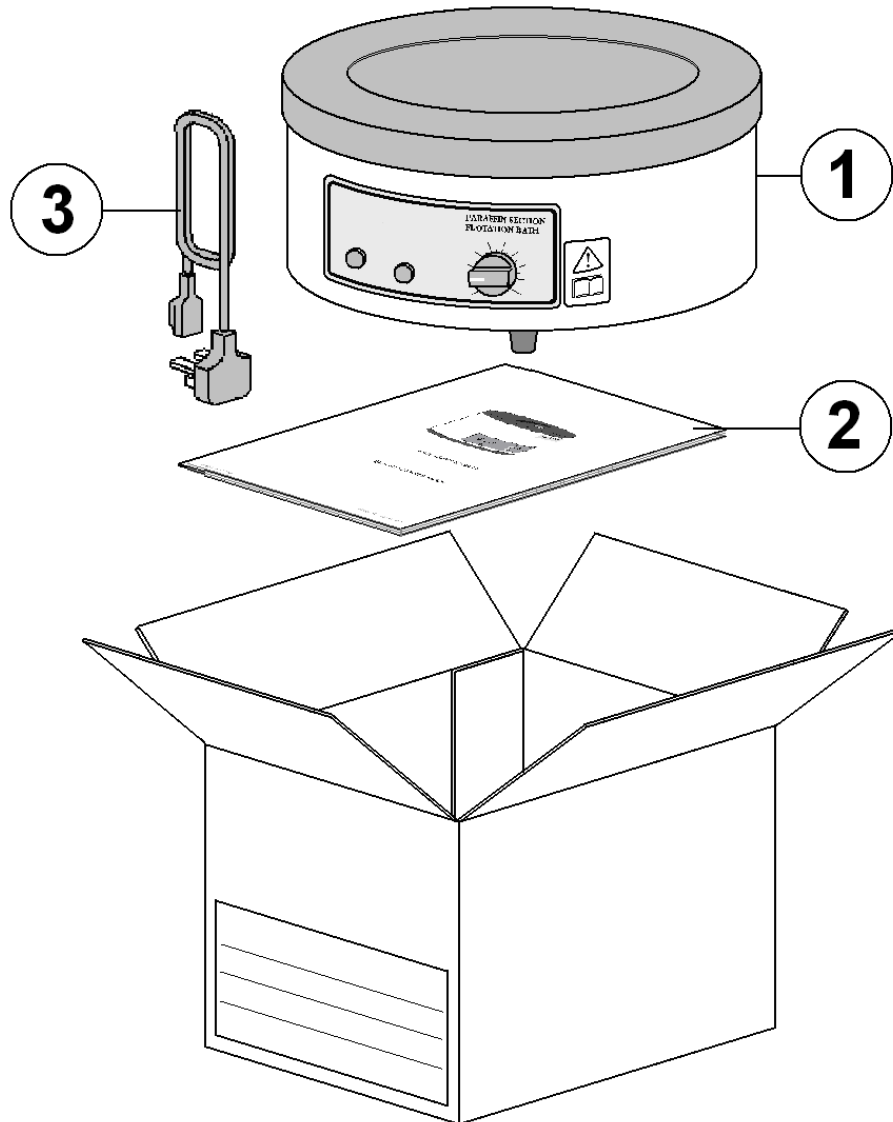
The equipment is not spark, flame or explosion proof and has not been designed for use in hazardous areas in terms of BSEN 60079-14:1997. Keep flammable, low flash point substances away from the apparatus.



Do not operate or handle any part of the product with wet hands.

4. UNPACKING AND CONTENTS

4.1. Please check the contents of your carton against the diagram.



Contents.

Item	Description	Qty
1	Paraffin Section Mounting Bath	1
2	Instruction book (<i>this document</i>).	1
3	Mains lead and moulded IEC plug set. <i>(Illustration may be different to lead set supplied depending on country of use).</i>	1

	Serial Number	Model Number
For future reference please record your products Serial and Model Number.		

5. INSTALATION

5.1. Electrical safety and installation.

5.1.1. This equipment is designed for safe use under the following conditions:-

- Indoor use.
- Altitude up to 2000 meters.
- Temperatures between 5°C and 40°C.
- Maximum relative humidity 80% for temperatures up to 31°C decreasing linearly to 50% relative humidity at 40°C.
- Mains supply voltage fluctuations up to $\pm 10\%$ of the nominal voltage.
- Transient overvoltages typically present on the mains supply.
- Applicable rated pollution degree 2.



5.2. This equipment must be earthed / grounded to a fixed earth / grounded mains socket outlet. The mains supply is to be earthed / grounded in accordance with current legislation.

5.3. Ensure only the correct rated mains input fuses are fitted. (Where applicable ensure the correct Mains cord and moulded IEC plug and lead set fuse if fitted). See Technical Specification Section 8 of this Instructions book.

5.4. Check the voltage on the product data label on this product unit and those of any accompanying electrical accessory. Ensure the rating conforms to your local supply.

5.5. It is recommended this product be connected to a mains supply source which incorporates an RCD or GFCI device.



5.6. Do not install this product or accessories on a surface which may become wet.

5.7. The unit is supplied with a Mains cord wired as follows:



Green / Yellow	or	Green	=	Earth / Ground
Blue	or	White	=	Neutral
Brown	or	Black	=	Live / line hot.

6. ENVIRONMENTAL PROTECTION.

- 6.1. Electrothermal has given due consideration to environmental issues within the design and manufacturing process without compromising end product performance and value.



- 6.2. Packaging materials have been selected such that they may be sorted for recycling.



- 6.3. At the end of your product and accessories life, it must not be discarded as domestic waste. Ref: EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment Directive (WEEE). Please contact your distributor / supplier for further information. For end users outside of the EU consult applicable regulations.

- 6.4. This product should only be dismantled for recycling by an authorised recycling company.

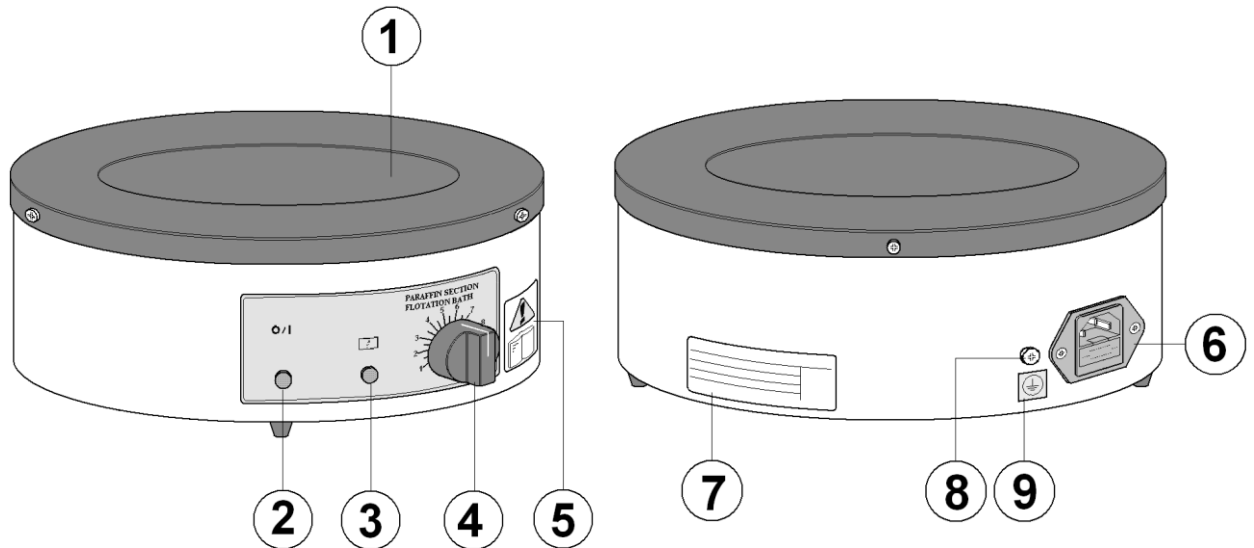


This product and accessories must be accompanied by a completed Decontamination Certificate prior to any disposal. Copies of the Certificate are available from your distributor of Electrothermal products, or you may copy and enlarge from 'Appendix A' of the instruction book.

Electrothermal is registered as Electrothermal Engineering Limited with the Environment Agency as a producer of WEEE (Waste Electrical and Electronic Equipment) through b2b Compliance, an authorised waste collection compliance scheme.

7. PRODUCT OPERATION.

7.1. The Paraffin Bath has been designed for easy operation. The illustration below shows a detailed layout of the product.



- 1 Bath tank
- 2 Mains power on neon (White).
- 3 Heater on neon. (Amber).
- 4 Temperature control regulation knob
- 5 Read instruction book label
- 6 Mains IEC plug socket and protection fuses
- 7 Data plate label
- 8 Earth bonding test point.
- 9 Earth bonding point attention label.

7.2. With the unit disconnected from the mains electricity supply, **half fill** the bath tank with distilled water.

Note: For best operation of this equipment, fill the unit with sterilized distilled water. The acceptable resistivity range is 50K to 1 Megohms (conductivity 1 to 20 micro Siemens). The acceptable pH range is 7 to 9.

Caution: Using chlorinated tap water or additives that contain chlorine will void the manufacture warranty. Similarly, high purity (deionized) water that does not fall within a resistivity range of 50K to 1 Megohms and pH range of 7 to 9 will void the manufacture warranty. If you have any questions, please contact Customer support (see page 15 of this instruction book).

7.3. Plug the unit into the mains electrical supply. Observe the illumination of the White neon indicating the presence of power.

7.4. Turn the Temperature control voltage regulator knob to the maximum setting. The objective is to set the shortest warm up time. When the heater cuts in and turns on, the amber neon will illuminate. This indicates when the heater is on.

Note: *The Amber neon will switch on and off as the energy regulator cuts in and out.*

- 7.5. When the distilled water has reached the required temperature, reduce the heating temperature and allow it to stabilise. Add further distilled water if required.
- 7.6. If an over temperature condition occurs, the bath will turn off. Disconnect from the mains electricity supply and check there is sufficient distilled water in the bath. When the unit has cooled down the thermal fuse will reset itself and operation may commence. If a lack of distilled water isn't the reason for the over temperature fault condition, refer to section 10 Customer support.

Take care not to get hot distilled water onto hands /skin

- 7.7. Regularly check the volume of distilled water present in the unit. Replenish as required.

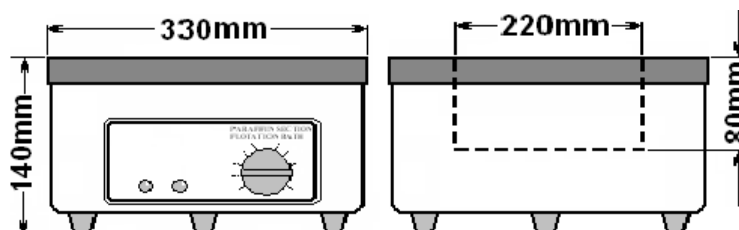
8. TECHNICAL SPECIFICATION.

8.1. Specifications.

Mains Power Supply Voltage	MH8516 and MH8516x6 230V – AC 50/60 Hz or MH8516x1 115V – AC 50/60 Hz as stated on the data plate label.
Maximum Power Consumption	240 Watt max at 230V 240 Watt max at 115V
Operational temperature and performance.	70°C Nominal with 2 litres water. Obtained within 120 minutes.
Operational climatic conditions.	Temperature range 5°C to 40°C. Humidity not to exceed 80%.
Mains Power Lead set (UK) 13A BS1362	3 core earthed / ground. 2 meters long Moulded IEC plug and Lead set – supply cord H05 V V-F- Replace only with equivalent cable.
Mains Power Lead set (Europe)	3 core earthed / ground. 2 meters long Moulded IEC plug and Lead set – supply cord H05 V V-F- Replace only with equivalent cable.
Mains Power Lead set (USA)	3 core earthed / ground. 2 meters long Moulded IEC plug and Lead set – supply cord SJT VW 1- Replace only with equivalent cable.
Lead set plug fuse (UK – only)	13A BS1362
Product Fuse Rating	230V – F1.25A (IEC127) Quick Blow Fuse 20mm x 5mm Glass. 115V – F5A (IEC127) Quick Blow Fuse 20mm x 5mm Glass.
Heating Element	Silicone Rubber Mat Heater.
Over Temperature Protection	Over temperature protection with resettable thermal fuse.
Maximum Bath Capacity	2.25 litres (0.6 US gallon), (0.5 UK gallon).
Case Construction	Aluminium bath coated interior. Stove enamelled aluminium white exterior.
Neon indicators	Power on – Clear Heater on – Amber
Controls: Bath Heater	Rotary control energy regulator labelled with graded temperature scale.

The Ingress protection rating for this product is classified as IPX 1.

8.2. Dimensions and Weight. (unpacked and empty)



Weight 2.7Kg

9. MAINTENANCE

9.1. General Information.



Unplug the unit from the mains voltage supply and allow it to cool before undertaking any maintenance tasks.



Maintenance should only be carried out under the direction of the Responsible Body, by a competent electrician. Failure to do so may result in damage to the product and in extreme cases be a danger to the end user.

With proper care in operation this equipment has been designed to give many years of reliable service. Contamination or general misuse will reduce the effective life of this product and may cause a hazard.

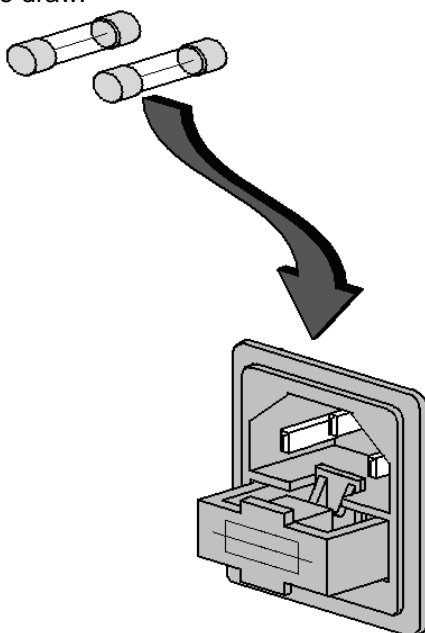
Maintenance for the unit should include:

- Periodic electrical safety testing (an annual test is recommended as the minimum requirement).
- Regular inspection for damage with particular attention to the mains lead and plug.
- Routine cleaning of the equipment should be undertaken using a clean cloth. Hot water may be used to remove any solidified wax. Allow the equipment to dry thoroughly before reconnecting the to the mains electricity supply.

DO NOT USE SOLVENTS FOR CLEANING ANY PART OF THIS EQUIPMENT.

9.2. Internal Fuse Replacement.

The mains fuse holder is located at rear your product. Refer to Technical Specification, 'Fuse Rating' for correct fuse type and rating. Turn your product off and remove it from the mains supply. Open fuse draw and remove fuses. Fit replacement fuses and close the draw.



9.3. Spillage and Decontamination.

In the event of spillage switch off and unplug this product from the mains electrical supply. Wipe off all excess liquid from the bath and surrounding area using an absorbent soft cloth. Allow sufficient time for any ingressed liquid to evaporate before commencing with use.

If in doubt please consult Customer Support. Refer to section 10.



If the equipment has been exposed to contamination, the Responsible Body is responsible for carrying out appropriate decontamination. If hazardous material has been spilt on or inside the equipment, decontamination should only be undertaken under the control of the Responsible Body with due recognition of possible hazards. Before using any cleaning or decontamination method, the Responsible Body should check with the manufacturer the proposed method will not damage the equipment.

Prior to further use, the Responsible Body shall check the electrical safety of the unit. Only if all safety requirements are met can the unit be used again. The above procedure is intended as a guide. Should spillage occur with a toxic or hazardous fluid then special precautions may be necessary.

Decontamination Certificate.

Note: In the event of this equipment or any part of the unit becoming damaged, or requiring service, the item(s) should be returned to the manufacturer for repair accompanied by a decontamination certificate. **Copies of the Certificate are available from Distributor/Manufacturer. Appendix A of this instructions book may be copied and enlarged.**

At the end of life, this product must be accompanied by a Decontamination Certificate. See section 6.3 and 6.4

10. CUSTOMER SUPPORT

For help and support in using this product, please contact at the following address.

Electrothermal.

Electrothermal House.
Unit12A, Purdeys Way.
Purdeys Industrial Estate.
Rochford,
Essex. SS4 1ND
Great Britain.

Tel +44(0)1702 303350
Fax+44(0)1702 468731

- Email: General enquiries:
info@electrothermal.com
- Orders: orders@electrothermal.com
- Help with existing products:
help@electrothermal.com and
electrothermalhelp@bibby-scientific.com
- www.electrothermal.com

**For the America's and Canada, contact:
Techne Incorporated, 3 Terri Lane,
Suite 10 Burlington, NJ 08016 USA.**

Toll free:800-225-9243Tel: 609-589-2560
Fax: 609-589-2571
Email: labproducts@techneusa.com
Http www.techneusa.com

APPENDIX 'A'. DECONTAMINATION CERTIFICATE.

Electrothermal . Electrothermal House. Unit12A, Purdeys Way. Purdeys Industrial Estate. Rochford. Essex. SS4 1ND. Great Britain Phone:+44(0)1702 303350 Fax:+44(0)1702 468731. E-mail: help@electrothermal.com		
<u>DECONTAMINATION CLEARANCE CERTIFICATE</u>		
For the Inspection, Repair or Return of Medical, Laboratory or Industrial Equipment.		
Prior to a Service Engineer working on equipment that has been in an environment where substances hazardous to health may have been used, you are requested to provide the following information:		
CUSTOMER DETAILS		
Company:-	Address:-	
Department:-		
Contact Name:-		
Tel No:-		
Fax No:-	Post Code:-	
<u>Product Description</u>		
Model No:-	Serial No:-	
Has the equipment been exposed to any of the following, Please answer all questions by deleting YES/NO as applicable and by providing details in section 2 below.		
A. Blood, body fluids, Pathological specimens	YES/NO	Provide details if YES
B. Biodegradable material that could become a hazard	YES/NO	Provide details if YES
C. Other biohazard	YES/NO	Provide details if YES
D. Chemical or substances hazardous to health	YES/NO	Provide details if YES
E. Radioactive substances State name(s) and quantities of isotopes and checks made for residual activity	YES/NO	Provide details if YES
F. Other hazards	YES/NO	Provide details if YES
2. Please provide details of any hazard present as indicated above. Include details of names and quantities of agents as appropriate:-		
3. Your method of decontamination (please describe):-		
4. Are there likely to be any areas of residual contamination (please specify)		
I declare that the above information is true and complete to the best of my knowledge and belief.		
Authorised signature:-	Name (please print):-	
Title/Position:-		
For and behalf of:-	Date:-	

11. SPARES AND ACCESSORIES

	230V	115V	Qty
Neon Clear	AZS4329	CRM5619	1
Neon Amber	AZS4330	CRM5620	1
Energy Regulator	AZ9127	AZ9128	1
Control Knob	124721	124721	1
Fuse	AZ9039 (F1.25A)	AZ9007 (F5A)	10
Plug and lead set (UK)	CRM6902	-	1
Plug and lead set (Europe)	CRM6332	-	1
Plug and lead set (USA)	-	CRM6288	1

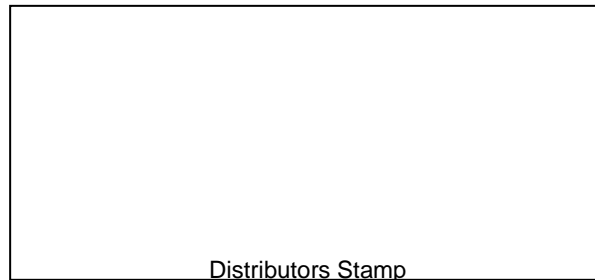
12. NOTES.

13. EC DECLARATION OF CONFORMITY.

CE marked products and associated accessories covered by this Instruction book conform to the essential requirements of the following directives:

EMC Directive.
Low Voltage Directive.

A full copy of the EC Declaration / Conformity document can be obtained from the manufacture at the email address info@electrothermal.com



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- www.electrothermal.com

For the America's and Canada, contact:
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