



MOPEC USER MANUAL

MOPEC SLIDE DRYING HOTPLATE - BK400



SLIDE DRYING HOTPLATE

BK400

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INTRODUCTION

Mopec's Slide Drying Hotplate is designed to quickly and efficiently dry paraffin tissue sections. The rapid heating system ensures the hotplate is ready to use in less time, while the digital temperature control allows for accurate control of temperatures. Slides are placed on the four moveable rails at an angle to allow water drain off, while heated air passes underneath the slides to reduce drying times. The system features an optional lid to reduce drying times and improve temperature control. Made from stainless steel and can be used while slides are on the hotplate.

GENERAL NOTES

1. This product is designed for laboratory use only. Always follow good laboratory practice.

2. If this product is not used in accordance with these instructions then basic safety protection may be affected.
3. If damaged or in case of failure the power supply unit supplied with this product should be replaced with an equivalent power supply unit.
4. Before using any cleaning or decontamination method please refer to the Maintenance and Cleaning section to ensure the proposed method will not damage the unit.
5. Connect only to a power supply with the corresponding voltage to that specified on the rating label positioned on the rear of the unit.
6. Ensure that the power supply has a ground terminal.

SPECIMEN SAFETY

It is the users responsibility, to ensure that the temperature set on the instrument, is at a level where no damage is caused to diagnostic specimens used with the equip-ment. In the event of this instrument malfunctioning, all specimens within the device should be checked to ensure no harm or damage to the specimen has been caused.

Amendments:

Issue 4: May 2021

Symbols:



This symbol appears in documents and on equipment to warn the user that there are hot surfaces on the equipment.



This symbol appears in documents and on equipment to warn the user that instructions must be followed to ensure correct or safe operation.

USER SAFETY

The equipment you have purchased complies with the following European Directives EMC Directive 2004/108/CE Electromagnetic Compatibility and Low Tension 2006/95/CE as indicated in the EC Declaration of Conformity included in the document. This instrument has been designed and constructed in a manner which minimizes the risk of electrical shock to the operator, offers maximum protection from overheating and provides clear and adequate labeling of instrument controls.

The instrument requires no regular servicing, but Mopec does recommend an annual inspection, as detailed in the manual, which will prolong the life of the instrument to ensure continued safety.



Do not touch any electrical contacts or open any closure plates. RISK OF ELECTRIC SHOCK!

DO NOT:

1. Allow molten wax to accumulate on the surface of the hotplate.
2. Use metal instruments or scouring agents to clean the surface of the hotplate.
3. Place fluid containers on the surface of the hotplate without an adequate spillage tray.
4. Do not immerse in water.

DO:

1. Position the unit so it can be disconnected from the power supply with ease.

POWER LEAD & CONNECTION TO ELECTRICAL SUPPLY



Check the electrical supply is compatible with the rating label. IF IN DOUBT CONSULT AND ELECTRICIAN. THE PRODUCT MUST BE EARTHED!
Where the mains supply or plug connection differs refer to local regulations or consult an electrician.

SPECIFICATION

The Mopec Slide Drying Hotplate is designed to dry paraffin tissue sections efficiently while taking up a minimum of bench space in the laboratory. The hotplate features a matte black heated surface which is digitally controlled at a constant temperature and is combined with four movable rails which allow heated air to pass underneath the slides to accelerate drying. The movable rails can be removed to allow slides to be placed directly on the heated surface according to customer preference. The Slide Drying Hotplate features a digital temperature control, over temperature cut out and miniature circuit breakers for safety.

Dimensions: Width 183mm x Depth 450mm x Height 85.5mm

Capacity: 20 slides (2 rows of 14 slides)

Weight: 2.2Kg (4.4 lbs)

Display: Digital Display with 0.5° accuracy.

Safety: Class 1 cut out

Heater power: 400 watts

Power Supply: 110V/230V a.c 50-60Hz

LOCATION

The product must be placed on a smooth, level and sturdy work surface. Suitable for use in ambient temperatures 5°C to 40°C with a maximum humidity 80% (temperature 31°C) decreasing to 50% (temperature 40°C).

OPERATING INSTRUCTIONS

1. Place the hotplate on a smooth and level work surface.
2. Place the four microscope slide support rods in position according to user preference.
3. Connect the mains plug to the electrical supply and switch on (Ensure the power supply is properly earthed).
4. Turn on the hotplate.
5. Select the desired temperature.
 - a. Press button P then release it (do not hold down button P for 5 seconds).
 - b. The display will show SP alternating with the current set temperature.
 - c. To change the set temperature press the UP key to increase the value or DOWN to decrease it. These keys increase or decrease the value one digit at a time, but if the button is pressed for more than one second the value increases/decreases rapidly, and after two seconds pressed, the speed increases even more to allow the desired values to be reached rapidly.
 - d. Exiting the Set mode is achieved by pressing the P key or automatically if no key is pressed for 15 seconds. After that time the display returns to the normal function mode.
6. The heater indicator will illuminate to show heater activity.
7. The instrument will then warm up to the desired temperature, you will observe the temperature rise on the display.
8. The instrument is designed to warm up quickly (roughly 3 to 5 minutes). This means that when initially warming up, the instruments will slightly over shoot the set target temperature (by 2-5°C). The heater will then stop and allow the instrument to cool to the desired working temperature and then maintain the set working temperature at +/-1°C, by alternating heating and cooling.

CLEANING INSTRUCTIONS

1. The lower case work of the slide drying hotplate, including the control panel, may be wiped using small quantities of mild detergent or polishes applied with a soft cloth.

2. The heated surface of the hotplate will require cleaning at regular intervals, using a minimal quantity of mild domestic detergent applied with a soft synthetic sponge.
3. The microscope slide support rods can be removed to facilitate easier cleaning.

WARNING:



SCOURING PADS OR DESCALING AGENTS MUST NOT BE USED TO CLEAN THIS INSTRUMENT.

MINIATURE CIRCUIT BREAKERS

Located at the rear of the instrument. In the event of a fault, push back in to reset. If fault situation continues, please contact your Service Engineer or Mopec.

PORTABLE APPLIANCE TESTING

Portable appliance testing should be carried out by a qualified person.



THIS EQUIPMENT MUST NOT BE FLASH TESTED!

CALIBRATION AND OFFSET INSTRUCTIONS

1. Turn on the Slide Drying Hotplate.
2. Set the temperature of the Slide Drying Hotplate to the desired temperature.
3. Let the instrument reach working temperature and leave for 30 minutes before carrying out a calibration check, this ensures that the temperature of the hotplate has equilibrated.
4. Check temperature with a calibrated digital thermometer fitted with a surface probe. The temperature should be measured in the center of the hotplate (back to front and side to side).
5. Compare the temperature shown on the Slide Drying Hotplate display with the temperature shown on your external digital probe.
6. If the two numbers are in close agreement i.e. within $\pm 1^{\circ}\text{C}$ (as shown in the image above), then the instrument is within calibration. If the temperatures are not in agreement i.e. a difference greater than $\pm 1^{\circ}\text{C}$, then the instrument will need to be re-calibrated.

SETTING CONTROLLER OFFSET PARAMETERS

1. Press the P button and keep it pressed for 5 seconds until the display flashes showing SP1.

2. Then press the down arrow, the display will change to r.P.
3. Then press the P button again and the display will show 0.
4. Press the UP arrow until the number shows 146 then press P.
5. Once the controller is unlocked the display will show SPL.
6. Press the DOWN arrow 5 times until the display shows CA.
CA = calibration and is where adjustments can be made to the temperature on the display so that the temperature shown is the same as the temperature shown on your reference digital thermometer.
7. Press the P button. The display will now show a number, this number is the current adjustment (offset) applied to the temperature display. This was the adjustment (offset) which was used when the slide drying hotplate was manufactured to calibrate the instrument.
8. Use the up and down arrows to select the correct adjustment to match the temperature shown on your reference thermometer. Then press the P button to set the adjustment (offset).
9. The screen should now show CA.
10. Press the Up arrow and keep it pressed (for about 5 seconds) until the display shows the measured temperature on the display again.
11. The temperature on the display should be in close agreement i.e. within $\pm 1^{\circ}\text{C}$ of the temperature shown on your reference thermometer.
12. It is recommended to leave the instrument heat for a further 30 minutes before re-checking the calibration of the instrument. To make sure you do not need to make a further small change to the adjustment (offset).

ROUTINE INSPECTION RECOMMENDATIONS

Mopec recommends that a simple annual inspection be made for all Mopec laboratory equipment in order that any malfunction can be identified and rectified as early as possible. This is to ensure user safety and prolong instrument lifespan.

RECOMMENDED CHECKS TO BE MADE:

1. Condition of Power Lead: A visual inspection to ensure the insulation is not damaged and that the correct fuse is fitted.
2. Functioning of Heater On Lamp: Heater lamp should be on when the instrument is warming up.
3. Condition of the Hotplate Surface: Surface of the hotplate should be free of scratches and dents.

WARRANTY TERMS AND CONDITIONS

1. Mopec warrants to the Customer that the product purchased is free from defects in materials and workmanship.

2. Provided the terms of payment are duly complied with, Mopec undertakes to remedy any original defects arising from faulty materials or workmanship, in any goods manufactured/supplied by Mopec, which under proper and normal conditions of use, may develop within a period of twelve months from the date of delivery.
3. In the case of components which by their nature of application have an unpredictable life, this guarantee shall only be to the extent of the guarantee given by the manufacturers of these articles.
4. Mopec will accept no liability, where in the opinion of the company the defect has been caused by damage due to the Customers failure to follow operating instructions, correct installation, wear and tear, or damage due to the use of spare parts other than those spare parts of Mopec or which are recommended by Mopec, the defect has been caused by alterations or repairs being undertaken by a person(s) other than an authorized representative of Mopec.
5. Any damage claim must be in writing, and give the serial number and description of the goods, order number and date of delivery, and will not apply where any names or serial numbers or other information which may be attached to or inscribed upon the goods have been removed, covered up or defaced in any way.
6. Any goods or parts thereof, which may require repair or replacement, shall be repaired or replaced (at the election of Mopec) at the works of Mopec. The product to be repaired shall be delivered to Mopec by the customer at the Customer's risk and expense. Any such goods or parts will be delivered by Mopec to the Customer free within the United States but if required to be borne by the Customer. All faulty parts removed from the equipment will become Mopec's property. Any other repairs or work by Mopec will be carried out under the terms and conditions for specialist engineers currently in force.
7. In the event of replacement with a new or reconditioned model, the replacement unit will continue the warranty period of the original equipment.
8. If any goods or parts thereof are returned unnecessarily all cost involved, including a charge for inspection, handling and the return carriage must be paid by the sender.
9. Please retain the original packaging over the warranty period.
10. Mopec offers an Extended Warranty Option for instruments in the Mopec equipment range. This includes all parts and labor (exceptions may apply dependent upon the type of equipment) and supply a swap out instrument whilst the customers equipment is repaired.

The extended warranty is only available at the date of purchase of the equipment. The warranty is immediately upgraded to a "swap out" service and is increased to 24 or 36 months depending on how long the warranty is extended for.

The "swap out" service covers a loan unit being sent to the customer whilst the faulty unit is returned for repair (or replacement if necessary). A response to a customer request will normally be within 24 hours.

If equipment is returned and the fault is found to be due to misuse or abuse, this falls outside the terms of the extended warranty and therefore a quotation for the inspection and repair of the equipment will be issued prior to any work being carried out.

On return of the repaired equipment to the customer, it is the customer's responsibility to ensure that the loan equipment is returned in the same condition as it was received and if required decontaminated with a signed decontamination sheet enclosed with the instrument.

It is the customer's responsibility to ensure that the loan equipment is packed in the packaging provided by Mopec, in order that Mopec can arrange collection of the loan instrument. If the loan instrument is not packed and ready for collection within 48 hours of a repaired instrument being returned to the customer, costs for collection and equipment rental fee will be applied.

NON-WARRANTY INFORMATION

Spare parts shall be made available for a period of 5 years after a piece of equipment is discontinued.

Mopec
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Madison Heights, MI 48071



EC DECLARATION OF CONFORMITY

We herewith confirm the following products:

Slide Drying Hotplate - BK400

Conforms with requirements outlined by the following European Directives:

Low Voltage Directive 2014/35/EU
EMC Directive 2014/30/EU

We confirm the declaration:

Mopec

800 Tech Row
Madison Heights, MI 48071

Conforms with the requirements of the following standards:

BS EN 61010-1:2010

BS EN 61010-2-010:2014

Safety requirements for electrical equipment for measurement, control and laboratory use.

BS EN 61326-1:2013

Electrical equipment for measurement control and laboratory use - EMC requirements.