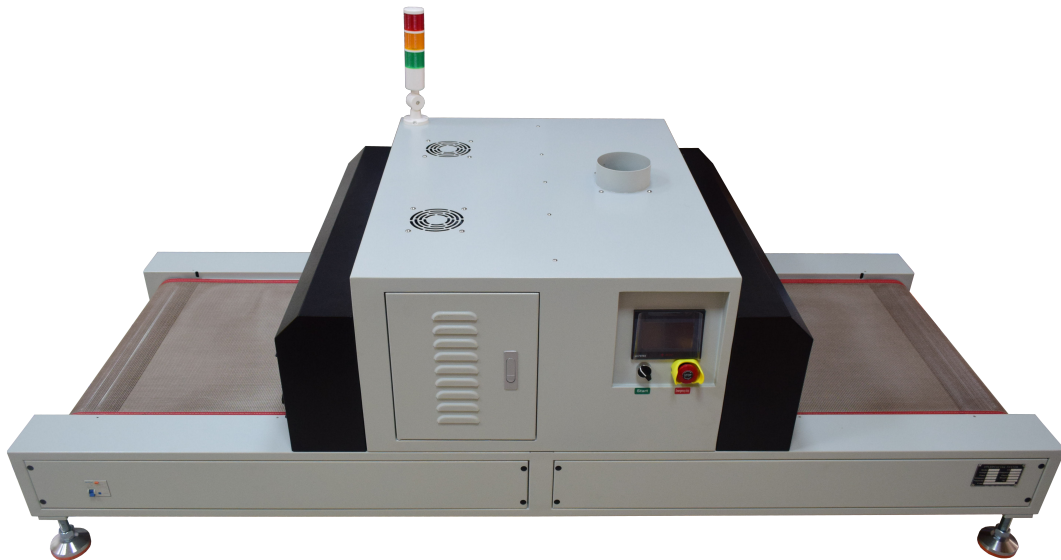




# SPDI UV High Intensity LED UV Curing Conveyor System

## Manual



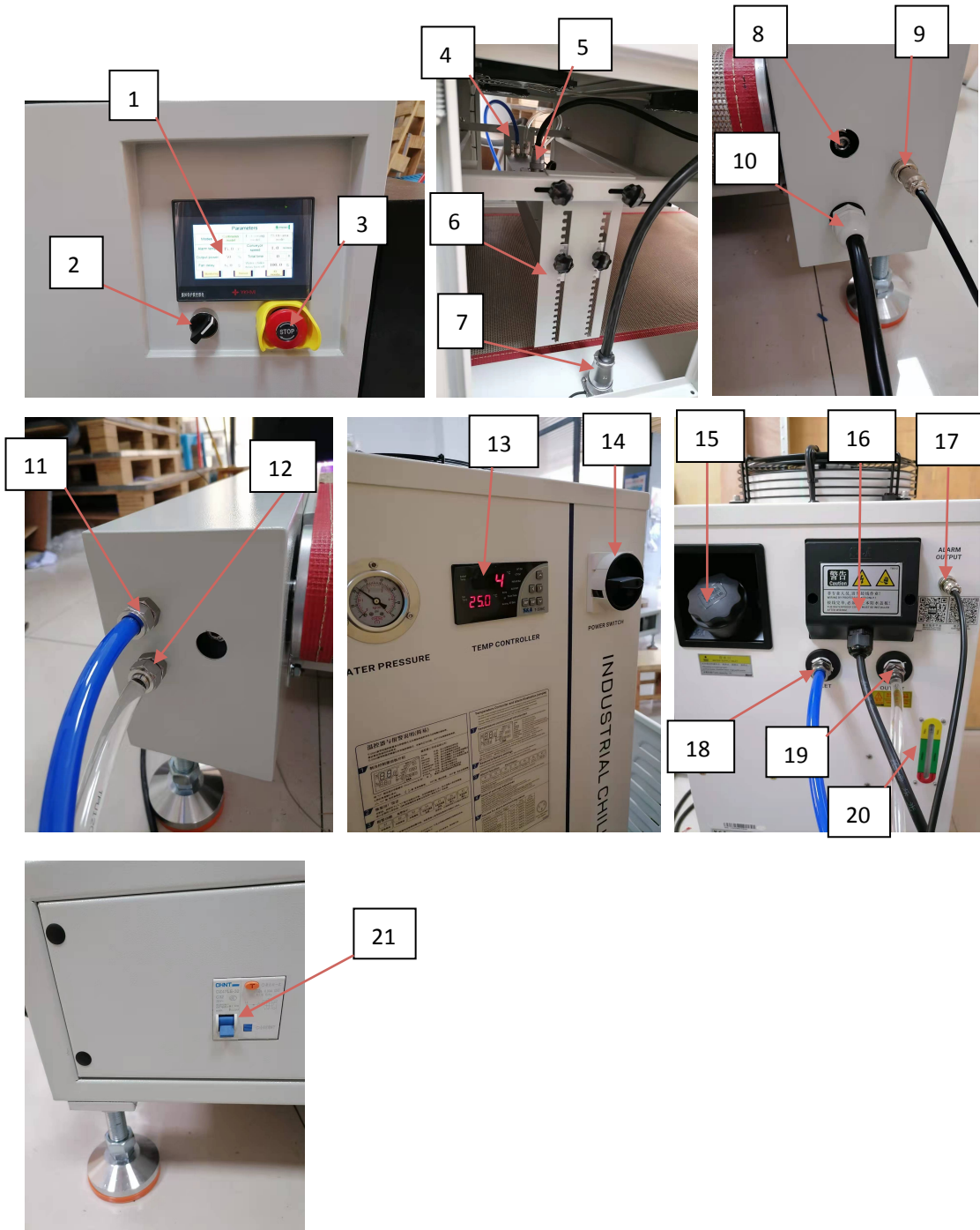
**SKU: 201087**

**Thank you for purchasing our products, please read the instruction manual  
carefully before use**

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sales@cureuv.com  
2801 Rosselle St., Jacksonville, FL 32205

# 1. Main structure and working principle

## 1.1 Main structure



<p>1. Touch Screen</p>	<p>Display the current real-time power, temperature, irradiation time and total production, while starting and stopping the conveyor belt operation, parameter setting, function selection and alarm information viewing.</p>
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2. Rotary Switch	Power Switch of the machine
3. Stop	In an emergency, press the emergency stop button to turn off the conveyor belt and UV LED.
4. Water pipe connector	One inlet and one outlet
5. UV LED lamp connector	Connect with 7#.
6. Install fixing screws	The irradiation height of the UV LED lamp can be adjusted
7. UV LED lamp connector	Connect UV LED lamp and the conveyor machine
4. Tension adjustment hole	Adjust the screw to adjust the belt tension and correct the belt deviation. There are 3 adjustment holes.
9. Water chiller alarm cable	Connect the alarm line of the water chiller to 17#. Including water cooling alarm signal, remote switch water chiller.
10. Power connect cable	Connect AC 110V .
11. water pipe outlet	Connect 18#.
12. Water pipe inlet	Connect 19#.
13. water chiller display	Set the temperature of the water chiller. Displays the temperature of the water cooling.
14. Water chiller power switch	Turn on the switch to run the water chiller
15. Water inlet	Add water to the water chiller
16. Water chiller power cable	Connect AC 110V
17. Water cooler alarm line	Connect 9#. Including water cooling alarm signal, remote switch water chiller.
18. Water inlet	Connect 11#.
19. Water outlet	Connect 12#.
20. water level display	Normal (green) water level must be maintained.
21. Power	Main power switch with leakage protection

## 2. Working principle:

- 1) Fix the conveyor machine, UVLED lamp and water chiller.
- 2) Connect the water cooling pipes, power cord, the alarm line of the water chiller and the UVLED control line.
- 3) Add water to the water chiller to the normal water level and turn on the water chiller.
- 4) Power on the machine.
- 5) Enter the parameter setting interface to set the corresponding parameters (please see the operating instructions for details).
- 6) Return to the monitoring interface, click the start button to turn on the conveyor belt

and UVLED lamp, put the product on the conveyor belt, and the UV machine will run in the set mode.

### 3. Main performance parameters

Dimension	2200*880*800 (L*W*H)
Power	Single phase AC110V $\pm$ 5% 60HZ
Control type	PLC Control
UVLED wavelength	365nm
Emitting window	600*30mm
Optical power adjust	1-100% adjustable
Cooling method	Water cooling
Working environment temperature	-10℃--50℃
Working environment humidity	10%--80%RH(No condensation)
Power Consumption	$\leq$ 2600W

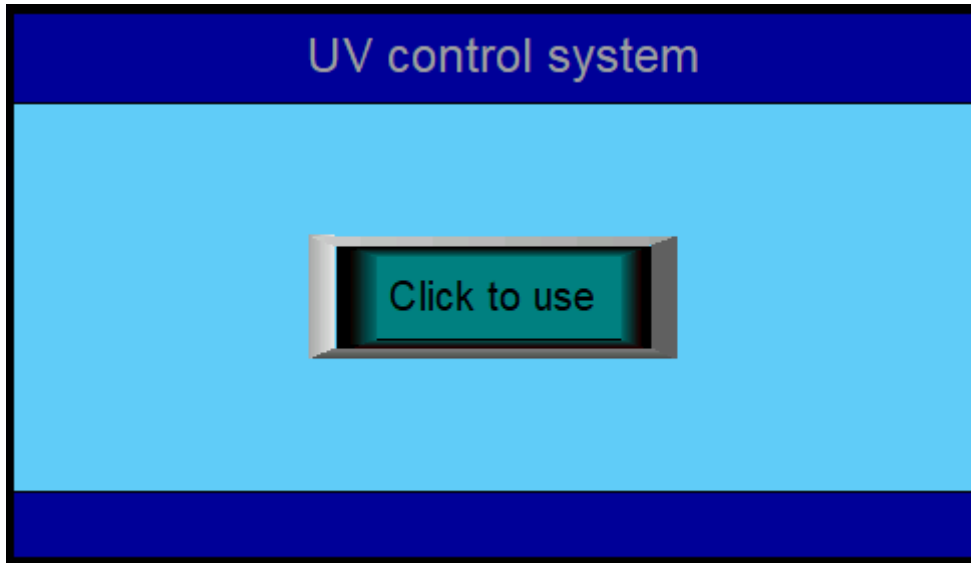
### 4: Installation:

Installation precautions: Open the package, check whether the accessories of the machine are in good condition, and whether the accessories are complete (one conveyor belt machine + one LED lamp + one lamp connection line + one water chiller signal line + one water chiller + two water pipes + an instruction manual).

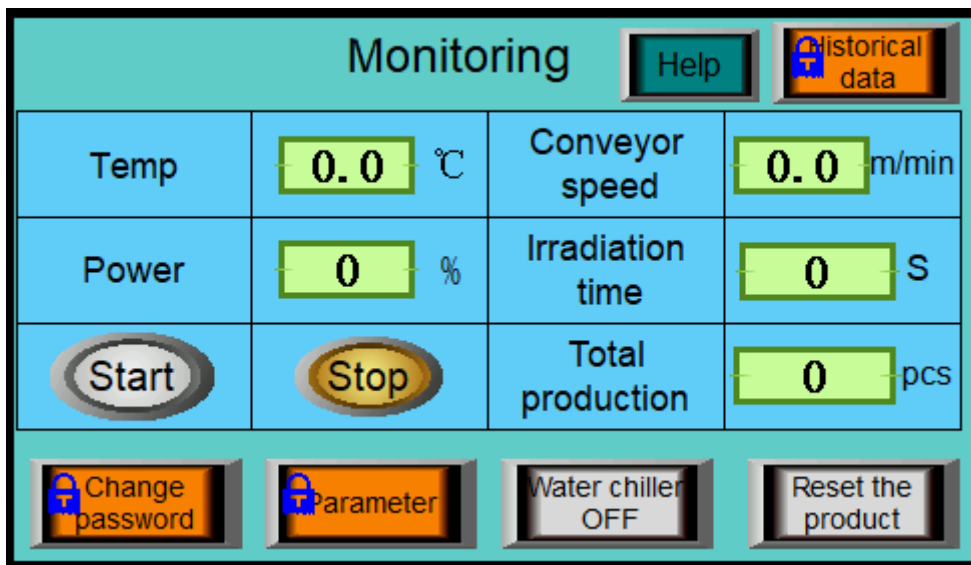
Installation sequence:

1. Put the conveyor machine in right place.
2. Install the UVLED lamp on the conveyor belt and connect the water pipe.
3. After the UV conveyor belt host and UV lamp are installed and the connecting line is plugged in, the machine can be plugged in.

## 5. Operation instructions



Click “Click to use” to enter the monitoring page



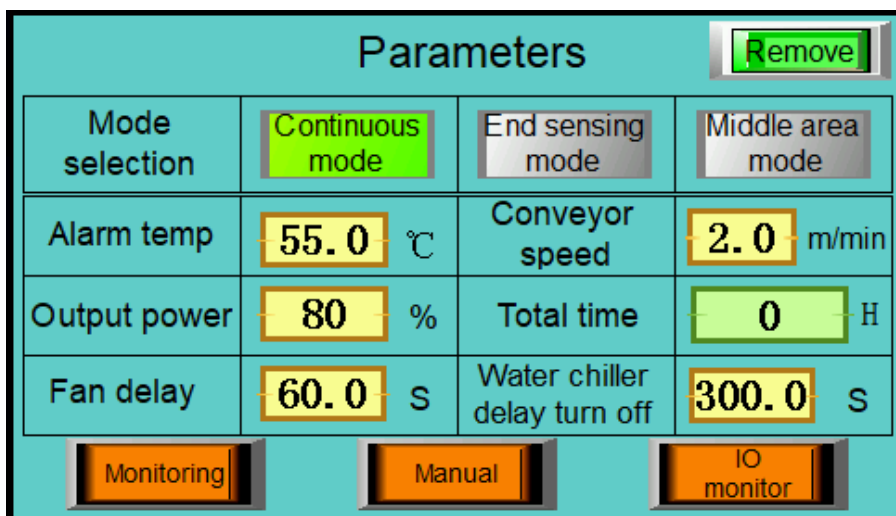
Temp	UV current temperature
Power	UV output power
Conveyor speed	The current running speed of the conveyor
Irradiation time	Current UV irradiation time display
total production	The total count of the product, the quantity is detected by the back-end sensor, and it will be reset to zero by "Reset the product"
Reset the product	Clear product count
Water chiller OFF	Click to turn on the water chiller or turn off the water chiller
Start	Start the conveyor machine
Stop	Stop the conveyor machine

Change password	Click this button to enter the password setting page, you can change the password, you need permission password 891227
Parameter	Click this button to enter the parameter setting page, you can set the speed, power and other parameters
Help	Click this button to enter the help page
Historical data	Click this button to enter the historical data page, you can view the historical exposure data

After power-on and entering the monitoring page, the first time you click "Parameter", the input box will pop up, and you need to enter the authorization password 666888.

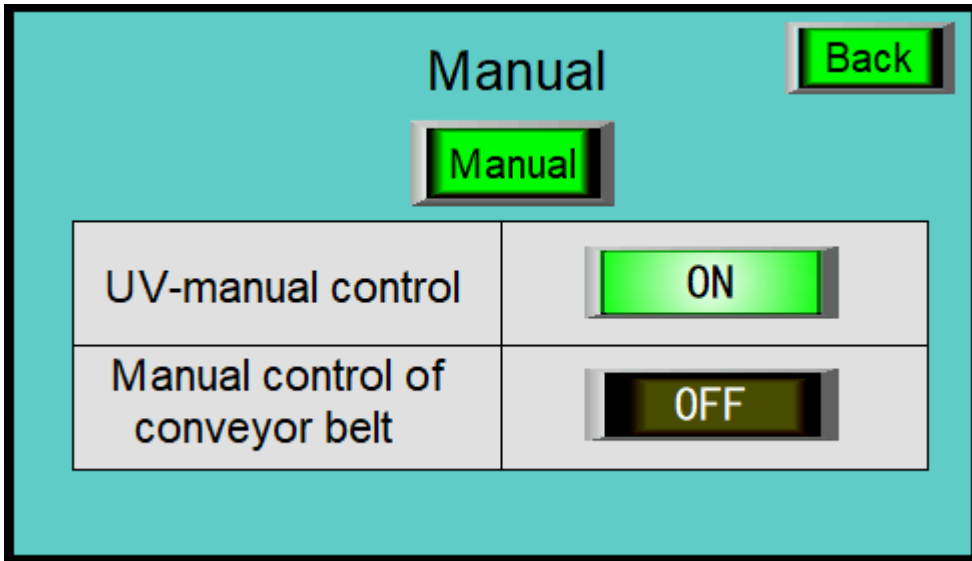


Engineer	Engineer default password 666888
Administrator	Administrator default password 891227, cannot be changed.



## Parameters setting

Alarm temp	When the real-time temperature of UVLED lamp is higher than the alarm temperature, UVLED is forcibly stopped and an alarm is given (the alarm temperature is set to 55°C)
Out power	UV output power setting (range: 0-100%)
Fan delay	After the UVLED lamp is turned off, the time for the top cover cooling fan to continue to dissipate heat
Conveyor speed	The operating speed setting range of the conveyor belt is 1-12m/min
Total time	UV cumulative irradiation time
End sensing mode	In the automatic state, after selecting "End sensing model", click "Start", the UV machine and lamp keep working until a product senses the end sensor, the machine and lamp pauses, and continues to run after the product is taken away, click stop or emergency stop Can be stopped
Middle area mode	In the automatic state, after selecting "Middle area model", click "Start", the conveyor machine starts to work, when the sensor senses that the product enters the irradiation area, the UVLED lamp starts to work, and when the product flows out of the irradiation area, the UVLED lamp stops working; the product continues Flow backwards, when the back-end sensor senses the product, the conveyor belt stops working. After the product is removed, the conveyor belt continues to work. Click the stop button or emergency stop button to stop the operation.
Continuous mode	In the automatic state, after selecting "Continuous", click "Start", the conveyor machine and UV lamp will work all the time until you press stop or emergency stop to stop working
Water chiller delay turn off	When the UV lamp is turned off, the water chiller continues to work. After this delay, the water cooler is automatically shut down
Monitoring	Click this button to enter the monitoring page, you can monitor parameters such as speed, power, etc., you can start, stop and other operations
Manual	Click this button to enter the manual control page, which can debug the UV lamp and conveyor switch
IO monitor	Click this button to enter the I O monitoring page, you can view the PLC input and output signals
Remove	When the temperature alarm occurs, after troubleshooting, click the button to cancel the alarm state

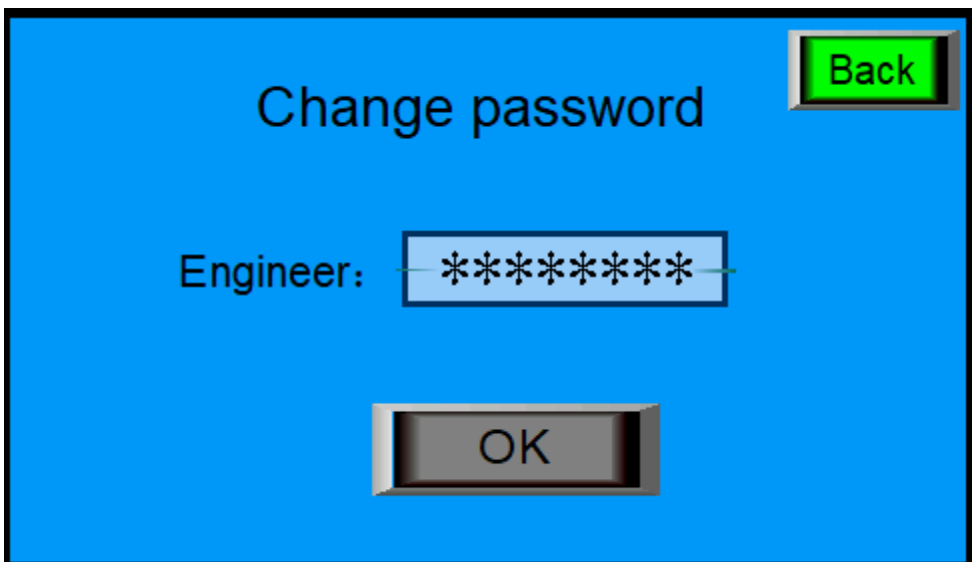


Manual interface

Auto/Manual	Click to switch between automatic and manual states, and it will return to automatic state after power off and on
UV-manual control	In manual mode, click to turn on the UV lamp
Manual control of conveyor belt	In manual mode, click to open the conveyor belt

Click “Change password”

After entering the password 891227, you can enter to change the password. After changing, you need to click "OK".





Input		IO monitor		Output	
X0	Shut Down	X4	Front sensor	Y0	Pulse
X1	Water alarm	X5	Midrange sensor	Y1	PWM1
X2	End sensor	X6		Y4	DIR
X3		X7		Y5	EN1
				Y10	Red light
				Y11	Yellow light
				Y12	Green light
				Y13	FAN

Check the input and output signals of the PLC for fault diagnosis.

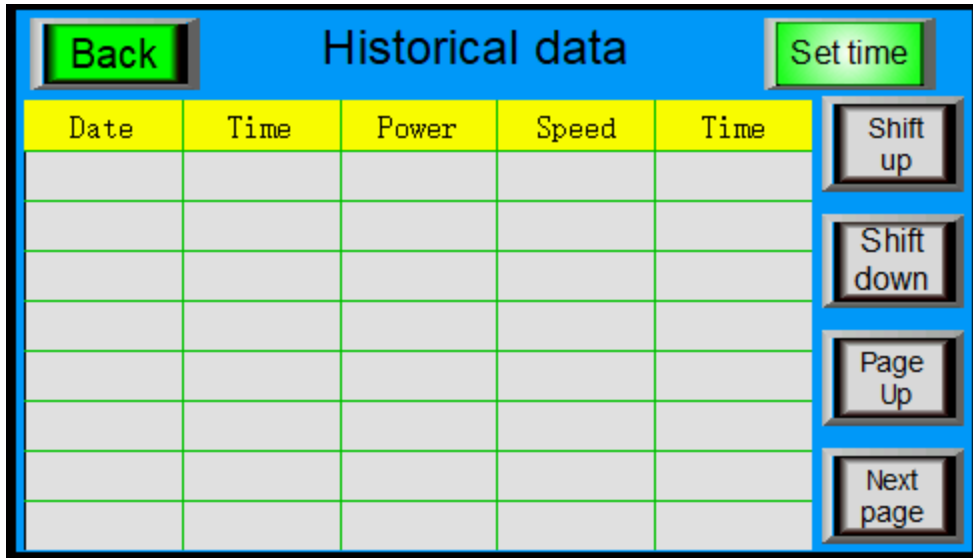
## Help

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**Parameter setting Instructions:**  
 Output power setting range 1-100%, alarm temperature 45-65 degrees (45 degrees is recommended for water cooling),  
 Recommended setting range of conveyor belt speed (1-12m /Min)

**Operation instructions:**  
 Electrifies (AC110V), enters the parameter interface to set corresponding parameters, Click the start button in the monitoring interface to run. Manual operation must be carried out in the state of shutdown.

Introduction to parameter functions



View historical irradiation parameters

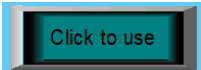

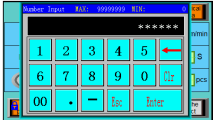

When there is a time deviation, click "Set time" to change the time.

When a temperature alarm occurs, the following screen appears. After troubleshooting, click "Remove".



After the device is installed, please refer to the following sequence of operations.

Quick Action Example

Input parameters	Click  , enter to Monitoring page , click
	 ,
	Input password 666888  , enter to parameters page
	Input the parameters as the pictures  ,

	<p>Output power <input type="text" value="80"/> % ,</p> <p>Fan delay <input type="text" value="60.0"/> s , Conveyor speed <input type="text" value="2.0"/> m/min ,</p> <p>Water chiller delay turn off <input type="text" value="300.0"/> s</p>
Continuous model	<p>Click <input type="button" value="Continuous model"/> in parameters page , click <input type="button" value="Monitoring"/> to monitoring page.</p> <p>Click <input type="button" value="Start"/> to start work。 Click <input type="button" value="Stop"/> to stop the work。</p> <p>Description: This mode runs all the time, not controlled by sensors, click stop or emergency stop to stop running</p>
End sensing model	<p>Click <input type="button" value="End sensing model"/> in parameter page , Click <input type="button" value="Monitoring"/> to monitoring page,</p> <p>Click <input type="button" value="Start"/> to start。 Click <input type="button" value="Stop"/> to stop work。</p> <p>Description: This mode is controlled by the back-end sensor. When the product is sensed, the operation will be suspended, and when the product is removed, the operation will continue.</p>
Middle area model	<p>Click <input type="button" value="Middle area mode"/> in parameter page, click <input type="button" value="Monitoring"/> to monitoring page.</p> <p>Click <input type="button" value="Start"/> to start work。 Click <input type="button" value="Stop"/> to stop work。</p> <p>Description: This mode is affected by three sensors. When the product enters the curing area, the UV light is on, and the light is off when the product exits the curing area. When the back end senses the product, the conveyor pauses, and when the product is removed, the conveyor continues.</p>

## 6 . Common faults and solutions

Failure phenomenon	Cause of issue	Approach
	Poor contact of the power cord	Check the power interface, whether the power cord plug is in good contact.

No power on	Fuse blown	Open the electrical control cabinet of the machine and check whether the fuse is normal and whether it is in good contact.
Water chiller alarm	1. Check whether the alarm line is connected properly. 2. Check whether the water chiller is malfunctioning.	1. Restore the signal to normal. 2. Troubleshoot the water cooler.
High temperature alarm	1. The water cooler is faulty and the cold water does not circulate. 2. The alarm temperature is set too low. 3. The temperature sensor is faulty.	1. Check the cold water pipe and valve to keep it unobstructed. 2. Set the alarm temperature high, 45~55°C. 3. Enable the backup temperature sensor. (Contact factory)
UV light does not light up	1. The control wire is loose or connected to the wrong wire. 2. An alarm occurs. 3. Water leaks, water flows into the inside of the lamp 4. Other reasons	1. Wiring strictly according to the wire number, and tighten the screws. 2. Eliminate the alarm according to the touch screen prompts. 3. Contact the manufacturer to provide fault analysis.

## 7. Maintenance methods

- 1) Clean the surface dust and keep the body clean.
- 2) Do not direct UV light to eyes or skin, which may cause hurt.
- 3) Do not disassemble UV-LED lamp which may cause UV light leakage.
- 4) When clean the UV curing machine, do not use volatile oils, acetone, kerosene, etc. Use soft cotton cloth with a small amount of ethanol, wipe carefully.
- 5) The machine should be used in a cool, dry, ventilated environment without high magnetic field and high electric field.

## 8. Precautions for use

- 1) Make sure that the power cord is in good contact and the ground wire is reliably grounded!
- 2) Please ensure that the working voltage of the UV curing machine is stable and normal!
- 3) Mismatched power frequency will cause damage to the machine !
- 4) This product is industrial equipment, please do not let non-professionals operate it.