



O P E R A T I N G
M A N U A L

slee *solutions*
for
pathology

EMBEDDING CENTERS

MPS P I / MPS P II

MPS P, W, C / CX

COMPACT AND MODULAR
PARAFFIN EMBEDDING CENTER,
DISPENSING MODULE,
PRE-WARMING MODULE,
COOLING MODULE

DESIGN &
MANUFACTURING
MADE IN GERMANY



Dear Customer,

thank you very much for your confidence in SLEE products!

Before you start operating the device, please read the operating instructions carefully to familiarize yourself with the proper operation and functions. The device should only be operated by specially trained and instructed staff. The specified safety measures as well as the regulations and hygiene standards of the respective laboratories must be respected.

Enjoy working with your new device!

Your team from SLEE medical GmbH

Please note:

Some of the images in this manual may show special equipment and / or accessories that are subject to a charge. The image may differ slightly from the product. Errors excepted.

We always try to keep our documents up-to-date and free of errors. However, should you notice any mistakes, we would be grateful if you could provide us with feedback. Comments on the actual content are also welcome at any time. Simply e-mail us at marketing@slee.de.

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1 INTENDED USE

The paraffin wax embedding center type MPS P I and MPS P II are intended for embedding histological tissue specimens in molten paraffin (wax) for use in pathology laboratories. The modular system MPS P II consists of the paraffin dispensing element MPS P, the preheating station MPS W and the cooling plates MPS C or MPS CX. All systems can easily be up-graded with additional preheating stations or cooling plates.

MPS P consists of a heated paraffin container (capacity 5.5 liters; 30 – 80 °C), a heated working area (450 x 240 mm; 30 – 80 °C) and a cooling spot (50 x 50 mm, down to -5 °C). Optionally heated forceps for orientation of the specimen during embedding are available.

MPS P I consists of a heated paraffin container (capacity 3.8 liters; 30 – 80 °C), a heated working area (450 x 240 mm; 30 – 80 °C), two heated cassette and mold storage containers (30 – 80 °C) for up to 120 standard cassettes and up to 250 embedding molds each, altogether up to 240 standard cassettes or up to 500 embedding molds, and a cooled working area. Optionally heated forceps for orientation of the specimen during embedding are available.

MPS W is a preheating station (30 – 80 °C) with heated areas and containers for storage and preparation of approx. embedding 320 standard cassettes and 500 molds.

MPS C is a cooling plate with a comfortable working area of 370 x 270 mm (capacity of approx. 80 standard cassettes, Sakura 84 – 90 cassettes, Engelbrecht Super Mega Cassettes 16 – 18 cassettes) made of anodized aluminum. The system easily cools down to -15 °C*.

MPS CX is a cooling plate with a huge comfortable working area of 570 x 270 mm (capacity of approx. 120 standard cassettes, Sakura 132 – 140 cassettes, Engelbrecht Super Mega Cassettes 28 – 30 cassettes) made of anodized aluminum. The system easily cools down to -15 °C*.

* All temperature specifications refer to an ambient temperature of + 20 °C and a relative humidity of 60 %.

2 SYMBOLS

2.1 Type plate symbols

Not all symbols might appear on the label of the respective device.

 20XX	Year of manufacturing
Rating	It indicates the various voltages at which the instrument can work (by varying the connection in the internal transformer) another label, in the proximity of the main power cable socket, indicates the voltage at which the instrument is connected and at which it must work.
	Manufacturer address
	CE mark
	UKCA - UK Conformity Assessed
	In Vitro Diagnostic Device

	Caution! Please read accompanying documentation.
	Please read the instructions before use.
	Do not throw on domestic garbage, please follow the local rules for special waste recycling and treatment.

Illustration of type plate (example):

slee solutions for pathology	 2025	SLEE medical GmbH · Am Neuberg 14 55268 Nieder-Olm · Germany T: +49 6136 76997-0 · F: +49 6136 76997-99 E: mail@slee.de · www.slee.de
Type: MPS C [SN] I1YYXXXX 0,055 kg - R290		 I 1 Y Y X X X X
150 VA 230 V ~ 50/60 Hz T 4,0 A	UK CA	CE IVD ⓘ 
Made in Germany		

slee solutions for pathology	 2025	SLEE medical GmbH · Am Neuberg 14 55268 Nieder-Olm · Germany T: +49 6136 76997-0 · F: +49 6136 76997-99 E: mail@slee.de · www.slee.de
Type: MPS CX [SN] I3YYXXXX 0,09 kg - R290		 I 3 Y Y X X X X
250 VA 230 V ~ 50/60 Hz T 6,3 A	UK CA	CE IVD ⓘ 
Made in Germany		

slee solutions for pathology	 2025	SLEE medical GmbH · Am Neuberg 14 55268 Nieder-Olm · Germany T: +49 6136 76997-0 · F: +49 6136 76997-99 E: mail@slee.de · www.slee.de
Type: MPS P I [SN] W1YYXXXX		 W 1 Y Y X X X X
650 VA 230 V ~ 50/60 Hz T 4,0 A	UK CA	CE IVD ⓘ 
Made in Germany		

slee solutions for pathology	 2025	SLEE medical GmbH · Am Neuberg 14 55268 Nieder-Olm · Germany T: +49 6136 76997-0 · F: +49 6136 76997-99 E: mail@slee.de · www.slee.de
Type: MPS P [SN] G1YYXXXX		 G 1 Y Y X X X X
400 VA 230 V ~ 50/60 Hz T 2,5 A	UK CA	CE IVD ⓘ 
Made in Germany		

slee solutions for pathology	 2025	SLEE medical GmbH · Am Neuberg 14 55268 Nieder-Olm · Germany T: +49 6136 76997-0 · F: +49 6136 76997-99 E: mail@slee.de · www.slee.de
Type: MPS W [SN] HA1YYXXXX		 H A 1 Y Y X X X X
320 VA 230 V ~ 50/60 Hz T 2,5 A	UK CA	CE IVD ⓘ 
Made in Germany		

2.2 Used symbols and their meanings

	Dangers, warnings and cautions are marked by this symbol.
	Special instructions regarding the operation of the device are marked by this symbol.
	Hot surfaces are marked by this symbol. Avoid direct contact to prevent risk of burning.
	Warning about flammable substances.

3 SAFETY NOTES

The institution which owns the unit and the persons working with the unit, servicing or repairing it have the responsibility for a hazard-free use. In order to guarantee the performance of the device and ensure safe operation, the user must observe the instructions, recommendations and warnings.

MPS P / P I

Slee paraffin wax embedding centers are provided with the following safety features:

	MPS P	MPS P I
Hand heat protectors	•	•

Magnifier

	Risk of glare and injury! Never look into the sun or any other bright light source with optical devices! Do not look directly into the light source. Fire hazard! Lenses in optical devices can cause considerable damage due to the "burning glass effect" if improperly handled or stored! Make sure that optical lenses are never left in the sun without a cover! Use the supplied cover! Certain surfaces of the device are hot during operation and can cause burns if touched. Do never fill xylene into one of the MPS devices. Flammable substances should never be placed near to the device. The device must only be operated by trained specialists.
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Flammable substances: Paraffin, Propane, Xylene

Paraffin is flammable and should be handled with care. Spillage should be avoided. Paraffin on the surfaces must not be removed with sharp tools as it would ruin the coating. It should be avoided to allow xylene to react on all surfaces.

To clean the condenser fins, switch the device off with the main switch and disconnect it from mains. Prior to any maintenance and service action, the tissue embedding center MPS must be disconnected from the power supply.

	Caution: Xylene is a flammable organic solvent. Its flash point is between 27 and 32 °C. Xylene vapors are heavier than air and can easily catch fire on hot surfaces or sparks even over a greater distance.
	Caution: The cooling agent R290 (Propane) is flammable.

4 COMPONENTS

The Slee paraffin wax embedding centers are provided with the following standard components:

	MPS P I	MPS P II		
		MPS P	MPS W	MPS C / CX
Heated paraffin (wax) container	•	•		
Heated dispenser element	•	•		
Heated cassette / mold storage containers	•		•	
Cooled cassette / mold storage area				•
Heated working area	•	•		
Cooled working area (cooling spot)	•	•		
Magnifier	•	•		
Paraffin collection tray	•	•		
Working area illumination (light)	•	•		
Foot switch for paraffin dispenser	•	•		
Operation manual	•	•	•	•
Integrated electronic timer	•	•	•	•
Hand heat protectors	•	•		

5 SPECIFICATIONS

	MPS P		MPS P I		MPS W		MPS C		MPS CX	
	115 V	230 V	115 V	230 V	115 V	230 V	115 V	230 V	115 V	230 V
Nominal supply voltage	115 V AC +/- 10 %	230 V AC +/- 10 %	115 V AC +/- 10 %	230 V AC +/- 10 %	115 V AC +/- 10 %	230 V AC +/- 10 %	115 V AC +/- 10 %	230 V AC +/- 10 %	115 V AC +/- 10 %	230 V AC +/- 10 %
Nominal frequency	60 Hz	50 / 60 Hz	60 Hz	50 / 60 Hz	60 Hz	50 / 60 Hz	60 Hz	50 / 60 Hz	60 Hz	50 / 60 Hz
Power draw	400 VA		650 VA		320 VA		150 VA		250 VA	
Protective Class (1)	I									
Power fuses	2xT4 A	2xT2,5 A	2xT10 A	2xT4 A	2xT4 A	2xT2,5 A	2xT10 A	2xT4 A	2xT10 A	2xT4 A
Pollution degree (1)	2									
Overvoltage installation category	II									
Maximum heat emission	400 J / s		650 J / s		320 J / s		150 J / s		450 J / s	
Operating temperature range	+10 to +35 °C									
Relative humidity	max. rel. 80 % non-condensing									
Temperature range during storage	+5 to +55 °C									
Humidity during storage	max. rel. 80 % non-condensing									
Dimensions (w x d x h)	450 x 590 x 300 mm		450 x 590 x 300 mm		300 x 590 x 300 mm		400 x 590 x 300 mm		600 x 590 x 300 mm	
Weight	18 kg		23 kg		15 kg		26 kg		35 kg	
Paraffin tank	5.5 l		3.8 l							
Cooling spot	50 x 50 mm, min. -5 °C, fix		50 x 50 mm, min. -5 °C, fix							
Forceps holders	2 x 4		2 x 3							
Light	LED		LED							
Temperature range cool plate							down to -15 °C, programmable*		down to -15 °C, programmable*	
Cooling gas							R290		R290	

Work area (2)			Heated cassette area 255 x 265 x 55 mm Heated mold area 260 x 220 x 70 mm	270 x 370 mm, approx. 80 cassettes, 250 molds Sakura 84 – 90 pcs., Engelbrecht Super Mega Cassettes 16 – 18 pcs.	270 x 570 mm, approx. 120 cassettes, 375 molds Sakura 132 – 140 pcs., Engelbrecht Super Mega Cassettes 28 – 30 pcs.
Cassette bath, storage for molds (2)		30 – 80 °C approx. 120 cassettes, 250 molds in each compartment, or up to 240 cassettes in total or up to 500 molds in total	30 – 80 °C approx. 320 cassettes, 500 molds		
Installation requirements	< 2.000 m NN, 15 cm distance to wall				

(1) According to IEC 1010, EN 61010

(2) Sakura cassettes 40 x 25 x 10 mm, Engelbrecht Super Mega Cassettes 53.8 x 75 x 18 mm. All other quantities refer to standard cassettes and molds.

* All temperature specifications refer to an ambient temperature of +20 °C and a relative humidity of 60 %.

6 UNPACKING AND INSTALLATION

6.1 UNPACKING THE DEVICE

Remove the upper cover and the upper supporting foams.

Lift the device out of the wooden transportation case. The devices may only be lifted holding them at the sides of the base plate of the housing.

For repacking use the original cases. Keep the packing material.

Place the device onto the selected bench.



It must be avoided to tilt or turn the cool plate MPS C and MPS CX. These positions will inevitably cause damage to the compressor.

6.2 INSTALLATION

The site for installation should meet the following requirements:

- The unit should be positioned onto a plane, vibration-free surface. Please ensure that there is no air condition vent nearby.
- A free ventilation of fresh air from underneath the device should be guaranteed. The back of the device must be at least 15 cm away from the wall.
- The vicinity of the work area must be free of oil and chemical vapors.

6.3 ELECTRICAL POWER CONNECTION



Make sure that electric power is constant $\pm 5 - 10 \%$:

- This should be examined during installation of the unit by a competent person.
- Use a dedicated fuse for the unit.
- Before turning on the device, check if the voltage of the mains supply is identical with the name plate of the unit.

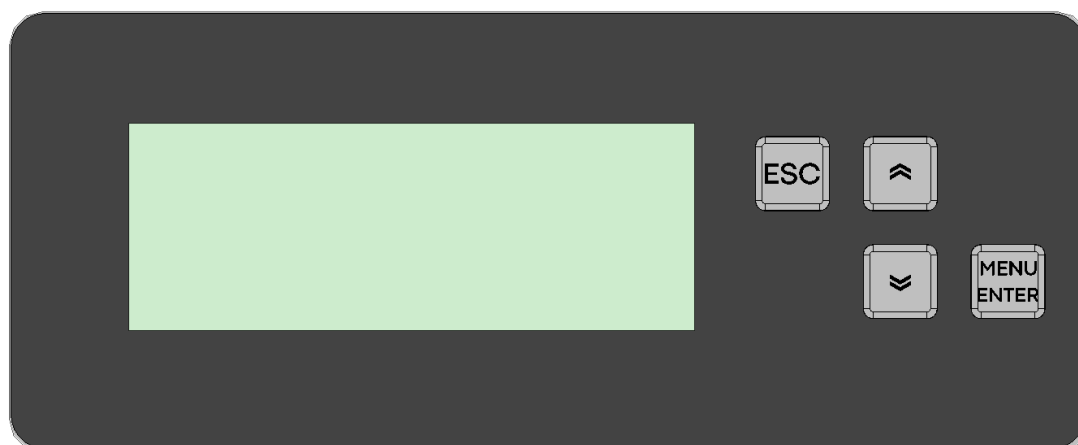
Connect each unit to the mains supply and switch on with mains switch at the rear of each unit.

7 INITIAL OPERATION

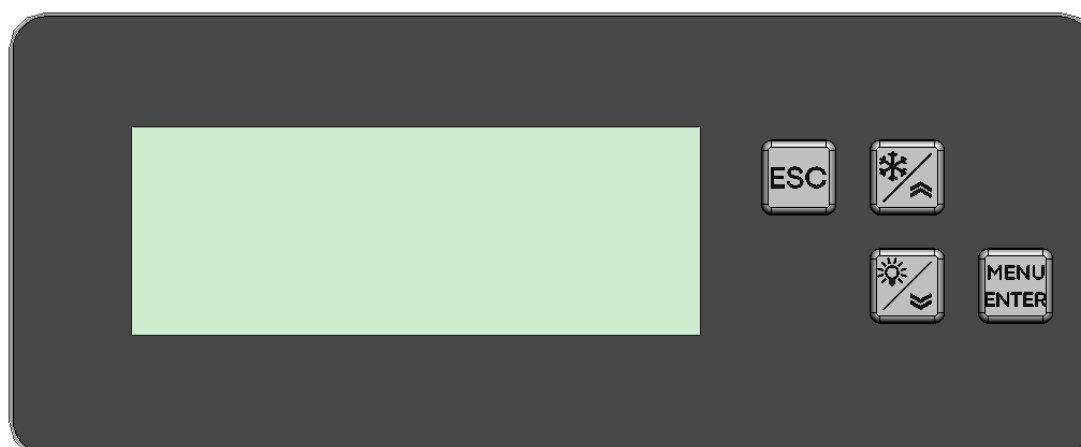
The MPS series provides a programmable interface, which helps the user to configure this device for the appropriate usage within your preferred circumstances.

7.1 DISPLAY AND USER INTERFACE

The display (light green area) and the integrated buttons are the central interface (Human-Machine Interface, abbr. HMI) for programming the device and setting the respective values. There are two kinds of HMI's, first one for MPS C and MPS W and the second one for the MPS P version as shown below. The functions of the buttons are explained later in the respective part of this chapter.



HMI MPS C, MPS CX & MPS W



HMI MPS P, MPS P I

7.2 INITIAL STATE OF THE DISPLAY

While the device is in standard working mode, the display shows the home screen (actual date, time and the temperatures), including the target temperature in brackets.

Explanation	Date / Function	Time / Settings	
Actual date / time	17.09.10	16:45:00	
Paraffin tank temperature (actual vs. target)	Paraffin	60 °C	(65 °C)
Surface temperature (actual vs. target)	Surface	38 °C	(40 °C)
Cooling Spot status	Cooling Spot		Off

Within this view there are no options for manual settings as it only provides an indication of the actual status of the device. The names and sequence of the temperature controllers depend on the device:

- MPS C / CX Surface
- MPS W Upper / Lower
- MPS P Paraffin / Surface / Cooling Spot (only On / Off)
- MPS P I Paraffin / Surface / Bowl / Cooling Spot (only On / Off)

Devices which are not equipped with every single function have an empty line instead of actual and target temperature for the built-in feature, e.g., MPS C only has a line for surface temperature but shows no other information.

7.3 STANDBY MODE

If the Standby mode is activated, the display indicates date, time and the starting time for the following operation cycle, if the timer is programmed. If no timer program is set, the device shows that the heating / cooling functions are switched off. The standby mode lasts until the next time the device is started by the timer or the user.

Standby display for MPS P:

Explanation	Date / Function	Time / Settings	
Actual date / time	17.09.10	20:45:00	
Timer settings for paraffin tank	Paraffin	>>	Fr07:00
Timer settings for surface	Surface	>>	Fr09:00
Cooling Spot status	Cooling Spot		Off

Standby display for MPS P I:

Explanation	Date / Function	Time / Settings	
Actual date / time	17.09.10	20:45:00	
Timer settings for paraffin tank	Paraffin	>>	Fr07:00
Timer settings for surface	Surface	>>	Fr09:00
Timer settings for cassette / mold storage	Bowl	>>	Fr09:00

Standby display for MPS W:

Explanation	Date / Function	Time / Settings	
Actual date / time	17.09.10	20:45:00	
Timer settings for upper heating	Upper	>>	Fr07:00
Timer settings for lower heating	Lower	>>	Fr09:00

Standby display for MPS C and MPS CX:

Explanation	Date / Function	Time / Settings	
Actual date / time	17.09.10	20:45:00	
Timer settings for surface	Surface	>>	Fr09:00

Within this view there are no options for manual settings as it only provides an indication of the actual status of the device.

While the device is in standby mode, the display illumination is switched off and all functions, even light and cooling spot are set inactive. The cooling spot is set inactive to prevent icing. To reactivate the cooling spot, see section 7.9.

To switch back to operating mode the second menu item in the Main Menu, named Operation must be selected. Alternatively, the device will be switched on by the timer, if it is programmed.

7.4 MAIN MENU

The table Main Menu provides the possible settings of the MPS P and MPS P I software. The columns Cursor, Function and Settings are a representation of the characters shown on the display. As the display only shows 4 lines you can navigate to the other positions listed in the following tables by pressing . The menu will roll down to all included items. The item Configuration is only available for technicians authorized by SLEE medical GmbH.

Main Menu display for MPS P:

Explanation	Cursor	Function	Settings
Manual activation of Standby mode	>	Standby	
Manual activation of Operation mode		Operation	
Timer MPS P		Timer	
Tank heating function On / Off		Paraffin	On
Adjustment of tank heating temperature		Paraffin Temp.	40 °C
Surface heating function On / Off		Surface	On
Adjustment of surface temperature		Surface Temp.	40 °C
Set actual date		Date	17.09.10
Set actual time		Time	16:45:00
Change language (English, German, Polski, Espanol, French, Türkiye)		Language	English
Setting of Contrast for the display		Contrast	14
Software Version and Date		Version	
Switch to configuration menu (Configuration per SLEE medical GmbH authorized technician)		Configuration	

Main Menu display for MPS P I:

Explanation	Cursor	Function	Settings
Manual activation of Standby mode	>	Standby	
Manual activation of Operation mode		Operation	
Timer MPS P I		Timer	
Tank heating function On / Off		Paraffin	On
Adjustment of tank heating temperature		Paraffin Temp.	40 °C
Surface heating function On / Off		Surface	On
Adjustment of surface temperature		Surface Temp.	40 °C
Settings for surface heating timer*		Surface Timer	
Cassette / Mold storage heating function On / Off		Bowl	On
Adjustment of Cassette / Mold storage temperature		Bowl Temp.	40 °C
Set actual date		Date	17.09.10
Set actual time		Time	16:45:00
Change language (English, German, Polski, Espanol, French, Türkiye)		Language	English
Setting of Contrast for the display		Contrast	14
Software Version and Date		Version	
Switch to configuration menu (Configuration per SLEE medical GmbH authorized technician)		Configuration	

Main Menu display for MPS W:

Explanation	Cursor	Function	Settings
Manual activation of Standby mode	>	Standby	
Manual activation of Operation mode		Operation	
Timer MPS W		Timer	
Upper heating On / Off		Upper	On
Adjustment of upper heating temperature		Upper Temp.	40 °C
Lower heating On / Off		Lower	On
Adjustment of lower heating temperature		Lower Temp.	40 °C
Set actual date		Date	17.09.10
Set actual time		Time	16:45:00
Change language (English, German, Polski, Espanol, French, Türkiye)		Language	English
Setting of Contrast for the display		Contrast	14
Software Version and Date		Version	
Switch to configuration menu (Configuration per SLEE medical GmbH authorized technician)		Configuration	

Main Menu display for MPS C / CX:

Explanation	Cursor	Function	Settings
Manual activation of Standby mode	>	Standby	
Manual activation of Operation mode		Operation	
Timer MPS C, MPS CX		Timer	
Cooling function On / Off		Cooling	On
Adjustment of cooling temperature		Cooling Temp.	-15 °C
Set actual date		Date	17.09.10
Set actual time		Time	16:45:00
Change language (English, German, Polski, Espanol, French, Türkiye)		Language	English
Setting of Contrast for the display		Contrast	14
Software Version and Date		Version	
Switch to configuration menu (Configuration per SLEE medical GmbH authorized technician)		Configuration	

With  and  (for MPS P and MPS P I  and ) you can move the cursor (column *Cursor*) to the appropriate menu item (column *Function*). By pressing  (for MPS P II ) you can activate the setting, and the value begins to flash. Now the value can be adjusted by pressing  or  and must be confirmed with .

The items marked with an asterisk (*) guide the user to the submenu *Timer*, which is explained in chapter 7.6 TIMER.

To leave the menu and get into the next higher level just push . This will not make any changes to the device's current settings.

	With the timers, the start of work is determined; the respective start time (already programmed) is included in the calculation. Please enter only the time for starting work!
---	---

7.5 ACTUAL DATE AND TIME

Before you can use the timer function as explained in chapter 7.6 TIMER you need to adjust the actual time and date to match your current location. Following explanation is valid for all devices out of the MPS Series.

Go into the *Main Menu* and use  or  to go to the line showing *Date*. The format of the date is DD/MM/YY.

Pressing  will make the digits for the day blinking. Pressing  or  will raise or lower the figure. Hitting  will change from day to month and also to year which can be adjusted in the same manner as the day.

Leaving the adjusting mode is always possible by pushing .

After leaving the date settings you return to the *Main Menu*. The next line below the *Date* is the *Time*. The *Time* adjustment works even like the *Date* setting.

7.6 TIMER

All devices of the MPS series and the cooling unit in the MPS C and MPS CX can be switched on and off via an automatic time switch. A total of three switch-on and switch-off phases can be defined. The respective time switch intervals can be set via the main menu. The settings are activated when the respective time switch interval has been switched on and the status "On" is displayed.

Explanation	Cursor	Turn-On Time		Turn-Off Time	
First of three On / Off Time settings	>	On	07:00	Off	12:00
Second of three On / Off Time settings		On	13:00	Off	18:00
Third of three On / Off Time settings		On	20:00	Off	22:00
Weekdays		Mo Tu We Th Fr Sa S			

Timer Settings

Setting the timer is made very easy and user friendly. Just go to the respective line which you want to edit by pressing the  or  keys and confirm with .

The first two digits start to flash and signalize that they are ready to be adjusted. Now you can edit the start time when the function should be switched on by pressing  or  again. Using  will make the next two digits flashing. Here you can adjust the minutes for the start time.

After you set the start time settings you push  to get to the stop time and adjust the stop time equivalent.

The above-described procedure is even valid for assigning the weekdays for which you want the timer settings to work.

Pressing  will switch through the days which can be turned on and off by using the arrow keys  and .

Hitting the arrow buttons once will apply a change of one unit, e.g., pressing  will change the start time (hours) from 05:00 to 06:00. Holding the arrow keys will raise or lower the setting until you stop pressing the buttons.

	Please note: The appliance is ready for operation at the programmed time (paraffin melted, work surfaces heated or cooled, etc.).
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7.7 HEATED PARAFFIN (WAX) CONTAINER (MPS P and MPS P I module)

	For a robust performance of the device the flow of molten paraffin is exclusively driven by gravitation. To ensure a rapid flow, please refill the paraffin container before it empties completely.
---	--

The design of the MPS P and MPS P I allows two ways of working with your device.

The first common one is using the timer, which is explained in chapter 7.6 TIMER. This allows you to have a ready to use unit in the morning with liquid paraffin in it.

Another way is starting the heating manually by going to the Main Menu and activating the paraffin heating by pressing  after you went down the menu with  (see cursor position in table below). After pressing  again the status (On or Off) starts blinking and can be regulated by  or .

One line below you can adjust the paraffin tank temperature and another line beneath you will get to the timer menu. These steps are also valid for setting the Surface heating to fulfil your specific requirements.

Explanation	Cursor	Function	Settings
Manual activation of Standby mode		Standby	
Manual activation of Operation mode		Operation	
Timer MPS P, MPS P I		Timer	
Tank heating function On / Off	>	Paraffin	On
Adjustment of tank heating temperature		Paraffin Temp.	40°C
Surface heating function On / Off		Surface	On
Adjustment of surface temperature		Surface Temp.	40°C
Set actual date		Date	17.09.10
Set actual time		Time	16:45:00
Change language (English, German, Polski, Español, French, Türkiye)		Language	English
Setting of Contrast for the display		Contrast	14
Software Version and Date		Version	
Switch to configuration menu		Configuration	

The regular screen will show you the actual and the target temperature (in brackets). To go back to the standard screen press .

Explanation	Date / Function	Time / Settings	
Actual Date / Time	17.09.10	16:45:00	
Paraffin tank temperature (actual vs. target)	Paraffin	60 °C	(65 °C)
Surface temperature (actual vs. target)	Surface	38 °C	(40 °C)
Cooling Spot Status	Cooling Spot		Off

7.8 HEATED WORKING AREA (MPS P and MPS P I module)

As mentioned in the previous chapter you can heat the working surface of your MPS P or MPS P I to allow you to place and align your tissue sample while the paraffin keeps liquid. Even the temperature can be influenced in the Main Menu.

You only have to go to the Main Menu by pressing  and go down to the line Surface. As you adjusted the tank settings you are able to set the working conditions to fit your specific needs.

The function surface heating can be switched on and off manually and by the timer, the temperature can be regulated in single degree steps.

7.9 COOLED WORKING AREA (MPS P and MPS P I module)

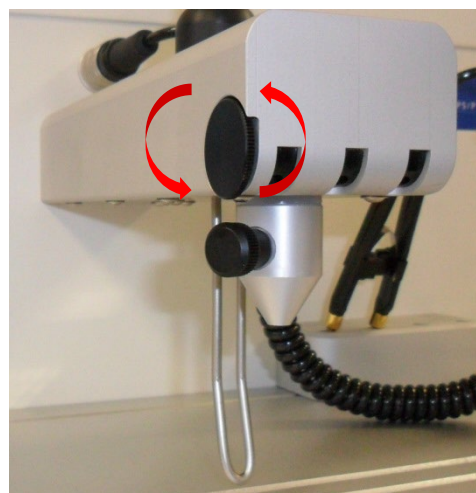
	If the cooling element is switched on, the inbuilt cooling fan is running. The lower and rear air-ing slots should never be covered. The actual temperature of the cooled working area may vary dependent on the temperature set for the heated working area and the ambient temperature.
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Your new device has a cooling spot which provides a lowered temperature to harden the liquid paraffin earlier than wait-ing for hardening with your local air temperature.

To switch the cooling spot on and off you only have to push . For the MPS P you will see the status of the cooling spot on the standard screen in the last line.

7.10 ILLUMINATED WORKING AREA (MPS P and MPS P I module)

For optimized visibility of your work there is a light included in the MPS P and MPS P I device which you can switch on and off with . Additionally, you can adjust the light module in the front by turning the black tube as shown in the picture to the right.



7.11 HEATED PARAFFIN DISPENSER (MPS P and MPS P I module)

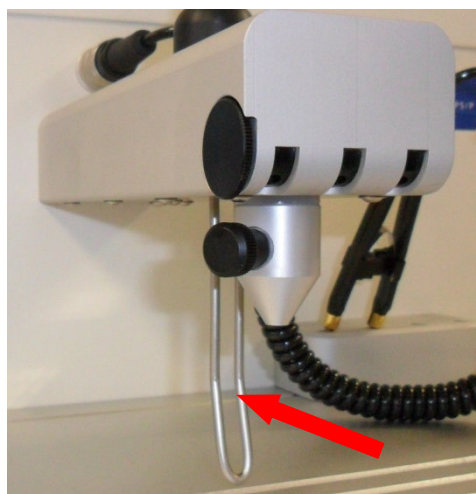
The heated paraffin dispensing arm can be operated manually or via a footswitch.

Manual operation

The heated paraffin dispensing arm is equipped with a hanger directly behind the dispense outlet.

To open the valve and start the paraffin flow, press the bracket backwards or to the side.

The valve closes automatically when the bracket is released.



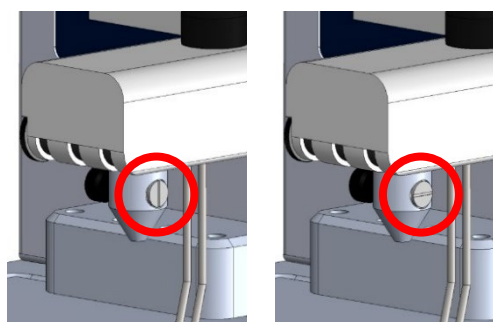
Operation with footswitch (not depicted)

The heated paraffin dispensing arm can be operated with a footswitch.

To open the valve and start the paraffin flow, press the foot switch.

The valve closes automatically when the foot switch is released.

The paraffin flow can be regulated by the adjusting screw on the dispense outlet (see image).



7.12 MAGNIFIER (MPS P and MPS P I module)

Each device is equipped with a magnifier that can easily be turned to the right and left if required. The magnifier will keep its orientation even if turned away temporarily.



7.13 PARAFFIN TRIMMER (MPS P and MPS P I module)

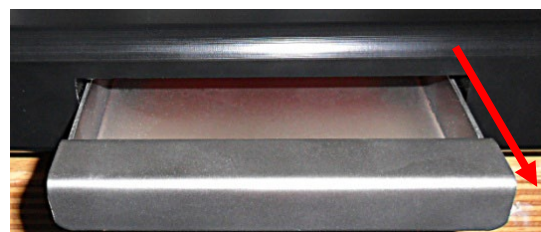
The integrated paraffin trimmer makes efficient removal of excess paraffin from each cassette. As a result, the risk of a not adequately clamped cassette in the cassette clamp is significantly reduced. Due to the generous design of the paraffin trimmer in the heated work surface, the paraffin melts and can thus immediately drain through the drainage into the paraffin waste tray located under the work surface.



7.14 PARAFFIN COLLECTION TRAY (MPS P and MPS P I module)

The paraffin from the paraffin waste tray should not be re-used.

To empty the tray, pull it out completely. The paraffin waste tray should be cleaned daily.



7.15 HEATED FORCEPS (MPS P and MPS P I module) [if device is equipped with this accessory]

The device can also be equipped with electrically heated forceps. The forceps will be activated by plugging into the connection for heated forceps at the front of the paraffin wax dispenser (MPS P and MPS P I module).

The heated forceps tip allows a more precise orientation of the dehydrated tissue. As soon as the work is finished, insert the tips into the forceps holder. This is drilled through so that the melting paraffin drains through the drainage system, the working surface into the paraffin waste tray. This ensures a clean, tack-free and non-stick forceps tip.



7.16 HEATED CASSETTE / MOLD STORAGE AREA (MPS W module)

The MPS W has two areas where you can store and preheat your steel and plastic cassettes. Usually, the upper area is for preheating the steel cassettes and the lower area is used for the plastic cassettes.

Both areas can be regulated separately in the *Main Menu* by going down to the items *Upper*, *upper Temp.* and *Upper Timer* accordingly *Lower*, *Lower Temp.* and *Lower Timer*.

The adjustment of temperature, start and stop time are done in the same manner as the settings for paraffin tank explained in chapter 7.7 HEATED PARAFFIN (WAX) CONTAINER or the heated working as explained in chapter 7.8 HEATED WORKING AREA.

7.17 COOLED STORAGE AREA (MPS C / CX module)

To store and simultaneously cool down your cassettes your MPS P II unit contains the MPS C or MPS CX device with a cooling surface.

You can put your prepared cassettes with your tissue samples on this surface to cool them down much faster than under environmental conditions.

The settings for the temperature, start and stop time are programmed in the same way as the settings for heating surface or paraffin tank in the MPS P.

You only have to go to the *Main Menu* to the items *Cooling*, *Cooling Temp.* and *Cooling Timer* and adjust the values using for selecting the item and or for changing the parameters.

7.18 HOOD FOR COLD PLATE (MPS C)

The optionally available hood for cold plate MPS C prevents freezing of condensed water. Thereby the temperature precision is increased and the energy efficiency enhanced by up to 30 %.



Optional hood for cold plate MPS C

8 MAINTENANCE

Besides regular cleaning, the device is basically maintenance-free.



For cleaning the units only use alcoholic media, not acetone or xylene. For the housing it is best to use a commercially available cleaner for plastics. The housing should not come in contact with alcohols or other solvents.

Never spray or use cleaning medium directly onto operating foils.

Please take note of the safety aspects of the device.

Wear protective clothing and disposable gloves according to Good Laboratory Practices.

Some general instructions for paraffin

Paraffin is flammable and therefore must be handled with care. Avoid spillage of liquid paraffin.

All components of the Slee embedding center MPS P I and MPS P II that come into contact with paraffin and the interior of the devices are carefully sealed to prevent wax from entering. Nevertheless, if paraffin is spilled, it should always be removed carefully.

The paraffin tank and the cassette bath, if required, should be filled with care. Avoid overfilling.

The paraffin in the cassette bath must be exchanged every day to avoid contamination.

Solid paraffin particles on the surface of the work area must not be removed with sharp tools, as this could damage the finish. A soft plastic spatula is ideal for paraffin removal. Alternatively, solid paraffin can be lifted off easily by lightly warming it.

To clean the paraffin tank, it can be lightly warmed up and the paraffin block can be removed. Alternatively, it can be flown out completely through the arm. The reservoir is cleaned inside with a paper tissue. Care should be taken that the reservoir is contaminated. Any dirt inside should be removed.

For cleaning of the forceps holders, they can easily remove. They are fixed with magnets onto the housing. They are frequently a source of contamination and are susceptible to dirt. Therefore, they should be cleaned thoroughly. They are heated during operation through the placement onto the work area and they are thus very hot (approx. 80 °C).

The paraffin collection tray is to be checked daily. The paraffin should be emptied regularly to ensure that excess paraffin can drain to the tray.

9 OPTIONAL ACCESSORIES

Description	MPS P I	MPS P II	MPS C
Heated forceps #10196000 (2.5 mm) #10196001 (1.25 mm)	•	•	
Anatomic forceps, 130 mm, stainless steel #30030090 (pointed) #30030091 (blunt)	•	•	
Heated forceps straight #10196012 (0.5 mm) #10196013 (1 mm) #10196014 (2 mm) #10196015 (4 mm)	•	•	
Heated forceps curved #10196016 (0.5 mm) #10196017 (1 mm) #10196018 (2 mm) #10196019 (4 mm)	•	•	
Heated forceps angled #10196020 (0.5 mm) #10196021 (1 mm) #10196022 (2 mm) #10196023 (4 mm)	•	•	
Power supply plug with circular plug connection for electrically heated forceps #10196027	•	•	
Dissection needle #30030095	•	•	
Cooling plate MPS C #10175000	•	•	
Hood for Cooling plate MPS C #10175100			•
Cooling plate MPS CX (wide) #10175020	•	•	
Preheating unit MPS W #10180000	•	•	

Base molds (stainless steel) #30030050 7 mm x 7 mm x 7 mm #30030051 30 mm x 24 mm x 7 mm #30030052 15 mm x 15 mm x 7 mm #30030053 24 mm x 24 mm x 7 mm #30030054 37 mm x 24 mm x 7 mm #30030056 33 mm x 24 mm x 12 mm	•	•	
Metal lids for embedding cassettes #30050100	•	•	
Marking dyes for histological specimens Set of five bottles (Blue, Black, Green, Red, Yellow) and 25 Applicator Sticks #30001102	•	•	
Paraffin "Paratec Premium" (pure paraffin with added polymer) #30010004 – 1 kg #30010006 – 2.5 kg #30010008 – 10 kg #30010007 – 25 kg	•	•	
Paraffin "Paratec" (upon request)	•	•	

10 SERVICE

Internal components should only be serviced by technicians authorized by SLEE medical GmbH.

If technical service or spare parts are necessary, please contact your local SLEE medical GmbH distributor. Please have the following information available:

- Complete contact details
- Type of device and serial number
- Place of device and name of user
- Purpose of service call
- Delivery date of the unit

If it is necessary to return the device, it must be cleaned and disinfected before delivery. It must be returned in its original packing, to avoid transport damage.

If the device or parts thereof are sent back in a dirty or non-disinfected condition, SLEE medical GmbH reserves the right to return the parts to the debit of the customer without carrying out repairs or maintenance.

11 WARRANTY

SLEE medical GmbH guarantees that the product delivered has been subjected to a comprehensive quality control procedure, and that the product is faultless and complies with all technical specifications and/or agreed characteristics warranted.

SLEE medical GmbH guarantees that the device is manufactured under an ISO 9001:2015 and ISO 13485:2016 quality management system.

Unauthorized modification or repair by third party persons will void the warranty.

Only original Slee spare parts must be used.

Guarantee claims can be put forward only if the device is used according to this manual and for the purpose described.

Mistakes and errors which occur because of improper use cannot be accepted.

12 DISPOSAL

The device or parts of the device must be disposed of according to existing local applicable regulations.

Notes



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