TISSUE EMBEDDING CENTER

EC 350

INSTRUCTION MANUAL

TISSUE EMBEDDING CENTER EC 350

User Manual

Version 09/05

TISSUE EMBEDDING CENTER EC 350
Dispensing Console
Cryo Console

USER MANUAL

Contents:

EC Certificate of Conformity

Name and address of the manufacturer: MICROM International GmbH
Robert-Bosch-Straße 49
D-69190 Walldorf

Product designation: Tissue Embedding Station
Type reference: EC 350

Notification to Competent Authorities:
These medical device have been registered with the German authority as "General Histology Instruments" under the EDMA-classification code: 23-06-01

The designated product complies with the laid down regulation:

DIRECTIVE 98/79/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 October 1998 on in vitro diagnostic medical devices

The designated product complies with the EC regulations by strictly observing the following norms:

DIN EN ISO 14971:2001-03
Medical devices - Application of risk management to medical devices (ISO 14971:2000).

DIN EN 61010-1:2002-08
Safety requirements for electrical equipment for measurement, control and laboratory use - Part 1: General requirements (IEC 61010-1:2001).

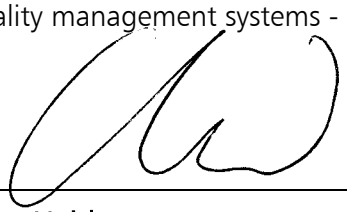
DIN EN 61010-2-101:2003-09
Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-101: Particular requirements for In-Vitro-Diagnostic-(IVD)-Medical instruments.

DIN EN 61010-2-081:2002-12
Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-081: Particular requirements for automatic and semi-automatic laboratory equipment for analysis and other purposes (IEC 61010-2-081:2001).

DIN EN 61010-2-010:1995-03
Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-010: Particular requirements for laboratory equipment for the heating of materials (IEC 61010-2-010:1992, modified); German version EN 61010-2-010:1994

DIN EN 61326:2002-03
Electrical equipment for measurement, control and laboratory use - EMC requirements (IEC 61326-1:1997 + A1:1998 + A2:2000); German version EN 61326:1997 + A1:1998 + A2:2001

DIN EN ISO 9001:2000
Quality management systems - Requirements (ISO 9001:2000)



Hans Heid
Managing Director

Walldorf, 10 February 2004

Introduction

The embedding center actually consists of two instruments or consoles that enable the procedure for the embedding of tissues to be performed easily and comfortably:

- Dispensing Console
- Cryo Console

It is also possible to purchase only the Dispensing Console. However, the Cryo Console must always be installed in together with a Dispensing Console.

Intended Use

Before operating the instrument, please read these instructions carefully to familiarize yourself with its proper operation and functions.

The Tissue Embedding Center EC 350 is a highly efficient instrument to embed paraffin-infiltrated tissue samples in paraffin.

Only skilled or specially trained personnel must operate the instrument. The listed and marked safety measures as well as the regulations of your respective lab must strictly be observed.

MICROM Ser. No.....

Please check the MICROM serial number on the type plate, which is placed on the rear side of your instrument and enter this number here. This way, questions and service can be handled faster.

Instruction Manual No. 387764

Issue: September 28, 2005

MICROM International GmbH
Robert-Bosch-Str. 49

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Safety

The installation and normal use of the Tissue Embedding Center is simple and safe if you observe the instructions given in this manual. However, those situations which could constitute a risk for laboratory personnel or equipment, are distinguished in this manual with the following symbols and warning messages:

DANGER – general danger spot
This sign, symbolising DANGER, means that injury to persons as well as material damage to the unit may occur if these instructions are not observed.
For your own safety, observe these instructions carefully.

CAUTION
This sign, symbolising CAUTION, means that material damage may occur if these instructions are not observed.
For a long service life of the unit, observe these instructions carefully

INFORMATION
This sign calls your attention to specific details of the unit whose relevance requires them to be given special consideration.

Apart from the instructions given in this manual, the personnel involved in operating the Tissue Embedding Center should know and observe the general guidelines and rules for safety and hygiene applicable to the workplace where the unit is installed. The symbol shown here indicates areas where the temperature may exceed 60°C

Everyone involved in operating and programming the Tissue Embedding Center should read these instructions carefully and fully understand them before using the unit.

BIOHAZARD:
Warning of biological danger.

RADIOACTIVITY:
Warning of radioactive danger.

Separate taking back of electrical and electronic instruments in the countries of the European Union:
This is to be applied in the countries of the European Union and other European countries with a separate collecting system within the waste management.
This product, being an electro and/or electronic instrument, must be treated separately within the waste management process (WEEE).

Safety Precautions

The operator's safety is affected, when the instrument is not operated in accordance with this instruction manual.

Please observe the following general precautions during operation of this instrument. Failure to comply with these precautions violates safety standards and the intended use of the instrument. MICROM International GmbH is not liable for misuse of the instruments and failure to comply with basic safety requirements.

Instrument grounding

To avoid injury from electrical current, the instrument must be connected with the protective earth. The instrument is equipped with a three wire ground plug. The power outlet must be connected to the protective earth and must meet the International Electrotechnical Commission (IEC) regulations.

Caution: mains Voltage

Never remove instrument covers during operation. Component replacements as well as adjustments must only be made by trained service personnel. Only use original spare parts for replacement work. Unplug the unit before removing or opening the covers.

Danger in explosive environment

The instrument must not be operated in the presence of flammable gases. Moreover, the instrument must not be exposed to conditions whereby dangerous gas concentrations can occur.

Hazard of radioactive radiation

When working with radioactive specimens observe all applicable radiation safety procedures. When working with radioactive contaminated material, appropriate safety and disinfection measures must be carried out. According to the rules and regulations concerning the handling of radioactive contaminated material of the respective laboratory, safety clothing (e.g. particle mask, gloves, protective shoe covers) must be worn. Radioactive contaminated waste must be disposed of according to the respective regulations.

Hazard of infection

Specimens used during the intended operation of the instrument might potentially be infectious. For this reason, it is recommended to observe the general laboratory regulations concerning protection against danger of infection.
Information on decontamination media, their use, dilution and effective range of application can be read in the Laboratory Biosafety Manual:1984 of the World Health Organization.
When working with infectious specimens observe all applicable safety procedures. When working with infectious material, appropriate safety and disinfection measures must be carried out. According to the rules and regulations concerning the handling of infectious material of the respective laboratory, safety clothing (e.g. particle mask, gloves, protective shoe covers) must be worn. Infectious waste must be disposed of according to the respective regulations.

Hazard of malfunction

To avoid the hazard of malfunction of an instrument, it must only be operated in a controlled electromagnetic environment. This means that transmitters such as mobile phones must not be operated in their close vicinity.
In case of malfunctions and/or service work, please turn off the instrument and contact your local dealer.

Certification

MICROM International GmbH certifies that this instrument has been tested and checked carefully. Its technical data was verified before shipment to be in accordance with the published specifications.

The instrument complies with applicable international safety regulations.

Warranty

The MICROM product is warranted against defects in material and workmanship for a period of 1 year. Parts which prove to be defective during the warranty period will be repaired or replaced free of charge by MICROM International GmbH. No other warranty is expressed or implied. Unauthorized modification or repair by third party persons will void the warranty. The warranty will expire in case of improper or wrong use of the instrument and in case the warning and precautionary messages are not observed. MICROM International GmbH is not liable for any occurring damage.

Once the guarantee period has expired, a maintenance contract should be signed to ensure the unit is kept in optimum operating condition. For more information on maintenance contracts, please contact your local distributor.

Errors and omissions excepted. Subject to amendment and improvement without further notice.

This instruction manual will be supplied together with each instrument. Further copies can be ordered at the nearest MICROM sales office by giving the serial number of the instrument, the number of the instruction manual and the date of issue.

This instruction manual is available in four different languages:

	Cat. no.
German:	387763
English:	387764
French:	387765
Spanish:	387460

Reception and installation of the unit

1. Before removing the Consoles from their shipping packages, carefully inspect the cardboard for any damage which may have occurred during transport. Should you detect any sign of damage, do not open the package and immediately report the situation to the transport agency.
2. After removing each Console from its package, inspect it carefully for damage. Should any be noted, immediately notify the distributor from whom the unit was purchased.
3. Remove cardboard, foamed parts and accessories used for shipment. Please keep the original packing as well as the foamed parts for possible return shipments.
4. Place the instruments on a stable level surface with ventilation space both behind and above the unit to ensure adequate air circulation.
5. Place the Consoles in position one beside the other:
   The Cryo Console may be installed on either the left or the right hand side of the Dispensing Console, whichever is preferred.

Connection

The figure on page 14 shows the connections which must be performed on every Console.

CAUTION

Before turning on the instrument for the first time, please check if the power requirements indicated on the type plate correspond to the power supply voltage being used!.

DANGER

Be sure that the mains socket into which you plug the equipment is provided with a protective earth connection.

Technical data

Dispensing Console			
Size in mm		Width 595, Depth 650, Height 430,	
Electrical connections	Voltage	100-120V/50-60 Hz	220-240V/50-60 Hz
	Power consumption	7.5A	3.6A
Adjustable temperature range	Paraffin storage tank	50° to 70°C	
	Right and left chambers		
	Hot zone		
	Tweezers	50° to 75°C	
Capacity	Paraffin storage tank	5 l	
	Right and left chambers	2.2 l	
Primary fuse		100 – 120 V, 2 x T10AH 220 – 240 V, 2 x T5AH	
Sound pressure		39 dB(A) measured with 1 m distance to the instrument	
Cryo Console			
Size in mm		Width 340, Depth 600, Height 405,	
Electrical connections	Voltage 100 V/50 – 60 Hz	110-120V/50-60 Hz	220-240V/50-60 Hz
	Power consumption 3 A	3A	1.2A
Adjustable temperature range		0 to -15°C	
Size of the cold plate		305 x 375 mm	
Primary fuse		100 – 120 V, 2 x T10AH 220 – 240 V, 2 x T6,3AH	
Sound pressure		53dB(A) measured with 1 m distance to the instrument	
Fluids and gases			
Dispensing & Cryo Console			
Transportation & storage conditions			
Storage temperature range:		-20°C up to +50°C	
Operating conditions:		+5°C up to +40°C (at a max. rel. humidity of 60%)	
		altitude up to 2000 m M.S.L.	
		for indoor use only	
Pollution degree:		2	
Overvoltage category:		II	
Floor loading requirements:		150 kg/m^2	

Standard equipment

The embedding center EC 350 is supplied together with the following standard equipment:

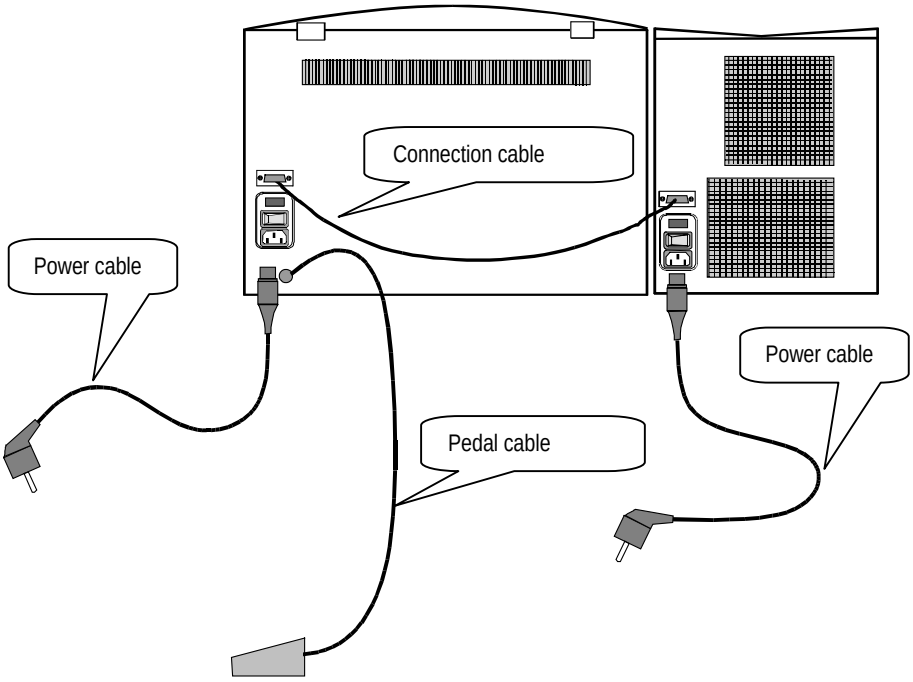
EC 350-1 dispensing console:

- spare main fuse
- screwdriver
- 2 retractable lids for trays
- 2 trays
- foot switch
- power cord
- instruction manual

EC 350-2 cryo console:

- power cord
- interconnecting cable (dispensing/cryo console)
- spare fuses

Connections between the Dispensing Console and the Cryo Console



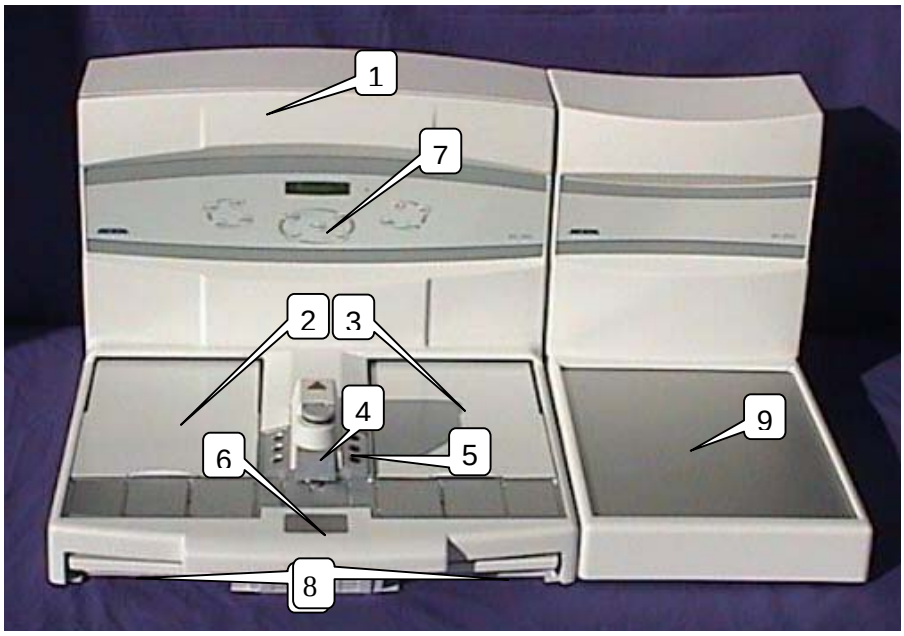
The power supply cable should be connected to the corresponding input on both console units.

The Dispensing Console should be connected to the Cryo Console using the connection cable provided as shown above.

The pedal cable should also be connected to the Dispensing Console if the pedal has been supplied as an optional extra, together with the additional external set of tweezers.

Tighten the screws on the plugs to prevent the connections from becoming loose.

Components of the Dispensing Console and the Cryo Console



1. Storage for hot paraffin
2. Left-hand chamber
3. Right-hand chamber
4. Dispensing nozzle
5. Storage for tweezers
6. Cold zone
7. Keypad and display for programming and control
8. Waste trays
9. Cryo Console

Fill a mould with paraffin by simply placing it below the dispensing nozzle and then touching the touch-plate or pressing the pedal.

If necessary, it is possible to illuminate the nozzle area by pressing the key marked LIGHT on the control keypad.

The paraffin flow rate can be adjusted by turning the knob located on top of the nozzle. The maximum flow rate is when the knob is in the position shown in the figure (with the largest circle at the top).

Turning the knob to the left reduces the amount of paraffin dispensed. When the smallest circle is placed at the top, the paraffin dispensing nozzle is closed.

Refer to page 21 and following pages for instructions on how to program the operation of the Dispensing Console and the Cryo Console.

Start-up and programming

ATTENTION
The Dispensing Console and Cryo Console are both connected to the power supply and are automatically started via a timer function. The connecting cable controls the Cryo Console, if controlled operation is desired. For this reason it is important that the cable connecting both units be correctly installed. Refer to page 15. If the Cryo Console is to be used separately, please see part "Stand-alone mode of the Cryo Console EC 350-2".

After connecting both units to the power supply, and making sure that the connection cable is correctly installed, turn on the mains switches located on the rear panel of each of the consoles.

The POWER pilot light on the keyboard and beside the display screen indicates that the unit is under power.

Under normal operating conditions the screen may display different messages depending on the status of the unit and the selected interface language:

TIMER IN PROGRESS

Waiting for start-up.
This display appears on the screen if the unit is programmed to start and stop within a time range which does not include the time now, or if the timer is set to 00:00.

In this case, the console must be started manually by pressing the MANUAL MODE ON/OFF key (see page 23, programming start and stop).

STANDBY IN PROGRESS

Programmed pause.
This display appears on the screen if the unit is programmed to remain on standby between certain dates, including the current date (see page 24, programming standby).

HEATING PARAFFIN PRESS ESC KEY

Heating mode. The paraffin storage tank or another point that requires heating has not yet reached the programmed temperature.

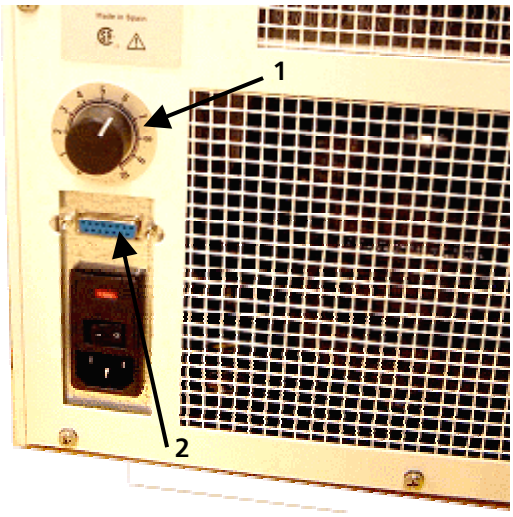
Press ESC key.

23-07-03	14:02:40
PARAFfin	47°

The display appears illuminated. The equipment is in operation with the settings as programmed (see page 21, "Programming').

Pressing either the UP or DOWN keys successively displays the temperatures of the: PARAFFIN - TWEEZERS - AREA - VALVE - LEFT CHAMBER. - RIGHT CHAMBER. - DELIVERY TUBE - AUXILIARY TWEEZERS - CRYO CONSOLE

Stand-alone mode of the Cryo Console EC 350-2



The Cryo Console EC 350-2 can also be operated separately, i.e. a connection to the control unit of the Dispensing Console EC 350-1 is not necessary. With this feature, it is possible to place the Cryo Console next to a microtome without the need of a control unit of the Dispensing Console.

If the Cryo Console is connected to the interface (2) of the Dispensing Console via the control cable, setting of preset temperatures and display of actual temperatures are possible.

In case the control cable is not connected, the instrument switches automatically to an independent operating mode of the Cryo Console. Turn the knob (1) on the rear side of the instrument to easily control the temperature.

To achieve lower temperatures on the cold plate, turn the knob in a clockwise direction (higher numbers).
To achieve higher temperatures on the cold plate, turn the knob in a counter-clockwise direction (lower numbers).

Keypad

This soft-touch keypad is used to control and program the embedding center:

Actions of the keys:

SET STBY	Enables programming date intervals when the unit will not start automatically (e.g. public holidays, vacations, etc.). When the key is in programming mode, the pilot incorporated in the key will be lit.
SET TIMER	Sets the time when the unit will be turned on and off. When the key is in programming mode, the pilot incorporated in the key will be lit.
SET TEMP	Sets the temperature for each of the areas to be heated.
SET CLOCK	Sets the date and local time of where the unit is installed.
MANUAL MODE ON/OFF	For manual control over starting and stopping the unit without using the timers for automatically starting and stopping the unit. When the unit is in manual mode, the pilot incorporated in the key will be lit.
LIGHT	Turns the light illuminating the dispensing nozzle on or off. The pilot indicates that the light is on
HEAT	Starts and stops the heating process. - Red pilot light: heating in progress - Green pilot light: at operating temperature
COOL	Starts and stops the Cryo Console. - Green pilot light: the Cryo Console has reached the pre-set temperature - Red pilot light: the Cryo Console is stopped - Intermittent green pilot: the Cryo Console is in the start-up phase - Intermittent red pilot: the Cryo Console is disconnected from the power supply or not connected to the Dispensing Console
ALARM	This key is used to acknowledge alarms or display the most recent alarm conditions that have occurred. The red pilot indicates that an alarm has been activated.
UP DOWN	When the unit is in operation (display lit), these keys successively display the current temperatures of each area. When the unit is in programming mode, these keys are used to set (increase or decrease) the values for the temperatures, times, dates, etc.
ESC	Press this key to cancel any programming situation.
ENTER	This key is used to validate or accept the option selected using the arrow keys. Once the option is validated the program automatically passes to the next option.

Selecting operating parameters

Before beginning to program the unit you will probably want to select the interface language, the units for temperatures and other variables.

Turn off the Dispensing Console using the switch on the rear panel and then turn it on again.

Before 5 seconds have elapsed press the following keys one after the other; MANUAL MODE, UP and DOWN.
The screen will display the following message:

```
S.A.T.
MANUFACTURER
```

This message indicates that the unit is in the special programming mode for Technical Service.
After about 5 seconds the following message will appear:

```
SELECT LANGUAGE
* ENGLISH
```

Use the UP or DOWN arrow keys to select the desired interface language. Once selected, press the ENTER key to confirm.
The following screen is displayed:

```
TEMPER. SELECTION
* CELSIUS
```

Use the UP or DOWN keys to select the temperature units as CELSIUS or FAHRENHEIT and confirm the choice by pressing ENTER.

```
AUX. FORCEPS
* ENABLED
```

Use the UP and DOWN arrow keys to select IN SERVICE if the optional auxiliary tweezers are installed or OUT OF SERVICE if they are not. Confirm by pressing ENTER.

```
DATE FORMAT
*EUROPEAN FORMAT
```

Use the UP and DOWN keys to select the date format:
- European Format: DD-MM (Day - Month)
- American Format: MM-DD (Month - Day)

Confirm by pressing ENTER

Programming

The embedding center combines vast programming possibilities with simple handling.
It is possible to program:

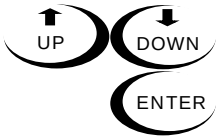
- The real date and time (internal clock/calendar)
- The temperature of each zone
- The scheduled time for automatic start-up [1] and shut down of the unit.
- That the unit does not start on certain dates (e.g. vacations, etc.)

Programming the date and time: Should the display be greyed out press the MANUAL MODE key and wait for five seconds.

Press the SET CLOCK key and the following display will appear (example)[2]:

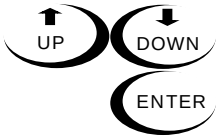
```
TUESDAY     11:40:00
24-11-03
```

The day of the week (in this example, Tuesday) flashes.



Change the day using UP or DOWN key as required and confirm the selection by pressing ENTER.

The first digit of the date then begins flashing.
Remember that the date format may be DAY-MONTH-YEAR if the European date format has been programmed, or MONTH-DAY-YEAR, if the American date format has been programmed (refer to page 20.)



Change the date using the UP or DOWN key as required and confirm the selection by pressing ENTER

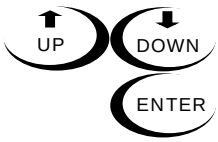
And so on successively to edit all the values for the date and time.

Programming temperatures Should the display be greyed out press the MANUAL MODE key and wait for five seconds.

Press the SET TEMP key and the following display will appear:

```
SET TEMPERATURE
PARAFFIN        60°
```

Note that the temperature units (Celsius / Fahrenheit), will depend on those set in the section on language and units (refer to page 20).



Use the UP or DOWN keys to change the value, if necessary, and confirm the selection by pressing ENTER.

[1] When programming the start-up time the unit automatically calculates when it should connect the heaters so that the temperatures of the paraffin and other areas are correct for the embedding center to be used at that time.
[2] The interface language will depend on that selected (refer to page 20)

It is then possible to successively change the temperature values for other zones of the embedding center in the order shown below. Please note that for safety reasons some values are internally limited by the unit. This is why it is not possible to select temperature values that exceed certain limits.

Repeat the same procedure for each of the other zones.

The recommended values for each of the zones (factory default values) are:

PARAFFIN	61°C	142°F
TWEEZERS	65°C	149°F
AREA	60°C	140°F
VALVE	62°C	144°F
LEFT CHAMBER	62°C	144°F
RIGHT CHAMBER	62°C	144°F
DELIVERY TUBE[3]	62°C	144°F
CRYO CONSOLE	-10°C	14°F

[3] This is the tube that transports the paraffin from the storage tank to the valve.

Programming automatic start-up and shut-down

The Modular Embedding Center offers different program options for the unit operating times:

- The same times from MONDAY to FRIDAY
- Different operating times (or stopped) on SATURDAYS and SUNDAYS
- Individual programs for each day of the week

It is important to remember that the unit will be ready for operation at the programmed time as it will have already automatically connected the heaters so that the different areas are at the required temperature.

Should the display be greyed out press the MANUAL MODE key and wait for five seconds.

Press the SET TIMER key and the following display will appear (example:

```
START UP
* MON-FRI
```

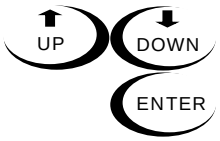
Use the UP or DOWN keys to select the operating time programmed for all work days (Monday to Friday)

```
START UP
* DAILY
```

or if necessary, it is possible to individually program each day of the week. Confirm the selection by pressing ENTER

```
MON-FRI
on time HH-MM
```

The upper left corner of the display shows the appropriate reference (Monday to Friday or each day of the week).



Use the UP or DOWN keys to change the value for start-up or operation of the unit if necessary, and confirm the selection by pressing ENTER to move to the next value.

Once the start time has been set the screen will display the options for the unit shut-down time:

```
MON-FRI
OFF TIME HH-MM
```

Proceed in the same way to set time when the unit should be automatically shut-down.

Once these values have been set the option for SATURDAY and SUNDAY will be displayed:

```
SATURDAY
ON TIME 00-00
```

If the unit is not to be used over the weekend enter the values 00:00 for START and 00:00 for STOP. Repeat the same operation for SUNDAY.

If the DAILY option has been selected it will be necessary to set the START and STOP time for each day of the week.

The default values for the TIMER (factory-set values) are:

MON - FRI	ON TIME:	08:00
	OFF TIME:	15:00
SATURDAY	ON TIME:	00:00
	OFF TIME:	00:00
SUNDAY	ON TIME:	00:00
	OFF TIME:	00:00

Programming pauses

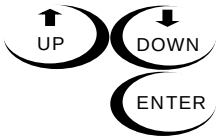
The embedding center can be programmed so that it will **NOT START** automatically between certain dates. This option is ideal for saving energy when the unit is not in use (e.g. on Public Holidays or during vacations).

Should the display be greyed out press the MANUAL MODE key and wait for five seconds.

Press the SET STBY key and the following display will appear (example):

```
Set STANDBY ON TIME
 00-00     DD-MM
```

Use the UP, DOWN and ENTER keys to set the day and month (or the month and day if the American format has been selected) ON WHICH the unit is **NOT TO START** automatically, that is, the beginning of the pause. Confirm the settings by pressing ENTER for each value.



Use the UP, DOWN and ENTER keys to set the END of the pause, that is, the day and month AFTER which the unit **WILL COME INTO OPERATION AGAIN** with the programmed operating times.

If the unit is not to have any programmed pause in operation enter 00-00 as the values for START and STOP.

The default values for the pause are:

PAUSE	START:	00-00
	END:	00-00

(pause not programmed)

Cleaning

As it is a precision medical instrument, the embedding center requires careful cleaning each day after use.

Caution:

Do not use solvents or aggressive detergents nor sharp or pointed objects to clean the unit.

Always use citric based detergents or hot soapy water.

The work AREA has drainage channels that guide any spilt paraffin to waste collection trays.

Cleaning any paraffin that may be deposited in the waste trays is much easier if a simple piece of paper is placed so that it covers the whole bottom of each tray.

Maintenance

Annual routine maintenance

To secure optimum performance of the instrument, it is recommended that a **routine maintenance** be performed by a trained service technician **once a year**.

Service contract

MICROM offers a service contract which guarantees that your instrument is always in perfect condition. For more information, please contact the nearest MICROM sales office.

Exchange of fuses

The instrument fuses are placed on the rear side of the instrument. To replace the fuses, turn off the mains switch of the instrument and unplug the unit.

Unlock the fuse cap on the upper side by using a pointed tool (1) and fold it down (2).

Pull off the red fuse insert and check or replace the fuses. In case of replacing fuses, please verify the value and characteristics corresponding to the name plate. When inserting the fuses into the fuse holder, please note the correct positioning of the lateral holding clips.

Insert the fuse insert in a way that the local voltage version can be read and shows upwards.

!

Again fold the fuse cap upwards and press it. Now the valid voltage version can be seen in the small window.

Please note that the voltage corresponds with the voltage being used at your place.

Insert the mains cable and turn on the instrument.

Troubleshooting

The following list of possible problems and checks should help you find the cause of the most common difficulties that may arise during normal operation.

The POWER pilot light does not come on

Check:

- the electrical connections to the power supply.
- the position of the switch on the rear panel
- the condition of the two fuses located above the switch

No paraffin is dispensed

Check:

- that the temperatures of the paraffin, delivery tube and valve have been set to adequate values (page 21)
- that the nozzle flow rate is adjusted correctly (page 16)

Alternatively operate the pedal and/or the touch-plate to see which of the two systems is failing.

Some of the zones do not heat

Check that the temperatures are programmed correctly.

The cold area does not cool

Contact the Maintenance Service Center

In any case, if the unit still fails to operate after completing these checks, immediately contact the Maintenance Service Center

Alarm messages

Should any technical failure that could damage the unit occur during operation of the Dispensing Console or the Cryo Console, the screen will display one of the following messages:

ERROR SECUR I TY

Indicates that the system has stopped automatically because of excess temperature.

ERROR SENSOR ERROR

Indicates that one of the temperature probes controlling the heating process is faulty.

In any case, turn the unit off using the switch located on the rear panel of the console or disconnect it from the power supply and immediately notify the Maintenance Service Center.

In case of malfunctions and/or service work, please turn off the instrument and contact your local dealer.

Conditions for the transportation of the instrument

Zurückführung des Gerätes zur Reparatur oder Routinewartung

Repair or maintenance work are normally carried out at the site of installation. If this is not possible for some special reasons, the instrument can be returned to MICROM. The contact address can be found at the beginning of this instruction manual.

To guarantee trouble-free function of the instrument after transportation, please note the below-mentioned measures for the transportation preparation.

In addition, the conditions for storage and transportation as mentioned under "Technical Data" must be observed during the entire transportation.

Biohazard:
Please also note the precautionary measures described in our safety precautions concerning biological hazards!

Measures for closing down:

Turn off the instrument and unplug the unit.
In case a cryo console is connected, please loosen the connecting cable.
Empty paraffin reservoir or let the paraffin solidify.

For transportation outside closed buildings, please observe the following additional measures:

Turn off the instrument and unplug the unit.
In case a cryo console is connected, please loosen the connecting cable.
Empty paraffin reservoir or let the paraffin solidify.

If the original packing is no longer available, please contact your local MICROM representation.

Disposal of the instrument after final shutdown

After the final shutdown of the instrument, we recommend to contact a local recycling company for the disposal according to the national applicable regulations.

To be applied in the countries of the European Union and other European countries with a separate collecting system within the waste management.

The marking of the product and/or the respective literature indicates that, after its final shutdown, it must not be disposed of together with ordinary domestic waste.

Please dispose of your instrument separately from other waste to not harm our environment and/or human health by uncontrolled waste disposal.

Recycle your instrument to support the sustainable recycling of material resources.

Industrial users should contact their suppliers and observe the conditions of the contract. This product must not be disposed of together with other commercial waste.

Please contact your supplier!!