UV-LED Curing System

UV LED Curing System Manual

Thank you very much for buying HTLD UV LED Curing system.

Please read the product manual before you use the HTLD UV LED Curing system.

1. Equipment structure function

1.1 Product Composition

Controller

Water Chiller

Water tube

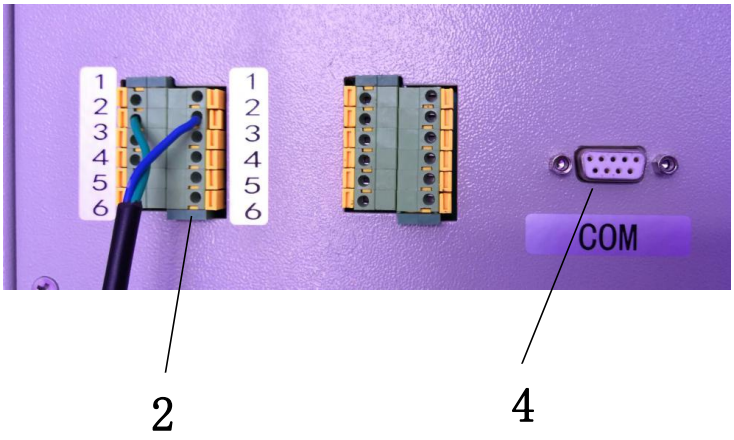
UV-LED lamp

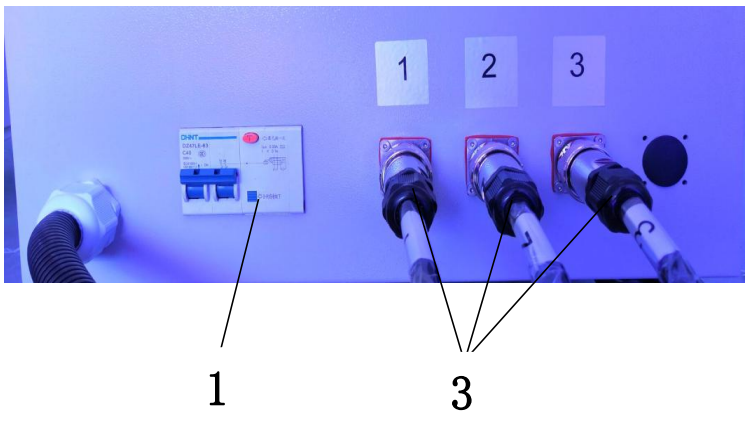
Manual

1.2 Controller parts name and function

Operation desk

Item	Name	Function
1	Touch screen	Select the control type, real-time display of current power, time, temperature
2	Power Indicator	When the main power is turned on, the power indicator lights up, otherwise it is off.
3	Start	Start controller
4	Buzzer	When the controller fails, the buzzer starts the alarm.
5	Emergency stop switch	Emergency stop





Main power switch and connection port

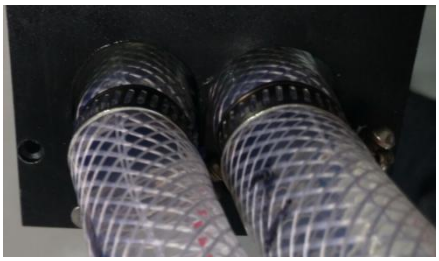
Item	Name	Function
1	Short circuit	Controller's main power switch
2	Input/output I/O terminals	connected to the foot switch or PLC programming for UV illumination
3	Lamp connection port	Connect UV LED lamp port
4	RS232（COM）	Connect peripheral communication to control the controller

1.3 Equipment installation and connection

1、Use the raw material tape to wrap around the thread of the water-cooled head until the thread is faintly visible.

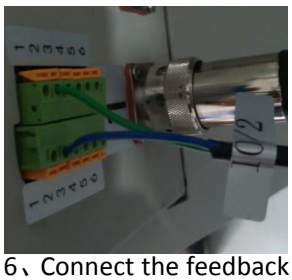
2、Screw the water cooling head into the INLET and OUTLET of the water chiller and tighten.

3、Put the water pipe shrinker into the water pipe and connect it to the INLET and OUTLET and tighten with a screwdriver.



4、Connect the other end of the two water pipes to the water cooling head of the LAMP and tighten with a screwdriver. Turn on the water chiller and check if the water pipe is leaking.

5、Connect the lamp and the Controller according to the number



6、Connect the feedback cable (IO2) on the water chiller to port 2 of the Controller I/O. Blue line left, green line right

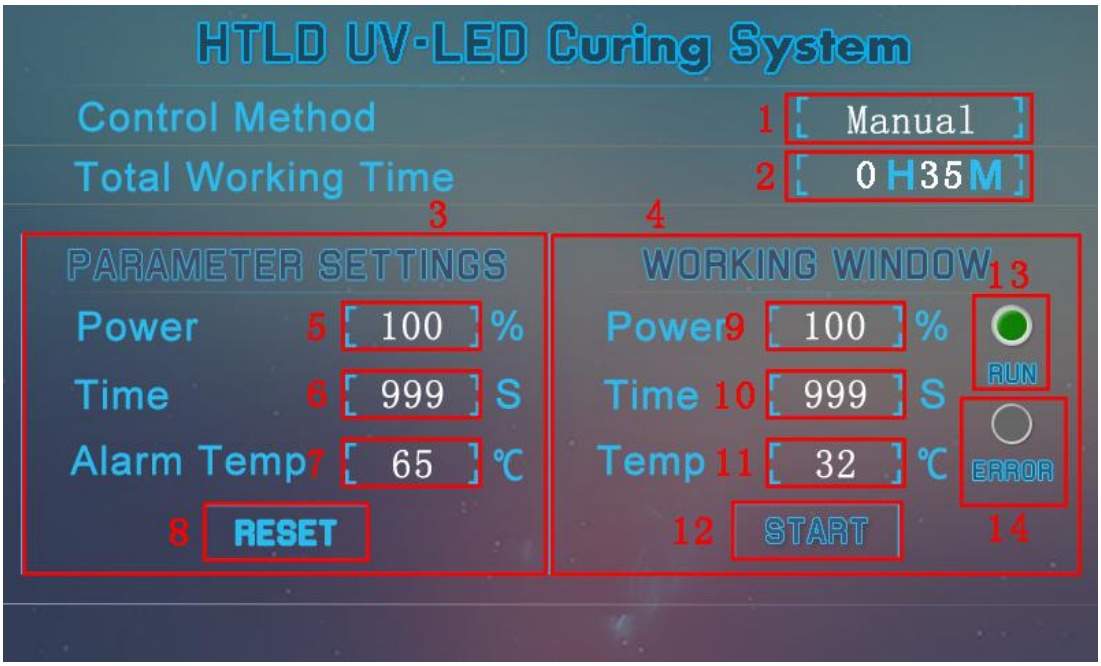
6、Connect the power lines LN, PE to one-phase power

2 Operation and setting of equipment

2.1 Turn ON/OFF

Before start, (the input power is one-phase power) first connect the live wire (L), neutral wire (N), ground wire(PE) at the power input to the air switch in the distribution box. **Note: live wire, neutral wire and ground wire should be in one-to-one correspondence.** Open the air switch in the power distribution box, turn on the main power of the controller,press the start button to start the Controller.When turning off, please turn off the UV LED lamp first, then reset the start button, at last turn off the main power.

2.2 Functional operation



Operation desk

ITEM	Name	Function
1	**Control mode**	Select the control mode, automatic: count down according to the set time; manual: work in time.
2	Total irradiation time	Display the total working time of the lamp
3	Work setting	Display the set parameters such as irradiation power, time, temperature, etc.
4	Working window	Display real-time irradiation power, time, temperature and operating state of the lamp
5、6、7	Set power,time,	The corresponding parameters can be modified if the UV LED lamp

	temperature	is off.
8	Restore factory settings	Control mode, power, time, temperature to factory default
9、10、11	Power, time, temperature when the lamp is running	Display real-time parameters such as irradiation power, time, temperature, etc.
12	Start/stop work	Start/stop UV LED lamp
13	Operating status indicator	After the lamp is started, the indicator is green, otherwise it is gray.
14	Fault indicator	Water chiller failure or the temperature over high, indicator is red, otherwise is gray

2.3 Restore factory settings

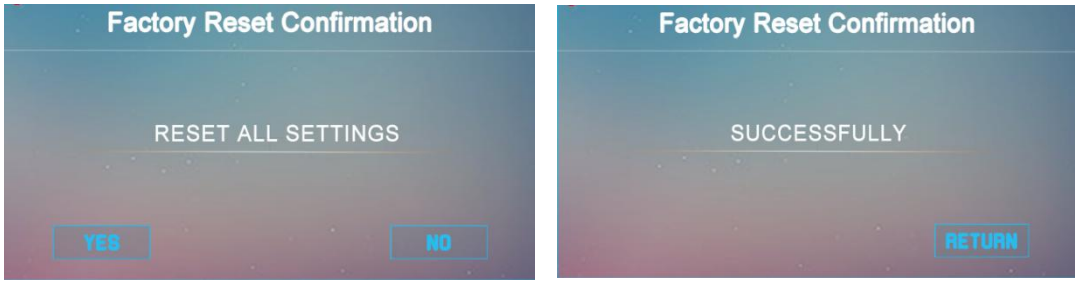
Click the RESET button on the main interface to pop up a window to confirm the factory reset. This item needs to be carefully selected, it is unrecoverable. you need to reset the parameters and click the OK button to prompt the setting is successfully.The factory setting of this product are:

(1)Irradiation parameter：The irradiation power is 100%, and the total irradiation time is not cleared;

(2)Temperature monitoring：65 ° C；

(3)Irradiation time：10s；

(4)Control mode：manual control



Restore factory settings

2.4 Over high temperature, water chiller failure alarm

When the machine is running again, if the temperature of the lamp is higher than the set temperature, the lamp will automatically turn off, the buzzer will start to alarm, the touch screen will jump to the high temperature alarm interface, wait for the staff to confirm, click the back button, the

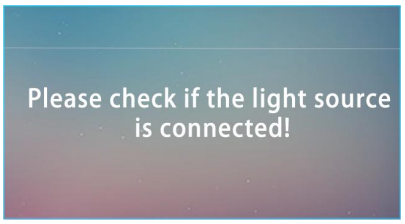
buzzer will stop, and can restart the machine.

When the machine turn on, the signal of the water chiller is not detected from the I/O port, or the water chiller malfunctions during the working of the lamp, the lamp will automatically turn off, the buzzer starts to alarm, and the touch screen pops up fault alarm interface, after the worker cancels the fault, the buzzer stops the alarm and can be restarted.

When the UV curing machine does not correspond to the light source connection, click to start the illumination, and the touch screen jumps to the light source connection non-corresponding interface, and the corresponding connection of the light source interface can be restarted.

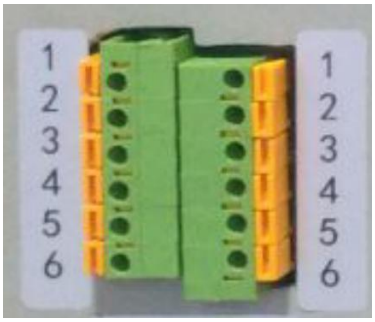
High temperature alarm

Water chiller failure alarm



The light source is not connected

3.Peripheral device connection



I/O signal port

COM communication port

The I/O signal port is a double-row jack, the digital 1-1 port is a LAMP start/stop port. When the current manual control is performed, a switch signal (close signal) is input at the digital 1-1 port, and the Lamp can be illuminated and work in time, when the digital 1-1 port is input a switch signal (disconnect signal), the LAMP stops working;When the current automatic control is performed, a pulse signal is input at the port 1-1 (disconnect immediately after closing), the LAMP can be lit, and the countdown is performed according to the set time. After the countdown is completed, the LAMP is automatically turned off. When the countdown is not completed, a pulse signal is input at the port

1-1, and the LAMP stops working;The digital 2-2 port is the water chiller signal input port. When the digital 2-2 port is not connected to the water chiller feedback signal, after the controller starts, the buzzer starts to alarm, when the water chiller signal is connected, the alarm is automatically canceled. The lamp is automatically turned off when the water chiller fails during the working;The digital 4-4 port is the running feedback signal, when the lamp is working, the digital 4-4 port outputs a high level signal, When the lamp stop working, it outputs a low level signal;The digital 5-5 port is the fault feedback signal. When the controller fails, The digital 5-5 port outputs a high level signal, and when the controller working, it outputs a low level signal.

COM communication port, directly choose RS-232 cable to connect, support the connection of Industry touch screen (9600, E, 7, 1), it needs to cooperate with the corresponding software to achieve.

4 Precautions

(1) UV LED light Do not direct eyes or skin.

(2) Do not disassemble UV LED radiation head , it may cause UV light leakage.

(3) To install or remove the UV LED head, be sure to turn off the power.

(4) Do not use thinner, volatile oil, acetone, kerosene and so on when cleaning the irradiation head and controller regularly. Put a small amount of ethanol on a soft cotton cloth and carefully wipe.

(5) please use in a cool, dry, ventilated, no high magnetic field, no high electric field environment.

(6) Do not open the controller privately to prevent the risk of leakage