

Slimline Slide Drying Hot Plate

User Manual

SI-SDH-SLIM



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ON YOUR TEAM



Slimline Slide Drying Hot Plate

Thank you for purchasing StatLab laboratory equipment. To get the best performance from your equipment and for your own safety please read these instructions carefully before use.

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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 an earth (*ground*) terminal.

Specimen Safety

It is the user's 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 equipment. 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

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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 2014/30/EU Electromagnetic Compatibility and Low Voltage Directive 2014/35/EU as indicated in the EC Declaration of Conformity included in the document. This instrument has been designed and constructed in a manner which minimises the risk of electrical shock to the operator, offers maximum protection from overheating and provides clear and adequate labelling of instrument controls. The instrument requires no regular servicing, but StatLab do 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 melted paraffin to accumulate on the surface of the Block Trimmer+ 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 and Connection to Electrical Supply



Check the electrical supply is compatible with the rating label. IF IN DOUBT CONSULT AN ELECTRICIAN. THE PRODUCT MUST BE GROUNDED!

Where the mains supply or plug connection differs refer to local regulations or consult an electrician.

Specification

The Slimline Slide Drying Hot Plate is designed to dry paraffin tissue sections efficiently while taking up a minimum of bench space in the laboratory. The hot plate features a matt 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 Slimline Slide Drying Hot Plate features a digital temperature control, over temperature cut out and miniature circuit breakers for safety.

Dimensions:	Width 7.2in (183mm) Depth 17.7 (450mm) Height 3.4in (85.5mm)
Capacity:	28 Slides (2 rows of 14 slides)
Weight:	4.4 lbs (2.2Kg)
Display:	Digital Display with 0.5° accuracy
Power Supply:	110V/230V a.c. 50-60Hz
Safety:	Class 1 cut out
Heater Power:	400 watts

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 grounded*).



- 4 Turn on the hotplate.
- 5 Select the desired temperature.
 - A. Press **HOLD** then release it (*do not hold down button continuously*).
 - 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 10 to 15 minutes*). This means that when initially warming up, the instruments will slightly over shoot the set target temperature (*by 10-15°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 $\pm 1^{\circ}\text{C}$, by alternating heating and cooling.

Cleaning Instructions

- 1 The lower case work of the Slimline Slide Dryer 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.

 **SCOURING PADS OR DE-SCALING 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 StatLab.

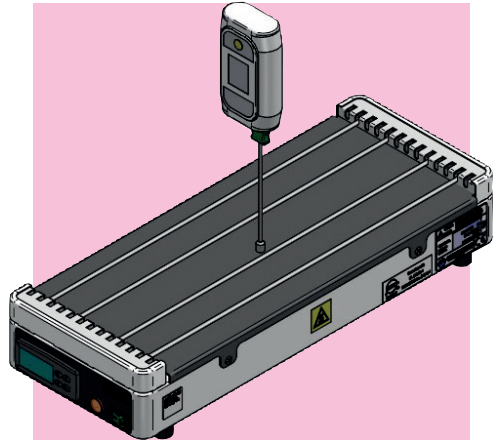
Portable Appliance Testing

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 centre of the hotplate (*back to front and side to side*), as shown in the image.
- 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.

- 1 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.
- 1 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

StatLab recommend that a simple annual inspection be made for all StatLab 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 life span.

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.

Troubleshooting Guide

Symptoms	Possible Cause	Action Required
<p>1. Unit does not operate/ No power to the instrument. (Illuminated On/Off button not lit, temperature controller not lit.)</p>	<p>A: Unit is not switched on. B: Unit not plugged into power supply. C: Circuit breakers have been triggered and need to be re-set. D: Fuse in instrument lead plug has failed. E: Power supply failure.</p>	<p>A: Switch On B: Plug in, and switch on unit. C: Re-set circuit breakers. D: Replace fuse or use a new lead set. E: Check that other electrical instruments on the same circuit are working. Check distribution board for a triggered circuit breaker or blown fuse.</p>
<p>2. Power is supplied to the instrument, but the hot plate does not heat. (Temperature does not rise on the controller and the orange heater light does not operate.)</p>	<p>A: Thermal cut out has triggered. B: Temperature of hot plate is set too low. C: Heating element has failed.</p>	<p>A: Re-set thermal cut out. B: Check set temperature of the hot plate. C: Instrument should be checked by a competent person.</p>
<p>3. Instrument does not reach working temperature as quickly as expected.</p>	<p>A: Voltage selector set to the incorrect voltage.</p>	<p>A: Set the voltage selectors at the rear of the instrument to the correct voltage for your country.</p>
<p>4. Temperature of hot plate seems to be fluctuating more than expected. (Expected temperature variation $\pm 1^{\circ}\text{C}$ from the set temperature.)</p>	<p>A: Temperature control circuit fault.</p>	<p>A: Instrument should be checked by a competent person.</p>

Symptoms	Possible Cause	Action Required
<p>5. Temperature of the hot plate on the controller, is different to the temperature of the surface of the hotplate measured by a reference probe.</p>	<p>A: Check correct probe is being used for measurement and that the probe is calibrated.</p> <p>B: This is completely normal and is due to position of the heating element under the hotplate.</p> <p>C: Measure temperature at the position where the instrument is calibrated, using a calibrated probe. If the temperature reading is significantly different, the instrument may need to be re-calibrated. Follow the calibration instructions.</p>	<p>A: Check correct probe is being used for measurement and that the probe is calibrated.</p> <p>B: Measure temperature at the position where the instrument is calibrated, using a calibrated probe. If the temperature reading is significantly different, the instrument may need to be re-calibrated. Follow the calibration instructions.</p>
<p>6. Temperature of the hot plate continues to rise when not expected.</p>	<p>A: Instrument is still performing tuning exercise after start up.</p> <p>B: Actual hotplate temperature is lower than the set temperature</p> <p>C: Temperature control circuit fault.</p>	<p>A: Wait for tuning exercise to finish, this takes roughly 10-15 minutes after start up.</p> <p>B: Check the set temperature.</p> <p>C: Instrument should be checked by a competent person.</p>

Warranty Terms and Conditions

- 1 StatLab 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, StatLab undertakes to remedy any original defects arising from faulty materials or workmanship, in any goods manufactured/supplied by StatLab, 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 StatLab will accept no liability, where in the opinion of the company the defect has been caused by damage due to the Customer's 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 StatLab or which are recommended by StatLab, the defect has been caused by alterations or repairs being undertaken by a person(s) other than an authorized representative of StatLab.
- 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 StatLab*) at a StatLab location. The product to be repaired shall be delivered shipping paid back to StatLab by the customer at the Customer's risk and expense. Any such goods or parts will be delivered by StatLab to the Customer free within the US. All faulty parts removed from the equipment will become property of StatLab. Any other repairs or work by StatLab 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. In no circumstances shall any of the goods be returned to StatLab without its prior written consent.
- 9 Please retain the original packaging over the warranty period. Any equipment returned under warranty should be in the original packaging. Any damages in transit resulting from using any packaging other than that originally supplied will be the responsibility of the Customer.

Non Warranty Information

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

StatLab Medical products
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EC Declaration of Conformity

We herewith confirm the following products:

Slimline Slide Drying Hot Plate 110 - 230V.a.c. 50-60Hz - SI-SDH-SLIM

Conforms with requirements outlined
by the following European Directives:

Low Voltage Directive 2014/35/EU

EMC Directive 2014/30/EU

RoHS Directive 2011/65/EU

Conforms with requirements outlined
by the following United Kingdom Directives:

Electromagnetic Compatibility Regulations 2016

Electrical Equipment (Safety) Regulations 2016

RoHS Directive 2011/65/EU

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.

We confirm the declaration:

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United Kingdom

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