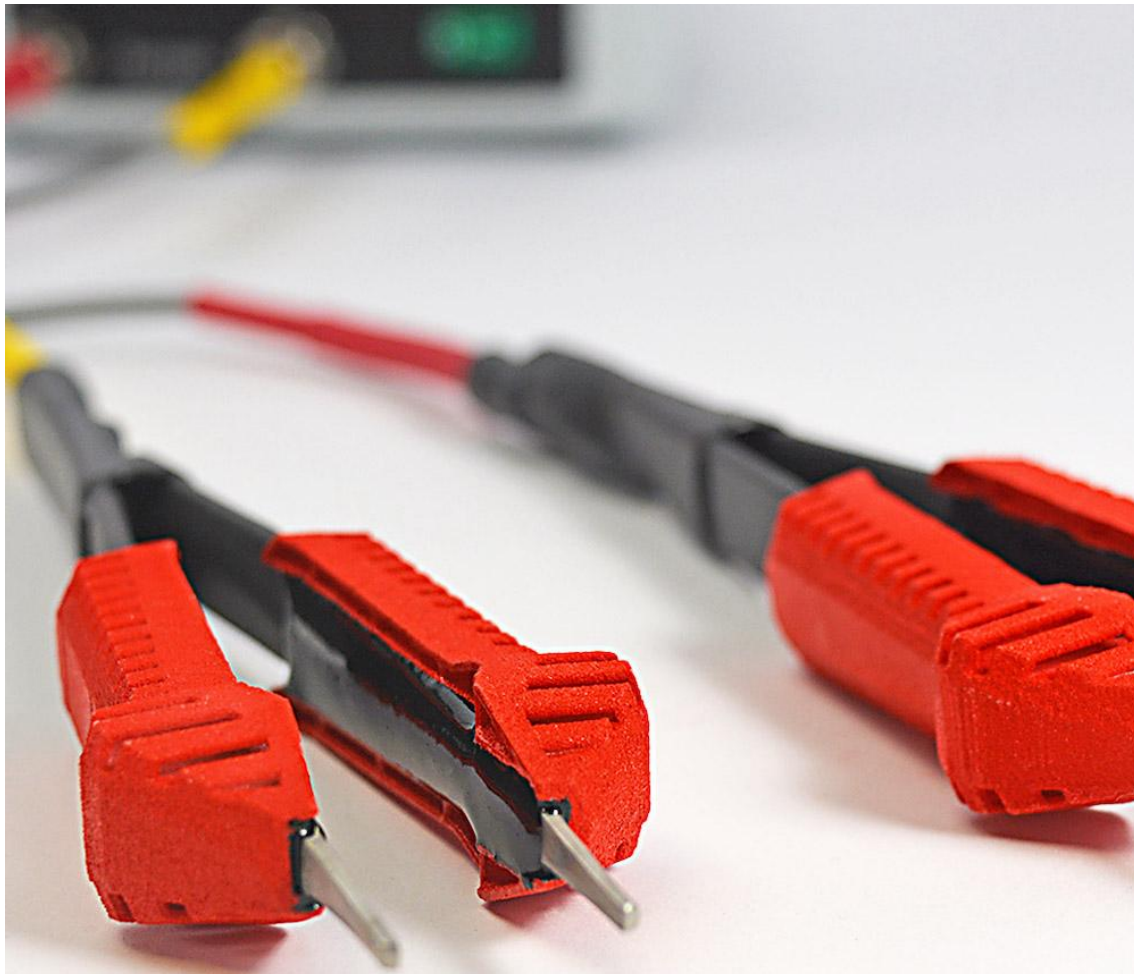




# MOPEC USER MANUAL

HEATED FORCEPS AND TAMPERS - BK300 SERIES



# HEATED FORCEPS AND TAMPERS

BK300 SERIES

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## INTRODUCTION

Mopec's Heated Forceps and Tampers Systems are designed to take up minimal bench-top space and come complete with a power supply and control unit. The ergonomic design ensures user comfort while performing specimen placement, and the anti-microbial coating helps prevent bacteria and virus growth.

## 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. Only use the plug in power supply unit supplied.

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 power pack.
6. Ensure that the power supply has an earth (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 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:

Issue 6: August 2022

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 89/336/EEC and Low Voltage Directive 73/23/EEC 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. Do not attempt to plug anything into the Mopec Control Unit except Mopec Heated Forceps and Heated Tampers.
2. Do not attempt to use the Mopec Control Unit Power Supply if its voltage rating or plug style differs from your local standard. This may cause damage to the Mopec Controller Unit and may result in fire or electric shock!
3. Do not use the Mopec Heated Forceps or Heated Tampers System near inflammable materials! Vapour in solvents from histology laboratories such as xylene, toluene and industrial denatured alcohol and other low flashpoint liquids may be ignited by the hot tips of the forceps, causing serious fire and risk of injury.
4. Do not leave working Mopec Heated Forceps or Tampers in cold water! This will sustain a high power demand which can over stress the Mopec Control Unit Power Supply and Control Unit.
5. Do not use it for non-specified purposes without prior consultation with the supplier.
6. Do not attempt a repair. Repairs should only be undertaken by a trained service engineer.

**DO:**

1. Only use a Mopec Control Unit Power Supply!
2. Keep the Mopec Control Unit and power supply dry.
3. Maintain the apparatus in a reasonably clean condition.
4. Switch off before removing the plug.

## POWER LEAD & CONNECTION TO ELECTRICAL SUPPLY



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

## SPECIFICATION

Mopec Heated Forceps and Tampers are electrically heated instruments designed to assist in the orientation and positioning of histological specimens during embedding in paraffin wax. Mopec Heated Forceps and Tampers incorporate safe, low-voltage, energy controlled heating elements which constantly maintain their tips at the optimum temperature for manipulation of specimens in histological wax. They may be used continuously, without adjustment, and without significantly influencing the temperature of the medium or tissue. Eliminating the task of keeping the forceps at a usable temperature enables the operator to concentrate on orientation

of the tissue, and results in a significant increase in productivity.

**Mopec Control Unit and Power Supply:**

Dimensions: Width 120mm x Depth 120mm x Height 40mm

Weight (Control Unit): 486g (1.1 lbs)

Power Supply: 100/240V a.c. power pack supplied with interchangeable UK, EU and US sockets

Capacity: Two Mopec Heated Forceps or Heated Tampers

**Mopec Heated Forceps - Serrated Jaws**

Available with 1mm (Red), 2mm (Yellow) and 4mm (Blue) width tips.

Tip Length: 19.5mm

Forceps Length: 150mm

Cable Length: 1.1 Meter

Weight: 63g

Forceps Material: Stainless Steel

Finger Grip: Silicone

**Mopec Heated Forceps - Smooth Jaws**

Available with 1mm (Red), 2mm (Yellow) and 4mm (Blue) width tips.

Tip Length: 19.5mm

Forceps Length: 150mm

Cable Length: 1.1 Meter

Weight: 63g

Forceps Material: Stainless Steel

Finger Grip: Silicone

**Mopec Heated Tampers**

Tamper Sizes Available: 8x8mm (Red), 16x16mm (Yellow) 25x28mm (Blue)

Tamper Length: 120mm

Cable Length: 1 Meter

Weight: 33g

Tamper Material: Stainless Steel/Brass

Finger Grip: Polyolefin Shrink

**Mopec Heated Forceps/Tampers Stand**

Capacity: Two Mopec Heated Forceps/Tampers

Weight: 235g

Material: Antimicrobial Powder Coated Steel

## 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. Connect the mains plug to the electrical supply and switch on. (Ensure the power supply is properly earthed). The mains plug must be positioned so that it can easily be removed from the electrical supply socket to disconnect the power.
2. Insert the jack of the Mopec power supply into the socket at the rear of the Mopec Control Unit. Make sure the cable is pushed in fully and tighten up the screw collar of the jack to ensure connection of the power supply.
3. Check that the green ON/OFF switch on the front of the Control Unit is in the OFF position (i.e. the rocker is depressed on the left hand side).
4. Place the Control Unit in a convenient dry location on the workbench, or on a shelf, with its front panel accessible.
5. Attach a Mopec Heated Forcep or Tamper onto a bayonet connector at the front of the Control Unit. Make sure that it is fully located. The bayonet prevents the forcep or tamper from accidentally being disconnected from the power supply during embedding.
6. Rest the Mopec Forcep or Tamper horizontally on top of the Control Unit, with the forcep tips or tamper base in free air.
7. Turn on the Control Unit using the green ON/OFF switch on the front of the unit. The On/Off switch will be lit to indicate that the Control Unit is receiving power.
8. The forceps/tamper will begin to heat. Mopec Forceps should take between 5 to 10 minutes to reach working temperature depending on the size of the forcep. Heated tampers will take between 5 and 30 minutes to reach working temperature depending on the size of the tamper.
9. Mopec LED Heated Forceps will begin to heat and a LED light which is positioned between the arms of the forceps to aid visualization of specimens will be lit. The LED light will stay lit whilst the forcep is plugged into the control box and power supplied to the forcep.
10. The Control Unit may be operated with one or two pairs of Mopec Heated Forceps/Tampers. Each pair of forceps/ tampers is independent of the other and operates from its own dedicated circuit.
11. The Mopec Heated Forceps and Tampers may be used continuously. They may be left switched on for long periods without risk of damage, providing the forcep tips or tamper base remain in free air and are NOT in contact with any heat absorbing surface.

## CLEANING INSTRUCTIONS

1. The case work of the Mopec Control Unit, including the control panel, may be wiped using small quantities of mild detergent or polishes applied with a soft cloth or safe dewaxing solutions.
2. Excess wax may be removed from the hot tips of the Mopec Heated Forceps or base of the Tamper by wiping them with a dry tissue. For more thorough cleaning, always switch off and unplug the power supply from the wall socket. Excess wax can be peeled away from the acetal finger grip area of the Mopec Heated Forceps. It is recommended that excess wax buildup on the arms of the forceps and power cable is removed using hot air from a hair dryer to melt the wax and using a tissue to absorb the molten wax or by using safe dewaxing solutions.
3. Do not clean the Mopec Heated Forceps or Tampers with abrasives or chemical solvents! The plastic covering the arms of the Mopec Heated Forceps and Tampers and the acetal finger grip of the forceps will be damaged by abrasive cleaning agents, and by the excessive use of solvents including: ethanol, ether, xylene, toluene and chloroform.
4. Do not attempt to clean the Mopec Heated Forceps or Tampers or their power cable with bleach..
5. Do not attempt to sterilise the Mopec Heated Forceps or Tampers using an autoclave.

**Scouring pads or descaling agents must not be used to clean this instrument.**

## 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 the On/Off switch: The On/Off switch should glow green when set to the On position.
3. Condition of the Mopec heated forceps or tamper cables: A visual inspection to ensure the insulation is not damaged and that forceps tips are aligned and meet.

## TROUBLESHOOTING GUIDE

**Mopec Heated Forceps** – once the heated forceps have reached working temperature, apply a very small pellet of histology wax (no larger than 1mm in diameter) with a melting temperature

between 54°C and 57°C to each of the forceps tips. The wax pellets should melt within 60 seconds.

**Mopec Heated Tamperers** – once the heated tamper has reached working temperature, apply a very small pellet of histology wax (no larger than 1mm in diameter) with a melting temperature between 54°C and 57°C to the end of the tamper. The wax pellet should melt within 60 seconds.

SYMPTOMS	POSSIBLE CAUSE	ACTION REQUIRED
1. Unit does not operate/ No power to the instrument. (Illuminated On/Off button not lit.)	A: Unit is not switched on. B: Unit not plugged into power supply. C: Power supply is not pushed in fully to make connection. D: Power supply has failed. E: Power inlet fuses have failed. F: Power supply failure. G: On/Off button failure. H: Control Unit has failed.	A: Switch On B: Plug in, and switch on unit. C: Push power supply jack in fully and ensure that screw collar is tightened securely. D: Replace power supply. E: Replace power inlet fuses F: Check that other electrical instruments on the same circuit are working. Check the distribution board for a tripped circuit breaker or blown fuse. G: Replace On/Off button. H: Replace Control Unit or send to Mopec for repair.
2. Power is supplied to the instrument, but the forceps or tamper does not heat. (Illuminated On/Off button not lit.)	A: Forcep or tamper has not been left long enough to reach working temperature. B: Forcep or tamper is not fully connected to the control box C: Power supply to left/right hand side bayonet connector has failed. D: Heating element in forcep/ tamper has failed.	A: Allow between 5 to 30 minutes for forceps and tampers to warm before use. Larger forceps and tampers will take longer to reach working temperature. B: Check bayonet connector of forcep or tamper is fully connected/locked in position on the control box C: Connect another forcep/ tamper which is known to be working to the bayonet connector. If the forcep/ tamper does not heat, the control box should be replaced or returned to Mopec for repair. D: Replace forcep/ tamper.

3. Mopec Control Box Operates but On/Off button does not light.	A: On/Off button failure.	A: Replace On/Off button
4. Forceps/tamper does not reach working temperature as quickly as expected.	A: Fault with Power Supply Unit B: Forceps/Tampers are still warming up.	A: Replace PSU. B: Forceps will reach working temperature in 5 to 10 minutes depending on size of forcep. Tampers will reach working temperature in 5 to 30 minutes depending on size of tamper.
5. Only one arm of forcep heating.	.A: Fault with forcep.	A: Replace forceps.
6. Temperature of forceps/ tamper going cold.	A: Forceps or tampers plugged into two inputs on the control box are touching each other. B: Fault with forcep/tamper C: Fault with control box. D: Fault with power supply unit (PSU).	A: Move forceps/tamper so that they do not touch each other. B: Replace forcep/tamper. C: Check forceps/tamper with another control box. If required, replace control box. D: Check forceps/ tamper with another PSU. If required replace PSU.
7. Forceps/tampers intermittently heat in use.	A: Fault with wiring/component of forcep/tamper.	A: Replace forcep/tamper.

## 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 the goods indicated below:
  - a. Mopec Control Unit
  - b. Mopec Power Supply manufactured/supplied by Mopec, which under proper and normal conditions of use, may develop within a period of 12 months from the date of delivery.

3. All Mopec Forceps and Tampers are classified as consumables, which due to the nature of their use will need to be replaced routinely. Provided the terms of payment are duly complied with, Mopec undertakes to remedy any original defects arising from faulty materials or workmanship, in Mopec Forceps and Tampers manufactured/ supplied by Mopec, which under proper and normal conditions of use, may develop within a period of 6 months from the date of delivery.
4. 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.
5. 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.
6. 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.
7. 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.
8. In the event of replacement with a new or reconditioned model, the replacement unit will continue the warranty period of the original equipment.
9. If any goods or parts thereof are returned unnecessarily all costs 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 Mopec without its prior written consent.
10. 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.



## EC DECLARATION OF CONFORMITY

We herewith confirm the following products:

Mopec Heated Forceps (1mm, 2mm, and 4mm)  
Mopec Heated Tampers (1mm, 2mm, and 4mm)  
Mopec Control Unit - BK330  
Mopec Power Supply - BK320

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

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 61236-1:2013  
Electrical equipment for measurement control and laboratory use - EMC requirements.