



PARAFFIN WAX DISPENSER

MH8523B, MH8523Bx1.

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.

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1. INTRODUCTION

The Electrothermal Paraffin Wax Dispenser heats wax to a liquid state and provides 'Wax on Tap' for pathology laboratories etc.

The temperature of the wax bath is controlled by a built in thermostat governing a temperature range from ambient to 75°C. For added safety a non-resettable thermal fuse has also been included.

To prevent wax cooldown within the tap this product is supplied with an independent temperature controlled element mounted within the tap. This control eliminates wax solidification when pouring.

With an PTFE black interior, powder coat/ white aluminium exterior and durable black metal lid the Fisher Scientific wax dispenser is maintenance free and extremely easy to clean.

The 4.5 litre capacity means there can be ample supply of wax on tap.

This product is intended for use only with paraffin wax with a melting range from 45 to 65°C inclusive.

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



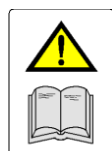
Recyclable Packing Material



Do not dispose of product in normal domestic waste.



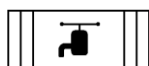
Caution. Hot surface.



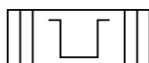
Refer to Instruction book



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



This symbol is used to identify the Tap Heater Control on the Tap Heater "ON" indication.



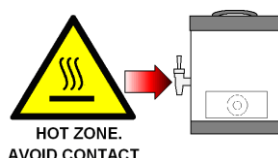
This symbol is used to identify the Bath Heater on Control and bath heater "ON" indicator.



This symbol is used to identify the Bath Heater Over-temperature indicator.



Bio Chemical Hazard. Caution required. Will require decontamination.



Hot Zone on this product is the metal tap body area.

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, 'Dispensing melted paraffin wax.



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 touch the tap body whilst in use.



Do not lean or stretch over equipment without the lid in place



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.



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.



Keep the Mains cord away from the heated tap area. (See hot Zone Illustration, paragraph 2.2).



For the higher settings of the tap heater, the external surfaces of the tap may exceed 70°C. therefore avoid contact with the surface area of the tap. (See hot Zone Illustration, paragraph 2.2).



Do not use the tap heater control at maximum (fully clockwise) setting for prolonged use, as this may damage the tap insulation cover.



Do not apply external heat to the tap.



Do not lift this equipment by the tap.



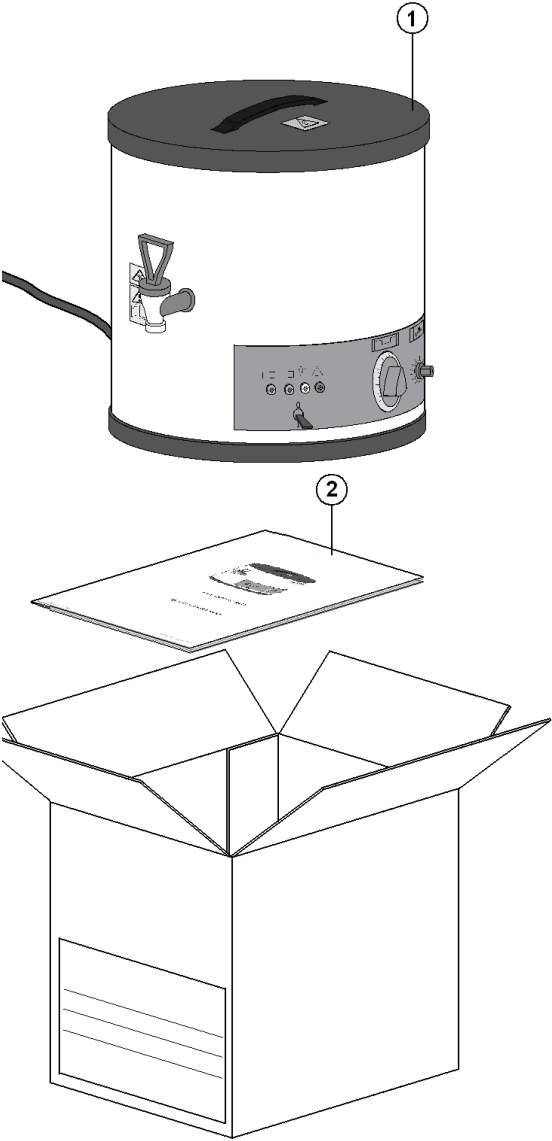
Do not move this equipment when the wax content is in a hot molten state.



The Responsible Body should refer to the Material Safety Data Sheet for the paraffin wax material being used in order to be aware off and take due measures in accordance with the stated information.

4. UNPACKING AND CONTENTS

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



Contents.

Item	Description	Qty
1	Wax dispenser unit.	1
2	Instruction book (<i>this document</i>).	1


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

5. INSTALLATION.

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 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.

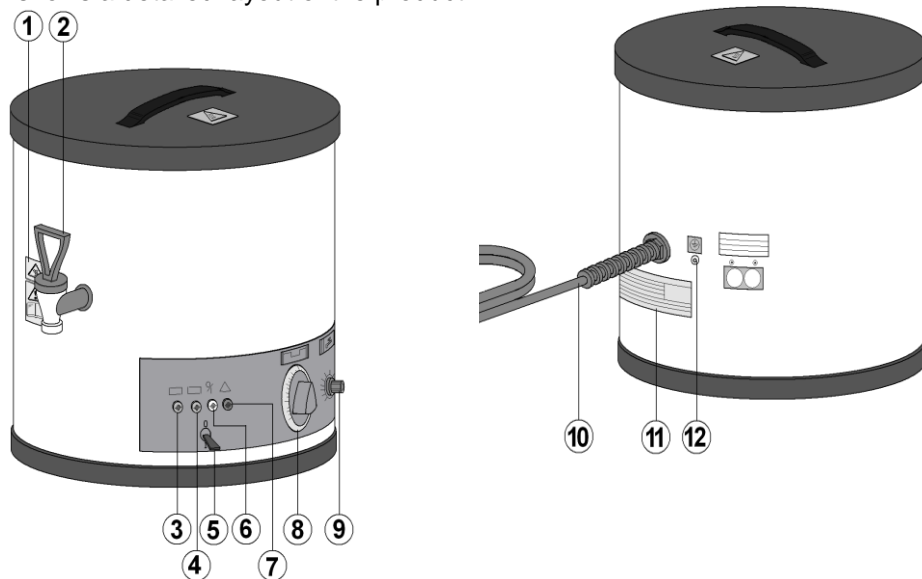


This product and accessories must be accompanied by a completed Decontamination Certificate prior to any disposal. Copies of the Certificate are available from your distributor of Electrothermal products, or you may copy and enlarge from 'Appendix A' of the instruction book.

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

7. PRODUCT OPERATION.

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



- 1 Hot surface and read instructions book labels.
- 2 Tap assembly
- 3 Tap heater on neon.
- 4 Wax bath heater on neon
- 5 On Off mains power switch
- 6 Mains power on neon
- 7 Wax bath over temperature warning neon.
- 8 Wax temperature adjustment thermostat
- 9 Tap heater adjustment control.
- 10 Mains cord with plug.
- 11 Data plate label.
- 12 Earth bonding test point.

7.2. With the unit disconnected from the mains electricity supply, remove the lid and **half fill** the bath with wax shavings or broken wax.

Attention:- Always check the wax manufacturer's specification / instructions to ensure suitability for use with MH8523B. Take note of any safety instructions / warnings relevant to the wax material being used.

7.3. Replace the lid.

Note:- A hole is provided for the insertion of a temperature measuring device if required.

7.4. Plug the unit into the mains electrical supply. Turn the unit on by the mains I/O switch and observe white power on neon is illuminated (I – setting).

- 7.5. Set the unit heater control to the maximum setting than can be made without the degradation of the wax. (Check the specification for wax being used). The objective is to set the shortest warm up time. When the heater is cuts in and turns on, the amber neon will illuminate. This indicates when the heater is on.

Note:-*The thermostat scale is calibrated in °C.*

- 7.6. When most of the wax has melted, reduce the heating temperature and allow it to stabilise so that the remainder of the wax becomes liquid. Add further wax shavings if required, up to maximum capacity of 4.5 litres. (Approximately 12mm from the top of the rim).

Note:- *The heater control thermostat knob has been set by the factory during manufacture to operate at a maximum 55°C temperature with use with wax of that M.P.(Melt Point).*

- 7.7. Rotate the tap heater knob and set the tap temperature to less than the wax melt point. As a general guide, a setting of 7-8 corresponds to approximately 50°C. When the tap heater cuts in and turns on the amber neon will illuminate
- 7.8. If an over temperature condition occurs, the red 'Over temperature' indicator will illuminate and the heater control for the bath will turn off. Disconnect from the mains electricity supply and check there is sufficient wax in the bath. If a lack of wax isn't the reason for the over temperature fault condition, refer to section 10 Customer support.
- 7.9. To dispense hot melt wax, carefully place the required receptacle under the tap spout. Gently pull the tap lever forward until the required volume of wax has been discharged, then relieve the tap lever to stop the flow.

Take care not to get hot wax onto hands /skin

- 7.10. Regularly check the volume of wax present in the unit. Replenish as required by adding further wax shavings.

8. TECHNICAL SPECIFICATION.

8.1. Specifications.

Mains Power Supply Voltage **MH8523B** 230V – AC 50/60 Hz or
MH8523Bx1 115V – AC 50/60 Hz as stated on the data plate label.

Maximum Power Consumption 185 Watt max at 230V
175 Watt max at 115V

Mains lead plug Fuse rating (UK –only). 3A BS1362

Mains Power Cord (**UK**) 3 core earthed / ground. 2 meters long. Lead set – supply cord H05 V V-F with rewirable BS1363 plug.
Replace only with equivalent cable.

Mains Power Cord and Moulded Plug set (**USA - with plug**) 3 core earthed / ground. 2 meters long. Moulded plug – supply cord SJT V W - 105°C.
Replace only with equivalent cable.

Mains Power Cord and Moulded Plug set (**Europe – with Schuko plug**). 3 core earthed / ground. 2 meters long. Schuko plug – supply cord H05 V V-F.
Replace only with equivalent cable.

Product Fuse Rating 230V – F1.25A (IEC127) Quick Blow Fuse 20mm x 5mm Glass.
115V – F2.5A (IEC127) Quick Blow Fuse 20mm x 5mm Glass.

Over Temperature Protection Over temperature protection from 105°C non-resettable thermal fuse.

Bath Capacity 4.5 litres (1 gallon).

Tap Swivel Lever non-drip with replaceable filter.

Case Construction Aluminium bath with PTFE coated interior. Stove enamelled aluminium black / white exterior.
Black metal lid and polypropylene base.

Neon indicators Power on – clear
Bath heater – Amber
Tap heater – Amber
Bath over temperature – Red

Controls: **Power On** 2 position toggle switch labelled 'O / I'

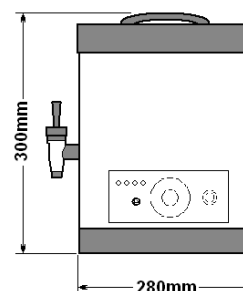
Bath Heater Rotary control labelled with graded temperature scale.

Tap Heater Control Two stage rotary control with arbitrary markings 1 to 4 and 5 to 10.

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

8.2. Dimensions and Weight. (unpacked and empty)

Weight 4.5Kg



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 and the tap and heater insulation.
- 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.

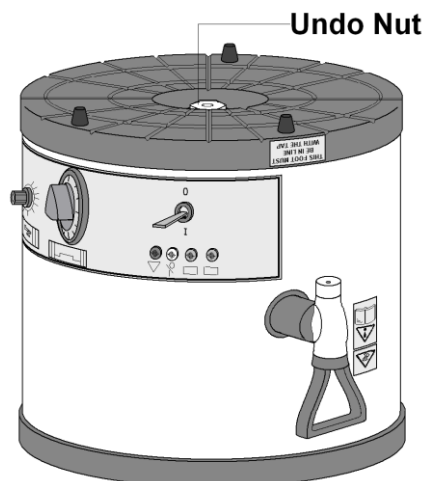
DO NOT USE SOLVENTS FOR CLEANING ANY PART OF THIS EQUIPMENT.

9.2. Internal Fuse Replacement.

9.2.1. Ensure the unit is switch off and unplugged from the mains electricity supply.

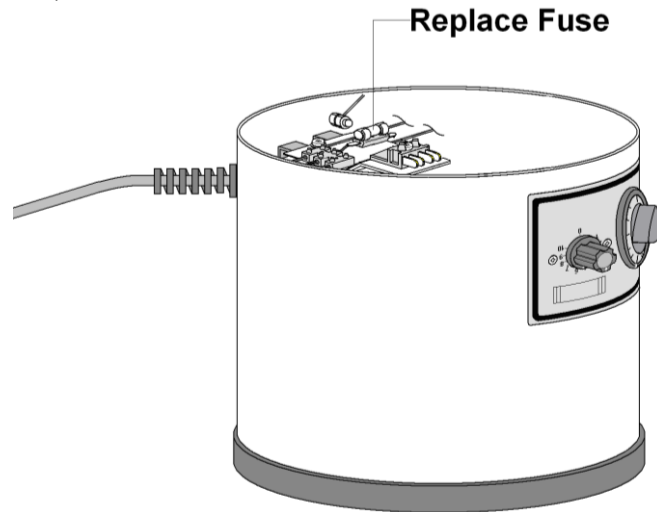
9.2.2. Ensure the unit has been completely emptied of wax.

9.2.3. Turn the unit up side down and undo the large M12 nut located in the centre of the base.



9.2.4. Lift off the base cover.

9.2.5. The fuse holder is now accessible. Replace with the correct type of fuse (see section 8)



9.2.6. Replace the base cover.

9.2.7. Refit the M12 nut back into position and secure tightly.

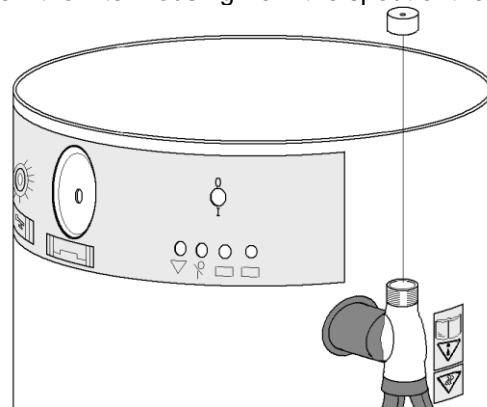
9.3. Tap Filter Replacement.

9.3.1. Ensure the unit is switch off and unplugged from the mains electricity supply.

9.3.2. Ensure the unit has been completely emptied of wax.

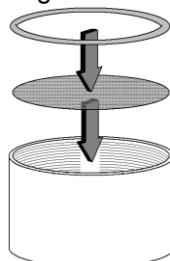
9.3.3. Obtain filter replacement (See section 11 – Parts and accessories).

9.3.4. Unscrew the filter housing from the spout of the tap.



9.3.5. Remove any residual solidified wax with hot water.

9.3.6. Remove the current 'O' ring and mesh filter.



9.3.7. Ensure the filter housing is clean and dry.

9.3.8. Place the new mesh filter into the filter housing and place the new 'O' ring on top of the mesh filter.

9.3.9. Screw the filter housing assembly back onto the tap. Do not over tighten – hand tight is sufficient.

9.4.  ***Prior to further use, the Responsible Body shall check the electrical safety of the unit***

9.5. The control thermostat knob may be reset by the responsible body. Slacken the grub screw and re-tighten into a new position. Note: Always verify the new setting by checking the actual wax temperature against the new thermostat knob setting.

9.6. 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 reaction block 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 Electrothermal at the following address.

Electrothermal.

Electrothermal House.
Unit 12A, Purdeys Way.
Purdeys Industrial Estate.
Rochford,
Essex. SS4 1ND
Great Britain.

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

For the America's and Canada, contact:

Techne Incorporated, 3 Terri Lane,
Suite 10 Burlington, NJ 08016 USA.

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

- 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

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

117810/2	Mains Cord and Moulded plug (UK)	1
00150	Mains Plug IEC wired (USA)	1
117810/2 with M583	Mains Plug Schuko (Europe).	1
AZ9040	115V Fuse replacement (F2.5A)	10
AZ9039	230V Fuse replacement (F1.25A)	10
AZ6588	Tap filter replacement kit.	1

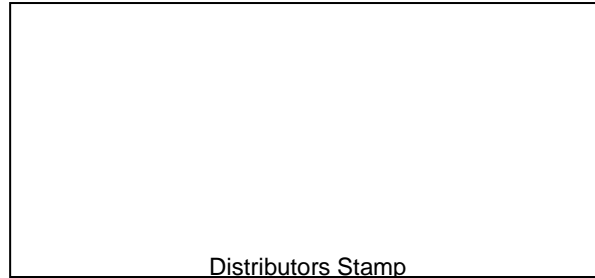
12.NOTES.

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 or help@electrothermal.com



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- www.electrothermal.com

For the America's and Canada, contact:
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Suite 10 Burlington, NJ 08016 USA.

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