Roundfin

SEMI-AUTO MICROTOME

RD-485

www.roundfin.com
Shenyang Roundfin Technology Co., Ltd

Contents:

1. Important Information 2

2. Product Introduction 2

3. Product Overview 3

4. Working Environment 3

5. Technical Parameters 3

6. Specimen holder 4

7. Section Blade Holder 5

8. Control Panel, Main Page and Parameter Settings 6

8.1 Control Panel.....6

8.2 Show Home Page.....6

8.3 Parameter Settings 7

9. Operating Instructions 9

10. Cleaning and Maintenance 10

11. Warranty and after-sales service guarantee 10

12. Abnormal phenomena analysis and solutions 11

1: Important Information

Must do this

· Insert the plug into the socket of the paraffin slicer. Before turning on the power, make sure that the working temperature of the paraffin microtome is the same as the power supply voltage.

• Only use a power outlet with a grounding wire. Make sure that the plug is firmly plugged into the power outlet.

• Place the paraffin microtome in a stable, level surface. Do not put it in a high temperature and humidity environment.

2. Product Introduction

Paraffin microtome is an essential equipment for pathological tissue slicing. It is mainly used in large, medium and small hospitals, medical colleges, research institutes. To prepare tissue sectioning, pathological sections and forensic identification.

This product is a semi-automatic paraffin wax slicer developed and researched and developed by our company using innovative technology. It adopts humanized operation panel design, advanced structure and novelty design. It is the ideal instrument for modern pathological sectioning.

3. Product Overview

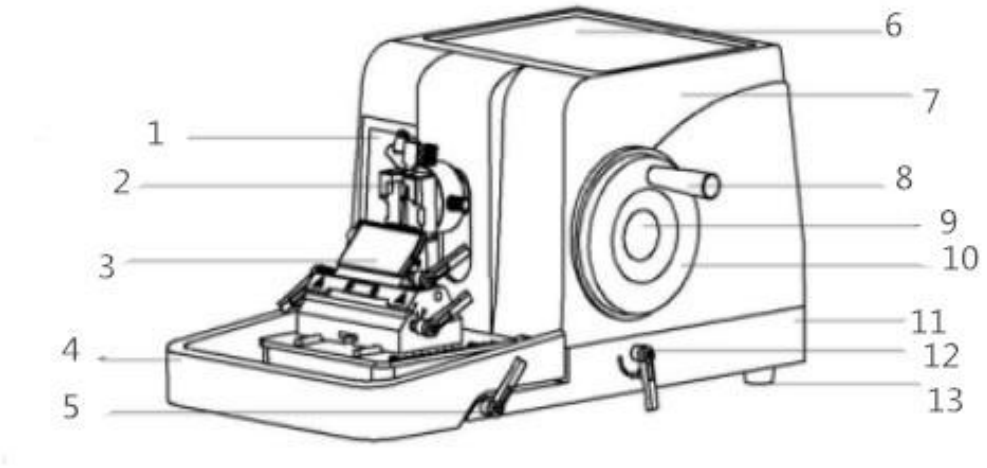


Fig 01

1. Operation panel; 2. Specimen clamp; 3. Blade holder;

3. Waste box; 5. holder locks; 6. Pad;

7. Machine cover; 8. hand wheel lever; 9. decorative cover;

9. handwheel; 11 base ; 12. hand wheel lock;

13. Feet;

configuration list:

Semi-automatic Paraffin microtome; Handwheel ; waste box; Power cord;

User manual.

4. Working Environment

（1）Power：AC100～240V±10%，50Hz±1Hz；

（2）Temperature：5℃～30℃；

（3）Humidity：≤80%。

5. Technical Parameters

(1) Dimensions: L555 W 400 H300mm;

(2) Power supply: AC100 ~ 240V ± 10%, 50Hz ± 1Hz;

(3) Power: 150VA;

(4) Section thickness setting range: 0 ~ 99.9um, Minimum : 0.1um;

(5) Trimming thickness setting range: 0 ~ 200um, minimum: 1um;

(6) Retraction value setting range: 0 ~ 100um, retraction function can be freely switched;

(7) Slow forward/retreat value setting range: 1～100um;

(8) Fast forwarding/fast retreating speed:

5 speed can be set: Special slow, slow, medium, fast, and extra ;

(9) Reset speed:

5 speed can be set: Special slow, slow, medium, fast, and extra ;

(10) Section knife angle adjustment range: 0 ° ~ 10 ° adjustable;

(11) Sample angle adjustment range: X : 0° to 8° and Y: 0° to 8°;

(12) Maximum sample size: 45mm*50mm

(13) The maximum movement distance of the sample up and down: 60mm;

(14) Maximum movement distance before and after the sample: 26mm.

6. Specimen holder.

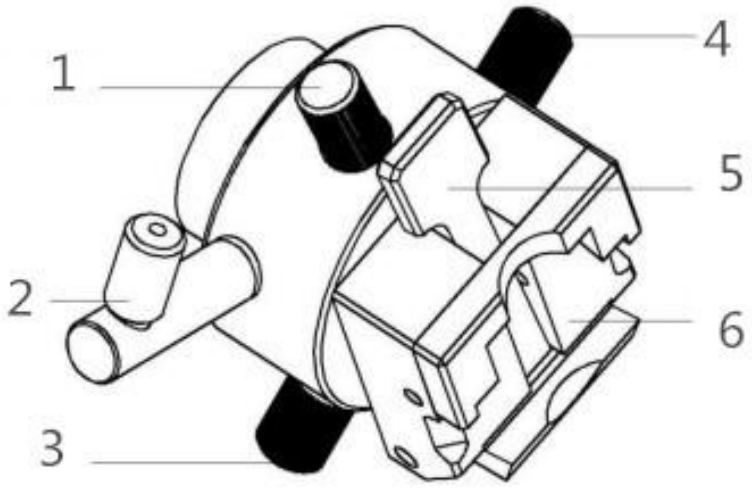


Fig 02

① Vertical angle adjustment knob； ② Lock the specimen； ③ Angle adjustment lock knob；

④ Horizontal angle adjustment knob； ⑤ Wax Block clamps； ⑥ Wax block area；

<u>Specimen clamp angle adjustment operation</u>:

(1) Vertical angle adjustment:

Loosen the "clamp lock handle", rotate the "vertical angle adjustment knob", adjust the appropriate angle you need and lock the "clamp lock handle".

(2) Horizontal angle adjustment:

Loosen the "clamp lock handle", rotate the "horizontal angle adjustment knob", adjust the appropriate angle you need and then lock the "clamp lock handle".

<u>Wax block clamp load operation:</u>

Move the "Wax Block clamps"**, place the tissue block on the "tissue block area", and then release the "tissue wax block clamping handle" to complete the organization of the block block.**

7. Blade Holder.

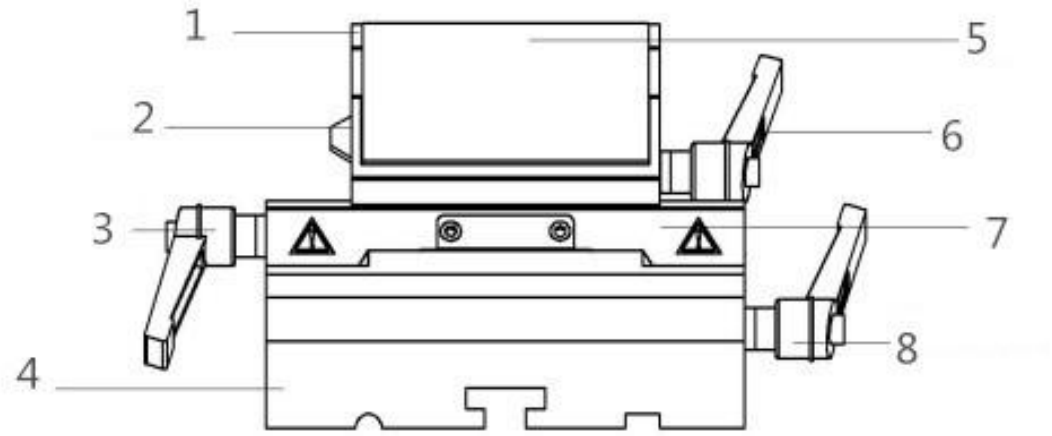


Fig 03

① Blade clamping area； ② Blade holder(red)； ③ Move the lock horizontally； ④ Bottom of blade holder；

⑤ Top of the blade holder； ⑥ Locked the blade holder； ⑦ Middle of blade holder； ⑧ Angle adjustment lock handle；

Set blade clamping operation:

Loosen the blade locking handle, place the blade on the blade clamp plane, and then lock the blade lock handle.

Section blade moves horizontally:

Loosen the "horizontal moving locking handle", "the upper part of the knife seat" can be moved horizontally as a whole, and after moving to a suitable position, lock the "horizontally moving locking handle".

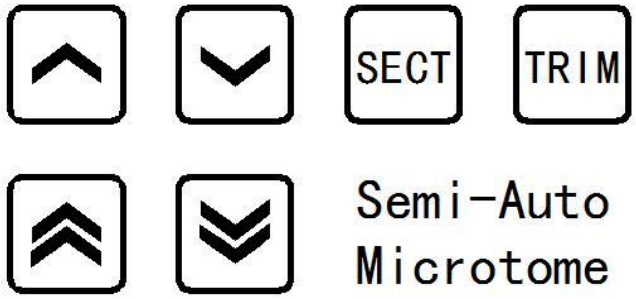
Section blade angle adjustment:

Loosen the "angle adjustment lock handle", "the upper part of the knife seat" and "the middle of the knife seat" can adjust the angle of the whole, after adjusting to the appropriate angle,

lock the "angle adjustment lock handle".

8. Control Panel, Main Page and Parameter Settings

8.1 Control Panel：

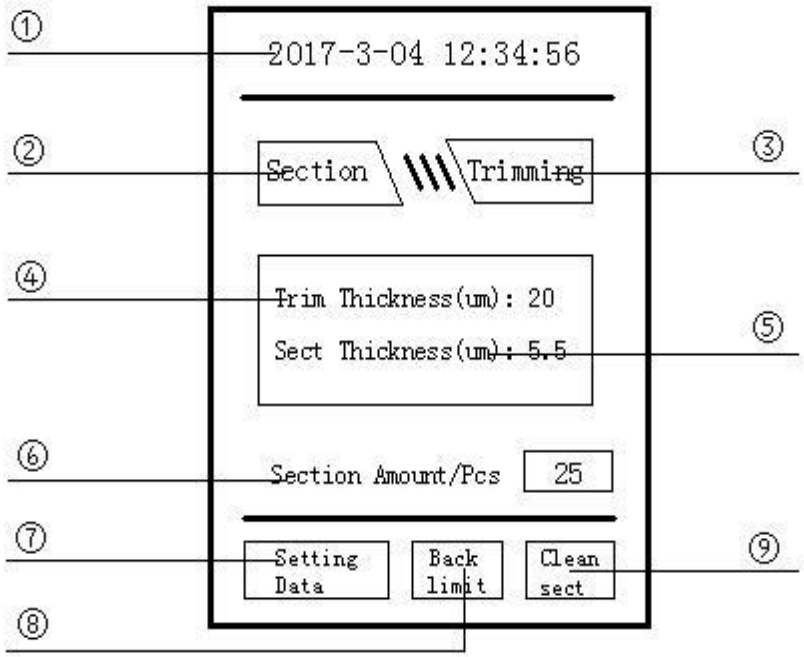


Slow back button. **Slow forward button**；

Fast back button. **Fast forward button**；

SECT **Section button** TRIM Trimming button

8.2 Main Page ：



① Date and time；

② Section mode；

③ Trimming mode ；

④ Trimming thickness；

⑤ Section thickness；

⑥ Section total pcs；

⑦ Data set：Press it to set the data；

⑧ Homing key: After clicking, the chuck returns to the rear limit position；

⑨ Clear key: click to clear the slice count；

8.3 Each parameter setting：

Date and time：

（1） Click on the date and time on the main page to the time setting window；

（2） After set, click “OK”.

Trimming thickness setting：

（1）Click“Setting Data”，to the setting page 01；

（2）Click“Trim Thickness”，to the trimming set page；

（3）Put in the data, press “OK”.

（4）Click“Enter”， to finish the trimming setting, click “Reset”， re-enter the trimming thickness settings page.

Section thickness section:

（1）Click“Setting Data”，to the data setting page 01；

（2）Click“Sect Thickness”，to the section thickness setting page.

（3）Input the data and then press“OK”；

（5）（4）Click“Enter”，to finished the section thickness setting，press“Reset”，re-enter the section thickness settings page.

Retracting setting ：

（1）Click“Setting Data”，to the data setting page 01；

（2）Click“Retraction”，to the retraction setting page.

（3）Enter the setting values，click“OK”，And then enter the another setting page.（If the data is “0”the means is the retraction function is off）.

（4）Click“Enter”，to finish the retraction setting. click“Reset”，back to retraction setting page.

“Slow forward” setting:

（1）Click“Setting Data”，enter the data setting page 01；

（2）Click“Normal Forward”，enter the slow in setting page；

（3）Enter the setting data，click“OK”，to the another setting page；

（4）Click“Enter”，to finished the slow in setting. Click“Reset”，again to enter the slow setting page.

“Slow back” setting：

（1）Click “setting”, enter the setting page 01.；

2）Click “Normal Back”, enter the “slow back” setting page.

3） Enter the setting data, click “OK”, to the another setting page.

4） Click “Enter”, to finished the “Slow back” setting; click “Reset”to back the “Slow back” setting page.

“Fast forward”setting：

（1） Click“Setting Data”，enter the setting page 01；

（2） Click“Next Page”,enter the setting page 02；

（3） Click“Fast Forward Speed”，Enter speed select Page；

（4） Click your needing speed, to finished the setting.

“Fast back” setting：

（1） Click“Setting Data”，enter the setting page 01；

（2） Click“Next Page”,enter the setting page 02；

（3） Click “Fast Back Speed”，Enter speed select Page；

（4） Click your needing speed, to finished the setting.

Reset speed setting：

（1） Click“Setting Data”，enter the setting page01；

（2） Click“Next Page”，enter the setting page 02；

（3） Click“Reset Speed”，Enter speed select Page；

（4） Click your needing speed, to finished the setting.

Automatic reset settings ：

（1） Click“Setting Data”，enter the setting page 01；

（2） Click“Next Page”，enter the setting page 02；

（3） Click“Reset On Power”，Whether to turn on automatic homing confirmation；

（4） Click“YES”，to finished the setting；

Click“NO”，to refuse this function.

Restore factory parameter operation：

（1） Click“Setting Data”，enter the setting page 01；

（2） Click“Next Page”，enter the setting page 02；

（3） Click“Back factory settings”，a window to show “Do you want to restore the factory settings?”；

（4） Click“YES”,confirn to back factory setting.

Click“NO”，refuse to back factory setting.

9. operation instructions

The first use requires this operation.

Step 1: Select the corresponding inner hexagonal wrench and install the handwheel crank in the corresponding position (see Figure 01 for details).

Step 2: remove the scrap box and install it in the corresponding position (see Figure 01).

Step 3: check whether the actual use conditions are consistent with the "working environment" required in the instructions.

Step 4: connect the power supply, check LCD screen and operate panel.

Step 5: adjust the cutter seat angle and recommend 5 degree as the best angle.

Step 6: Refer to the "daily use operation" mentioned below to do a complete slice operation to confirm whether the equipment is running properly.

Daily operation

Step 1: The machine connect on the power switch, the LCD screen is lighting, and the machine is in working state.

Step 2: Click the screen reset button to return the tissue chuck to the back limit position, or click the quick back button on the keyboard to return the tissue chuck to a reasonable position for convenient clamping of tissue wax.

Step 3: Install the wax block onto the machine.

Step 4: Install the blade holder on the machine and lock it tightly.

Step 5: Release the handwheel, and make the microtome in trimming state.To do the trimming operation.

Step 6: After the trimming and then start the tissue section.

Step 7: lock the handwheel and take the tissue sections that meet the requirements.

Step 8: Protect the blade with a knife holder, move the tissue chuck to remove the tissue wax, and turn off the power switch.

Step 9: clean up the equipment.

9. cleaning and maintenance

Note: before the machine is wiped and maintained, the blade must be unloaded.

When cleaning the machine, pay special attention to the removal of waste wax around the tool carrier. Use a mild commercial cleaner or soap to clean dirt. Do not wipe the

instrument with volatile solvents such as acetone and xylene. When cleaning, do not clean the liquid into the slicer. After cleaning, wipe the machine surface with a soft cloth.

9. Problem analysis and Solutions:

	Problem	Cause	Solutions
1	Switch on the machine,LCD not lighting.	Damage of power cord or fuse	Change the power cord and fuse
2	**The section pcs is Thin and uneven; and even can not section the tissue**	1. the organization chuck or blade is not locked. 2. knives are too dull. 3.The angle of the cutter seat is not suitable.	1. check and re lock the locking handles. 2. replace new blades; 3. adjust the tool holder angle.;