
【Industry Oven】

Operation, maintenance and repair manuals

OPEERATING/MAINTENANCE MANUAL

** Thank you for purchasing our products.

** This machine is mainly used to test the product to be tested for high and low temperature, temperature and humidity simulation environment test, this manual on the device and its use is explained. This manual describes the device and its usage.

** Although easy to operate and use, incorrect operation can cause accidents. It may shorten the life of the device and reduce its performance.

Therefore, please read this manual carefully before use. Be sure to use it correctly, long-term care.

** Please keep this manual handy.

I. Uses

This experimental machine is mainly used for LED, LCM, CMOS, Touchpanel, optical lens, optical glass, fiber optic products such as process baking, silver glue solid words, drying. LED special oven adopts flexible and adjustable compartments, layering height adjustable. Strip partition, easy to pick and place products.

II. Characteristics

1. SECC steel plate and high-temperature baking paint treatment of fine powder body are used outside; SUS stainless steel plate is used inside.
2. New high temperature resistant long shaft motor, turbo fan, forced horizontal air circulation.
3. Fully automatic PID + SSR combination temperature control and heating system.
2. High temperature resistant silicone compression. 3.
3. Timing alarm, over-temperature protection, and overload automatic heat cut-off system.

III. Technical parameters

1. Inner box size: W 800 mm × H 800 mm × D 800 mm
2. Temperature range: RT +10 ~ 350 °C (commonly used 260 °C adjustable)
3. Controller precision: ± 0.5 ° C
4. Distribution temperature: distribution temperature test 260 degrees ± 4.5 °C; test 180 °C ± 2.5 °C (no load)
5. Voltage: 220 V 50Hz, total power: about 8.5KW

IV. Introduction to construction

1. Box structure: desktop (without casters) vertical (with casters)
2. Power source: single-phase three-wire three-phase five-wire
3. Exhaust hole: top side of the machine right side of the machine left side of the machine back side of the machine
4. Opening mode: double doors open to both sides single doors open from right to left
5. Control panel: top side of the machine right side of the machine left side of the machine bottom side of the machine

V. Power supply installation and machine placement method

1. Use the power supply indicated on the machine.
2. Pay attention to the wire device to avoid trampling damage and leakage to ensure the safety of external wires.
3. Connect to the appropriate voltage outlet (or non-fused switch), turn the switch on and wait for the power indicator to light up, then you can customize the temperature control.

VI. Operating instructions for the use of equipment

- After the product is installed, plug in the power source and display the starting progress

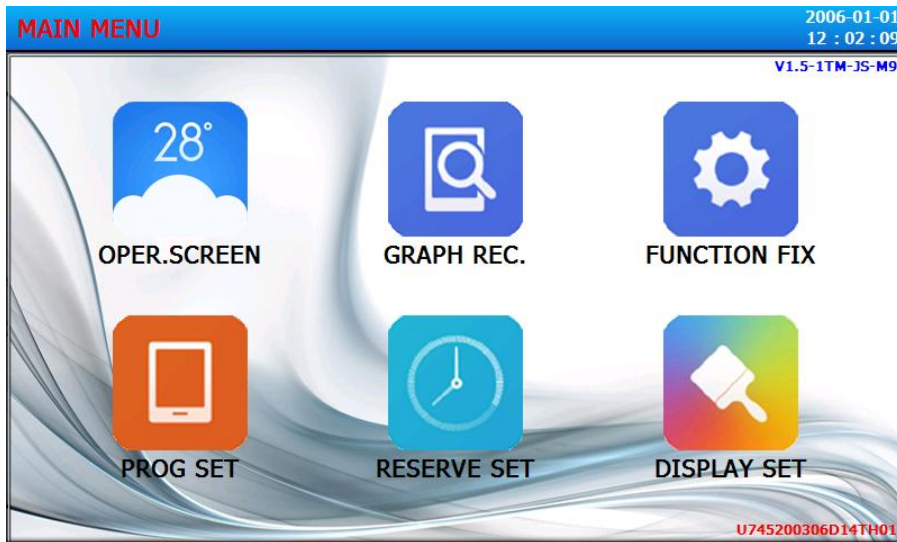
screen.

☞ Starting the screen takes about 15 seconds.



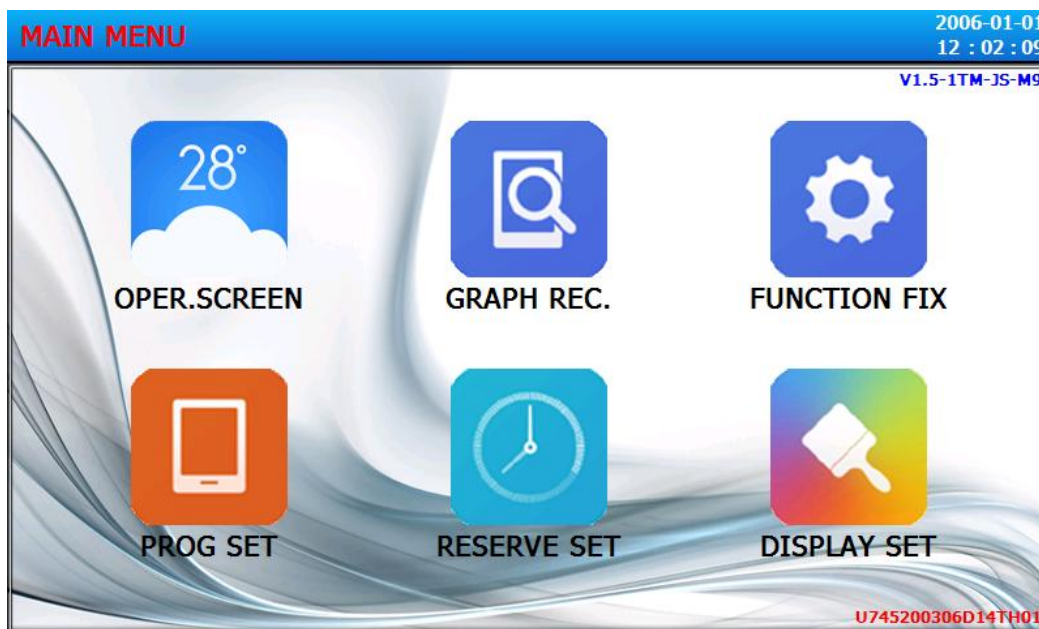
Splash screen

☞ **Main screen**



The main picture

1、 The main picture



[Figure 1-1] The main picture

Serial number	Instruction content	Content description
①	Monitor screen	Switch to the running screen.
②	Curve shows	Switch to Curve Representation and Curve Storage, USB Storage Device, and Export Curve.
③	Set the operating	Switch to the setting screen of function and operation mode.
④	The program set	Switch to the main screen of program Settings.
⑤	Set an appointment	Switch to the screen that sets the current time and the reservation time.
⑥	The picture set	Use the prompt tone to display the Settings screen.

2、 Monitor screen

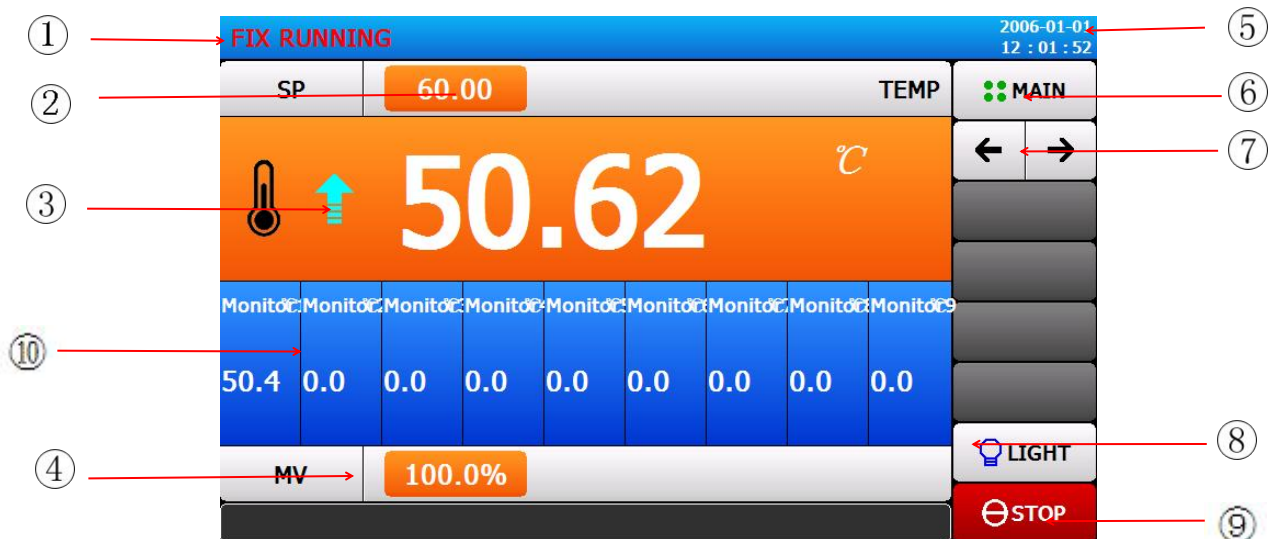
The monitor screen displays two modes: fixed value test and program test.

2.1 Constant value test

During the test, the temperature set by the target will not change after reaching it.

☞ Valued Test requires that you select the Valued Test Mode in the Operation Settings.

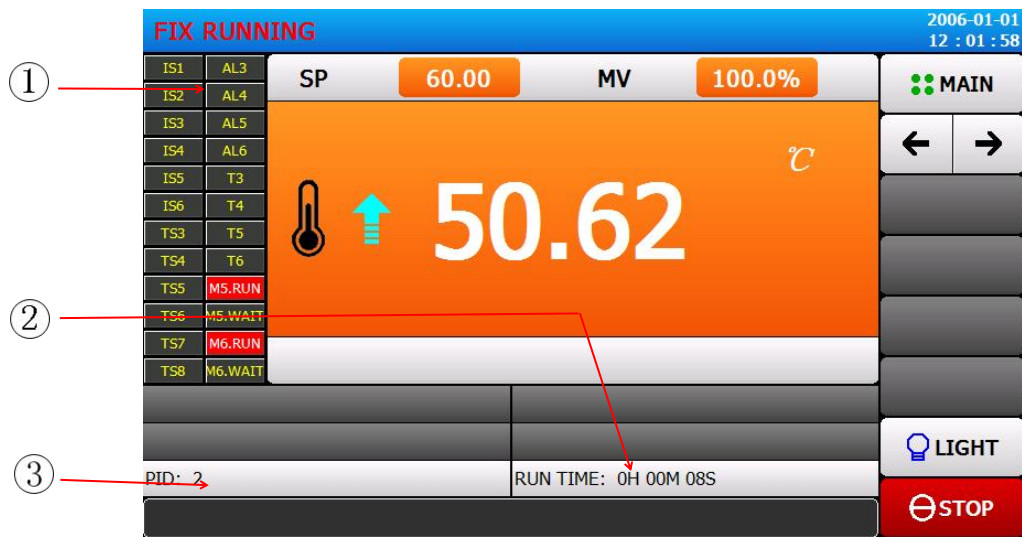
2.1.1 The first monitoring screen of the fixed value test



[figure 2-1-1] The first monitoring screen of the fixed value test

Serial number	Instruction content	Content description
①	Constant value to stop	Display health status.
②	The set value	Displays the current temperature set value.
③		Displays the current temperature measurement.
④	The output	Displays the current temperature output.
⑤		Represents the current date/time. Click to turn off the LCD screen
⑥	directory	Click to return to the main screen.
⑦		Turn the page. (Switch the surveillance screen)
⑧		☞ Click the (lighting) key, the set relay will operate. Relay pointing illumination.
⑨		Stop and run buttons.
⑩		Nine monitoring temperature displays.

2.1.2 The second monitoring screen of the fixed value test



[figure 2-1-2] The second monitoring screen of the fixed value test

Serial number	Content description
①	Display signal status. The ON state is shown in red and the OFF state is shown in dark gray.
②	Displays the currently running PID group.
③	Displays the elapsed time.

☞ Output (%): Control the intensity of heating, value range 0~100.0%.
The higher the value, the greater the heating output power.

2.1.3 The third monitoring screen of the fixed value test



[figure 2-1-4]The third monitoring screen of the fixed value test

Serial number	Content description
①	Display temperature measurement value, temperature set value, temperature output value. Note: The color of the displayed value is the same as the color of the curve.
②	Temperature scale.
③	Time scale.
④	Derive the curve. (This function can only be operated after inserting a USB flash disk).
⑤	Clear the current curve.
⑥	Zoom in and zoom out.
⑦	Switch to the curve setting screen ☞ See 3.3 Curve Settings for Settings.

2.2 Program test monitoring screen

During the test, the target setting temperature can be changed at each stage.

☞ Program Test requires selecting Program Test Mode in Operation Settings.

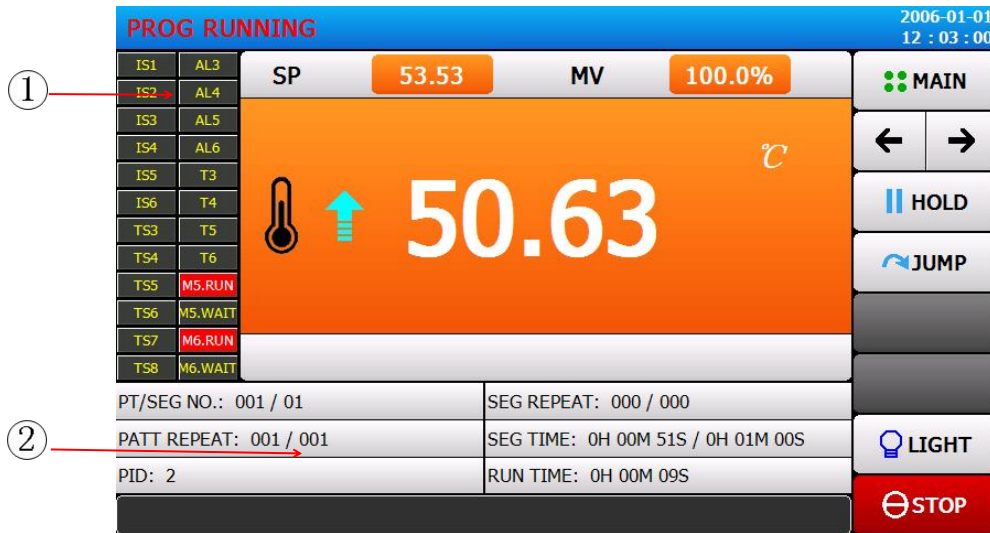
2.2.1 Program test first monitor screen



[figure 2-2-1] Program test first monitor screen

Serial number	Instruction content	Content description
①	The program is running	Display health status.
②		Displays the current temperature setting.
③		Displays the current temperature measurement.
④		Displays the current temperature output.
⑤		Represents the current date/time. Click to turn off the LCD screen.
⑥		Return to the main page.
⑦		Turn the page. (Switch monitor screen)
⑧	suspended	Pause button.
⑨	Skip to the next paragraph	Click jump section test to enter the next section run.
⑩	lighting	☞ Click the (lighting) key, the set relay will operate. Relay pointing lighting.
⑪		Stop and run buttons.
⑫		Nine monitoring temperature displays.

2.2.2 Program test second surveillance screen



[figure 2-2-2] Program test second surveillance screen

Serial number	Content description
①	Display signal status.
②	Display running information: *Number of programs/segments: Number of program being executed/number of segments being executed。 *Number of cycles: Number of running segments/number of cycles set by the current segment。 *cycles: Number of running program cycles/number of current program set cycles。 *A few time: Segment number set time。 *PID group: Displays the currently running PID group *The elapsed time: Program run time。

☞ The output (%): Control the intensity of heating, value range 0~100.0%。
 The higher the value, the greater the heating output power。

2.2.3 Program test third monitoring screen

Please refer to the instructions of "third monitoring screen of fixed test".

2.2.4 Program test fourth surveillance screen

Please refer to the instructions for the fourth monitoring screen of the fixed value test.

3 Curve shows

3.1 Curve display screen



[figure 3-1] Curve display screen

Serial number	Content description
①	Displays the temperature measurements, Temperature setting point, Temperature output. note: The color of the display value matches the color of the curve.
②	Temperature scale.
③	The time scale.
④	Back to main screen.
⑤	Export curve. (This function can only be operated after inserting the USB disk).
⑥	Switch to file screen.
⑦	The curve moves left and right.
⑧	Zooming-out curve.
⑨	Switch to the curve setting screen.

3.2 Picture of historical archives

☞ Click on the file to enter the historical file screen.



[figure 3-2] Picture of historical archives

content	Content description
File number	History file number.
The file name	History file name.
Creation date	The date the file was created.
The file size	File size.
delete	Select a file number to delete this file.
Delete all	Click to delete all history files.
curve	Select a file number to view the file curve.
data	Select a file number to view the file data.
The previous page/The next page	scroll.

3.3 Curve setting screen

☞ Click Settings to enter the Curve Setting screen.



[figure 3-3] Curve setting screen

content	Content description
Sampling cycle	Set the sampling time of the test data sampler in seconds.
Real-time recording on U disk	Set U disk real-time recording (This function can only be operated after inserting the USB disk).
The temperature curve	Set the range of temperature display area.
Monitor curves 1, 2, and 3	Set the scope of the monitor display area.

4 The operation setting

4.1 Operation set the first screen



[figure 4-1] Operation set the first screen

content	Content description
Operating mode	Fixed value test/program test can be selected.
Power mode	Set power on operation when power off. stop: Power interruption after operation, The operation of restoring the state to a stopped state when power is restored Since the cold: The operation of restarting the operation when the power is restored after an interruption of operation. Heat up: The operation of restoring the state to the previous state when the power is restored after an interruption in operation.
lock	When the lock is on, all parameters are unusable.
Back to room temperature	Set to open or close at room temperature.

4.2 Operate to set the second screen



[figure 4-2] Operate to set the second screen

content	Content description
Fixed timing operation	Select on, set a fixed running time.
Constant value slope	Temperature slope: After setting the value, the temperature will rise or fall according to the set slope.
Set value standby Settings	Standby function, choose "on" or "off". When the machine is turned on, if the temperature or humidity does not reach the allowable range, the machine is performed in standby mode, and the remaining time of the test is not decreased during standby mode. *Temperature region: Set the standby temperature.

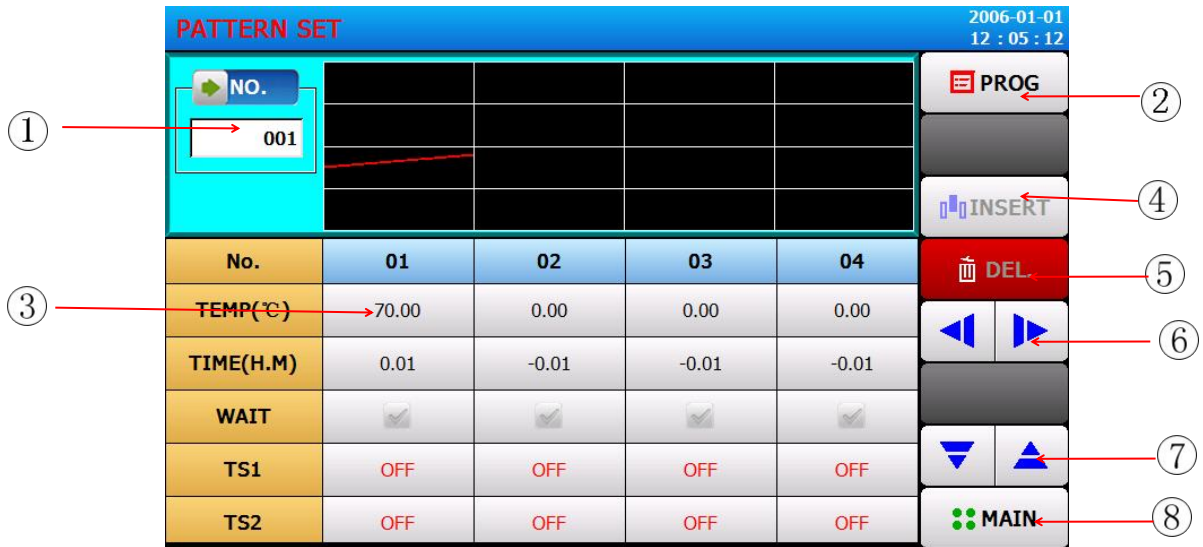
5 Program Settings



[figure 5-1] Program Settings

Serial number	Instruction content	Content description
①	The program editor	Switch to the program editing screen
②	Loop setting	Switch to loop setting mode and part of the loop screen
③	File management	Switch to the set mode copy and delete screen
④	Cycle set	Switch to the screen for period Settings
⑤	Waiting for the set	Switch to the screen that sets the waiting action
⑥	Name of test	Switch to the screen that sets the test name

5.1 Program editing screen



[figure 5-2] Program editing screen

Serial number	Content description
①	Set number: Enter the number of the set program group.
②	Return to program setup screen.
③	Serial number: Section number. The temperature: The target temperature set value of the segment. time: The execution time of the segment. TS: Sets the time signal of the program segment to be run.
④	insert: Insert section. Select a segment before the operation, and insert a copy of the selected segment after the segment is selected.
⑤	delete: Delete the paragraph. Please select a segment before operation. After execution, the selected segment will be deleted.
⑥	Turn the page left and right.
⑦	Turn the page up and down.
⑧	Return to the main screen.

5.2 Loop Settings Screen

The screenshot shows the 'REPEAT SET' screen with the following fields and values:

- REPEAT SET** (Title)
- Date: 2006-01-01, Time: 12:05:30
- PATTERN NO.** (Section):
 - PATTERN NO.: 001
 - PROG PT001
- PATTERN SET** (Section):
 - REPEAT COUNT: 001
 - LINK PATTERN: 000
- SEG REPEAT** (Section):

	NO.1	NO.2	NO.3	NO.4
START SEGMENT	00	00	00	00
END SEGMENT	00	00	00	00
COUNT REPEAT	00	00	00	00
- Navigation buttons: PROG, MAIN

[figure 5-3] Loop Settings Screen

content	Content description
The program code	Sets the program number to execute the loop.
cycles	Sets the number of cycles that a portion of the program is set to run repeatedly.
Program to connect	Sets the program number to run continuously when the programmed program terminates.
Part of the cycle	Sets the opening, ending and number of loops of the execution segment.

5.3 File Management Screen

The screenshot shows the 'FILE EDIT' screen with the following fields and values:

- FILE EDIT** (Title)
- Date: 2006-01-01, Time: 12:05:40
- COPY SOURCE** (Section):
 - PATTERN NO.: 0
- COPY TARGET** (Section):
 - START PATTERN: 0
 - END PATTERN: 0
- INFORMATION** (Section):
 - USED PATTERN: 1/120
 - USED SEGMENT: 1/12000
- DELETE PATT** (Section):
 - START PATTERN: 0
 - END PATTERN: 0
- Navigation buttons: PROG, COPY, SEL DEL., ALL DEL., MAIN

[figure5-4] File Management Screen

content	Content description
Source code	Set the number of the source program.
Copy start program	Copy the number of the start program.
Copy terminator	The number of the program that ended the copy.
Delete starter	Deletes the number that started the program. You can select Select Delete or Delete All.
Delete end program	Deletes the number that terminates the program. You can select Select Delete or Delete All.

5.4 Cycle setting screen



[figure 5-5] Cycle setting screen

- Cycle Settings are divided into ON/OFF Operation and time period setting operation, which sets the time signal period in the section setting where the set period is used for program trial Settings.

5.5 Standby setting screen



[figure 5-6] Standby setting screen

content	Content description
Standby set	Sets whether to use the wait action.
Standby range	Set the temperature range for waiting action.
Standby time	The waiting time to be applied when the set temperature (TEMP PV or HUMI PV) is not within the waiting action range.
Set the standby	All: The entire program stands by. Segment: Each segment stands on standby.
The slope model	

5.6 Test name screen



[figure 5-7] Test name screen

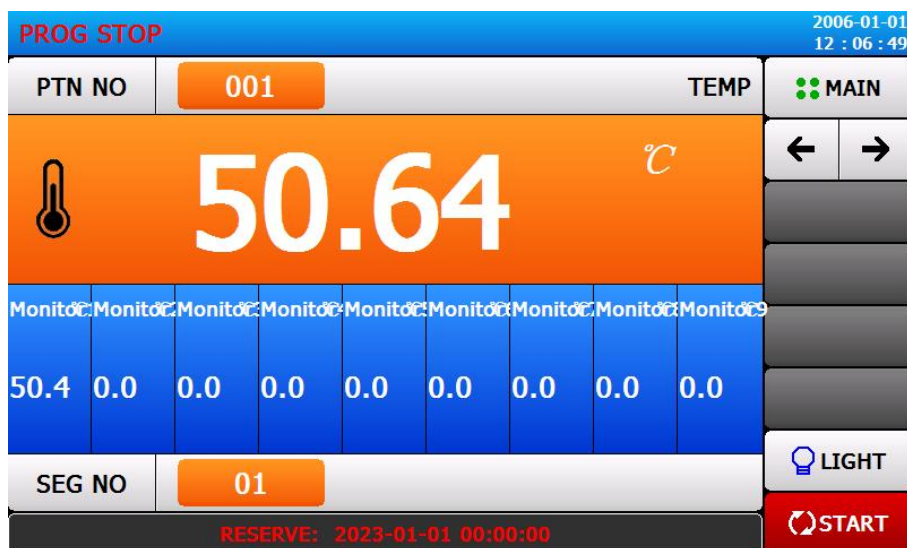
* Enter the experiment name for each program.

6 Set an appointment



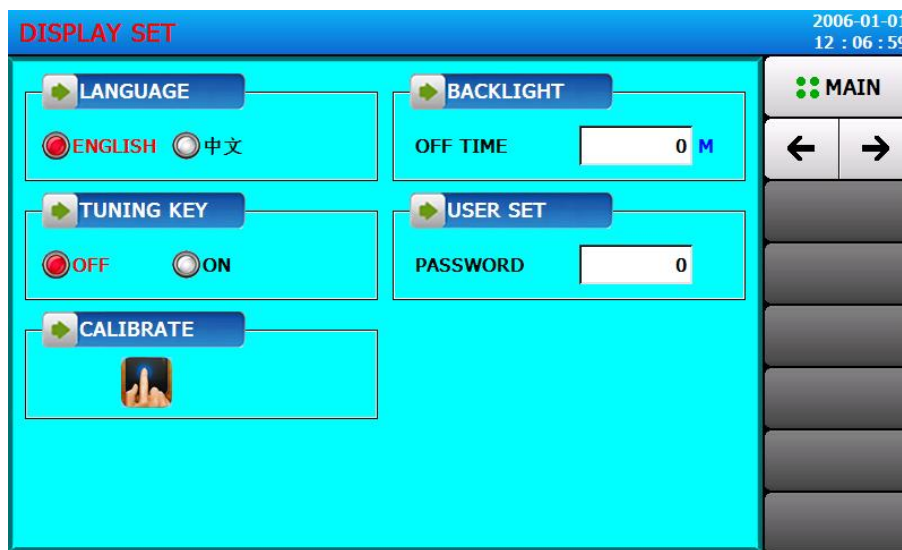
content	Content description
The current time	Sets the current system display time.
To make an appointment time	Set an appointment time.
Set an appointment	Appointment setting switches.

☞ Appointment setting selection is open, which can be run at the set appointment time.



7 The picture Settings

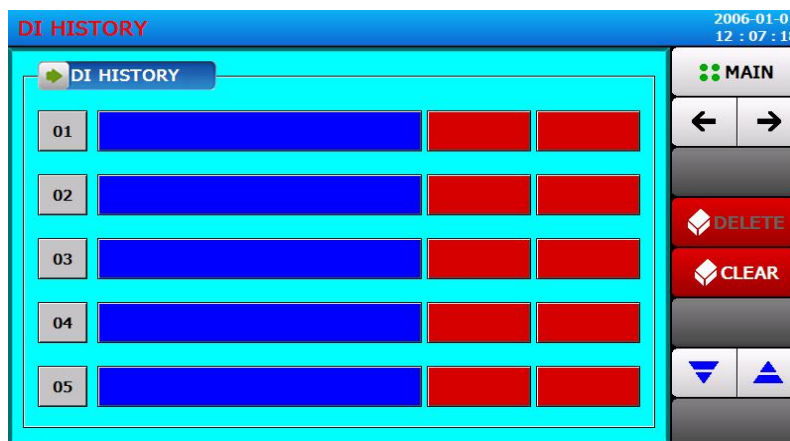
7.1 Screen setting screen



[figure 7-1] Screen setting screen

content	Content description
Language selection	Can switch Chinese or English.
Setting buttons	Whether the setting button is displayed in the monitor screen.
Touch screen calibration	Calibrate touch screen.
Backlight time	Backlight saving time can be set. ☞ Energy saving working time setting refers to how long after the backlight is turned off when there is no need to operate the button.
The user password	Set the user password.

7.2 Fault recording screen



[figure 7-2] Fault recording screen

content	Content description
No	History fault number.
The fault name	Displays the fault name set.
The start time	Displays when the failure started.
The end of time	Displays when the failure ended
delete	Select a fault number to remove the fault.
Delete all	Click this button to delete all faults.
The previous page	You can view the fault record on the previous page.
The next page	See the failure record on the next page.

VII. Fault indication

When the POWER indicator does not light up and the unit does not operate:

1-1 Check to see if the relay (fuse) is blown.

1-2 Check if the power supply is plugged in and if the voltage is normal.

1-3 Check that the power switch is energized.

2. (HEATER) Continuous heating:

2-1 Check for internal parameter error.

2-2 Check if SSR is faulty and does not turn on.

3. (HEATER) Does not heat up:

3-1 Check if internal device thermocouple is defective or disconnected.

3-2 Check for faulty disconnection of solid state relay.

3-3 Check for faulty heating wire.

3-4 Check for low value or faulty over-temperature protection.

3-5 The air supply motor stops running, check if the motor protection switch is tripped, and check if the motor is burned out and not working.

Check if the motor is burned out and not working.

VIII. Warranty matters

1. The machine in normal use on the failure of one year free warranty, the second year discretionary material costs.

2. Damage caused by natural disasters or human factors is not covered by the warranty.

3. Please use it properly, if there is any abnormality, malfunction or can't be operated into, please notify our company after-sale service.

IX. Quality Assurance

Warranty Card

Guarantee date: May 9, 2023 to May 8, 2024					
Serial number	Brand name	Norm	Amount	Repair Date	Signature of maintenance clerk
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

Note: Please present the record card at each service. If the card is lost, the warranty period will be timed from the date of delivery.

If there is any trouble, please fax us the written contact letter and confirm by phone, we will serve you quickly.
