



UV Weather Aging Test Chamber Operator's Manual



Before operation this machine, please read this manual thoroughly, and keep a copy with the machine for future reference. This manual is to be considered part of your machine.

Model:NG-ZYD



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Guangdong Newgoer Instrument Co., Ltd



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Foreword

Thank you for your chosen our company's products, we not only provide your company good quality products, and will provide reliable service.

To ensure the use of personnel safety and equipment integrity, before using this instrument ,please fully view this operation manual.

For the manual, do pay attention to the precautions on its use. This manual details the design principles of this instrument,according to the standard, construction, operation specifications, calibration, maintenance, possible faults and remedy the situation, electrical plans, etc.

If in the manual mentioned in the various "test rule ", the standards are for reference only, if you have any objection please review standards or information by your own. Please kindly note : sometimes we improve on some mechanical parts for better performance of equipment , which may have operating system not consistent with the usage guidelines in some detail. At the time of writing of this manual, we may have mistakes and omissions, please be more inclusion and welcome all of your comments and suggestions.

Special notes:

- This manual can not be the basis for any requirements.
- We reserve the right for this operating manual.



I. Summary

This device is suitable for the accelerated aging test by exposing to light and water. It is used to predict relative durability of paint, coating, plastic and other non-metallic materials. It is suitable for observing physical properties of durable materials especially, such as gloss reduction, haze, strength reduction, pulverization, cracking, blistering, embrittlement and faded, etc.

Like other accelerated tests in laboratories, we can't use the test result of this device replace natural exposure to determine actual durable time of materials. But this device is relatively practical on assessing the anti-aging performance of materials rapidly, selecting or improving the new and old formulas, monitoring the quality of products by providing the contrastive experiment conditions.

Ultraviolet light is the main light factor result in durability reduction of outdoor products. Combine with fluorescent tubes possess stable spectral energy distribution and low price, ultraviolet aging test chamber becomes the most popular test chamber in the world because of its quick, convenient and economical advantages.

Because water is an important factor of accelerating aging. This device adopts the way of water spraying to simulate the effect of moisture. It can close to some environmental conditions of final use by setting the spray time, such as temperature change or rain wash result in mechanical erosion.

This model can also adjust the rate of photochemical reactions by temperature control mechanism in the appropriate range. To satisfy the durable demands of weather resistance tester, this device structures adopt corrosion resistant stainless steel materials widely. Its design is simple, easy to use and maintenance.

You can understand damages of materials in a short time and judge the quality gap between test products and reference samples as long as you pay low use cost.

II. Notice

Safety Marks

In this manual, on the security precautions and the use of the instruments of the show the following important issues, in order to prevent accidents. Accidents and dangerous, be sure to adhere to the following danger, warning, pay attention to the narration:

DANGER:

This mark shows that the operator fails to comply may be harmed.

1. The warning and attention sign of instrument.

Dangerous:



This displayed item indicates that if you do not comply, the operator may be injured.

Notice:



The items shown here are indicated as potentially affecting the test results and quality.

1. On this instrument, the following marks indicate cautions and warnings.

	Warn Mark	This mark indicates where it is necessary to refer to the operation manual.
	Dangerous voltage mark	This mark indicates a high voltage hazard.
	Ground protection mark	The ground terminal is shown on this instrument.

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Application Notice

1. The eyes and skin are often exposed to ultraviolet light can cause burns or other changes, and ozone generated when the UV lamp lit, ozone of high concentration can cause human body unwell phenomenon such as headache, chest tightness, to prevent the occurrence of the above phenomenon, should pay attention to the ventilation and wear protective equipment.
2. In order to guarantee the safety of the equipment, please install the external protection agencies, and the power supply according to the requirements of product nameplate.
3. The equipment is strictly prohibited for inflammable, explosive, toxic, corrosive test of the item.
4. The non-professional personnel shall not remove, maintenance.
5. Equipment should be reliable grounding. Equipment failure, need to replace parts, please replace the same specifications of fittings.
6. The experiment it is forbidden to warehouse door open test.
7. Read the instructions before operating this equipment.

III. Technical Parameters

1. Working room size: 500×1140×400 mm
2. Temperature and humidity range: RT+10℃~70℃ ≥75%RH
3. Power: 220v/60Hz 7Kw (total power consumption)
4. Fluorescent UV lamp: UVA340, 40W*8 pcs.
5. UVA Lamp: length 1200mm, Diameter 38mm
6. Wavelength of UV lamp: 310~400nm
7. Standard sample holder: 75×150×1.5mm
8. Temperature control mode: PID

Normal running condition

- Temperature: 15 ~ 35 °C
 - Atmospheric pressure: 86~106Kpa
 - No strong vibration around;
 - There is no direct sunlight or other sources of heat radiation;
 - No strong airflow, the airflow should not to the tank directly when air need to forced- flow around;
 - No strong electromagnetic field effect;
 - No high concentration of dust and corrosive materials.
- To ensure the normal operation and easy to operate, please horizontal placed. At the same time, equipment, walls or implements, 60cm space should be reserved for operation, maintenance and ventilation.



IV. Operating Instructions

Equipment operation

1. Join humidification water: open the water storage tank inlet valve and water injection humidifying trough to identify tip position.
2. Fix the specimen in sample frame, if there is any vacancy should fill in tablet, and do a good job in frame gap sealing to ensure exposure conditions.
3. Enter the test home page, run in the fixed value setting screen choose test function, simulation of irradiating, condensation, spray, parameters such as time, cycle times. Set the program is run set parameters such as temperature, humidity, radiation images. (humidity size is used to simulate the condensation dew condensation environment speed, no other use)
4. Press the "Start" button after setting picture setting ends, in the press of a button click run equipment start at predetermined exposed way. According to the monitor screen into the show after the start.
5. In the experiment to interrupt test, can press stop button, the machine stops working.

Operation method

1. Turn on the power supply.
2. Turn on the start button.
3. Set parameters of the touch screen.
 - (1) The touch screen displays the main menu once it is electric.
 - (2) Set parameters of the menu.
 - (3) Press the start button according to the operation screen then equipment starts to operate.
 - (4) Please turn off the power supply after test.

V. Maintenance

1. For the first time, when the phone is switched on due to water shortage protection could not be started because there is no water in the water storage tank, belongs to the normal phenomenon, please fill it up with water after the boot.
2. Equipment such as the PID calculation, please don't open the door, in order to avoid operation error. (before delivery have calculus, do not need again to calculus)
3. Pay attention to the water storage tank water level, water in time, in order to avoid equipment water shortage protection action, interrupt test.
4. Adjust the instrument parameters, such as in addition to the specification allows for change, never change.
5. Every time after the test, take out the test samples, clean the machine



VI. Programmable UV controller Operation manual

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一、 Safety instructions (notes)

Thank you very much for purchasing our constant temperature and humidity program controller

This operation manual describes the operation method of this product

Matters needing attention in the operating instructions

(A) Please provide the operating instructions to the final user and place them wherever they may be available for use

(B) Please read the instructions carefully before using this product

(C) The operating instructions specify the various functions of the product, and are not guaranteed for matters other than the operating instructions

(D) No part or all contents of the operation instruction shall be edited, copied and used without permission

(E) The contents of this operation instruction can be changed arbitrarily without prior notice or notice

(F) The manual to complete although through written content, but it will have poor or typo, missing parts, if found please thank you very much and place of purchase or the company made contact.

Matters needing attention in safety and modification of this product

(A) In order to ensure the system maintenance and safety of this product and its connection with this product, please carefully read the safety instructions (instructions) in this operation manual, and then use this product

(B) The company shall not be liable for any loss caused by the use of the instructions specified in this operating manual or by placing or not paying attention to it

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(C) In order to maintain the security and safety system of the product and the connection of the product use, need to install additional safety protection device or circuit, please be sure to install this product. In the external transformation of this product is prohibited inside the (change) or add.

(D) Please do not disassemble, repair or rebuild, which may lead to electric shock, fire or work breakdown

(E) Be sure to contact the Sales Department of the company when you change the parts or consumables of this product

(F) Please do not allow moisture to flow into this product, which may lead to failure

(G) Please don't knock on this product, it may cause product damage or malfunction

This product is exempt from responsibility
--

(A) in addition to the contents of the company's quality assurance requirements, the company does not guarantee, nor bear any responsibility

(B) in the course of using this product, the company may not be responsible for any direct or indirect damage caused by the company's unpredictable defects or natural disasters which cause the user or the third party to be directly or indirectly damaged

二、 Fixed value (FIX) experiment

2.1 Introduction of main picture of the system

Boot into the main picture of the system as shown [2-1]。

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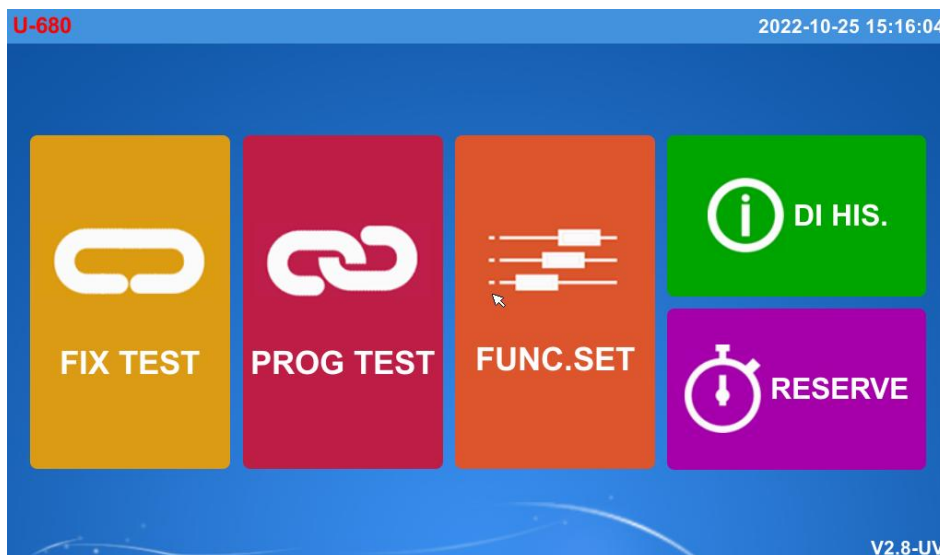


Fig. [2-1] main picture of system

The main screen of the system has five operations:

1. Setting experiment in this mode, the temperature and humidity can be set according to a certain time or proportion. Click on the fixed value experiment picture as shown in figure [2-2]
2. Program experiment this mode allows people to edit specific programs by themselves and adjust the temperature and humidity according to the program. Click enter the program experiment picture as shown in figure [3-1]
3. This function is set up by the operator to allow the operator to do the relevant settings. Click enter the operation settings screen as shown in figure [5-1]
4. The fault recording function allows the staff to view the DI fault record. Click enter the fault recording screen as shown in figure [7-1]
5. Setting up this function makes it convenient for the staff to start the fixed value task or program task at once. Click on the appointment settings screen as shown in figure [8-1]

2.2 Main picture of fixed value experiment

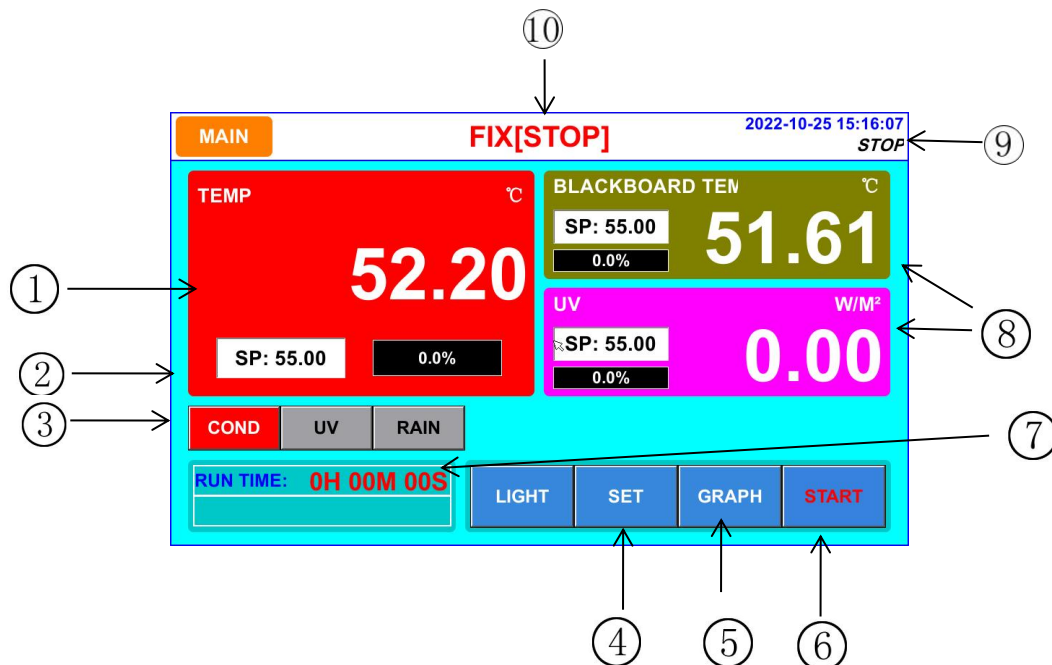


Fig. [2-2] main picture of fixed value experiment

- ① Indicates the current condensing temperature。
- ② Indicates the current condensing temperature set point。
- ③ Click to select the open mode。
- ④ Settings: Opens the Settings button. For details, please refer to Figure [2-3].
- ⑤ Switch to the curve display screen。
- ⑥ Run button. Please refer to Figure [2-4] for details.
- ⑦ Displays the cumulative turning on time of the front and back lights。
- ⑧ Represents the current irradiation intensity and blackboard temperature。
- ⑨ Display current status。
- ⑩ Displays the current location.

2.3 Set value setting screen

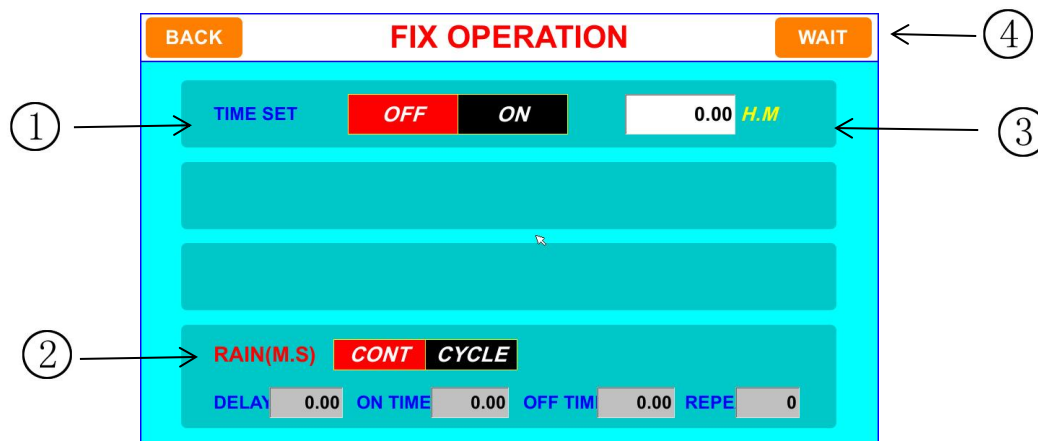


Figure [2-3] Value setting

- ① Timing operation switch。
- ② Choose whether the rain pattern is continuous or periodic
- ③ Set the running time of a fixed value。
- ④Enter the standby setting screen. Please refer to Figure [2-4] for specific Settings.

2.4 Standby set

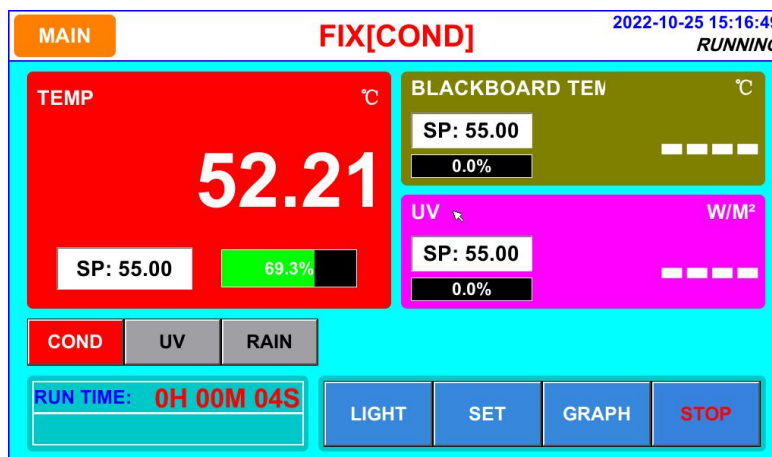


Figure [2-4] Standby setting

- ① Standby setting switch。
- ② Set the condensing temperature zone. (The range can be 0.00-600.00)
- ③ Set the standby time。



2.5 Fixed value experiment running screen



Figure[2-5] Fixed value running screen

Operation:

1. Set the time and cycle in the setting screen (FIG. [2-3]).
2. Click the "Run" button in the main screen of the fixed-value experiment (Figure [2-3]).
 - ☞ After running, you can see that the screen information has been updated. In the upper right corner, the experiment state is experiment run, and in the lower left corner, the running time and remaining time are displayed.
 - ☞ If you want to stop forcibly, click the stop button in the lower right corner to stop the operation.

三、PROGRAM experiment

3.1 Program experiment main screen

Click program experiment in the system main screen to enter.

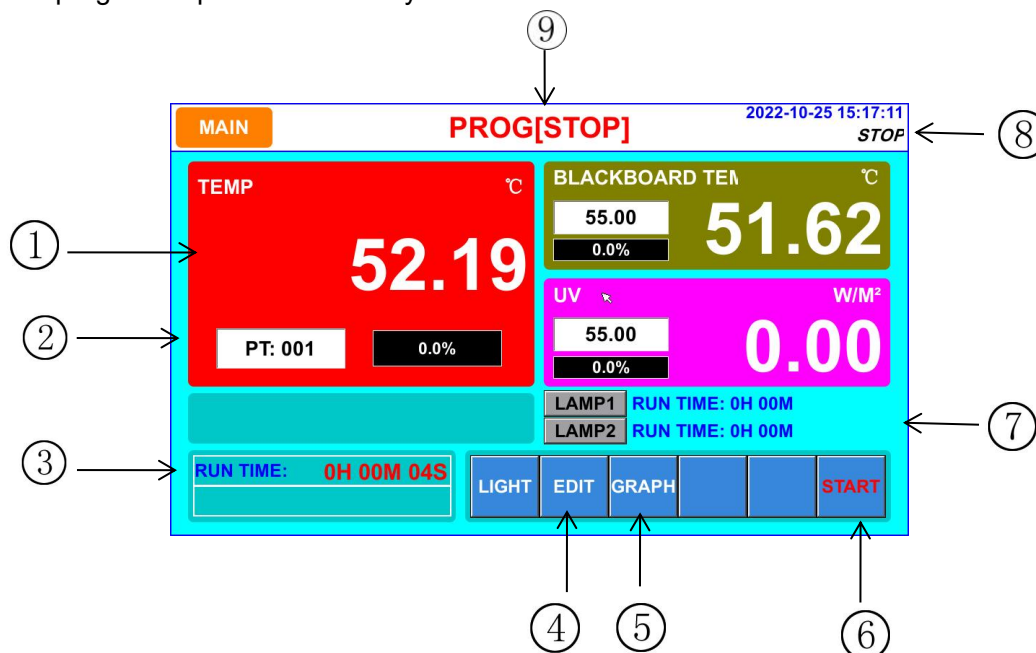


Figure [2-2] Main screen of program experiment

- ① Indicates the current condensing temperature.
- ② The program number that represents the current condensation temperature.
- ③ Indicates the running time.
- ④ Open the edit button: enter the program edit screen. For specific Settings, please refer to Figure [3-2].
- ⑤ Switch to the curve display screen.
- ⑥ Run button. Please refer to Figure [2-4] for details.
- ⑦ Displays the cumulative time of front and rear lights.
- ⑧ Displays the current status.
- ⑨ Displays the current location.

3.2 Program editing screen

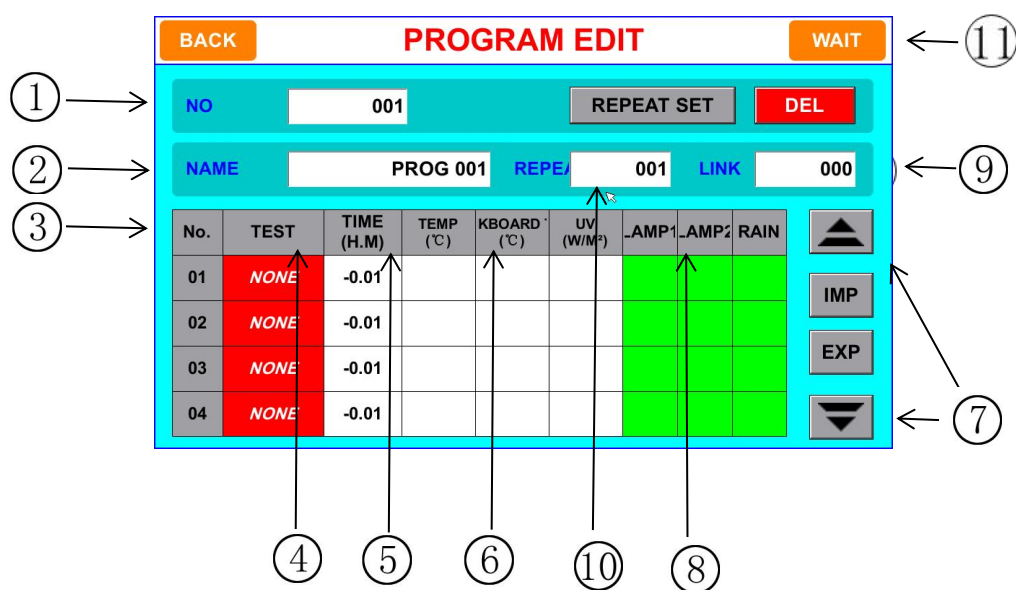


Figure [3-2] Program editing

- ① Edit program number。
- ② Edit program name。
- ③ Show program segment number.
- ④ The trial mode of the current segment.
- ⑤ The time signal of the current period.
- ⑥ The three modes of the current segment are set.
- ⑦ Page up and down operation.
- ⑧ Click to select whether to turn on the front and rear lights.
- ⑨ Program connection. (The range is 0-120)
- ⑩ Set the number of cycles.
- ⑪ Enter the standby setting. Please refer to Figure [2-4] for specific Settings.

3.3 Program running screen

Program running steps:

1. Edit a program in the program editing screen (Figure [3-2]).
2. Select the program number in the main screen of program experiment (Figure [3-1]).
3. Click the Run button.

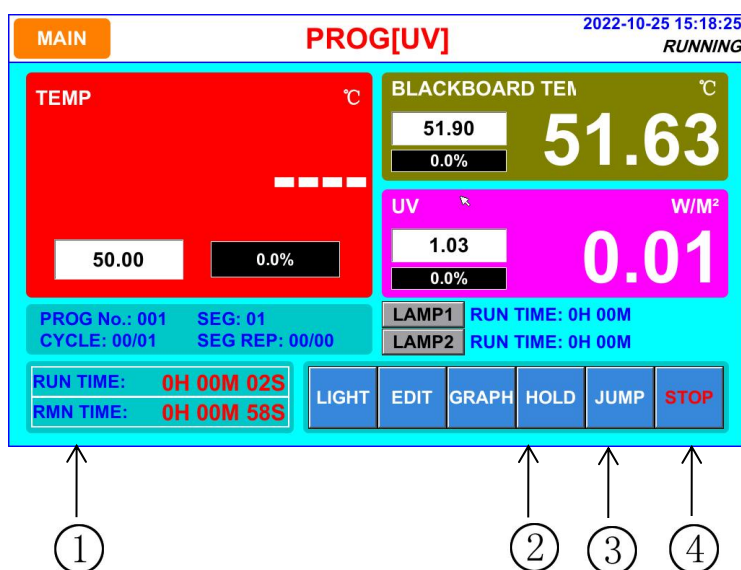


Figure [3-3] Program experiment

- ① How long the program has been running and how long it has left.
- ② When the program is running, click the Hold button to maintain the temperature of this state, click again to cancel the hold.
- ③ When the program is running, click the skip button to skip this section, directly into the next section of the run.
- ④ The stop button can force the current operation to stop.

四、Curve shows

4.1 The curve shows the real-time picture

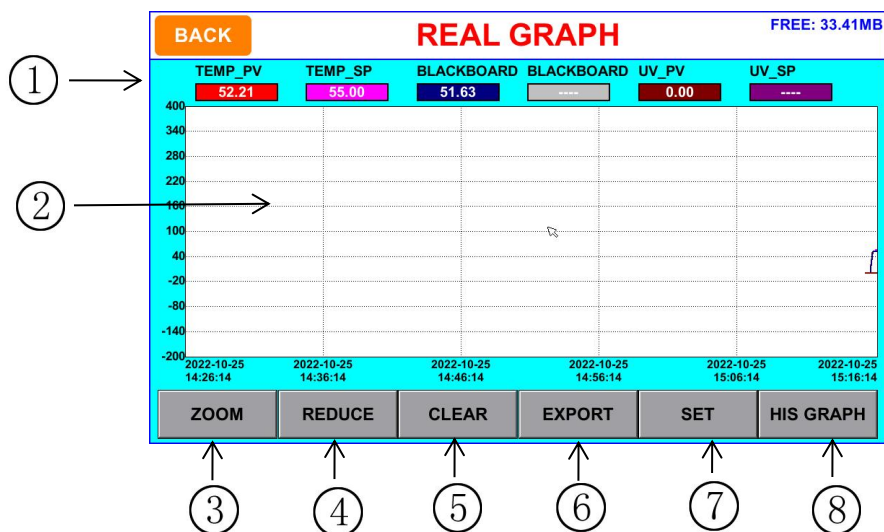


FIG. [4-1] Real-time curve

1. The current and set values of the temperature are represented by four different colored curves.

(Click the corresponding box to display and hide Settings)

2. The area shown by the curve.

3. An enlargement.

4. Reduce operation.

5. Cleaning operation.

6. Export the current curve screen. (Please connect the USB flash drive before operation)

7. Curve display Settings. For details, please refer to Figure [4-2].

8. Enter the history curve record.



4.2 The curve is set

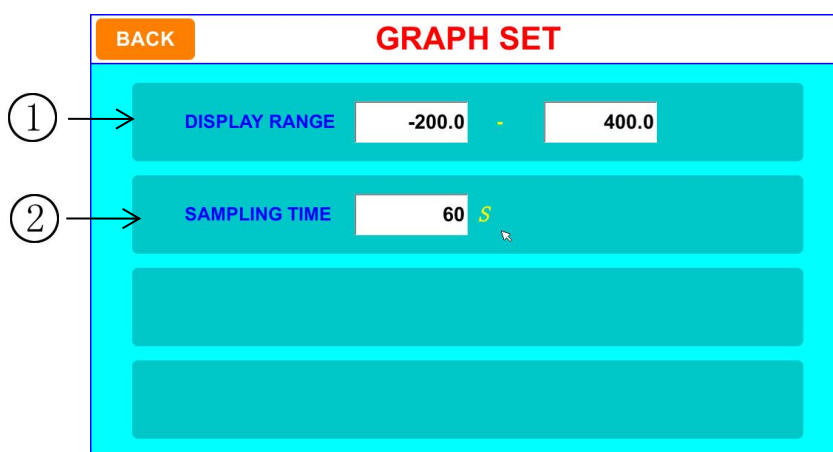


FIG. [4-2] Curve setting

1. Set the display range of the curve. (Available range: -100-400)
2. Set the time of the sampling cycle。



五、The operation setting

5.1 Operation set the first screen

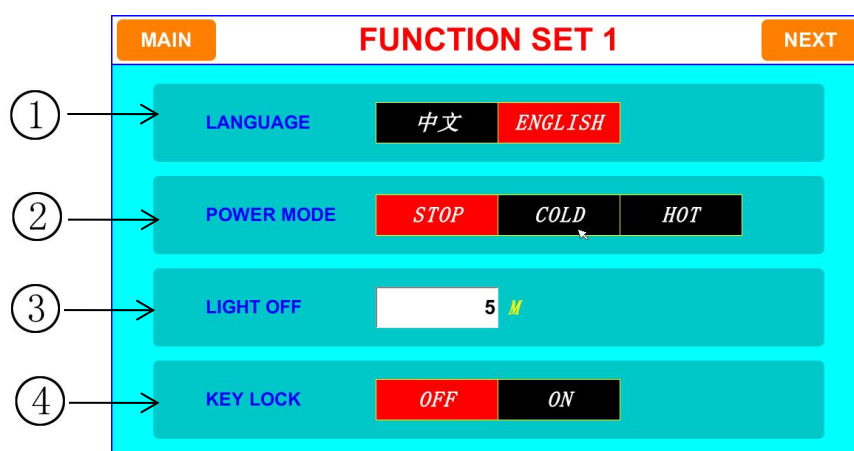


Figure [5-1] Operation Settings (1)

1. Language selection。
2. Set the power on operation after power failure。
 - ☞ Stop: The operation that restores the state to the stop state when the power is restored after the power is interrupted。
 - ☞ Cold start: The operation of restarting the operation when the power is restored after a power interruption。
 - ☞ Hot start: The operation of restoring the state to the state before the power failure when the power is restored after a power failure。
3. Set the backlight time, where set to 0 is never extinguished。
4. When the lock is on, all the PARAMETER Settings cannot be used。

5.2 Peration set the second screen

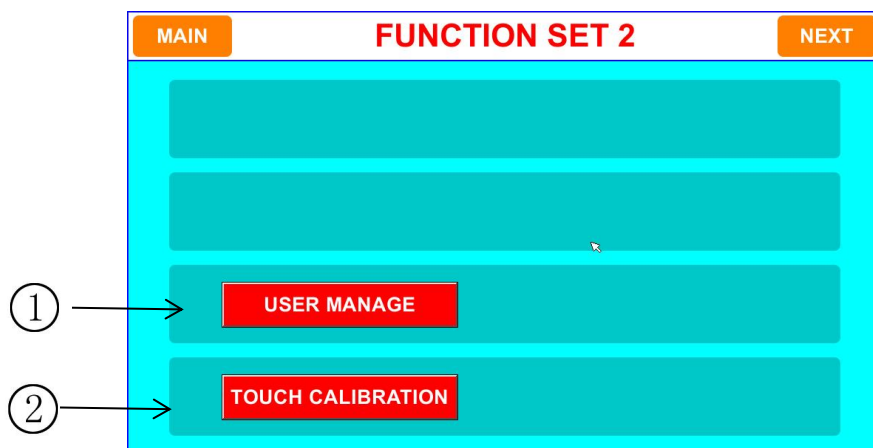


FIG. [5-2] Operation Settings (2)

1. User management: Click to set the user (see Figure [5-3]).
2. Touch screen calibration.

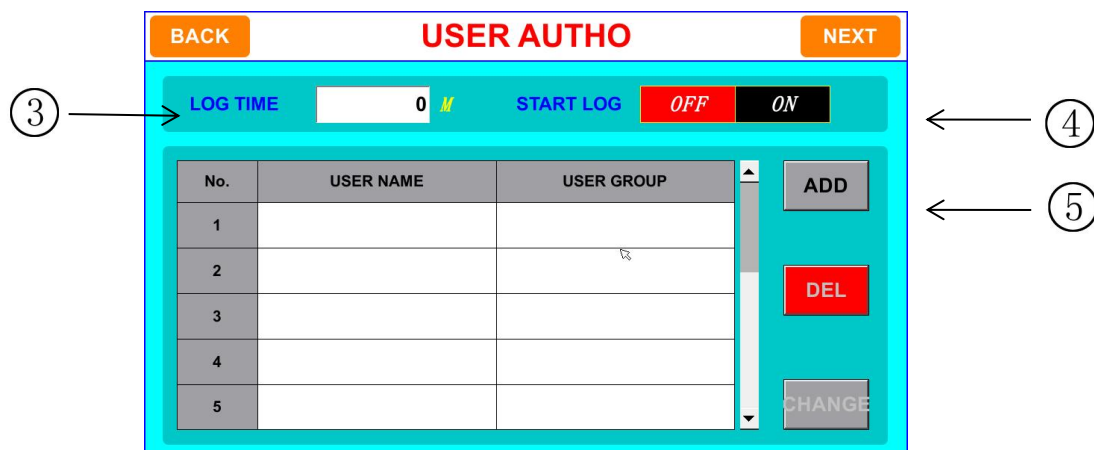
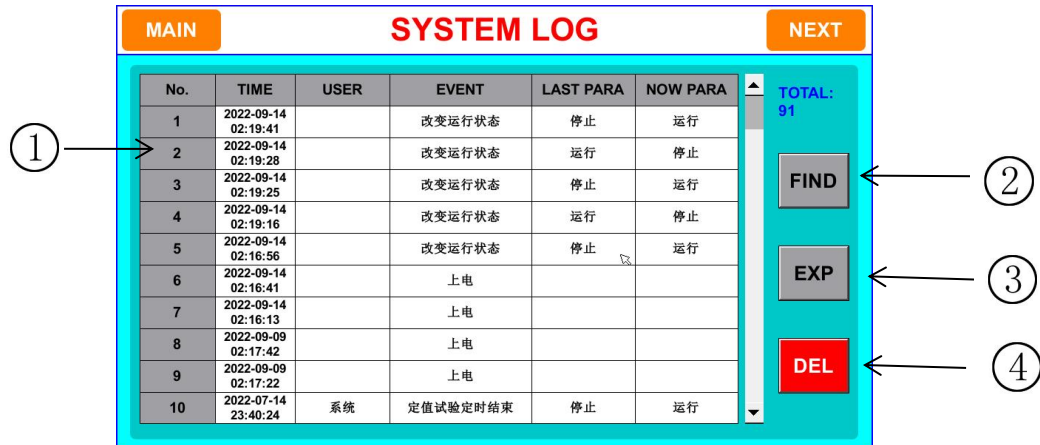


Figure [5-3]

3. Set the login operation duration.
4. Set whether login is allowed.
5. Click to add users: refer to the following figure for specific information.

六、The historical data

6.1 Historical data show



No.	TIME	USER	EVENT	LAST PARA	NOW PARA
1	2022-09-14 02:19:41		改变运行状态	停止	运行
2	2022-09-14 02:19:28		改变运行状态	运行	停止
3	2022-09-14 02:19:25		改变运行状态	停止	运行
4	2022-09-14 02:19:16		改变运行状态	运行	停止
5	2022-09-14 02:16:56		改变运行状态	停止	运行
6	2022-09-14 02:16:41		上电		
7	2022-09-14 02:16:13		上电		
8	2022-09-09 02:17:42		上电		
9	2022-09-09 02:17:22		上电		
10	2022-07-14 23:40:24	系统	定值试验定时结束	停止	运行

FIG. [6-1] Main screen of historical data

1. A display area for data。
2. Click Search to view the data of historical segment number
3. You can choose whether to delete data。
4. You can export data using a USB flash drive。

6.2 History curve

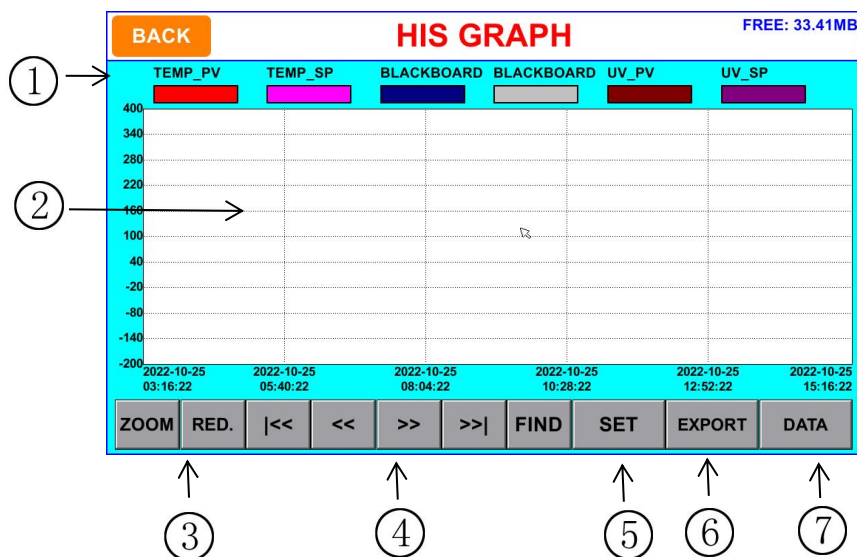


Figure [6-2] Historical curve

1. The current and set values of the temperature are represented by four different colored curves。
- (Click the corresponding box to display and hide Settings)
- 2.The area shown by the curve。
3. Zoom in and out of the picture。
4. Screen left and right movement operation。
5. Curve display Settings. For details, please refer to Figure [4-2].
6. Export the current curve screen. (Please connect the USB flash drive before operation)
7. The historical data view is displayed。

七、Alarm history record

7.1 Click the alarm record on the main screen to reach the second screen and view the DI history record。



Figure [7-1] DI alarm history

1. This area displays the fault name。
2. You can delete one or all history records。
3. You can export one or all historical records。
4. Click "Search" to find the records of a certain time period. Please refer to Figure [7-2] for specific operation.。

八、 Appointment setting



Figure [8-1] Reservation Settings

1. Setting the system time。
2. Set a time for the appointment。
3. Whether to use the reservation function。

☞ After making the reservation setting, the corresponding timing will be displayed in the program test as shown in the red selected part below。

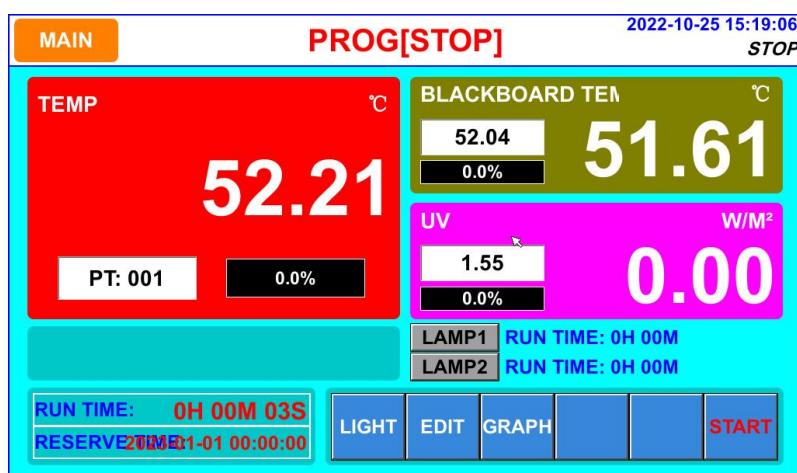


Figure [8-2] Reservation program test



九、Communication failure

- The "—————" screen will appear when the connection control panel is improperly connected。

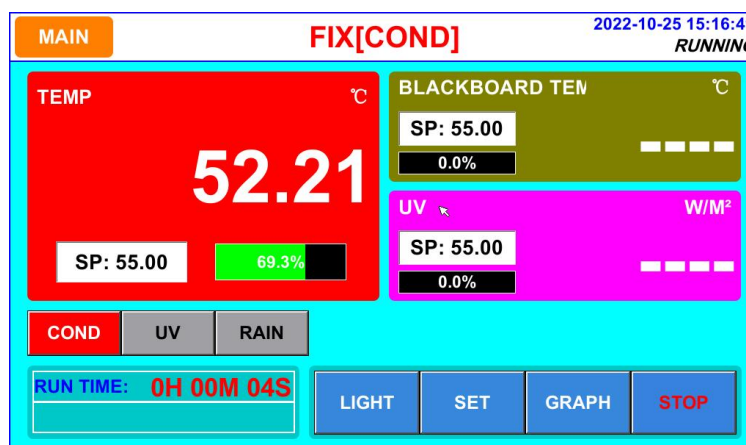


Figure [9-1] Communication fault screen

※ Cause of communication failure:

- ① Poor communication connection
- ② The communication cable is not properly connected

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VII. Quality Assurance

I 、 The guarantee period is twelve months (onsite service cost not included).

II 、 The main quality warranty maintenance certificate

1. Please keep this guarantee letter, if you lost it, please connect with us in a month.
3. If this guarantee letter has been altered or it has no our stamp, it is useless.

III、 The following conditions need to pay reasonably even in the assurance period.

1. Natural reasons
2. Operating mistakes
3. Voltage is not fit for our operation instruction
4. Repack it without our guides
5. Damaged for borrowing to others
6. Damaged for authorized machine modification
7. Damaged for authorized calibration
8. Authorized transshipment mistake
9. Serve for long distance area

IV、 Notes:

1. Where the original in Guangdong province installation of our products, if the product moved to outside Guangdong-area use, whether or not within the effective warranty period, the transportation and travel expenses of the service personnel should be paid by the client.
2. All customers outside of Guangdong province, whether or not in the warranty period, the service of transportation and travel expenses paid by the customer.