



Tissue Embedding System

LB-10TES

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1. Safety Measures

Please read these explicit rules. Act in violation of them can affect the normal operation of the equipment, cause damage to the equipment, or result in danger.

	Use proper nominal supply voltage
	The input power supply must have good ground.
	Install away from flammable and explosive objects
	Never open an instrument without authorization to prevent high-voltage shock
	Service should be done only by authorized personnel.
	Check regularly the parameters shown during the operation.
	Disconnect the instrument from the power supply after use.
	Use proper fuses
	Use Only the proper power cord
	Install the instrument away from any interference source
	Equipment that needs heating must not be heated without liquid

2. Introduction

Tissue Embedding System LB-10TES is a compact benchtop unit crafted for smooth tissue embedding procedures. Our system comprises three key components, the main console, cryo console, and thermal console. This collectively ensures flexibility and precision. Featuring a user-friendly digital LCD screen; monitoring and adjusting parameters has become effortless. Designed for efficiency, it includes built-in cassette warming trays and ample space for large moulds. These characteristic hallmarks of the product streamlines workflow and improves specimen preparation.

3. Features

1. Tissue Embedding System allows embedding workflow flexibility
2. Paraffin dispensing module with a 6-L capacity
3. Works on a temperature range from Ambient to 80°C
4. Large, heated working surface
5. Microprocessor temperature sensors
6. Can hold up to 80 standard cassettes
7. Cold spot integrated into the working surface

4. Specifications

Model No	LB-10TES
Main Console Temperature	ambient to 80°C, increments 1°C
Main Console Capacity	Paraffin Reservoir: 6.0 L
Main Console Cassette/Mold Tray	1.8 L
Main Console Maximum Power Draw	1000 V/A
Main Console Nominal Supply Voltage	220 V/50 Hz
Main Console Dimensions (W×D×H)	600 × 650 × 460 mm
Main Console Net Weight	30 kg
Cryo Console Temperature	Ambient to -20°C, increments 1°C
Cryo Console Maximum Power Draw	200 VA
Cryo Console Nominal Supply Voltage	220 V/50 Hz
Cryo Console Dimensions (W×D×H)	410 × 630 × 440 mm
Cryo Console Net Weight	24 kg
Thermal Console Temperature	ambient to 80°C, increments 1°C
Thermal Console Capacity	Paraffin Tray: 4.8 L
Thermal Console Maximum Power Draw	300 V/A
Thermal Console Nominal Supply Voltage	220 V/50 Hz
Thermal Console Dimensions (W×D×H)	410 × 630 × 440 mm
Thermal Console Net Weight	7.5 Kg

5. Applications

Tissue Embedding System is utilized across a spectrum of sectors, ranging from medical diagnostics and pharmaceutical research to veterinary medicine and environmental science.

6. Instrument Introduction

6.1 Overview instrument part Main Consol

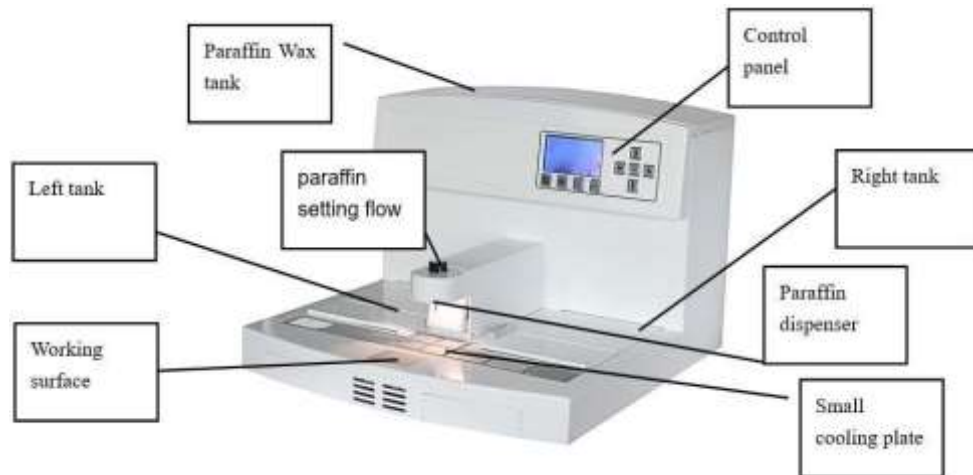


Figure-1

6.2 Overview Instrument part Cryo Console

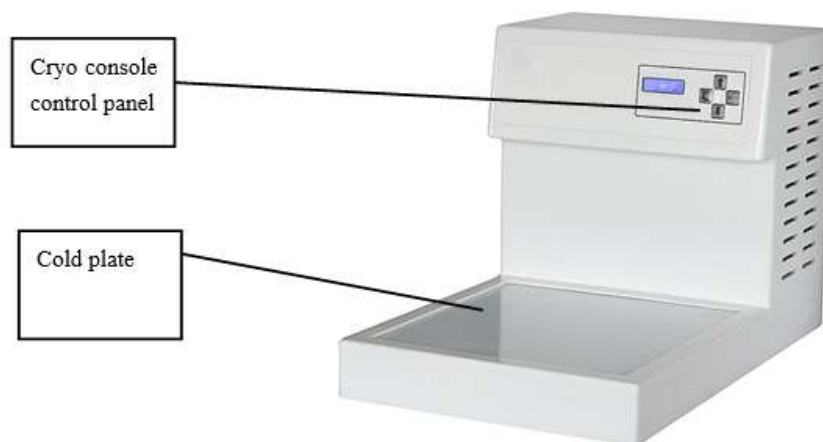


Figure-2

6.3 Overview instrument part Thermal Console



Figure-3

7. Installation

Installation Environment

- 1) More than 20cm of space around the equipment for heat dissipation.
- 2) Free of water drops, steam, and dust (including oily dust and flying dust).
- 3) Free of corrosive, flammable, and explosive gas and liquid.
- 4) Firm and without vibration.
- 5) Free of electromagnetic interference.
- 6) Ambient temperature and relative humidity at -10°C—50°C and less than 90%, respectively.

8. Operations

8.1 Function of keys



Press this key, to enter the set interface.



Press this key, to turn the next page.



Press this key, to move the cursor right.



Press this key, to start the small cooling plate.

8.2 Connect instrument

Connect the Main console to the power supply and insert the foot switch into the socket at the rear side.

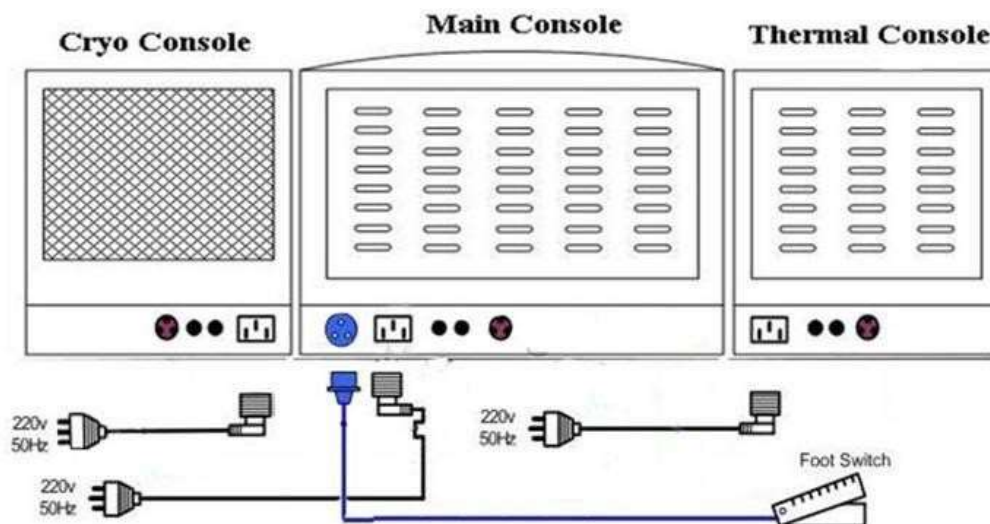


Figure-4

8.3 Start Instruments

Turn on the power switch, and the display panel shows the current time and company name (as follows).



Figure-5

8.4 Setting temperature

Press  key to enter the setting temperature operation. Using  key to move the cursor to select from No.1 to No. 5 heating parts, then press “OK” key to confirm the setting.

Set Temp		
No	Kind	Temp
1	paraffin	70
Pag 1-3		

Figure-6

8.5 Adjust clock

Press the  key two times to enter the Set clock interface, press  key to adjust the desired time.
Press the “OK” key to confirm the setting

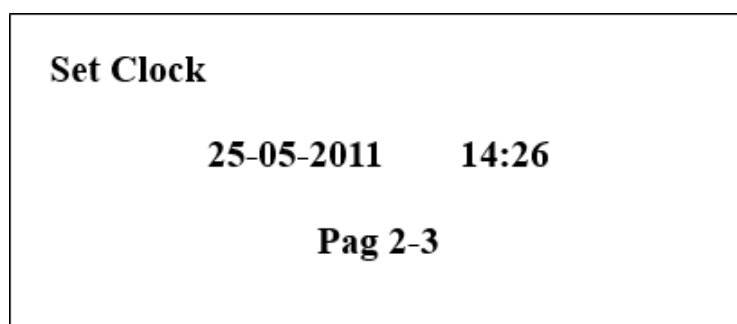


Figure-7

8.6 Setting automatic start time



Press  key three times and enter the setting automatic start time operation. You will see, choose the automatic starting time you need.

No.	Start Time	ON/OFF
01	8.00 AM	☐
02	9.00 AM	☐

Pag 3-3

Figure-8

8.7 Manual Heating

1) While the unit stays in standby mode, press the **"ON/OFF"** key to start the heating. Press the **"ON/OFF"** again, to stop the heating.



2) Using the  key to change the cold spot to the **ON** state, then it starts



Cooling, use a  key to change the cold spot to the **OFF** state, and then it stops cooling.

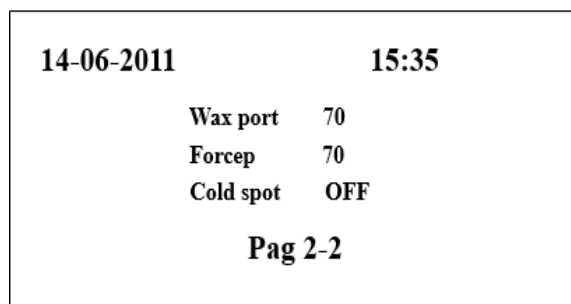
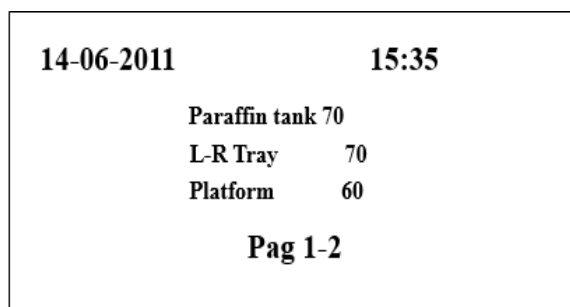


Figure-9

Note:

If the thermal Console or Cryo Console needn't be used, it can turn off the switch separately.

8.8 Time Heating

While the instrument stays in standby mode, it will start the instrument automatically according to the set time.

Note:

During the heating states, if there isn't any use within four hours, the instrument will switch off the heating and enter the next automatic start time state.

8.9 Cryo Console Operation

8.9.1 Setting the temperature

Turn on the power switch, and the display panel shows as follows:

Press  key to enter the set temperature interface. Press  or  till the desired temperature. Press the "OK" key to confirm the setting

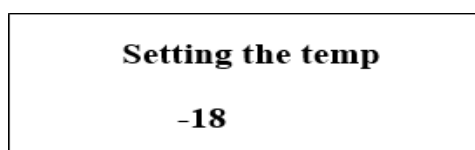


Figure-10

8.10 Thermal Console Operation

The same operation steps, with the Cryo Console

8.11 Fuse Range

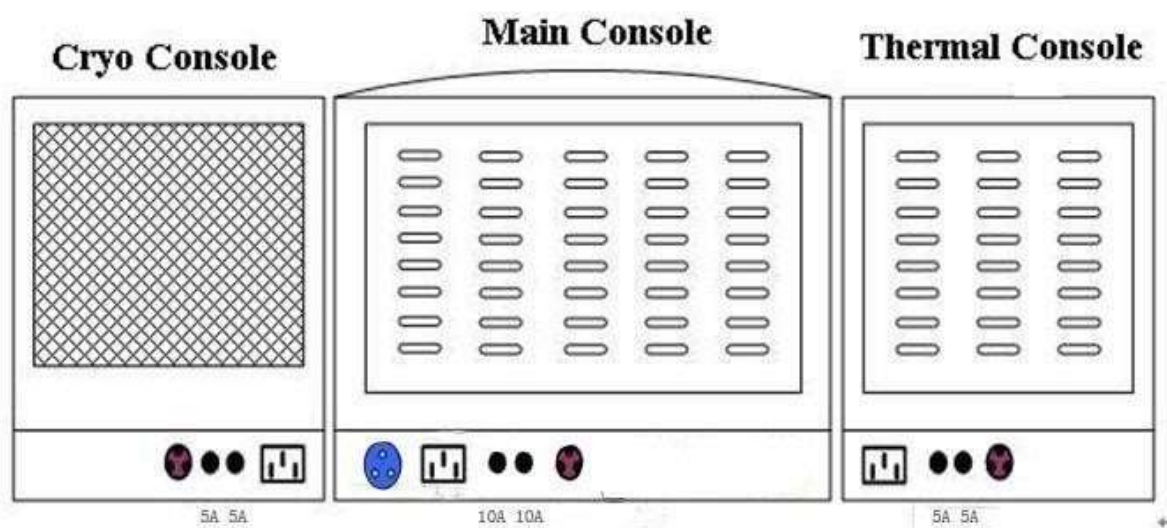


Figure-11

9. Maintenance

Keep the machine tidy and clean and remove residual paraffin and dirt on the surface after work. Do not add too much paraffin to the left and right trays to prevent paraffin overflow which may cause damage to the parts and components. Do not use sharp and hard objects on the table surface to prevent scratches.

9.1 Maintenance and cleaning

- 1) Before servicing and cleaning switch off the instrument and plug out the main plug.
- 2) Before cleaning the hot surface wait until all parts reach room temperature.
- 3) During cleaning don't allow any liquid to penetrate inside the instrument.
- 4) Before cleaning the defective fuse disconnect the instrument from the main plug. Do not use any fuses different from the value of the original one.

10. Troubleshooting

10.1 Main Console Troubleshooting

- 1) Replace heating parts and temperature sensor
 - Open the backboard, to replace the paraffin tank with the heating part and temperature sensor.

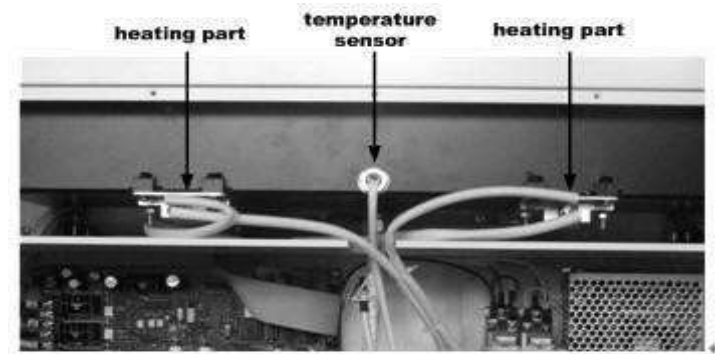


Figure-12

- Open the soleplate, to replace the left box, right box, platform heating parts, temperature sensor, and electromagnetic valve heating parts.

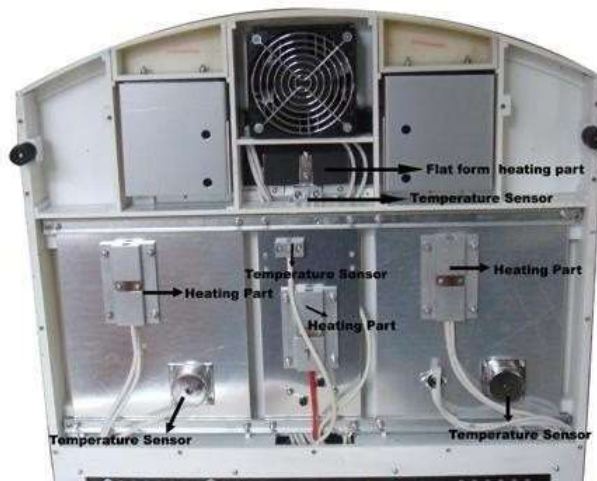


Figure-13

- Open the cover of the paraffin flow-out lip, to replace the heating sensor and the electromagnetic valve.

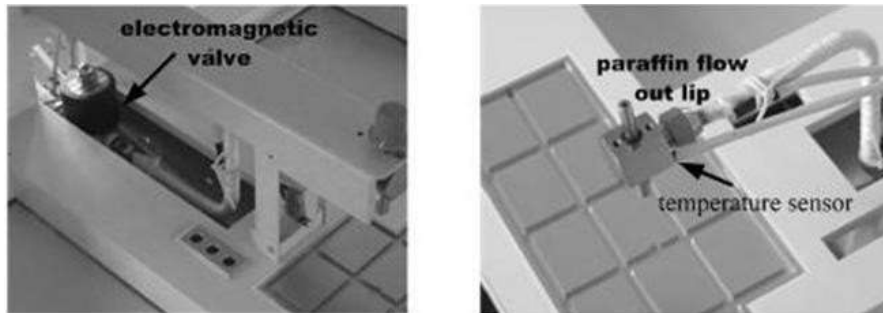


Figure-14

2) Replace the fan for cooling and Peltier

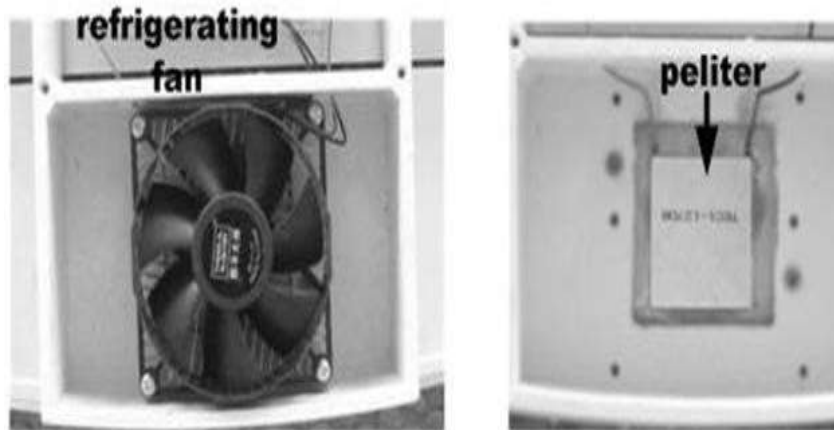


Figure-15

10.2 Thermal console troubleshooting

Open the soleplate, to replace the thermal console heating part and temperature sensor.



Figure-16

10.3 Cryo console troubleshooting

Open the soleplate, to replace the cryo console temperature sensor.

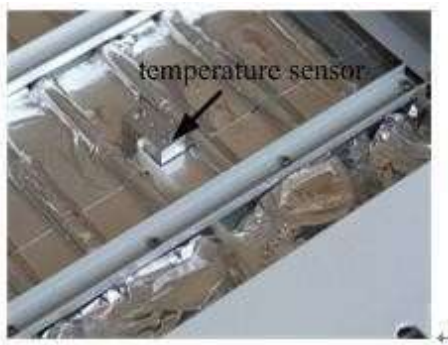


Figure-17



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