

Model YR427
Tissue Processor

Instruction Manual

Thank you very much for purchasing our Tissue Processor YR427.

Please read the “Operating Instructions” and “Warranty” before operating this unit to assure proper operation. After reading these documents, be sure to store them securely together with the “Warranty” at a hand place for future reference.



Warning: Before operating the unit, be sure to read carefully and fully understand important warnings in the operating instructions.



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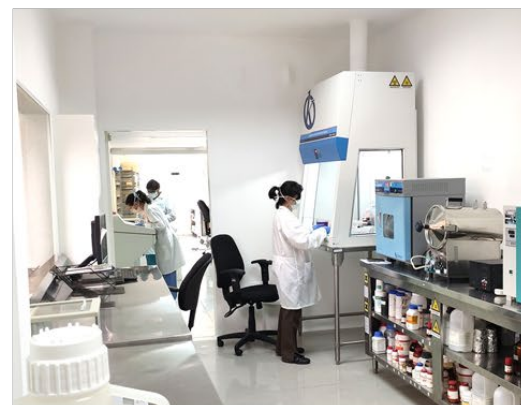
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Important illustration

The information, data, points for attention and adjustments in the manual have reflected the latest technological level of us grasped in the field after investigations.

We don't have obligations of updating the manual for you in time, with the development of technology, and we don't offer new version copies and latest versions of the manual to the users.

We don't have the responsibilities if the illustrations, drawings and technological requirements in the manual are in contradiction to the laws of the country the user is domiciled. Particularly, our company don't have the responsibilities for the damages or destructions of the machine for applying with the illustrations in the manual (on other aspects).

The illustrations, drawings and technological requirements in the manual don't represent the guaranty from the company on the characteristics of the product. Only the items specified in the contract are legally effective.

Kalstein France is entitled with the rights of altering the technological characteristics and processing technics, without the obligations of notification in advance. Thus, in this way we can improve ourselves and make the progress on our technology.

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Please refer to the nameplate on the back of the instrument for the serial number and manufacturing date of the instrument.



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3. Brief Introduction

The model YR427 Tissue Processor is an equipment that could automatically perform fixing, dehydrating, transparency and wax immersing treatment on specimens of human beings, animals or plants. It's widely applied in pathologic departments of various hospitals, pathologic teaching offices of various medical colleges and universities, animal and plant scientific research units and food inspection departments.

4. Features

1. The machine surface is painted with APS engineering plastic, which is highly strong, corrosion-resistant, with lucid lines and graceful appearances.

2. Monolithic computer control technology is adopted by the machine, which is equipped with a LCD display, the man-machine conversation is easier to use, the machine is equipped with organic glass shield, gas exhaust device is adopted, which is properly sealed, environmental-friendly and safe.

3. Medicament hydraulic cylinder: it could complete the dehydrating operations of 40tissues.

4. Short time power-cut or power failure during the running of the machine will not influence the normal working of the machine.

5. Technical Specifications:

1. Hydraulic cylinder quantity: 12 units (9 medicament cylinders, 3 paraffin cylinders for medical purpose)

2. Single cylinder volume: 750ML

3. Single cylinder treatment time: the first cylinder could be freely set within 0~99 hours. The other cylinder could be freely set within 0~24 hours

4. Temperature presetting range: indoor temperature: 0~99°C

5. Residual liquid dropping time while replacing cylinder: approximately 30

seconds

6. Protection cylinder for organic tissue: No.7 cylinder

7. Power voltage: AC110V±10%

Frequency: 50±10%HZ

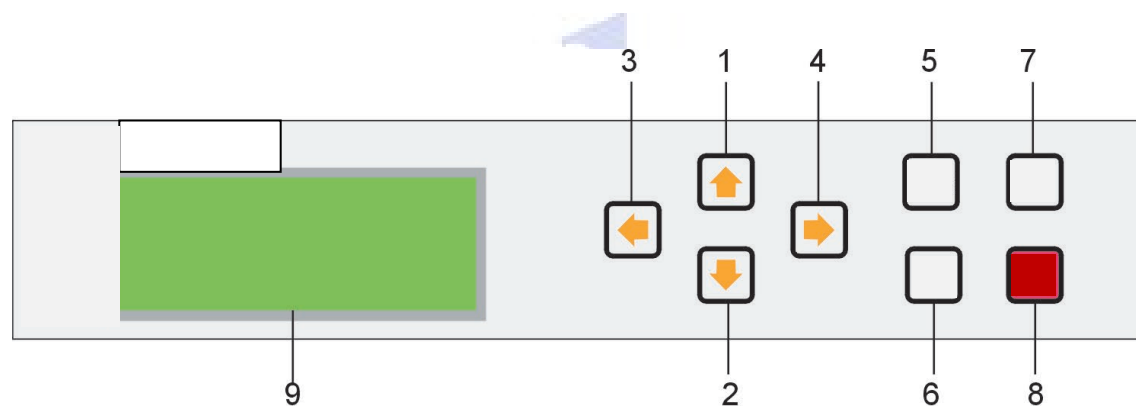
Power: ≤0.8K VA

8. Heating control: automatically heating after the tissue enters into the second cylinder and save the power.

9. Dimensions of complete machine: 795 mm×435 mm×415mm

Total weight: approximately 50kg

6. Control Panel



1. Up key

2. Down key

3. Left shift key

4. Right shift key

5. Program key

6. Temperature setting key

7. Start key

8. Reset key

9. Display screen (cylinder

position, treatment time, temperature)

7. Operation and Usage

(I) . Switch on the power: start the “power switch”, the suspension arm of the machine enters into the position of cylinder 1.

(II) . Nacelle suspension méthode:

Press the “up” key, then the suspension automatically shifts to the position



above the cylinder 1, and securely hang the nacelle on the central position of the nacelle rod.

Setting of cylinder position treatment time:

1. The LCD will display, and the computer will automatically access to the main operation interface, that is to display the three sub menus of programming, temperature setting and running.

2. Press “program” key in the sub menu to enter program 1 and program 2 by using the left and right shift keys, enter into program time programming after confirmation, select the cylinder positions and cylinder position times one by one for cylinders 1 to 12 by using the left and right shift keys; using the “up (+)” key or the “down (-)” key could increase or reduce the hours or minutes of the cylinder positions, for example, while cylinder 1 is displayed, the hours and minutes of the cylinder could be adjusted if white background screen occurs to the hours and minutes, until to the presetting time. At the moment, the time setting for this cylinder is completed, then gradually set the time for cylinder 2, 3, 4.....12 with the same method. Press “program” key to return to the sub menu after finishing the setting and check and confirmation.

3. Press “temperature setting” key in the sub menu, enter into the temperature setting interface, use “up” key or “down” key, the temperature could be gradually increased or reduced, set the presetting temperature according to the required temperature value, and press the “temperature setting” key to return to the sub menu after confirmation.

4. Press the “start” key in the sub menu to enter into program 1 automatically (program 2 could be selected by pressing left or right key), and then press the start key after confirmation to run according to the programs.

(IV) . After completing operation of machine:

After finishing the program running, the LCD will display the sub menu, press the “up” key first, the suspension arm is lifted from cylinder 12. Press the



“reset” key after taking off the nacelle, and the suspension arm will automatically return to cylinder 1 position.

8 Illustration

1. The cylinder position time could be set at “0”, and then the cylinder will be skipped over.

2. The machine will automatically save the program for a long time after finishing programming combinations, and just press “start” key if no adjustment is to be done in next dehydrating operation.

3. The nacelle is mixed 3 times per minute in the liquid cylinder.

4. The system could guarantee 6 hours consecutively running after external power-cut during machine operation.

5. The temperature of the wax cylinder is less than the setting temperature value before entering into cylinder 10, the machine automatically returns back to the position above cylinder 6 from cylinder 9 and then activates the protection of cylinder 7. The machine works according to the former program after the temperature of wax cylinder reaching the setting temperature value.

6. The wax cylinder temperature is less than the wax melting value, and the suspension arm doesn't agitate.

9. Points for Attention

1. Hang the nacelle in a correct method to avoid cylinder blockage. Press the “up” key while required to hang the nacelle, and the suspension arm will automatically shift from “cylinder 1” to the position above cylinder

2. Don't press the “reset” key while the machine is running normally. The working condition could be checked by pressing the “up” key and press the “down” key to continue to run the machine after checking.

3. Please press the “up” key first after finishing operation and press the “reset” key after taking off the nacelle.

4. The running without external power shall not be above 6 hours; and the



storage batteries of the machine shall be charged right after finishing the running without external power. The charging method is switch on the power switch of the machine if the externally supplied utility is normal, and the charging time shall not be less than 10 hours; the machine will automatically charge during dehydrating operation, however, the charging time shall not be less than 15 hours.

5. A set of time program shall have at least 3-cylinder programming times, and among them cylinder 1 is a necessary one, otherwise, the machine will not run.

6. Attention shall be paid to safety while operating with medicaments and avoid the medicaments from splitting into eyes and on bodies.

7. Timing will not work if power-cut occurs after entering into the wax cylinder.

8. Please contact the manufacturer in time after failures occur to the machine, and the staffs other than professionals are not allowed to dismantle the machine.

10. Maintenance

1、 The machine shall be installed on a relatively fixed position, which shall be well equipped with grounding and ventilation facilities.

2、 The machine shall be kept clean frequently during operation and usage.

3、 Under the circumstances of normal operation and maintenance, the shelf life of the machine is 5 years.

4、

11. Fault Diagnostics

| Serial No. | Fault symptom | Causes | Elimination |
|------------|-------------------------------|--|---------------------------------|
| 1 | No power indication | Fuse is burn or the loose connection of power socket | Replace the fuse or power cable |
| 2 | Program is lost after cut-off | Memory battery in control panel | Replace battery |



| | | | |
|---|--|---|-----------------------------------|
| 3 | The temperature of wax cylinder cannot be increased | The heater is broken | Replace with the new heater |
| 4 | Electric shock by touching the machine surface with the hand | No grounding connection or loose grounding connection | Mount fastened grounding wire |
| 5 | Input failure for the time programming | The keyboard on the panel is broken | Replace the film of the keyboard. |

12 Maintenance

- Clean it before turning off the power, then pull out the plug.
- Use soft household detergent or soap lye to keep it clean
- Don't use detergent like acetone or benzene, any detergent mustn't flow into the instrument.
- Any liquid mustn't flow into the machine
- Before replacing the fuse, close the main switch and pull out the plug, then replace the fuse with the same model and spec, you may refer to the technical parameter for the concrete model and spec.

13 Transportation and Storage

- This machine should be stored in the clean and airy indoor places with the relative humidity under 80% and be kept far from the caustic gas.
- Handle in care, avoid wetting, and place upward.



14 Appendix

- Product Alteration

Kalstein France reserves the rights of altering the technological parameters of the product without notifying in advance, because the instruments required to face to the alteration and improvement for technological progress.

- Warranty Period

Kalstein France guarantees that all instruments manufactured by the company have been strictly and comprehensively checked on quality to guarantee the compliance with the technological standard.

The warranty conditions will be up to the KALSTEIN sales agent responsible to you.

The warranty period is only valid for normal usage according to the specified conditions for the instrument and the circumstances of following the various regulations specified in the operational instruction manual.

Warranty terms are not applicable for the damages caused by misuse or improper operations of instrument and our company is not responsible for the above-mentioned damages either.

- Discard and Disposal

The discarded instrument or parts of instrument shall be disposed according to the existing relevant and effective laws and regulations.

We are pleased to offer you an environment-friendly disposal plan when you need to dispose the discarded YR427



● User's Service Information

Please contact the sales representative of KALSTEIN or the sales agent once sold the instrument to you if you require any service or parts during the warranty period. Please inform the instrument model, serial number and supply time Kalstein France doesn't accept any rejection of goods without any formal permission for rejection of goods.

Please pay attention to the following items if you will deliver the instrument back to KALSTEIN:

a. The instrument or parts shall be disinfected or radioactive elimination treatment before sending back if viruses or radioactive substances have been connected with the instrument or the parts. Our user's service technician will be assigned to check this out clearly.

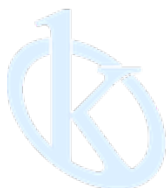
b. If you are sure that the instrument or parts are free from any radioactive or dangerous viruses, please get the suggestions on the possible methods for disinfection and radioactive elimination from your KALSTEIN representative. The instrument or parts will be directly sent back to the customer under the customer's expenses, if possible, infection dangers are still existed on the instrument or parts upon the arrival of the KALSTEIN representative.

Please tell us the following information if you require technical services:

Model and serial number.

The place where the instrument is located and the contact person.

Reasons for service request.



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