

Automatic Tissue Processor
YR432-1

Instruction Manual

Thank you very much for purchasing our Automatic Tissue Processor YR432-1.

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 Illustrations

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 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 destroy of the machine for applying without 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.

Our company is entitled with the rights of altering the technological characteristics and processing tech, 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 our company Printing, duplication, micrography or copy of other electronic documents or other media concerning partial or entire texts and photos of the manual have to be approved by our company 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

- Pay attention to the safety if the machine need contact with the inflammable substance during the working.
- Pull out the plug and cover the protection cover if the machine will be not use for a long period
- △,! Forbid to add the reagent when instrument under working. No reagent should fall into the instrument
- △,! The instrument should place plat and the inclination should not exceed 5
- Forbid to touch the screen with hard substance.
- The outfall pipe should lower then pipe joint to avoid the water drain into the body of instrument
- △,!The instrument can only connect to power with offered power line and there should be good grounding
- △,! The power supply socket should be used only for the instrument to avoid disturb
- △,! When changing the fuse, same fuse type should be use and the instrument should be power off and pull off the power line.
- △,! The tissue basket should be from our company and is prohibited to use another incompatible model to avoid working not normally.
- △,! The power should shut off and power line should be pull out when cleaning
- △,! The instrument is prohibited to use or store on the inflammable place
- The organic solvent like acetone and Xylene should not be used as detergent for cleaning
- △,! When operating, the reagent should not overfill the tank and the tissue should immerse into the reagent.
- △,!*The instrument could only be dismantled if the maintenance technician authorized by our company deem it is necessary!*


4、 Brief Introduction

- The YR432-1 is composed of shell component, out shell, up and down moving mechanism, control panel, left-right moving mechanism, electronic component, paraffin melting system, water flow system
- YR432-1 is an automatic motorized tissue processor for the plant and human body tissue. It has LCD interface, computerized control system, stable performance with multifunction, easy operation, intelligent and widely used on doing the pathological research.
- The surface is painted with APS engineering plastic, which is exceptionally strong, corrosion-resistant, with lucid lines and graceful appearances.
- Adopted with import components, it runs smoothly without noise and comply with theory of ergonomics
- It is safe& Environment protection without seamless glass shell and inner circulating air system
- Randomly setting timing of starting up machine and automatically showing finish time, make sure task is finished in stipulated time
- The startup working time can be set and the finishing time will be show automatically to ensure the process finished

within set time and ensure you can reach your target during working.

- The drop time is adjustable in 10~30s. The drop and shaking basket above cylinder can avoid liquid flowing from one bath which can prolong the reagent using time and make the working surface more clear
- 0~6times /min adjustable stirring times (0 shows no-stirring), make sure all tissues immersed thorough, evenly, and completed enough
- Illuminating lamp and exhaust fan are intelligent control, the lamp only works for 3 min when the instrument is at working situation, except from reset、 upward keys; fan only works once cylinder goes upwards or making programming, its working time is 10s per min
- Waterless inner heating system has high temperature control precision
- Low energy-consuming control circuit, self-protection once power-off; display panel is still illumed and scrolling panel indicate its self-protecting situation as power-off
- More than 200 tissues can be processed one time
- B running mechanism can run when A running mechanism stop on 12A tanks.

5. Technical specifications

- Reagent containers: 14 pcs (The No. 11,12,13,14 is paraffin tanks)
- Capacity of each container: 180X70X160 mm (±5mm)
- Processing time of each container:
No. 1A and 1B: 1s – 99 Hrs; Others: 0s – 24 Hrs
- Residual liquid dropping time above tanks: Approx. 10 -30s (shaking on the upward)
- Working voltage: 220/VAC, frequency: 50Hz, Power: 1000 W.
- Overall dimensions: 1380x 430 x 520 mm (L x W x D), weight: 95 kg.
- Fuse: F3A/220VAC
- Electricity safety: class I , type B applicable 

6. Box Opening

- Check whether there is damage on the package, contact the shipping agent if found evident damage
- Take out all accessories and operational instruction manual.
- Take out the machine with protection cover. If need safety shipment, suggest packing with original packing material back
- Take off the protection cover and put the instrument on the stable table.

△, ! The instrument is forbidden to put on the inflammable place

- The instrument should be installed on the place near to socket which is convenient for power supply
- The instrument should be placed near the wall which is convenient to install the exhaust pipe.
- The instrument should have good joint pipe and exhaust pipe

△,! The instrument should only use the power line offered and with good grounding

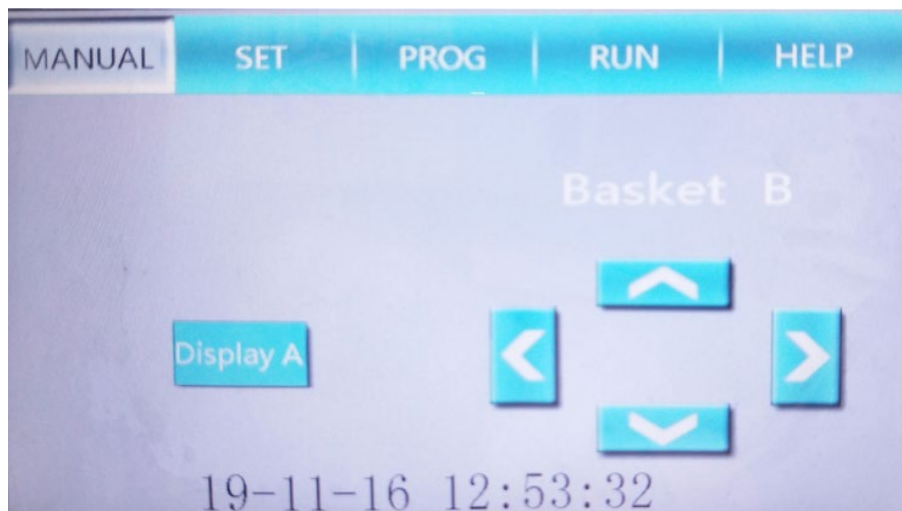
- The instrument can only use the offered in fall and outfall pipe
- Before connecting the power, to check the switch whether on the position “0”

△,! When connecting the power, to insert the plug to the instrument first and then connect it to the socket.

- To check the in fall and outfall pipe in good condition before opening.
- Connect the power switch, the indicator is bright and the display shows “YR432-1”.

7、 Operation

1 、 The menu display



2. Touch the program button to enter the editing interface



Touch program ▲ and ▼ key , can select 20 sets program. After confirming, press the number of the container ▲ and ▼ key, select the number. Touch hour ▲ and ▼ key, can set the soaking time (0~24) of per container. Touch minute ▲ and ▼ key, can set the soaking time (0~59) of per container.

3. You can press the key of run or set to enter the corresponding interface.
If you press the set key, you will enter the following interface.

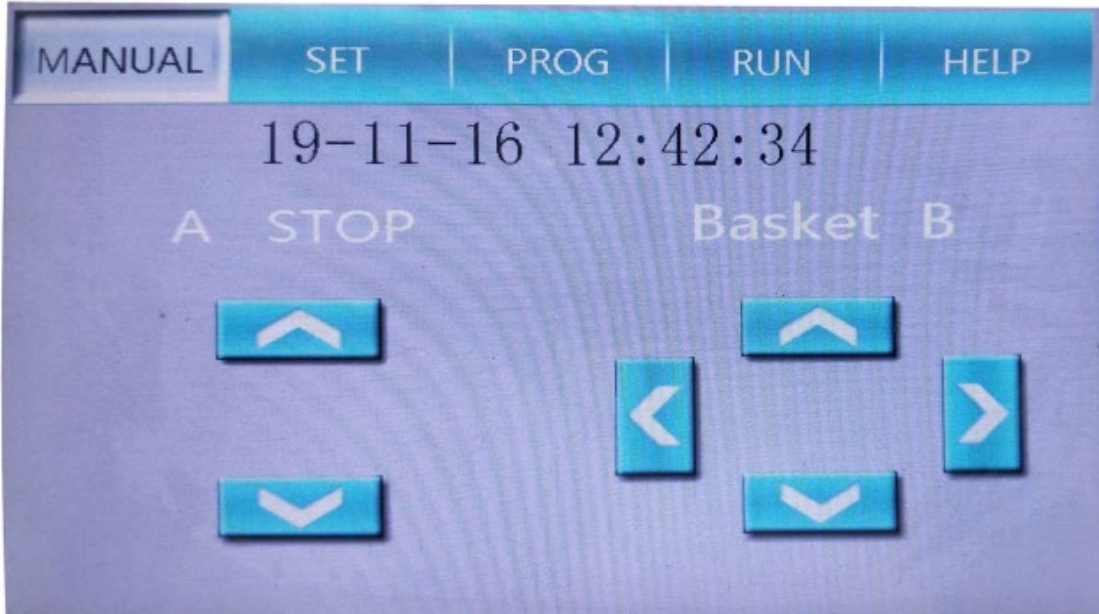


The paraffin container temperature can be set 0-80°C, the illumination time can be set 1-30 minutes, the stirring frequent can be set 0-6 times /minute, drop time can be set 10-30 seconds. Total time and completion time are

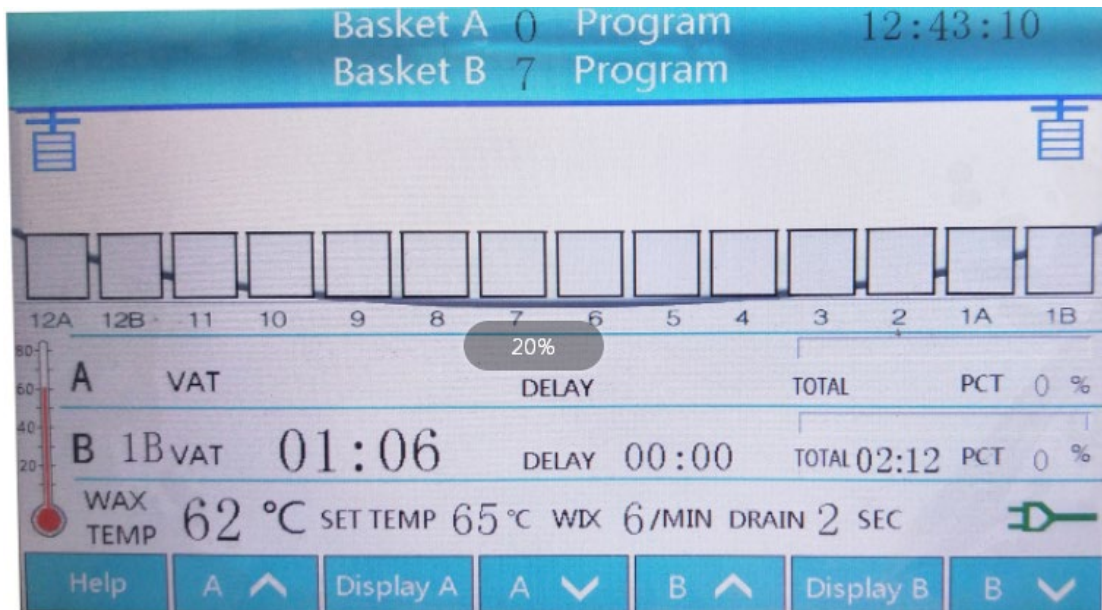
automatically generated with the programmed time and start time. The time setting is to adjust the current time. The power off protection: A mechanism is the seventh cylinder and the B mechanism is the fifth cylinder.

※ When you need set the A mechanism stop, please enter the setting interface, press the stop button of the A mechanism. The equipment will restart, and the following picture will come.

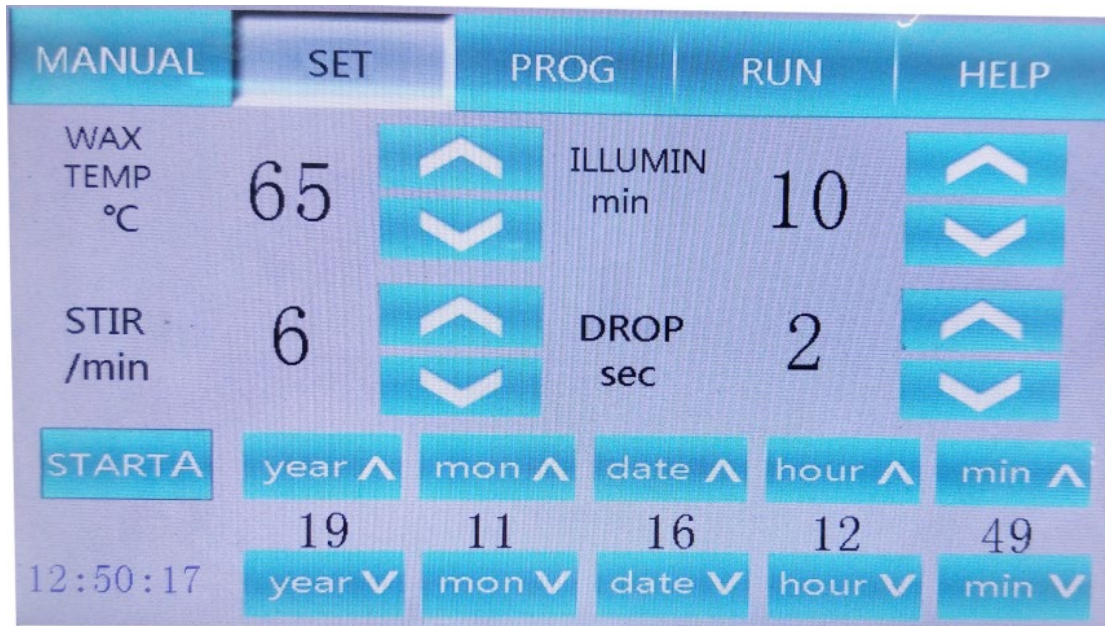
Attention: If the A mechanism stop, it must get to the 12A container.



Only the B mechanism run at this time (A mechanism stops running) see picture



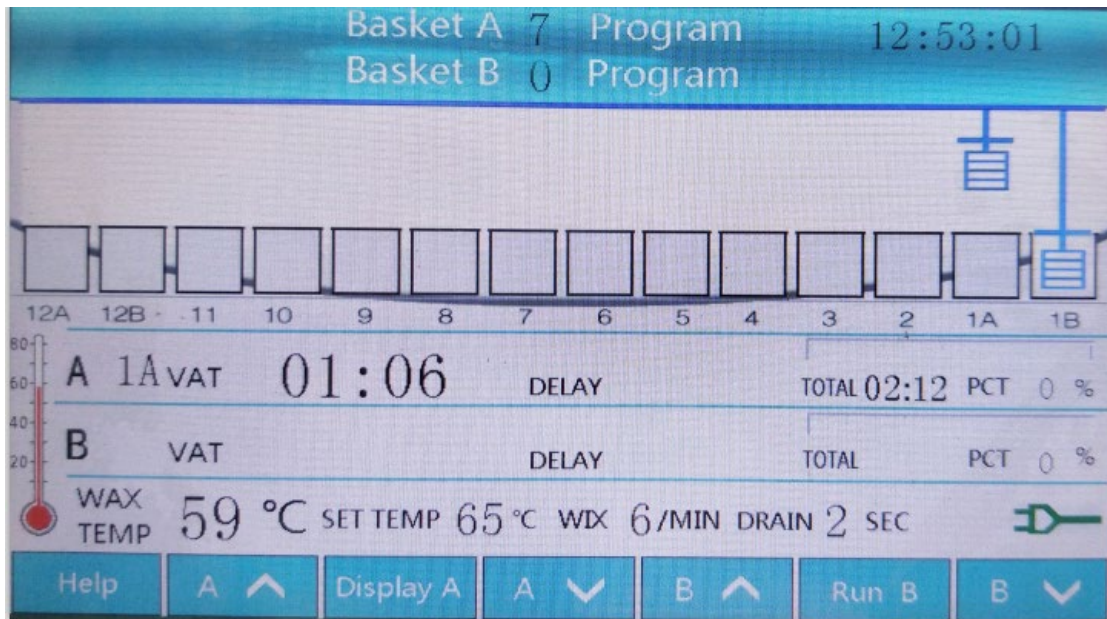
※ When you want to restart the A mechanism, please enter the press the set button entering the setting interface after turn the equipment. Press the A mechanism start button. The A mechanism will get to the 1A container automatically. Please see the following picture.



4. Press the Run A button to start the A mechanism.



Press the enter key can entering the running interface. (If you press other function key at this time, you can enter the corresponding interface)



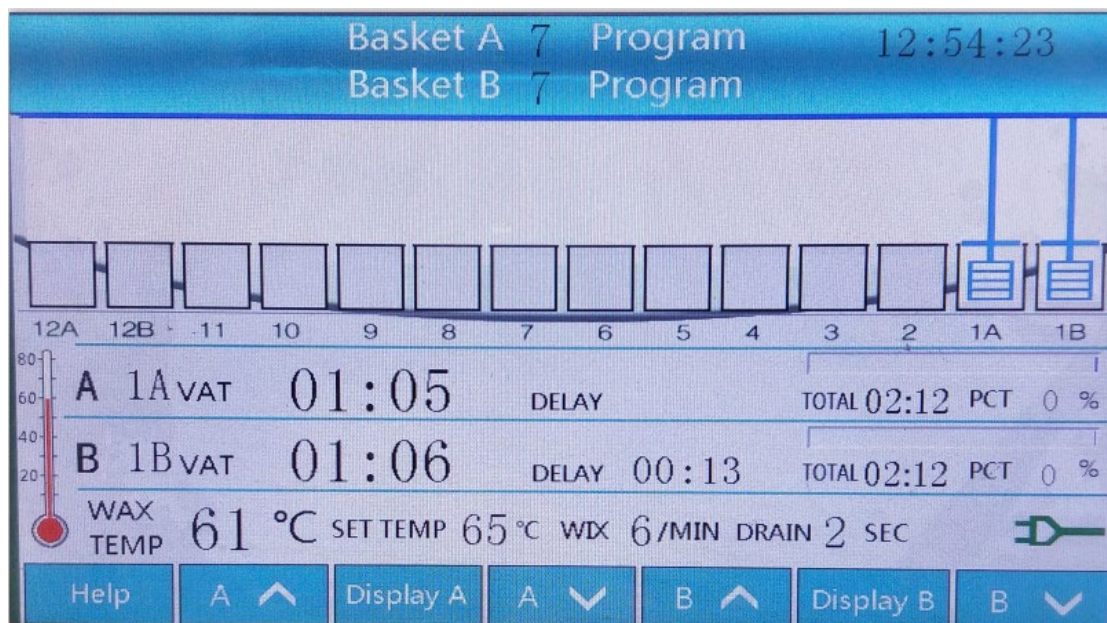
When you want to run the A mechanism and B mechanism at the same time, press Run B key getting into the following interface.



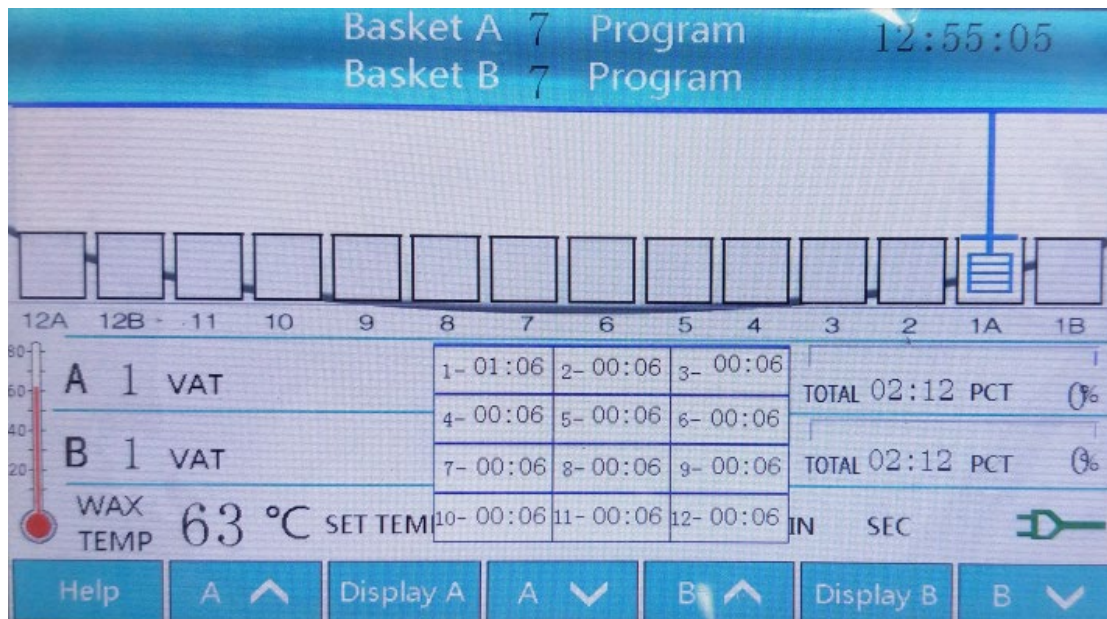
If you run the B mechanism, you will enter the following interface.



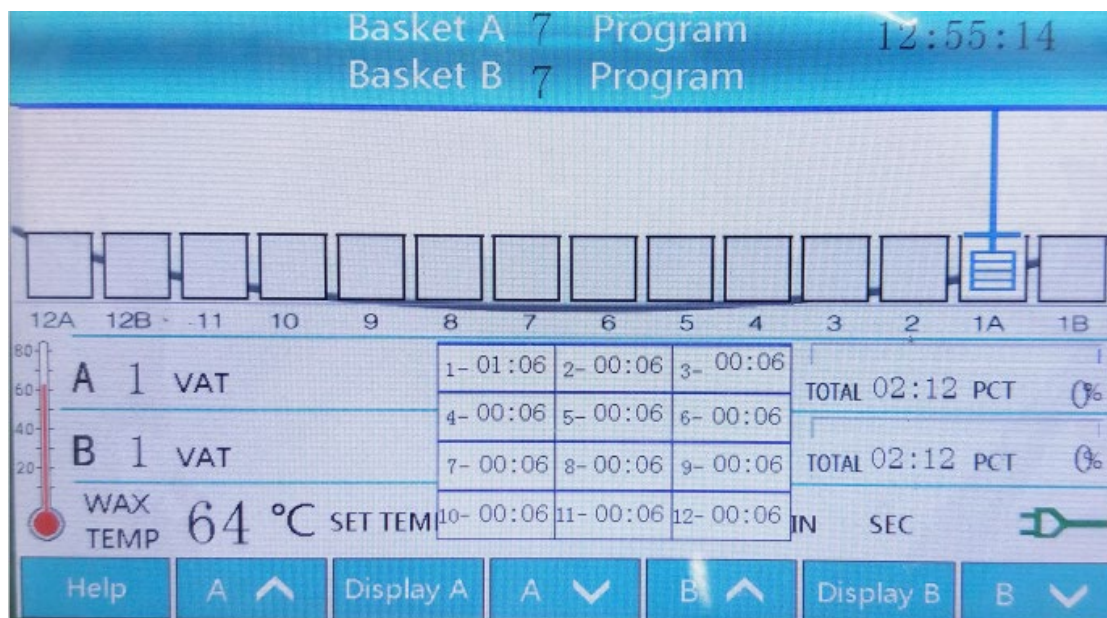
Press the enter key, you will enter the interface which the two mechanisms run together (If you press other function key, you can enter the corresponding interface.)



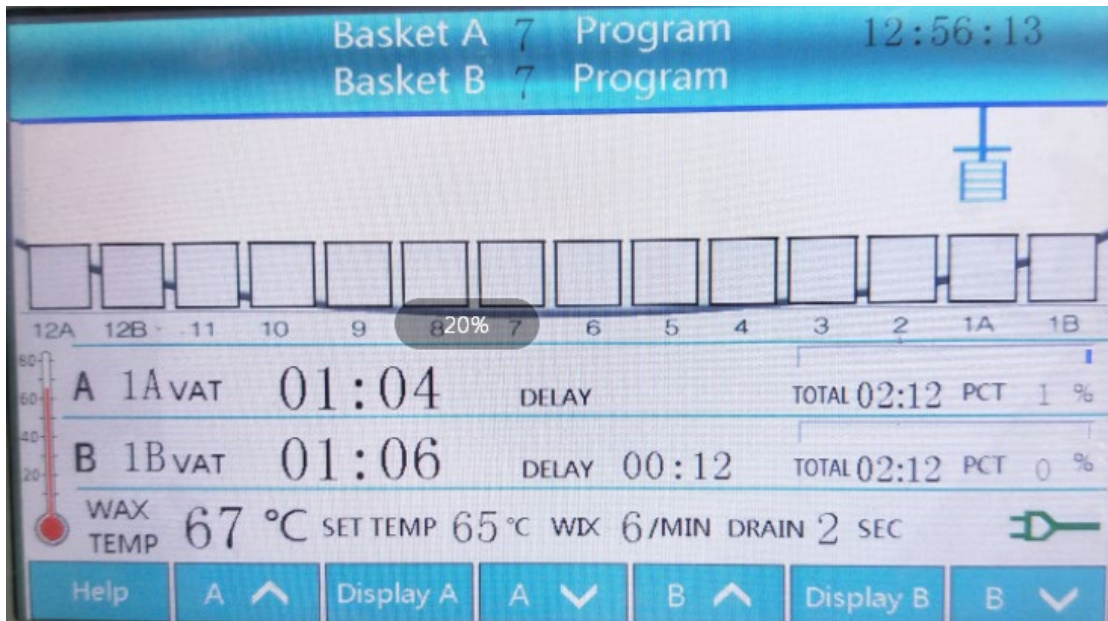
If you want to check the running information of the A mechanism, press the display A key, you will enter the following interface. It will come back to the running interface in 30 seconds.



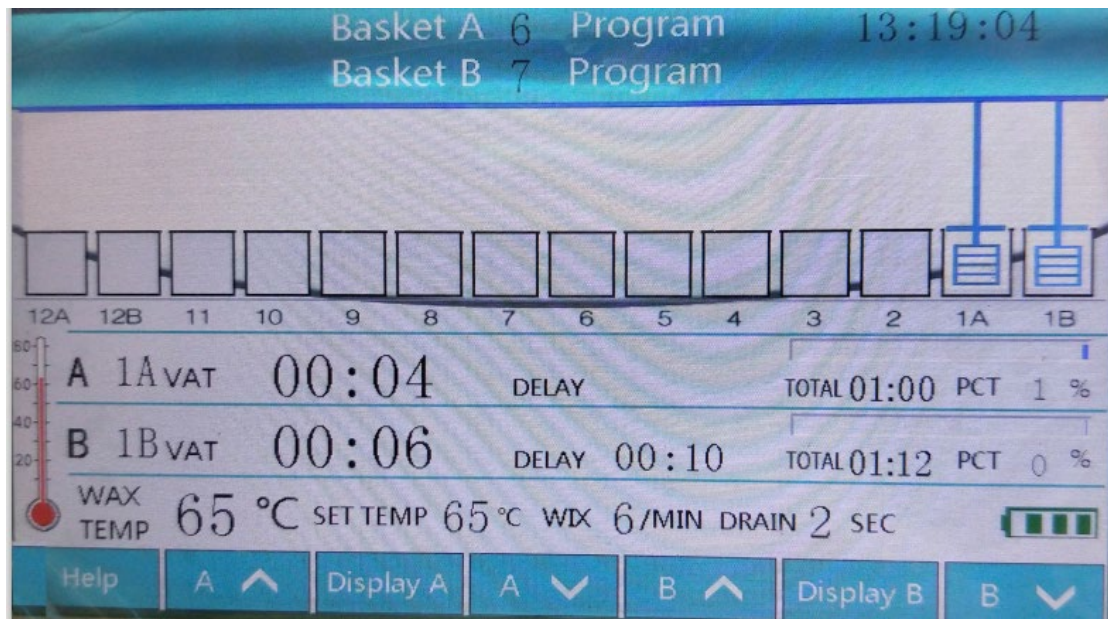
If you want to check the running information of the B mechanism, press the display B key, you will enter the following interface. It will come back to the running interface in 30 seconds.



Press A ▲ or B ▲, can rise the basket and check the specimen. After finish checking, Press A ▼ or B ▼ reenter the running station.



If the power is off when the program is running, there will show the sign of UPS running in the upper right corner.



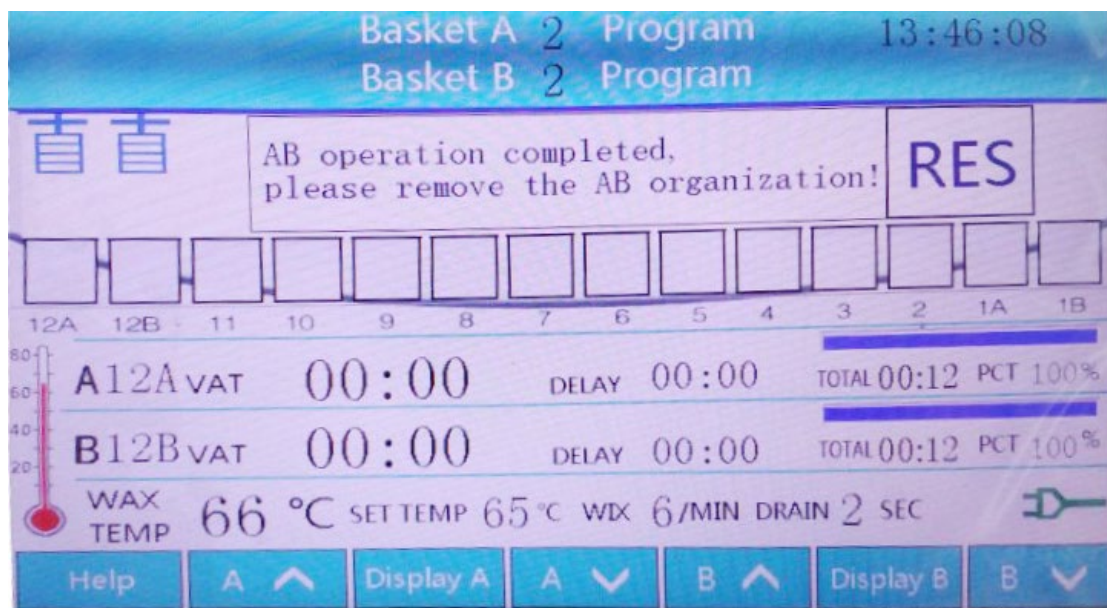
5、 When the program is running, the following set function cannot be operated.



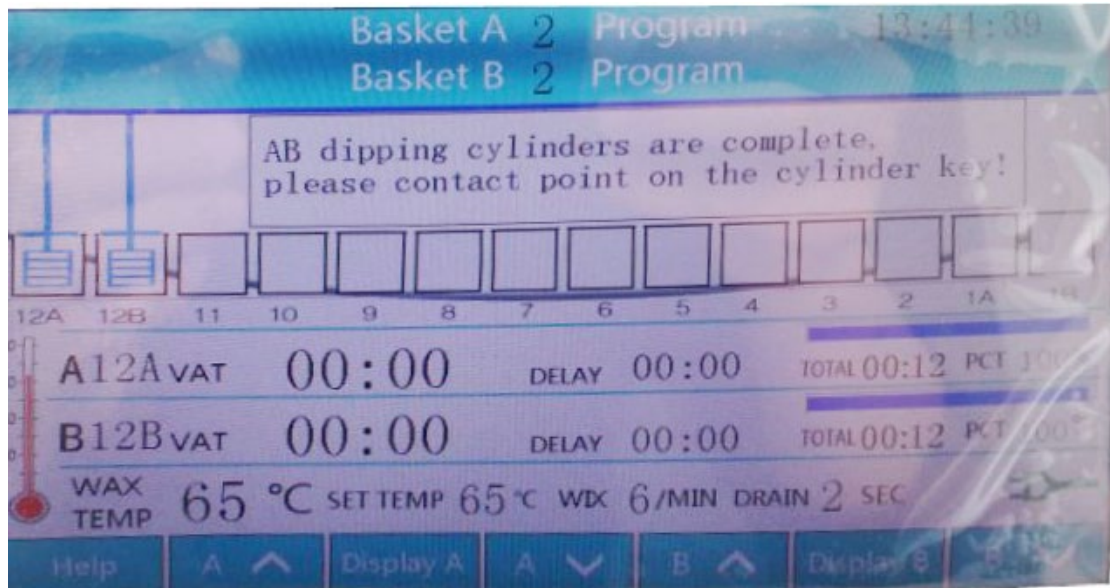
If it is power off when the program is running, the mechanism is going to the 9th container, it will go the protective container automatically.

The basket will stay in the 7th,8th,9th container 20 minutes separately. When the temperature of the paraffin container gets to the setting temperature, the basket will enter the paraffin container.

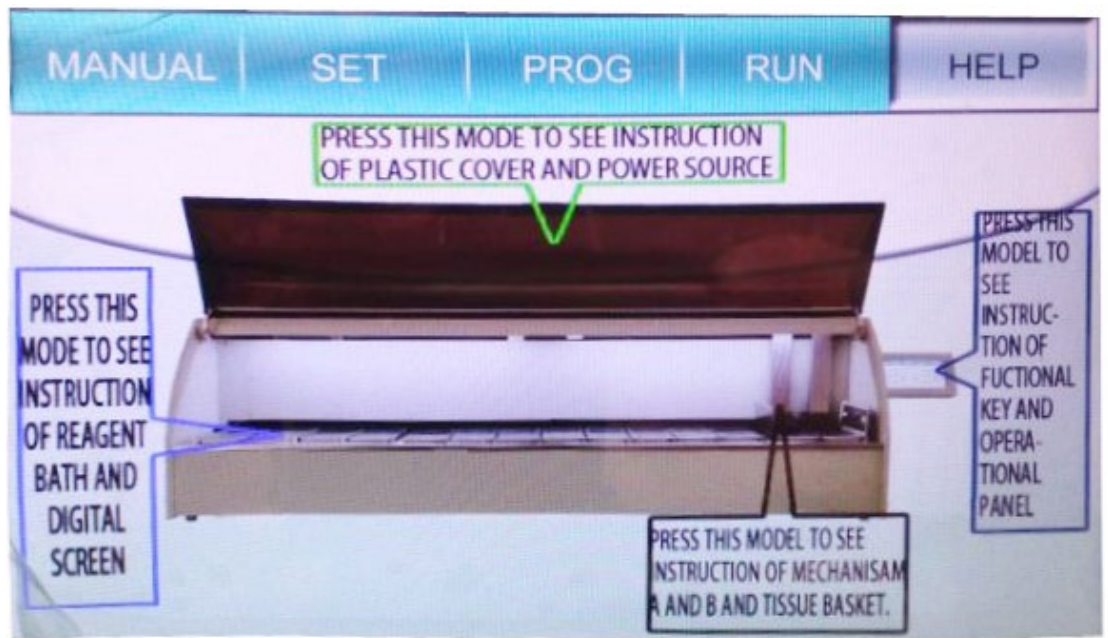
When the program finish, press A ▲ or B ▲ enter the following interface.



Take out the specimen according to the guidance.



6、 Press the help key when the program is not running, you will enter the help interface.



Press the blue box, you will enter the Introduction to the liquid cylinder and operation menu.

INSTRUCTION OF PLASTIC COVER AND POWER SOURCE



Handle
Hood

Pic1

◆ TURN ON THE MAIN POWER (GREEN LIGHT MEANS POWER CONNECTED TO THE BATTERY, RED LIGHT MEANS MACHINE CONNECTED TO AC CURRENT). IF ONLY GREEN LIGHT IS ON, MACHINE WILL NOT WORK BECAUSE OF DISCONNECTION OF AC CURRENT. MACHINE WORK WHEN RED LIGHT IS ON AND THE BATTERY IS CHARGED ITSELF. IF AC CURRENT SHUT OFF DURING WORKING, MACHINE CAN WORK FOR ANOTHER 10HRS TO 14HRS OWNING TO BATTERY, BUT WAX BATH CAN NOT MAINTAIN ITS TEMP. WHEN MAIN POWER IS COMING, THE BATTERY STILL CHARGED, AND FULL CAPACITY OF BATTERY CAN MAKE THE MACHINE WORK FOR 1-48HRS. MAIN POWER SHOULD BE READY IF MACHINE PUT ON CONDITION WITHOUT COMMON POWER. (PICTURE 2)

◆ FAN IN THE BACK IS COMPOSED BY ACTIVATED CARBON BETWEEN THE FANS FROM AND BACK, THE OPERATIONAL PRINCIPLE IS SHOW-

◆ **Picture 1: OPEN AND CLOSE DISPLAY OF PLASTIC COVER.** THE PLASTIC COVER MADE OF ACRYLIC MATERIAL, PLS HOLD THE HANDLE UNTIL THE END WHEN YOU OPEN OR CLOSE THE COVER.
ATTENTION: DO NOT LET IT GO IN THE HALFWAY.

◆ LED LIGHT FIXED INSIDE, WHICH CONTROLLED BY SOFTWARE (DETAILS SHOWN IN THE SETTING FUNCTION OF THE SCREEN); IT'S NORMAL IF THE LED IS NOT ON, PLS TOUCH THE SCREEN ANYTIME TO MAKE IT WORK.



Pic2

◆ POLLUTED AIR FORCED BY NO.1 FAN INTO 2 ACTIVATED CARBON, AFTER ABSORPTION, FRESH AIR COME FROM NO.2 FAN, FINALLY IT GO OUTSIDE FROM THE TUBE.

◆ FAN WORK WHEN ANY MECHANISM A OR B IS WORKING UPON THE STATION, BOTH MECHANISM GO INSIDE THE STATION, FAN RUN 15SEC. PER MIN

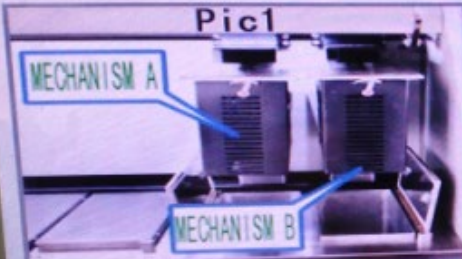


1 2 3

Pollute the air → Fresh air

Press the under right black box, you will enter the instruction to the baskets of A mechanism and B mechanism.

INSTRUCTION OF MECHANISM A / B AND TISSUE BASKET



MECHANISM A
MECHANISM B

Pic1

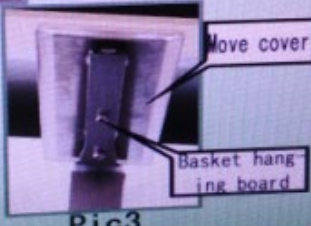
A; B institutions to prepare the state

Pic2

◆ THIS MACHINE HAS TWO SEPARATE OPERATED MECHANISM A OR B. BOTH MECHANISM GO IN THE WAY OF SEPARTE UNCOVER. IT WORK STEADILY, GOOD TIGHTNESS (PICTURE 1 AND PICTURE 2)


◆ THE TISSUE BASKET MADE OF 34 STAINLESS STEEL, WHICH HAS CORROSION RESISTANCE, EASY TO CLEAN.

◆ INSERT OPEN JOINT (3) TO THE STEEL PLATE (PICTURE 3), FASTEN THE LOCK (2)



Move cover
Basket hanging board

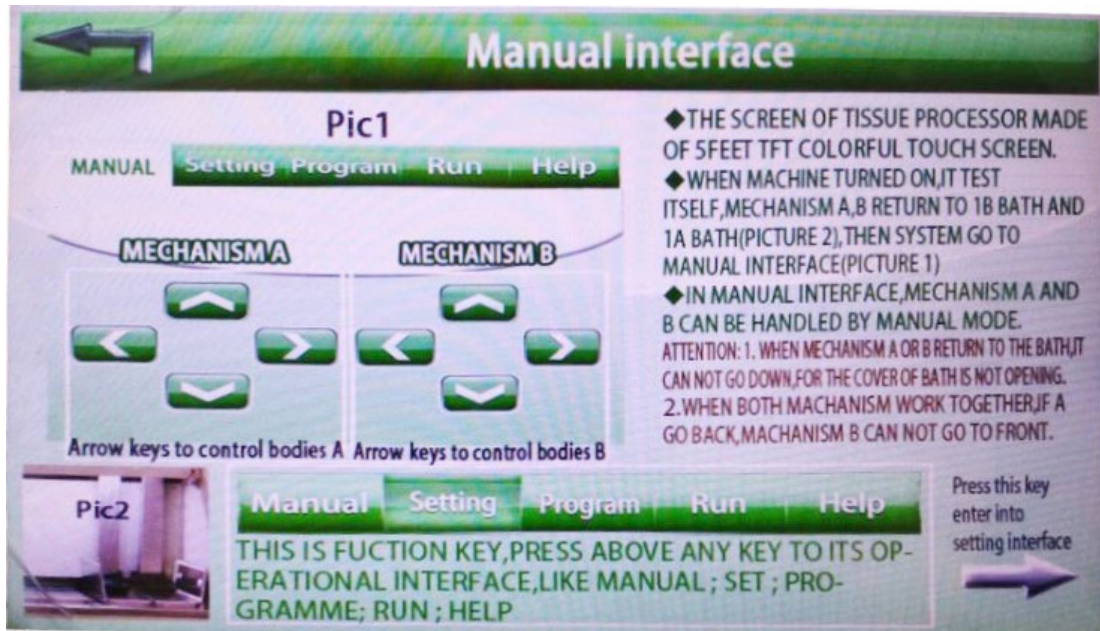
Pic3

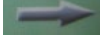



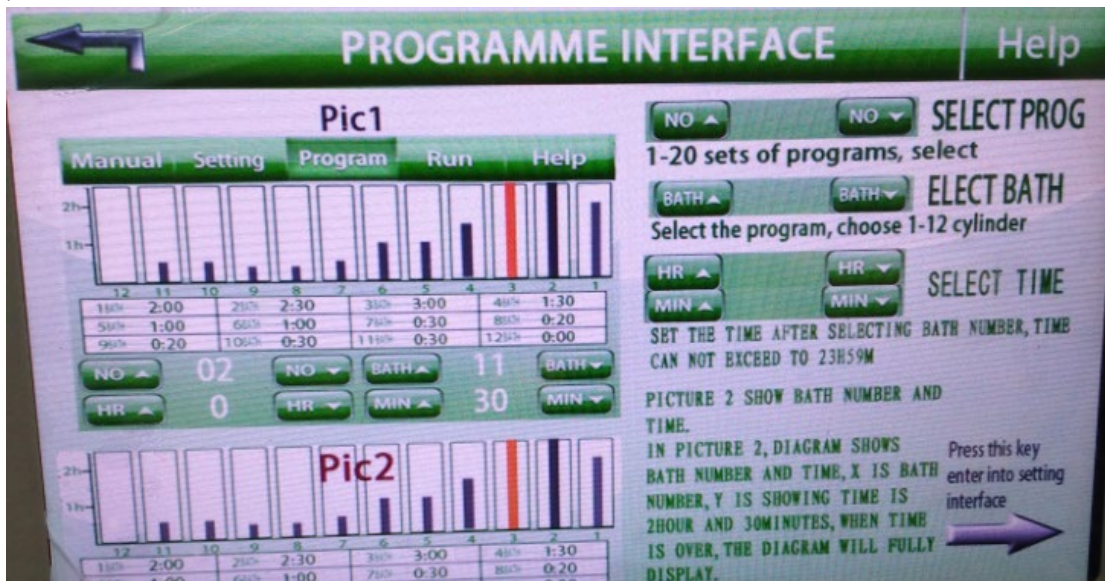
3 1 2



pic4

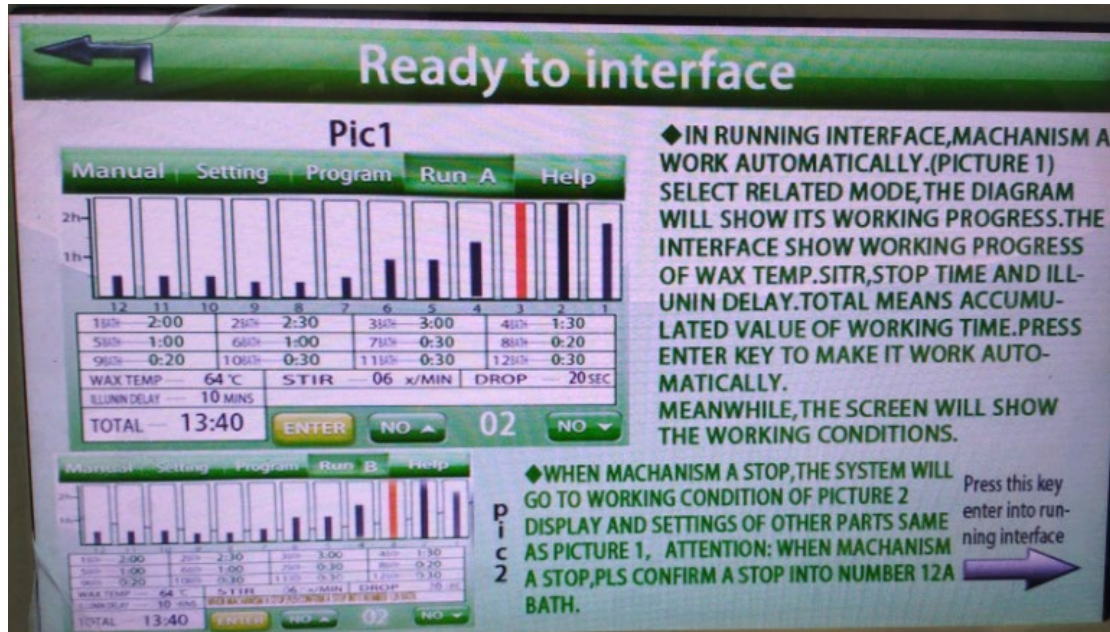
Press the right blue box, you will enter the instruction to the system control section and operation menu.



Press the under right  enter the help interface. Press the  come back the previous interface.



Press the under right  enter the help interface. Press the  come back the previous interface.



Ready to interface

Pic1

Manual | Setting | Program | **Run A** | Help

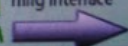
2h
1h

1st	2:00	2nd	2:30	3rd	3:00	4th	1:30
5th	1:00	6th	1:00	7th	0:30	8th	0:20
9th	0:20	10th	0:30	11th	0:30	12th	0:30

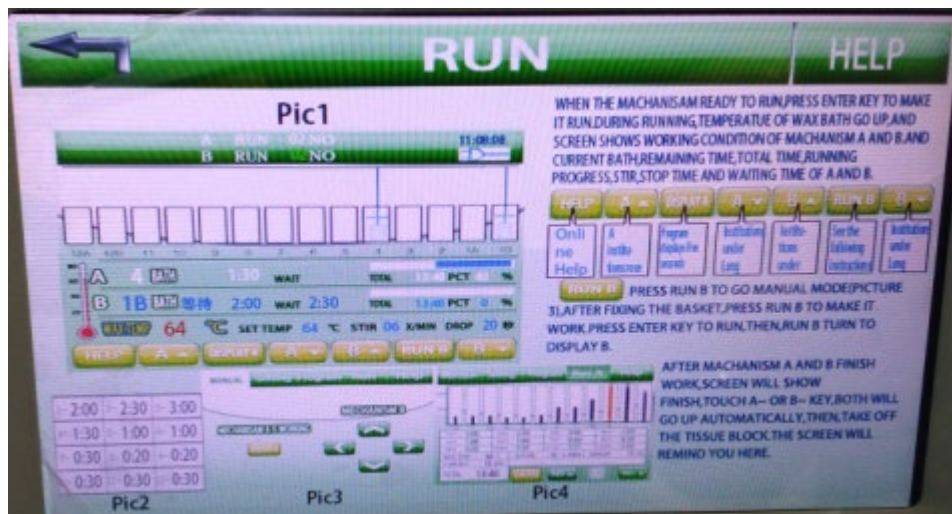
WAX TEMP — 64 °C STIR — 06 x/MIN DROP — 20 SEC
ILLUMIN DELAY — 10 MINS
TOTAL — 13:40 ENTER NO ▲ 02 NO ▼

◆ IN RUNNING INTERFACE, MACHANISM A WORK AUTOMATICALLY. (PICTURE 1) SELECT RELATED MODE, THE DIAGRAM WILL SHOW ITS WORKING PROGRESS. THE INTERFACE SHOW WORKING PROGRESS OF WAX TEMP. SITR, STOP TIME AND ILL-UNIN DELAY. TOTAL MEANS ACCUMULATED VALUE OF WORKING TIME. PRESS ENTER KEY TO MAKE IT WORK AUTOMATICALLY. MEANWHILE, THE SCREEN WILL SHOW THE WORKING CONDITIONS.

◆ WHEN MACHANISM A STOP, THE SYSTEM WILL GO TO WORKING CONDITION OF PICTURE 2 DISPLAY AND SETTINGS OF OTHER PARTS SAME AS PICTURE 1, ATTENTION: WHEN MACHANISM A STOP, PLS CONFIRM A STOP INTO NUMBER 12A BATH.

Press this key enter into running interface 

Press the under right  enter the help interface.



RUN | **HELP**

Pic1

A RUN — NO 11:08:08
B RUN — NO

12A 12B 11 10 9 8 7 6 5 4 3 2 1

4 AM 1:30 WAIT TOTAL PCT 0 %

1B 2:00 WAIT 2:30 TOTAL 1:30 PCT 0 %

64 °C SET TEMP 64 °C STIR 06 x/MIN DROP 20 SP

2:00 - 2:30 - 3:00
1:30 - 1:00 - 1:00
0:30 - 0:20 - 0:20
0:30 - 0:30 - 0:30

Pic2 Pic3 Pic4

WHEN THE MACHANISM READY TO RUN, PRESS ENTER KEY TO MAKE IT RUN. DURING RUNNING, TEMPERATURE OF WAX BATH GO UP, AND SCREEN SHOWS WORKING CONDITION OF MACHANISM A AND B AND CURRENT BATH REMAINING TIME, TOTAL TIME, RUNNING PROGRESS, STIR, STOP TIME AND WAITING TIME OF A AND B.

HELP A B 02 01 B RUN B B

On-line Help A B Program Installation Installation See the Installation
Help Instruction Stop under under following under
Lang Lang under under instruction Lang

NOTE 1: PRESS RUN B TO GO MANUAL MODE (PICTURE 3). AFTER FIXING THE BASKET, PRESS RUN B TO MAKE IT WORK, PRESS ENTER KEY TO RUN, THEN RUN B TURN TO DISPLAY B.

AFTER MACHANISM A AND B FINISH WORK, SCREEN WILL SHOW FINISH, TOUCH A—OR B—KEY, BOTH WILL GO UP AUTOMATICALLY, THEN TAKE OFF THE TISSUE BLOCK THE SCREEN WILL REMIND YOU HERE.



Attention: When the program finishes, and if you will not continue working, please take out the baskets and turn off the power.

8. Caution in usage

Signal Δ ,! means precautions end users should read.

- Time of first station should be reset, when time shows 0, mechanical arm will skip this station, then go to next step.
- The A mechanism will only stop working when it is on 12A station, or else it will work unmoral.
- Program has been reset, system store it automatically, end users do not need to change any program, just press run key and let it work.
- When outer power is shut, machine can work for more 30 hours.
- Before basket goes into No.1 station, temperature of paraffin station should be lower than reset temperature.

Mechanical arm automatically goes from No.10 station back to No.6 station, then run to protection station. When temperature of paraffin station reaches up to resetting temperature, machine can work accordingly.

- Temperature of paraffin station lower than paraffin melting point, mechanical arm will not shake.
- Machine A and Machine B can be operated by same program or reset separately. Less time setting should be given to Machine A, and More time setting should be given to Machine B.

Δ ,! Please conform with proper methods of fixing basket to avoid any block result. Press Up key, mechanical arm will go up, then fix the basket pls.

- time of 3 stations should be reset for One set of programs, and among of them, No.1 station must be set, or machine will not work.
- 30 Hours should not be exceeded after power off. Each time, as power off, machine should make charge.

Way of charge: Turn of main power supply, then make charge for more than 10 hours. As machine work itself, time of charging should be more than 15 hours.

- 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 should not exceed to 5°C.
- 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 may not be placed near the flammable and detonatable objects.

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

△,! The liquid may not overbreed 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.

9 Possible 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 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,pls change,≤0.1V ,it's good
Lifting arm go upwards to top, but do 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 buzzes	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

△,! 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.

10 Maintenance

- Clean it before turning off the power, then pull out the plug.
- Use soft household detergent or soap lye to keep it clean
- Do not use detergent like acetone or benzene, any detergent must not flow into the instrument.
- Any liquid must not 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.

11 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.



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