

## **SLIDE DRYING BENCH**

**MH6616 / X1 / 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.*

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## 1. INTRODUCTION

- 1.1. This Slide Drying Bench aids the preparation of microscope slides at the specimen mounting stage. Accepting up to 50 slides, it has the facility for drying slides in different orientations. The temperature control is provided by a built-in energy regulator controlling temperature up to 100°C. The case and top are painted aluminium. The various options for mounting slides on the equipment are summarised in section 7.2.

## 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.

**The Responsible Body and the Operator should read and be familiar with this Instruction book in order to preserve the protection afforded by the equipment.**

**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



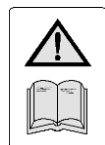
Recyclable Packing Material



Do not dispose of product in normal domestic waste.



Caution. Hot surface.



Refer to Instruction book



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 Manufacture's instructions.

**NOTE:** Failure to use this equipment in accordance with the manufacture's operating instruction 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, Parts and Accessories and Technical Specifications. (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 with out 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. Check laboratory procedures for substances being heated and ensure all hazards (e.g. explosion, implosion or the release of toxic or flammable gases) that might arise have been suitably addressed before proceeding. When heating certain substances the liberation of hazardous gases may require the use of a fume cupboard or other means of extraction.



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



**Do not** immerse unit in water or fluids.



**Do not** spill substances onto this unit. If spillage does occur, disconnect unit from mains supply and follow instructions detailed in Section 'Maintenance'.



**Do not** cover this unit whilst in use.



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



Only use Original Equipment manufacture's spares and accessories. Ref Section 10.



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 this product with wet hands.



**Do not** touch the heating surface whilst in use.



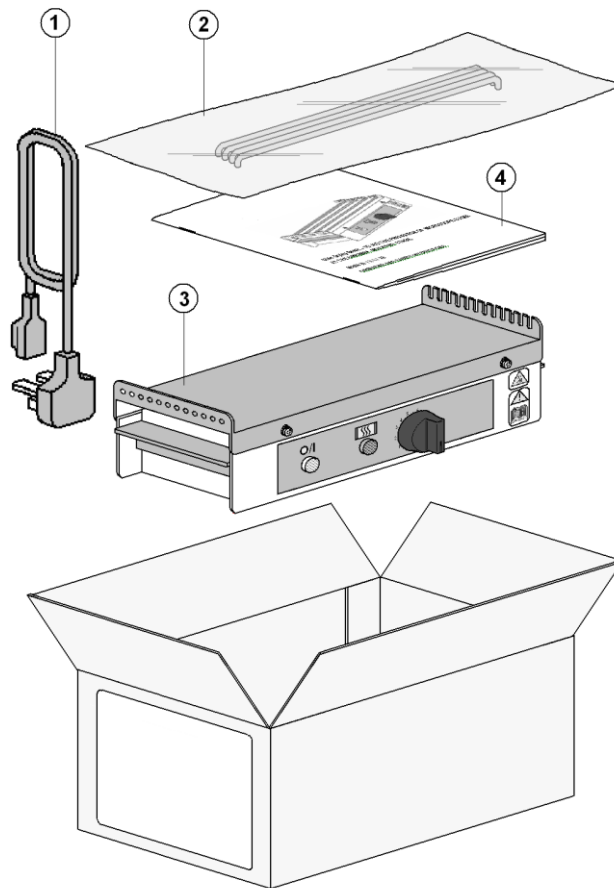
**Do not** lean or stretch over equipment.



Keep the Mains Plug and Lead set cable away from the heating surface.

#### 4. UNPACKING AND CONTENTS.

Please check the contents of this carton against the diagram.



**For your future reference  
please record your products  
Serial and Model numbers.**

*Unit Serial Number*

*Unit Model/Cat Number.*

## 5. INSTALLATION.

### 5.1. Electrical safety and installation.

5.1.1. This equipment is designed to safe 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 over voltages typically present on the mains supply.
- Applicable rated pollution degree 2.



5.1.2. 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.

5.1.3. Ensure only the correct rated mains input fuses are fitted. (Where applicable ensure the correct mains cable fuse if fitted). See Technical Information Section 8 of the Instruction book.


5.1.4. Check the voltage on the product data label of this unit. Ensure the rating conforms to your local supply.

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

5.1.6. The unit is supplied with a moulded plug and mains lead set wired as follows.



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

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



## 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 through an authorised compliance scheme.*

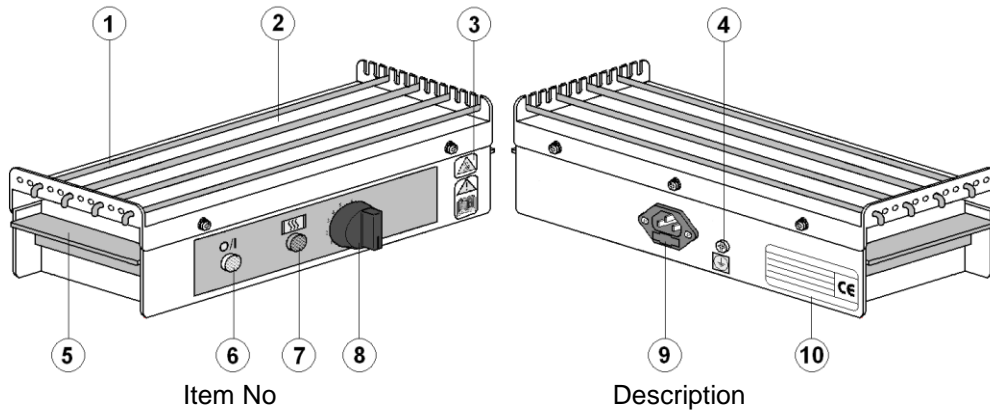
## 7. PRODUCT OPERATION

This unit has been designed for safe operation when used as described in accordance with the manufactures instructions.

**Note:** failure to use this equipment in accordance with the manufactures 'Instruction book' may compromise your basic safety protection afforded by this equipment and may invalidate the terms of the Warranty / Guarantee.

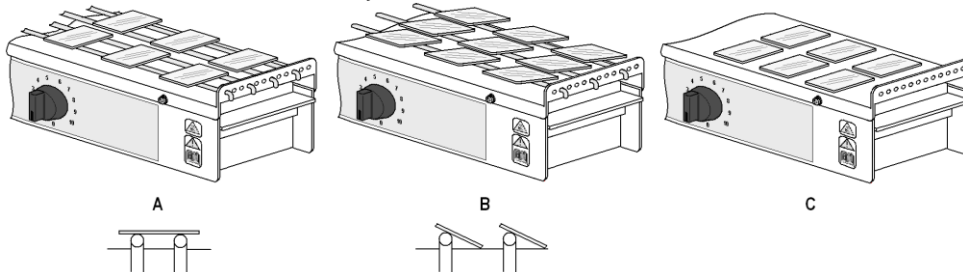
### 7.1. Overview.

Your Slide Drying Bench has been designed for easy operation. The illustrations show a detailed layout of your Slide Drying Bench.



1	Support Bars
2	Drying surface
3	Hot surface warning
4	Earth test point
5	Carrying handles
6	Power On indicator
7	Heater On indicator
8	Temperature control regulator knob and On/Off switch.
9	Mains input IEC socket.
10	Data plate label.

7.2. Place the slides to be dried on the bench surface. The slides can be arranged on the bench in a number of ways as illustrated.



7.3. Connect the unit to the mains power ensuring the correct voltage is being applied. The White 'Power on' Neon will illuminate.

7.4. Set the temperature control regulator knob to position 10. The Amber 'Heater on' neon will illuminate.

7.5. When the required bench temperature has been reached (this can be monitored using a suitable Surface temperature Probe) turn the regulator down to just maintain required temperature setting.

The maximum temperature obtainable at setting 10 is 100°C nominal.

7.6. When slides are dry, switch off the unit at the regulator knob and disconnect from the mains electrical supply. Allow slides to cool before further handling.

## 8. TECHNICAL SPECIFICATION.

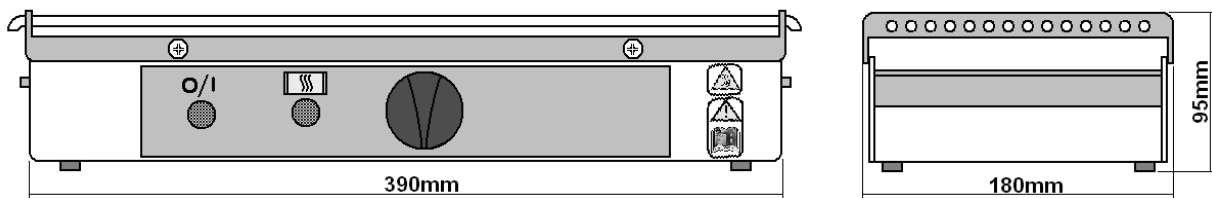
### 8.1. Specification.

Maximum power consumption.	150 Watts
Fuse rating (115V).	2.5 Amps (5 x 20mm dia Glass Quickblow)
Fuse rating (230V).	1.25 Amps (5 x 20mm dia Glass Quickblow)
Operational climatic conditions.	Temperature range 5°C to 40°C. Humidity not to exceed 80%.
Heating Element	Silicone Rubber Mat Heater.
Case Construction	Painted Aluminium.
Thermal Insulation	Ceramic Fibre sheet.
Capacity.	Maximum 50 slides at 76 x 25mm (3" x 1").
Mains Supply Power.	230V-AC or 115/100V-AC @ 50/60Hz
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

### 8.2. The Ingress Protection rating for this product is classified as IPX1


### 8.3. Dimensions & Weight (unpacked).


Weight 1.8 Kg (4lb).



## 9. MAINTENANCE

### 9.1. General Information

 Unplug the unit from the mains input 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.

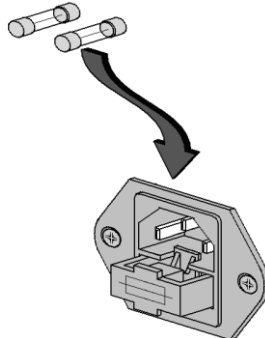
Maintenance for the unit should include:

- 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 set.
- Routine cleaning of the equipment should be undertaken using a clean cloth.

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

### 9.2. 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.



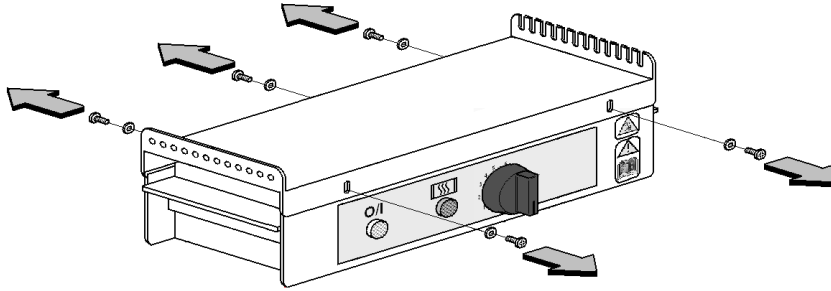
### 9.3. Replacing the Heater Mat.

**WARNING:** The Insulation Pressure Plate contains insulation made from Refractory Ceramic Fibres (RCF) classified as a category 2 carcinogen under EU Directive 67/548/EC. Follow the guidelines for working with RCF as laid down in the ECFIA Code of Practise.

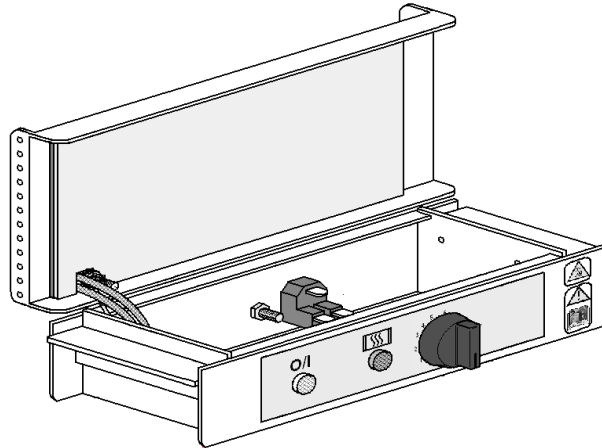
In the event of a heater element becoming open circuit the following procedure should be adopted for its replacement.

9.3.1. Unplug and disconnect the unit from the power source.

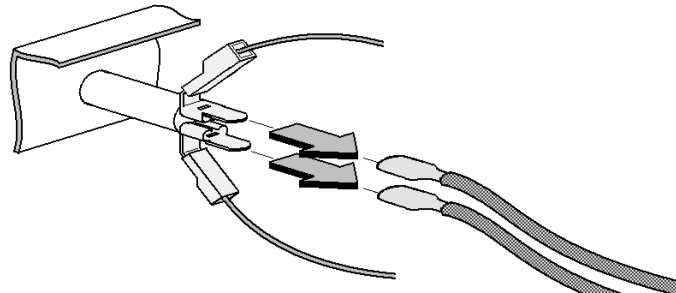
9.3.2. Unscrew and remove the screws retaining the top plate. Lift the top plate clear.



9.3.3. Hinge back the heater mat and insulation pressure plate, the insulation should be carefully removed and placed on the top plate. This will reduce the risk of damage to the insulation.



9.3.4. Remove any wire ties, now disconnect the heater leads from the amber neon.



9.3.5. Connect the replacement mat.

9.3.6. Replace wire ties and insulation and hinge the heater into position over the insulation.

9.3.7. Place Top plate in position and refit all the fixing screws.

9.3.8. The Responsible Body shall check the electrical safety of the unit before further use.

#### 9.4. 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. PARTS & ACCESSORIES.

	230V	115V
Heater Mat	AZ9136	AZ9137
Insulating Pressure Plate	AZ9138	AZ9138
Slide Support Rod Qty 4	AZ9139	AZ9139
Rubber Feet Qty 4	AZ9140	AZ9140
Neon Clear	AZ9141	AZ9142
Neon Amber	AZ9143	AZ9144
Handles Qty 2	AZ9145	AZ9145
Energy Regulator	AZ9127	AZ9128
Control Knob	AZ9133	AZ9133
Fuse	AZ9039 (F1.25A)	AZ9040 (F2.5A)
Plug and lead set (UK)	M6902	-
Plug and lead set (Europe)	M6332	-
Plug and lead set (USA)	-	M6288

**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: info@electrothermal.com**

**DECONTAMINATION CLEARANCE CERTIFICATE**

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:-

**Product Description**

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. CUSTOMER SUPPORT.**

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

Electrothermal.  
Electrothermal House.  
Unit12A, Purdeys Way.  
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Rochford,  
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Great Britain.  
Tel +44(0)1702 303350  
Fax+44(0)1702 468731  
E-Mail: [info@electrothermal.com](mailto:info@electrothermal.com)

## 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](mailto:info@electrothermal.com)

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