

Automatic Tissue Processor

YR429

Instruction User Manual

Thank you very much for purchasing our Automatic Tissue Processor YR429.

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.



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 do not have obligations of updating the manual for you in time, with the development of technology, and we do not offer updated version copies and latest versions of the manual to the users.

We do not 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 do not 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 do not 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.

This manual is protected by property rights. The property rights of the manual are reserved by Kalstein France Printing, duplication, micrography or copy of other electronic documents or other media concerning partial or entire texts and photos of the manual must be approved by Kalstein France in written form in advance.

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. Safety Regulations of Instrument

- When the instrument is at work, if use the inflammable goods, please pay attention to safety.

- *If do not use the instrument for a long time, pull out the plug and cover the dust encloser.*

Do not add reagent when the instrument is working, in addition, make sure there is no reagent flow into the instrument when inject the reagent.

- Do not add reagent when the instrument is working, in addition, make sure there is no reagent flow into the instrument when inject the reagent.

- place the instrument steadily, and inclination shouldn't exceed to 5°

- Do not take the solid object to touch the display screen.

- △ Only the power line along with the instrument can be used for connection, and the power supply should be earthing well.

- △ use separate socket for supplying power to avoid interference

- △ 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.

- △ We strongly advise you to use the mounting dehydration basket provided by our company.

- △ When clean the instrument, must close the main switch, and pull out the attaching plug.

- △ The instrument must not be placed near the flammable and detonatable objects.

- △ *The acet. and xylene organic solvent are not allowed to clean the surface of the instrument.*

- △ The liquid may not overbrim the bath during the processing, and the liquid reagent just immerse the specimen is OK.

- △ The instrument could only be repaired by the technicians authorized by our company.

4 Brief

YR429 Automatic 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 is 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.

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

- Monolithic computer control technology is adopted by the machine, which is equipped with Chinese 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.

- Medicament hydraulic cylinder: it could complete the dehydrating operations of more than 100 tissues one time.
- Short time power-cut or power failure during the running of the machine will not influence the normal working of the machine.
- Also, the equipment adopted by stepping motor, brushless motor and high accuracy spindle transmission gearing that it constructs a precise electronic position system.
- Enclosed charcoal enhanced ventilation help control processing vapors and confused gas

5 Main technical parameters

- 20sets of programs.
- The number of the cylinder and their volumes: 12 cylinders (no.10,11,12 is paraffin cylinder, others are reagent cylinders) .
- The volume of each cylinder: 1500ml.
- The setting of the prolonged starting time: 00h to 99h (No.1 cylinder).
0~24h (other cylinders).
- Range of pre-setting temperature: ambient~80°C.
- time of exchange cylinder, delay and leachate: 10~60S seconds.
- Protecting cylinder of tissue: No.1~~No.7 cylinder.
- Voltage: AC110±10%、60Hz±1.
- Power: ≤800W.
- Heating control: self-heating as specimen goes into second cylinder, energy saving.
- Dimension: 1010×550×420 mm³.
- Weight: Approx.80kg.
- Safety of electric: I,B.

6 Box opening and instrument mounting

- Check whether the machine was damaged obviously, please contact with your shipping agent when any damage is found.
- Firstly open package carton, then take out operation manual and accessories.
- Carry the instrument (together with protection cover), you are advised to use original



packages as the instrument need to be transported safely

- Taking out protection cover, place the instrument on level lab table.

⚠ the instrument must not be put in the place which is explosive and poisonous condition.

- the machine should be mounted near to the grounding socket to connect the power line anytime

7 Startup

⚠ The instrument should relate to power line along with grounding socket.

- The instrument can be only connected to exhaust duct.
- Before connecting to power, check the switch see if it is at the position :O.

⚠ before connecting to power, insert power plug, then insert the other end into socket in the lab.

- before switching on, check whether any part is connected well.
- turn on the main switch, indicator light, then LCD shows: YR429.





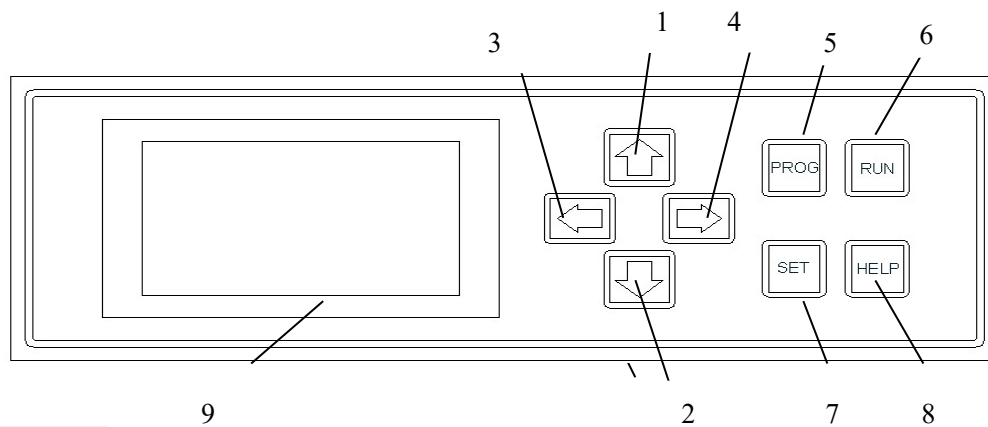
8 Usage and steps of operation

Sketch of the model:



(Picture1)

Operation Instructions



(Picture 2)

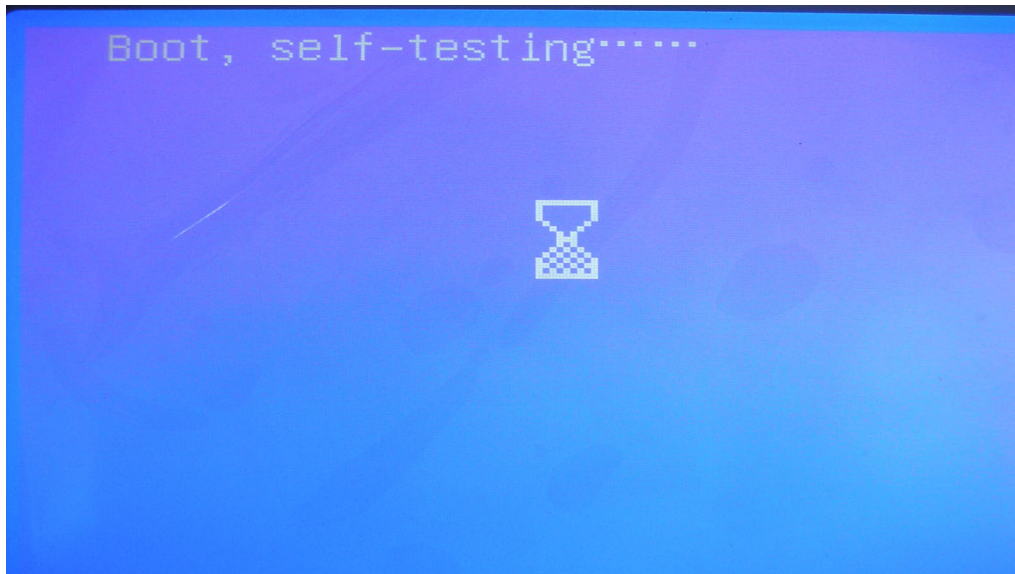
- | | | |
|----------|---------|------------------|
| 1、 UP | 2、 DOWN | 3、 LEFT |
| 4、 RIGHT | 5、 PROG | 6、 RUN |
| 7、 SET | 8、 HELP | 9、 Display panel |

8.2 Abbr. in the text and their meanings

- “PROG” means making programming progress by pressing this key.
- “RUN” means choosing the program with which machine can work itself
- “SET” means pre-set technical data about protecting tissue cylinder.
- ” HELP” means guiding information for users learning.

8.3 Steps of operation

- Switch on electricity power, the central system automatically run to restoration status. The mechanical arm run to the first tank automatically (Picture3).
- The LCD display KALSTEIN company & item mode.
- After 3—5seconds, the central system automatically goes into self-testing stage. (Picture 4)



(Picture 4)

- The mechanical arm drives the dehydration basket go firstly from upward position down into No.1 cylinder, and after that, the LCD display indicates (picture 5)



(Picture 5)



• Press "PROG" key, then it goes to digital interface of editing programmed (Picture 6) , user can adjust working time of each cylinder by pressing "UP"," DOWN", "LEFT" and "RIGHT" key. As it is done, re-press" PROG" key to confirm this operation step.

JAR	H:M	JAR	H:M	JAR	H:M
1	00:02	2	00:02	3	00:02
4	00:02	5	00:02	6	00:02
7	00:02	8	00:02	9	00:02
10	00:02	11	00:02	12	00:02

(Picture 6)

"UP" means increase numeral value.

"DOWN "means reduce numeral value.

"RIGHT "means going ahead to next step.

"LEFT "means back to previous step.

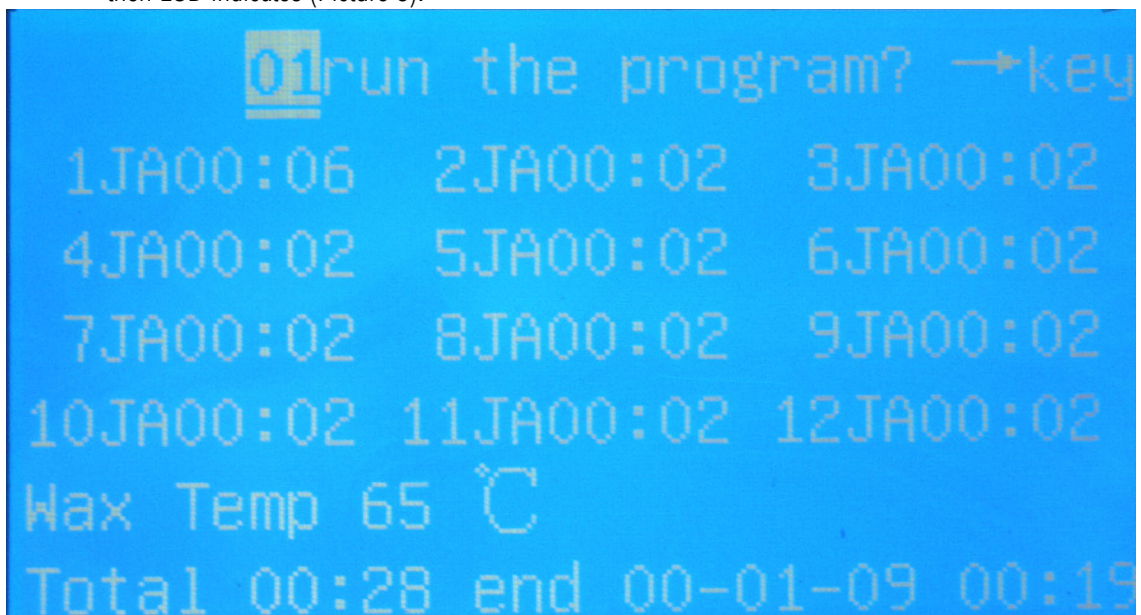
• Press "SET" key to adjust technical data about protecting cylinder, including wax temperature, Number of cylinders, times of whisk per minute, time of dropping liquid, also user can adjust start time, achieve time and adjust current time etc.

SET	
Max Temp	65°C
Blackout	07jar Whisk 06 /min
DROP	00 sec Total 00:28
START	2000-01-08 23:57
achieve	2000-01-09 00:25
ADJUST	2000-01-08 23:57

(Picture 7)

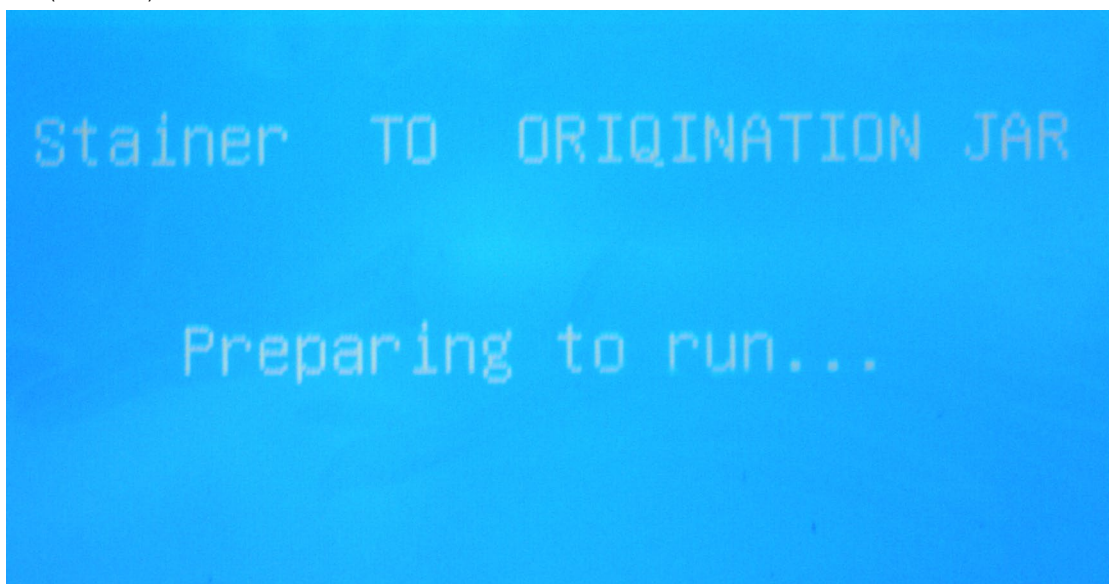
by pressing “UP”, “DOWN”, “LEFT” and “RIGHT” key, the user can adjust technical data as you want. As it is done, press “SET” key to confirm this operation step, system has self-memory function.

- As above “PROG” and “SET” step are finished, press “RUN” button to let the machine run, then LCD indicates (Picture 8):



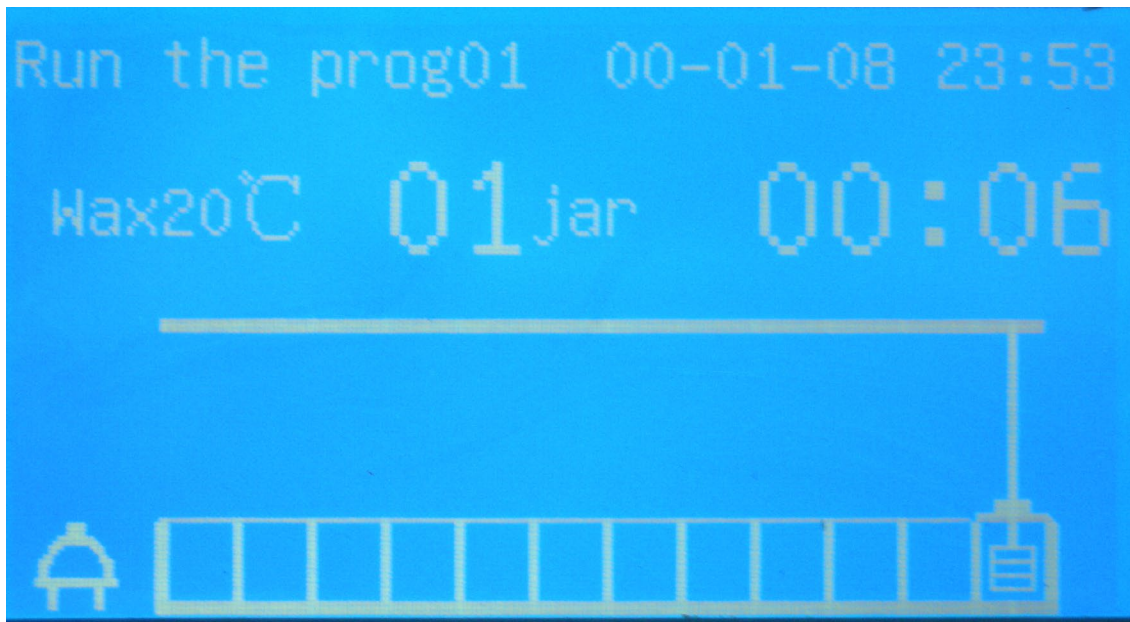
(Picture 8)

- During this step, you can choose the number of programs that you want: from No.1 to No.20 Programs. Other numeral value cannot be changed anymore. Then as user press “RIGHT” key, LCD indicates (Picture 9):





•This digital interface means that the machine starts to work according to the program and pre-set technical data on protecting cylinder. Then, after few seconds, LCD goes to another interface as follows (Picture 10):

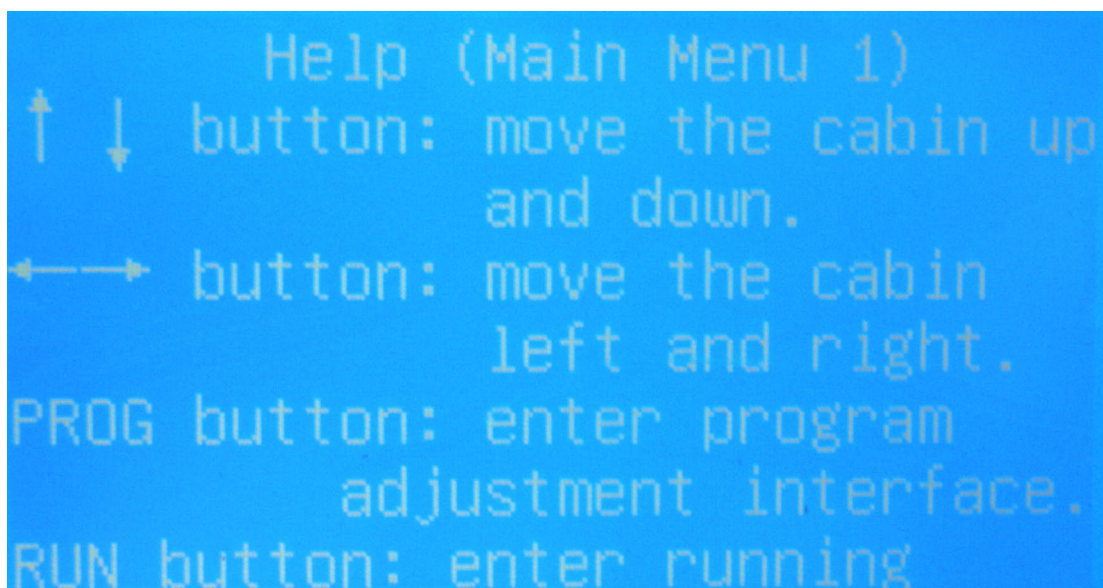


(Picture 10)

•As the machine works, the above interface shows the processing status at any time until the work is finished.

8.4 User guide

Before user operate YR429 machine, press “HELP” key to read related instructions. Then, LCD indicates as following pictures shows:





```
Help (Main Menu 2)
    inquiry interface.
SET button: enter setting
            interface.
HELP button: show Help in
            whole page.
Manual ↑ ↓ ←→ logo: manually
move Cabin up,down,left,right.
```

```
Help (PROG 1)
Button ←→:move the cursor to
select program and jag
            position.
Button PROG: Return to Main
            Menu.
Button RUN: Enter running
            inquiry interface.
```

```
Help (PROG 2)
Button SET: Enter setting
            interface.
Button Help: Enter Help page
            for programming.
```



Help (SET 1)
Button ←→: Move the cursor
and select Wax Temperature,
Liquid Temperature, Position
Reset, DROP, Whisk and System
Clock here.
Button ↑ ↓: Adjust value
under cursor.

Help (SET 2)
Button PROG: Enter program
interface.
Button RUN: Enter running
inquiry interface.
Button SET: Return to Main Menu
Button Help: Enter Help page
for setting.



```
Help (Before Running 1)
Button ← : No action
Button → : Confirm and start
           running.
Button ↓↑ : Select desired
           program.
Button PROG : enter program
            interface.
```

```
Help (Before Running 2)
Button RUN : Return to Main
           Menu.
Button SET : Enter setting
           interface.
Button Help : Enter Help
(Before Running) interface.
```

```
Help (Running 1)
Button ↑ : Show Move Cabin Up
Dialog when cabin is moving
           down.
Button → : Confirm moving up
           in Move Cabin Up Dialog.
Button ↓ : After moved up,
           continue moving down.
```



Help (Running 2)
Button Help: Enter Help
(Running) interface.
Other button: Open spotlight
for 3 minutes, cancel dialog
when showing Move Cabin Up
Dialog .

Help (Post Running 1)
Button ↑: Move the cabin up
manually after running to
fetch the tissue.
Button →: Reset the machined
after fetching the tissue.
Button ↓: After moved up,
continue moving down.

Help (Post Running 2)
Button Help: Enter Help (Post
Running) interface.
Other button: No action



Caution: The mechanical arm of the machine is computer controlled. Once it goes from one cylinder to another, the Lid on the cylinder opens, and then close as it finishes the time. You must not put your hands to touch the cylinder or the lid to avoid any damage to you.

●Finish Operating

When the machine finish working. The screen shows the main menu. Firstly, press the “Up” key, then the mechanical arm will lift from No.12 cylinder, then you can take out dehydration basket. Press the “SET” key, and the mechanical arm automatically go back to No.1 cylinder.

Attention: Once the machine starts working, there is a strictly compliance with Pre-setting programs. The mechanical arm return to No.1 cylinder always as you press “SET” key during its working progress

9 Caution in usage

- When the instrument is working, if use the inflammable goods, please pay attention to safety.
- If you do not use the instrument for a long time, pull out the plug and cover the dust encloser.
- Do not add reagent when the instrument is working, in addition, make sure there is no reagent flow into the instrument when inject the reagent.
- Place the instrument steadily, and the inclination shouldn't exceed to 5°
- Do not take the solid object to touch the display screen.

△ Only the power line along with the instrument can be used for connection, and the power supply should be earthing well.

△ Use separate socket for supplying power to avoid interference

△ 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.

△ We strongly advise you to use the mounting dehydration basket provided by our company.

△ When cleaning the instrument, you must close the main switch and pull out the attaching plug.

△ The instrument must not be placed near flammable and detonatable objects.

△ The acet. and xylene organic solvent is not allowed to clean the surface of the instrument.

△ The liquid must not overbrim the bath during the processing, and the liquid reagent just immerse the specimen is OK.

△ The instrument could only be repaired by the technicians authorized by our company.



10. Problems and elimination

Problems	Reason	Elimination
No power indication	Fuse is burnt out or poor contact of power socket	Change with new fuse or power line
Electric shock feeling	Grounding line is not connected or poor contact	Change with a new, firm line
Time programming cannot be made	Buttons on panel are broken	Change with new panel
Lifting arm go towards to right	Vertical sensor broken	Examine the sensor $>0.1V$, please change, $\leq 0.1V$, it is good
Lifting arm goes upwards top, but it does not go to right-side	Sensor of number 1 is broken	change
On running, press left/right button to make lead rail more, but it does not stop	Single positioning sensor is broken	change
Basket more powerlessly and make noises	Electrical control is broken	Check the motor
Lifting arm goes upwards or shaking frequently downwards	strap in vertical rail lack of teeth	Check, and change if necessary
Vertical rail cannot move to left side or right-side, but the motor buzzles	Steel rope was disconnected	change
Paraffin cannot be heated up	The heating tube was broken or the controlled silicon in temperature controlling board is broken	Check, and change if necessary
Paraffin cylinder opens or cannot shut up closely	There is problem about cylinder	Check, or change if necessary
Display panel is not clear	Electronic board is broken	Adjust its resistance
Display panel cannot show any figures	broken	Check 34063 on its back (normal: input24V, output5V)



Button is not insensitive	Button is broken	Check the button board and connecting line
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⚠ Under the condition of following the instructed operating regulations, we guarantee to keep our promise of free maintenance service within one year from the sales day. To those which have surpassed the period, we will also provide maintenance service according to the stipulations.

11 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.

12 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.

13 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 YR429.

● 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 does not 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 related to 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.



All rights reserved © KALSTEIN France S. A. S.,
Optimum Business Center 450 Rue Baden Powell,
• 34000 Montpellier, France.
Tlf: +33 467158849 / +33 680760710/ +33 663810023
<https://kalstein.eu>
KALSTEIN FRANCE, S. A. S

