

UV-B315/A380/BA UV Aging Test Chamber



Contact us

Mikrosize Precision Instrument Co.,Ltd

A-4035 RuiFeng Business Expo, Wuhu City, China , 241000.

Web: www.mikrosize.com

Email: mikrosize@mikrosize.com



Features and Applications

Product Features

- 7-inch color touch screen.
- Paint baking shell, corrosion-resistant and wear-resistant.
- 8 imported ultraviolet lamps with wavelength range: 290~400nm.
- Lamp life is about 1500 hours, with easy replacement design.
- Two operation modes: fixed-value operation and program operation.
- Inner tank and outer shell are made of SUS304 stainless steel plate.
- 8 spray heads (4 on each side) to simulate rainfall environment.
- Equipped with stainless steel sample rack.
- By enhancing ultraviolet intensity and precisely controlling temperature and humidity, the test cycle is greatly shortened. The aging effect equivalent to months or years outdoors can be achieved in days to weeks.
- Supports cycle testing: time and parameters of ultraviolet irradiation, condensation, spray and other stages can be set, and multi-cycle continuous testing can be completed automatically.
- Temperature range: RT+10°C~70°C, uniformity: ±3°C, fluctuation: ±0.5°C.
- Humidity range: ≥75%RH.
- Working chamber size: 1140*640*690mm.
- Water inlet is designed on the side for easy water addition, and a water level line is provided to facilitate observation of the equipment's water level.
- Real-time monitoring and curve recording of irradiance, temperature, time and other parameters, with exportable data.
- Automatic water supply and drainage design with high-power water pump to ensure water spray flow and uniformity.
- Equipped with casters at the bottom for easy movement.
- Fault alarm function and multiple safety protection devices, including leakage protection, over-temperature protection, water shortage protection, grounding protection, etc.
- Compliant with standards: GB/T 14522, ASTM G154, ISO 4892-1, ISO 11507, ASTM D4323.



Features and Applications

Product Application

- Polymer materials industry
- Test the aging performance of plastic sheets, pipes, injection moldings, rubber seals, tire materials, etc. under ultraviolet irradiation. Evaluate indicators such as yellowing, cracking, strength reduction, and hardness change to guide formula optimization and product life prediction.
- Coatings and painting industry
- Test the ultraviolet aging resistance of various industrial coatings, architectural exterior wall coatings, and automotive topcoats. Evaluate aging phenomena such as gloss loss, chalking, discoloration, blistering, and peeling of coatings, which is a key testing link for coating product quality certification.
- Electronic, electrical and photovoltaic industry
- Test the ultraviolet aging resistance of plastic or coating components such as housings of electronic components to avoid performance failure or appearance damage of products when used outdoors.



Product Details



- Irradiance meter is used for real-time monitoring and adjustment of irradiance intensity.
- Manual irradiance adjustment and automatic irradiance adjustment are optional.

- Water inlet and water level line are set on the side.



- An exhaust port is set on the top to discharge waste gas generated during the experiment, and can also be used to balance temperature and humidity to ensure uniform test environment.

Instrument Appearance



1. Display Screen

2. Alarm Device

3. Power Switch

4. USB Interface

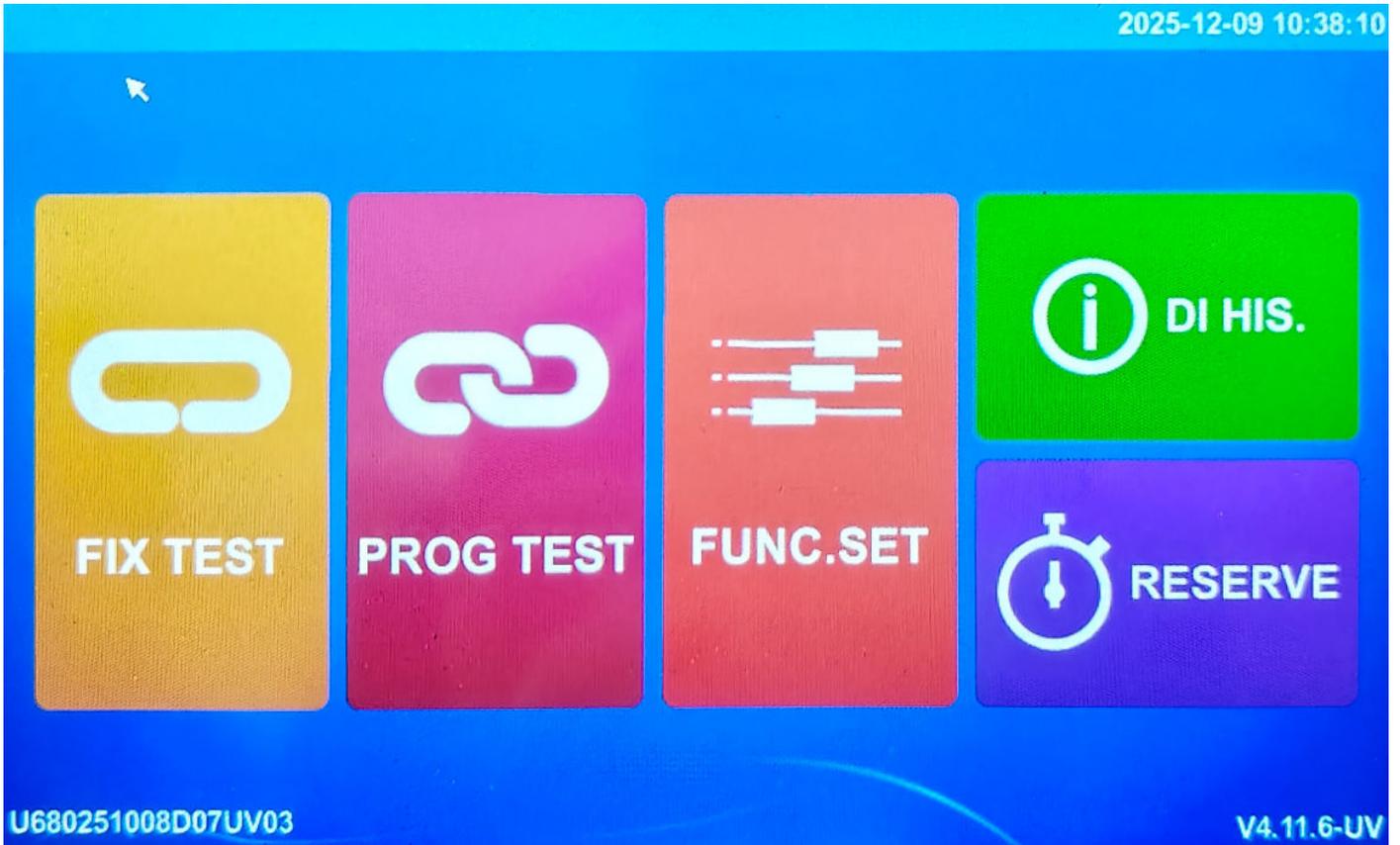
5. Shell

6. Electrical Cabinet

7. Casters

Operation Interface

Main Interface



- Fixed-Value Test: Set temperature and humidity according to specific time or ratio.
- Program Test: Edit specific programs, and the equipment will adjust temperature and humidity according to the programs.
- Settings Menu.
- Fault Record.
- Reservation Function.

Operation Interface

Fixed-Value Operation

The screenshot displays the 'FIX[STOP]' operation interface. At the top, it shows 'MAIN' and the date/time '2025-12-09 10:38:15'. The main display area is divided into several sections:

- TEMP (Temperature):** A large red box showing a current temperature of 24.62 °C. Below it, a setpoint (SP) of 55.00 and a progress indicator of 0.0% are shown.
- BLACKBOARD TEMP (Blackboard Temperature):** A green box showing a current temperature of 24.78 °C. Below it, a setpoint (SP) of 55.00 and a progress indicator of 0.0% are shown.
- UV (Irradiance Intensity):** A purple box showing a current intensity of 0.00 W/M². Below it, a setpoint (SP) of 0.70 and a progress indicator of 0.0% are shown.

Below the main display, there are three buttons: 'COND' (highlighted in red), 'UV', and 'RAIN'. A 'RUN TIME' display shows '0H 00M 00S'. At the bottom of this section are three buttons: 'SET', 'GRAPH', and 'START'.

The second screenshot shows the 'FIX OPERATION' screen. It has a 'BACK' button at the top left. The main area is titled 'FIX OPERATION' and contains a 'TIME SET' section with a toggle switch set to 'OFF' (highlighted in red) and 'ON'. To the right of the toggle is a numerical input field showing '0.00' and the unit 'H.M'. Below this are three empty rectangular input fields.

- Display current condensation temperature, humidity and set values.
- Display current irradiance intensity and blackboard temperature.
- Display current equipment running time and cumulative on-time of front and rear lamps.
- When timed shutdown is not set, the experiment will run continuously; after setting the running time, the equipment will automatically stop according to the set time.

Operation Interface

Program Test

MAIN PROG[STOP] 2025-12-09 10:38:22
[PROG 001] STOP

TEMP °C

24.62

PT: 001 0.0%

BLACKBOARD TEMP °C

55.00

24.79

0.0%

UV W/M²

0.70

0.00

0.0%

LAMP1 RUN TIME: 0H 14M

LAMP2 RUN TIME: 0H 14M

BACK PROGRAM EDIT

NO REPEAT SET DEL

NAME PROG LINK

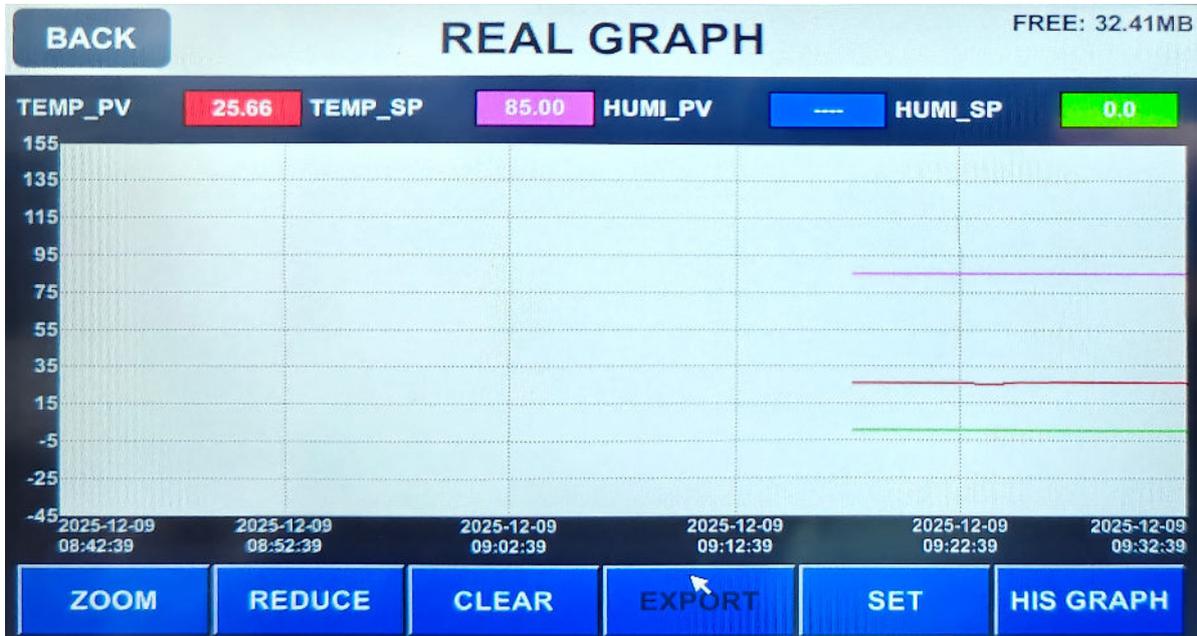
No.	TEMP(°C)	HUMI(%)	TIME(H.M)
01	0.00	0.0	-0.01
02	0.00	0.0	-0.01
03	0.00	0.0	-0.01
04	0.00	0.0	-0.01

▲
 IMP
 EXP
▼

- Multiple segments of temperature and humidity parameters can be set, and the temperature and humidity parameters can be changed in each segment.
- Up to 120 groups of programs, each command can be executed repeatedly 999 times.

Operation Interface

Real-Time Curve



The screenshot shows the 'GRAPH SET' interface. It has a 'BACK' button at the top left. The main area contains three configuration sections:

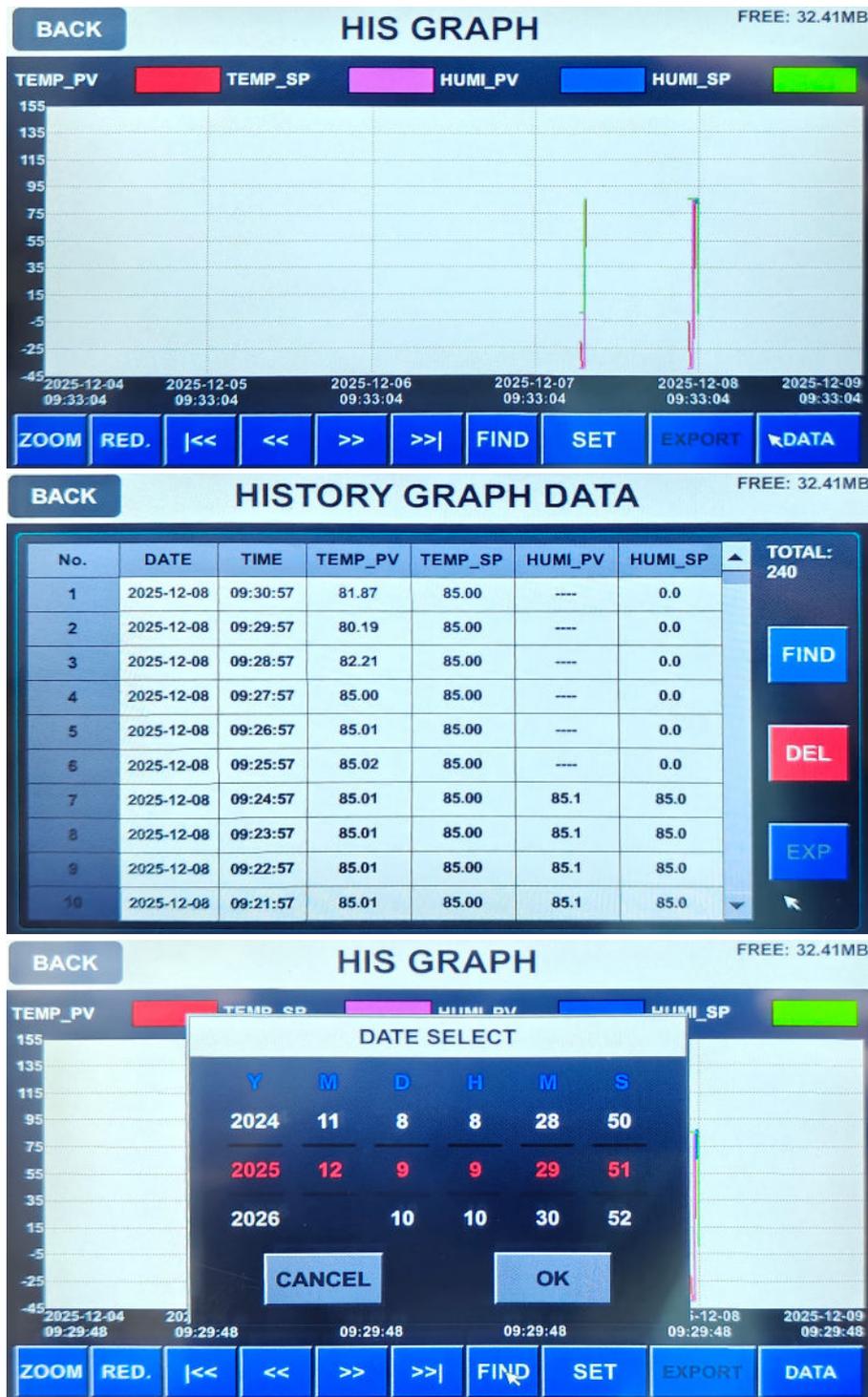
- DISPLAY RANGE:** Two input fields showing '-45.0' and '155.0' with a '-' sign between them.
- SAMPLING TIME:** An input field showing '60' with a yellow 'S' unit indicator.
- U DISK RECORD:** A toggle switch currently set to 'OFF' (red text) with 'ON' (blue text) as an alternative. To the right, it says 'UDISK NO CONNECT' in red.

 There is a large empty rectangular area at the bottom of the interface.

- Can generate real-time curves, including temperature measured value, temperature set value, humidity measured value and humidity set value. Each value is displayed in a different color for easy distinction.
- Can zoom in and zoom out the curve screen.
- Insert a USB flash drive to export curve data in Excel format.
- Can set the scale range of the curve and the sampling time cycle of the data (unit: s).

Operation Interface

History Curve



- Supports viewing history curves, which can also be exported via USB flash drive.
- In addition to curves, historical data can also be displayed, and the function of searching data by date is supported.

Operation Interface

Fault Record

No.	ALARM NAME	START TIME	END TIME
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			

TOTAL: 0

FIND

EXP

DEL

- Supports viewing the equipment alarm history record, including start time and end time.
- Fault records can be exported.

Reservation Setting

MAIN RESERVE

SYSTEM TIME 2025 Y 12 M 09 D 09 H 34 M 08 S

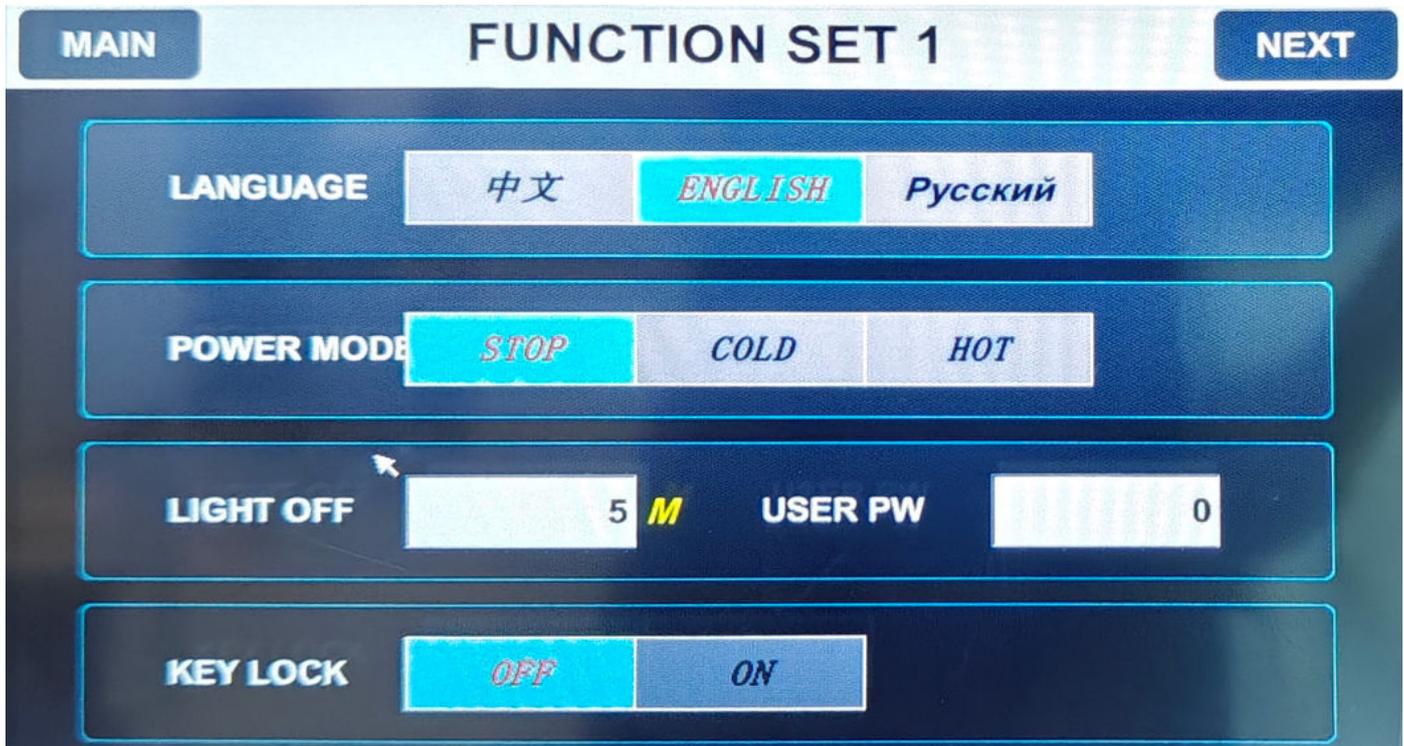
RESERVE TIME 2022 Y 01 M 01 D 00 H 00 M 00 S

RESERVE MODE OFF ON

- This equipment supports the reservation setting function. After setting the reservation time, turn on the reservation setting switch, and the equipment will automatically run at the reserved time to realize unattended operation.

Operation Interface

Settings



- Language selection: supports Chinese and English; other languages can be customized.
- Set the startup mode after power recovery:
 - Stop: The operation stops after power recovery.
 - Cold start: Restart the operation after power recovery.
 - Hot start: Continue the operation before power failure after power recovery.
- Screen backlight time setting: set to 0 to never turn off.
- Key lock function: after opening, the setting of all parameters is unavailable.

Technical Specification

Name	UV Aging Test Chamber		
Model	UV-B315	UV-A380	UV-BA
Ultraviolet Lamp	UV-B wavelength 280~315nm Lamp power: 40w Lamp length: 1220mm Number of lamps: 8	UV-A wavelength: 300~380nm Lamp power: 40w Lamp length: 1220mm Number of lamps: 8	UV-B + UV-A Lamp power: 40w Lamp length: 1220mm Number of lamps: 4 UV-B + 4 UV-A
Rated Lamp Life	1600 ~ 1800H		
Functions	Cyclic and continuous testing of irradiation, condensation and spray		
Working Chamber Size (mm)	1140×640×690		
Outer Box Size (mm)	300×700×1630		
Plate Material	SUS#304 stainless steel		
Temperature Range	RT+10°C ~ 70°C		
Temperature Fluctuation	3°C		
Temperature Resolution	0.1°C		
Humidity Range	85%~90%RH		
Blackboard Thermometer Measurement Range	45 ~ 80°C		

Technical Specification

Allowable Error of Blackboard Thermometer	±3°C	
Standard Test Panels	24 pieces, size 150*70mm	
Distance Between Lamps	70mm	
Distance Between Samples and Lamps	50mm	
Water Pump Power	0.375kw	
Water Pump Flow	47 L/min	
Electric Heating Tube Power	2.5kw	
Irradiance	UVB313 0.48-0.62 W/m ²	UVA340 0.68-0.89 W/m ²
Irradiance Adjustment	Manual adjustment, automatic adjustment	
Water Supply Method	Humidification water supply, automatic control	
Total Power	4kw	
Power Supply	220V 50Hz	
Weight	100kg	

Standard Delivery

Name	Qty	Photo
Main Unit	1 pc	
Ultraviolet Lamps	8 set	
Standard Test Panels	24 set	
Retaining Rings	48 set	
Color Touch Screen Controller	1 set	
AC Contactor	/	

Standard Delivery

Name	Qty	Photo
Timer	/	
Over-Temperature Protection Device	/	
Solid-State Relay	/	
Temperature Sensor	/	
Leakage Switch	/	
Circulation Fan	/	

Standard Delivery

Name	Qty	Photo
Heater	/	
Spray Pump	/	
Instruction Manual	1 each	
Qualification Certificate	1 each	
Warranty Card	1 each	

Optional Delivery

Optional	Lamp
	Irradiance meter