

PREPARATION ROOM

ITEM NO:EE-7505CE

USER MANUAL



KEEP THE MANUAL NEAR THE
MACHINE ALL TIME AND MAKE
SURE ALL USERS HAVE READ
THIS.

FOLLOW THE INSTRUCTIONS
CAREFULLY TO GRANT THE
MACHINE A CORRECT
FUNCTION AND LONG
SERVICE LIFE.

EAE Automotive Equipment Company Limited

The manufacturer keeps the rights to improve the
contents in this manual.

Tel:+86-21-32500750
Fax:+86-21-32500785
[Http://www.eae-ae.com/](http://www.eae-ae.com/)
sales@eae-ae.com

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I. Product Description:

Automobile paint spraying/baking booth is used for air purification during auto paint coating operation and drying operation after painting spray. Paint spraying and drying are performed in the same booth. This paint spraying/baking booth is typical of paint spraying and baking functions, provided with automatic thermostat paint spraying, ventilation, air purification, paint mist treatment, and winter hot-air supply functions during paint spraying, and automatic heating, thermostat timing, and timed shutdown function during paint baking. The equipment is reliable in running, simple for operation, and easy for maintenance.

II. Application Areas for Paint Spraying/Baking Booth:

Industrial Paint Coating

III. Equipment Constituents:

The equipment of this paint spraying/baking booth is composed of booth structure system, illumination System, air supply system, circulation system, air purification system, paint mist treatment system, pressure control devices, and electrical control system, etc.

IV. Precautions for Use of Paint Spraying/Baking Booth:

1. Check for the normality of air pressure for paint spraying and coating, and ensure that the filtration system is clean, before spraying and coating start.
2. Check the air compressor and the oil/water/fine dust separator, and keep clean the paint spraying hose.
3. Spray gun, paint spraying hose, and mixing paint can be stored in clean places.
4. Except for use of air blow gun and dust sticking cloth for dedusting, all the other working procedures before painting spray shall be completed outside the paint baking

booth.

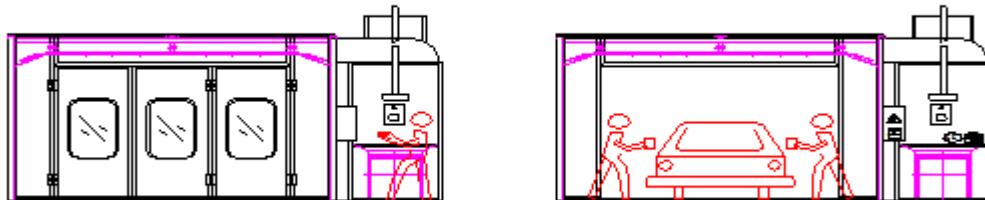
5. Only paint spraying and baking working procedures can be performed in the paint baking booth, and the door of the baking booth can only be opened when vehicles are moving in and out. The air circulation system must be started during spraying and coating when the door is opened, to generate positive pressure and to ensure that the dust outside the house cannot enter into the room.

6. Wear the designated paint spraying protective site clothing and safety appliances to enter the paint baking booth for operation.

7. The inflammable articles inside the baking booth must be taken out during the baking operation.

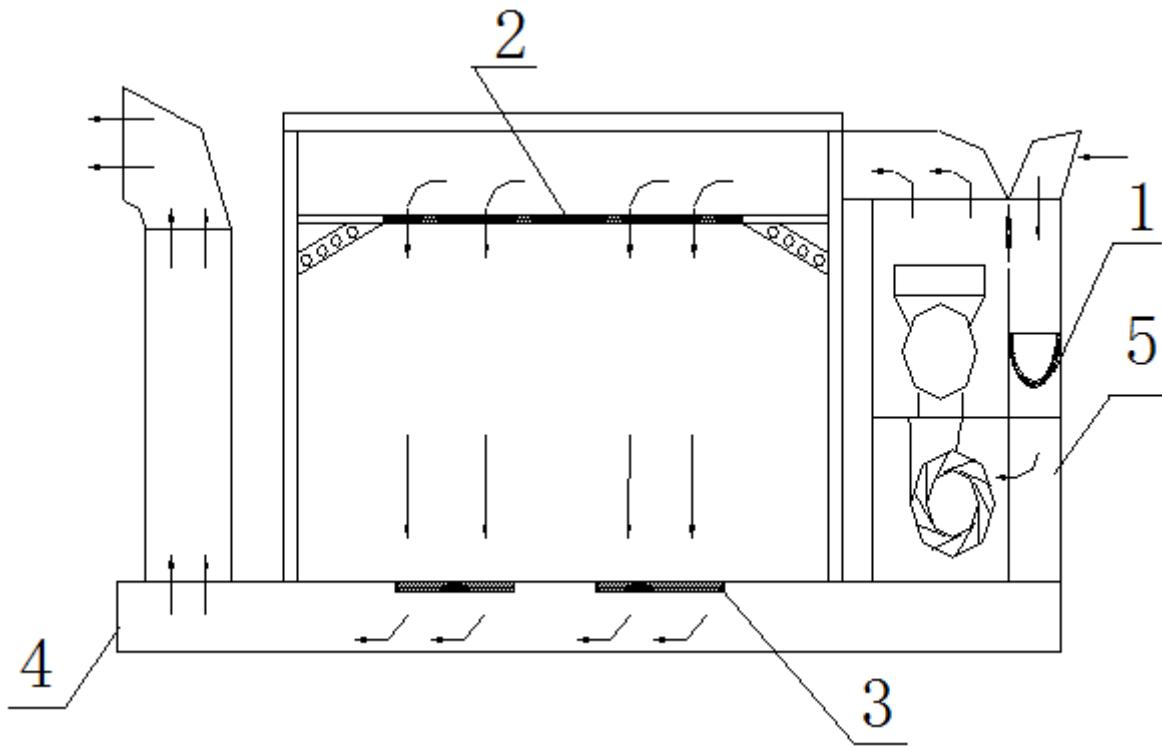
8. It is not allowed for unnecessary personnel to enter the pain baking booth.

V. Operating Principle:



Auto paint spraying/baking booth is composed of the paint baking room, hot-air generator, microcomputer program sensor electrical control cabinet, illumination System, During paint spraying, two set of main blower fan (1) and the two sets of blowers in the air chamber of top light boxes (3) suck the fresh air from the air inlet. At this point the upper air door will open automatically and vertically and the internal circulating air door (9) will close automatically, to initially pass through the first course of dust filter screen (2) and to filtrate off the dusts in large particle size in the air. Then the air enters into the air chamber on the top of the paint baking booth and

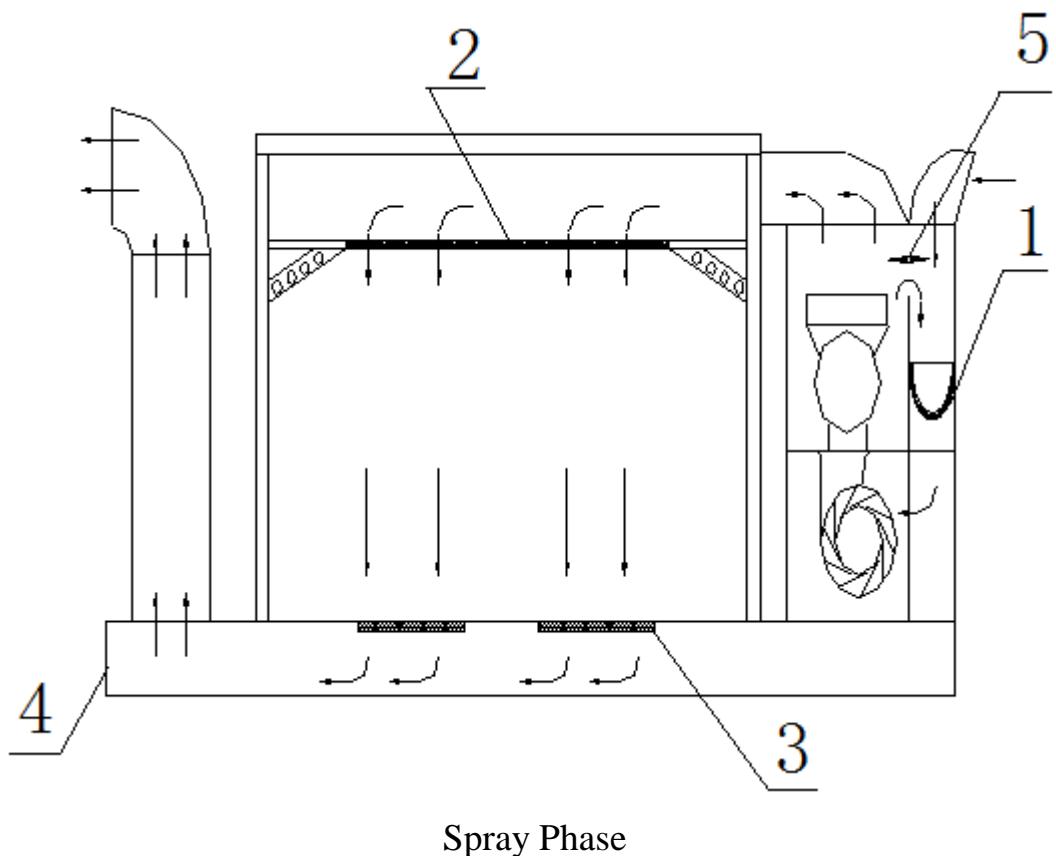
flows through the top filter cotton fiber and exhaust cabinet (optional) be discharged out of the spray booth, meanwhile the air pressure inside is always higher than outside so the dust is prevented validly from outside getting in.



Painting Phase

During paint baking, by making use of the burner with micro electromagnetic automatic control for ignition and heating, the “cold” airflow sucked in by 2 set of main blower fan (1) passes the heat exchanger for heat exchange to heat up the air. At this point the upper air door will close automatically in a horizontal way and the air door for internal circulation (9) will automatically open, to form an internal circulating status of hot blast air. The heated airflow inside the house structure will once again be sucked in through circulating air door, to pass the heat exchanger for heat exchange. The temperature is incessantly and rapidly raised through such circulations and reciprocations. The blower fan and the heater will start up automatically, for the temperature inside the paint baking booth to keep constant and to hold the set

temperature until the set operating time is finished to complete the operation



VI. Technical Parameters for Paint Baking Booth:

1. Outside dimensions of paint spraying booth (L x W x H): $7106 \times 5356 \times 3400$ mm
2. Inside dimensions of paint spraying and baking booth (L x W x H): $6900 \times 4000 \times 2650$ mm
3. Main door Size (W x H): 3000×2650 mm
4. Capacity of Blower $25000 \text{ m}^3/\text{h}/\text{unit} \times 1$ unit
5. Capacity of Exhaust $25000 \text{ m}^3/\text{h}/\text{unit} \times 1$ unit
5. Inside air speed: $\geq 0.25 \text{ m/s}$
6. Air exchange volumen: 280 time/h
7. Top temperature 80°C

8. Heating time (20°C—80°C) : 6-8 min

9. Lighting volume: 800

10. Noisy: $\leq 80\text{dB}$

11. TSP: $\leq 1.4 \text{ mg/m}^3$

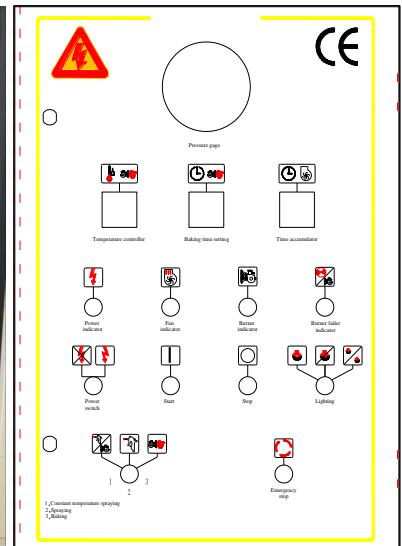
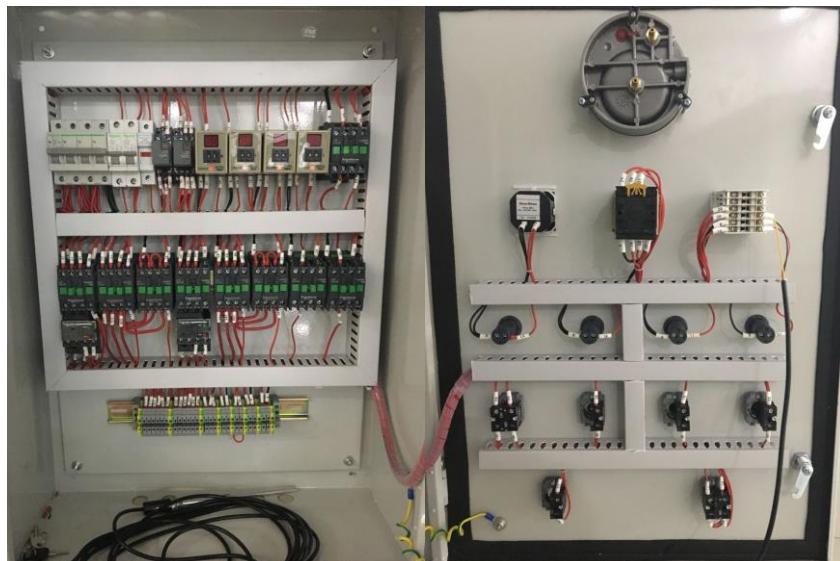
12. Fuel consumption: 6—8 kg/vehicle

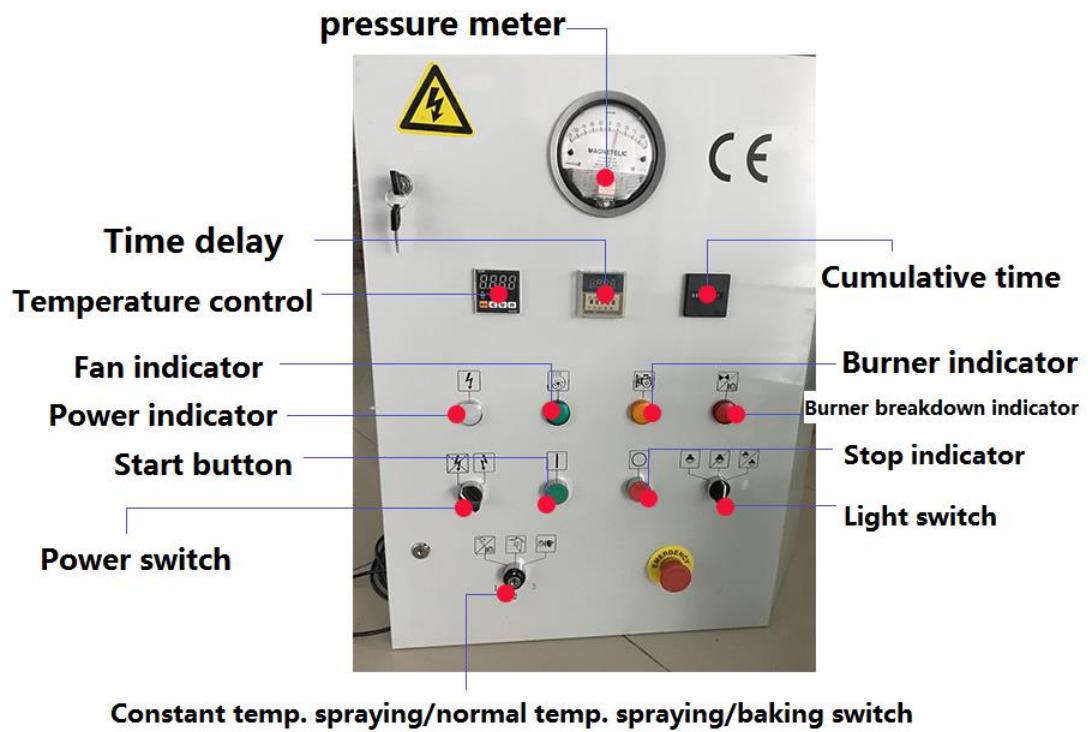
13. Power: 16kW

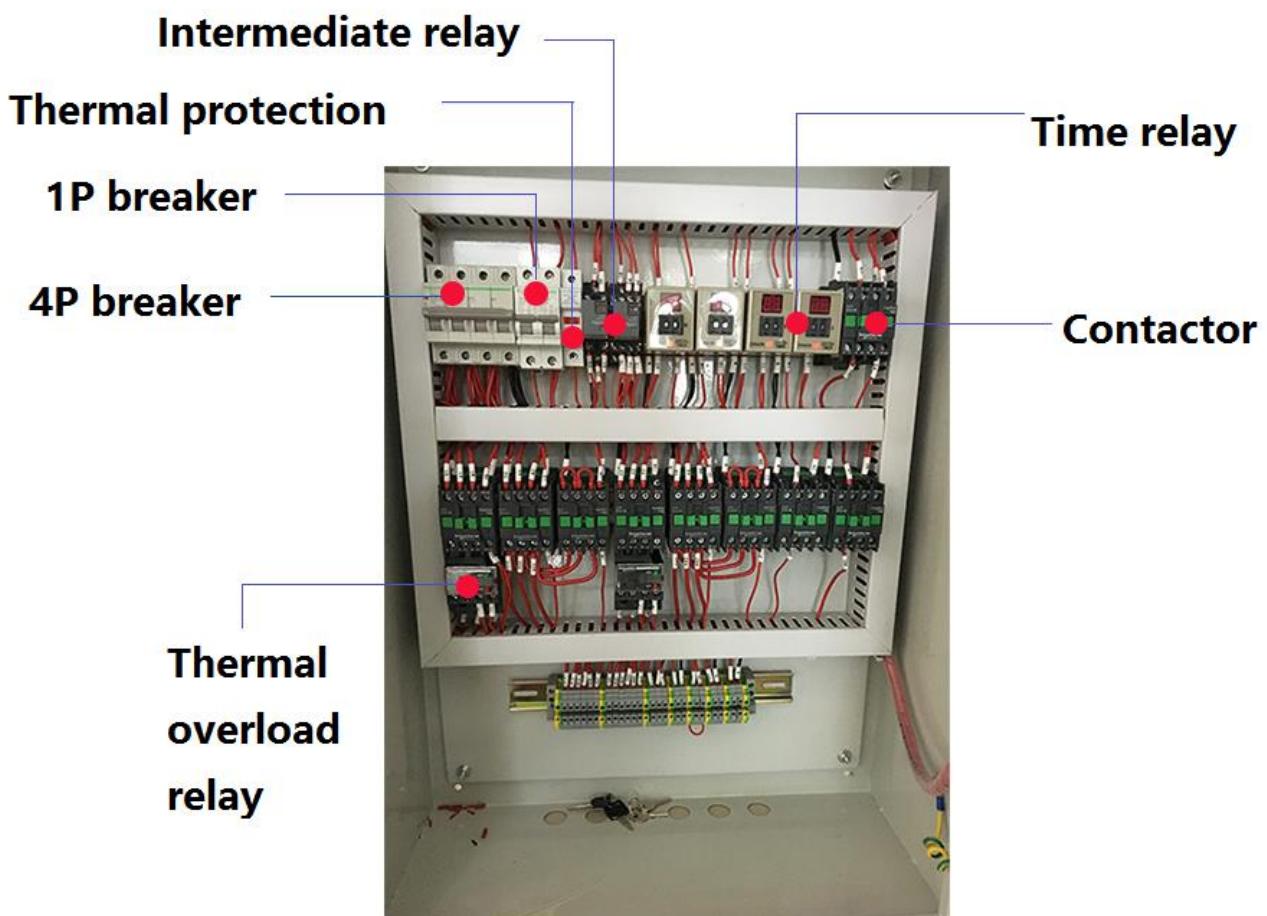
VII. Manual of electric control switch and instrument:

Paint booth(Burner heating) Function declaration of control box switch and instrument

Control box size: 700*500*200mm(L*W*H).







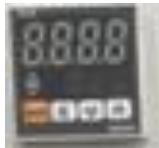
① Function declaration of control box switch:



1. Optional pressure gauge : testing the pressure inside the room.



2. Optional universal change-over switch: main switch.



3. Temperature controller: show the actual temperature, setting the baking or constant painting temperature.

Use for control the baking temperature, when the temperature inside the room reach to the preset temperature, it will cut off the burner power automatically. Set the temperature to the needed value, for example: set 0080 it means the highest temperature is 80 degree. When temperature reach 80 degree, it will cut off the burner power automatically. When the temperature below 80 degree, the burner will re-start and rising temperature.

Notice: Please check carefully the setting temperature value whether it is correct. The highest temperature can not exceed to 80 degree.



4. Baking timer : set the baking required time: use for setting the baking time, when reach the preset time, it will cut off the burner power automatically. The method of setting the baking time: Press “↑, ↓”, to adjust the needed working time. (Normally baking time set to 20-30 minutes).



5. Time accumulator: Record the fan working time.



6. Power indicator: Light ON, it means the control box on power-up state.



7. Fan working indicator: This light ON it means the fan working.



8. Burner working indicator: When the lighting ON it means burner working.



9. Power turning switch: turn to the left side, closed the power, turn to the right side, open the power.



10. Burner failed indicator: Lighting On it means the burner failure.



11. Buzzer: When temperature reach to preset value, the light On and buzzer.



12. Left light: Turn to the left side, the left lighting ON, turn to the right side, the left and right light ON. Turn to the middle, closed the light.



13. Emergency stop button: press and it will close the control box power.



14. Normal temperature/constant temperature button: middle position shows normal temperature , left position shows constant painting, right position shows baking stage.



15. Control power button/ closed power button: Press green button, will go to the choose mode and start working, press red button, stop working.

②Electrical control box instructions

1. If have main switch, Turn On the main switch to the ON position, the breaker inside the control box also need to turn to ON position. Power switch turn to right side.



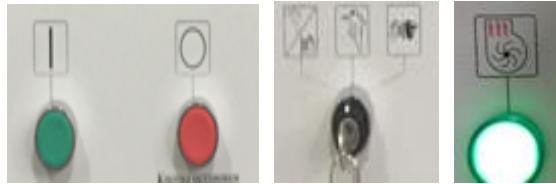


2. Get enter to normal temperature stage: turning the switch to this position



Press green

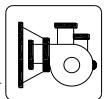
button, fan indicator ON, one intake fan start Star delta work, transfer time is 7 seconds, after 7 seconds, exhaust fan star delta work, transfer time is 7 seconds, go to the normal painting mode.



3. Constant temperature stage: Preset the temperature, turn to this position



, then fan indicator ON, one intake fan start star delta work, transfer time is 7 seconds, after 7 seconds, exhaust fan start, transfer time 7 seconds, at the same time, because the intake fan and temperature limiter inter lock with the burner, then the burner will start to work automatically,



burner indicator ON go to the constant temperature mode.

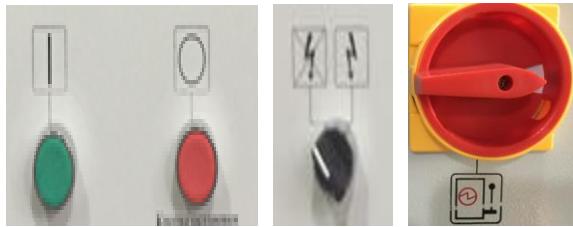


4. When baking, preset the temperature, choose to mode switch and turn to the right side, preset the baking timer in the baking timer, normally, baking time is 20-30 minutes, baking temperature is 80 degree, at the same time, close the fan, actuator closer, 2 minutes later, intake fan star delta work, transfer time is 7 seconds, at the same time, burner start to work automatically (intake fan and temperature limiter inter lock with burner) go to the baking stage, after reach to baking time, the intake fan will delay 2 minutes and closed, cooling the heating exchanger.



5. When normal temperature spraying, constant temperature spraying, baking process had finished,

need turn off, firstly press the red stop button in photo1, then switch the power switch into stop in photo 2, if have main switch need turn it to OFF position.



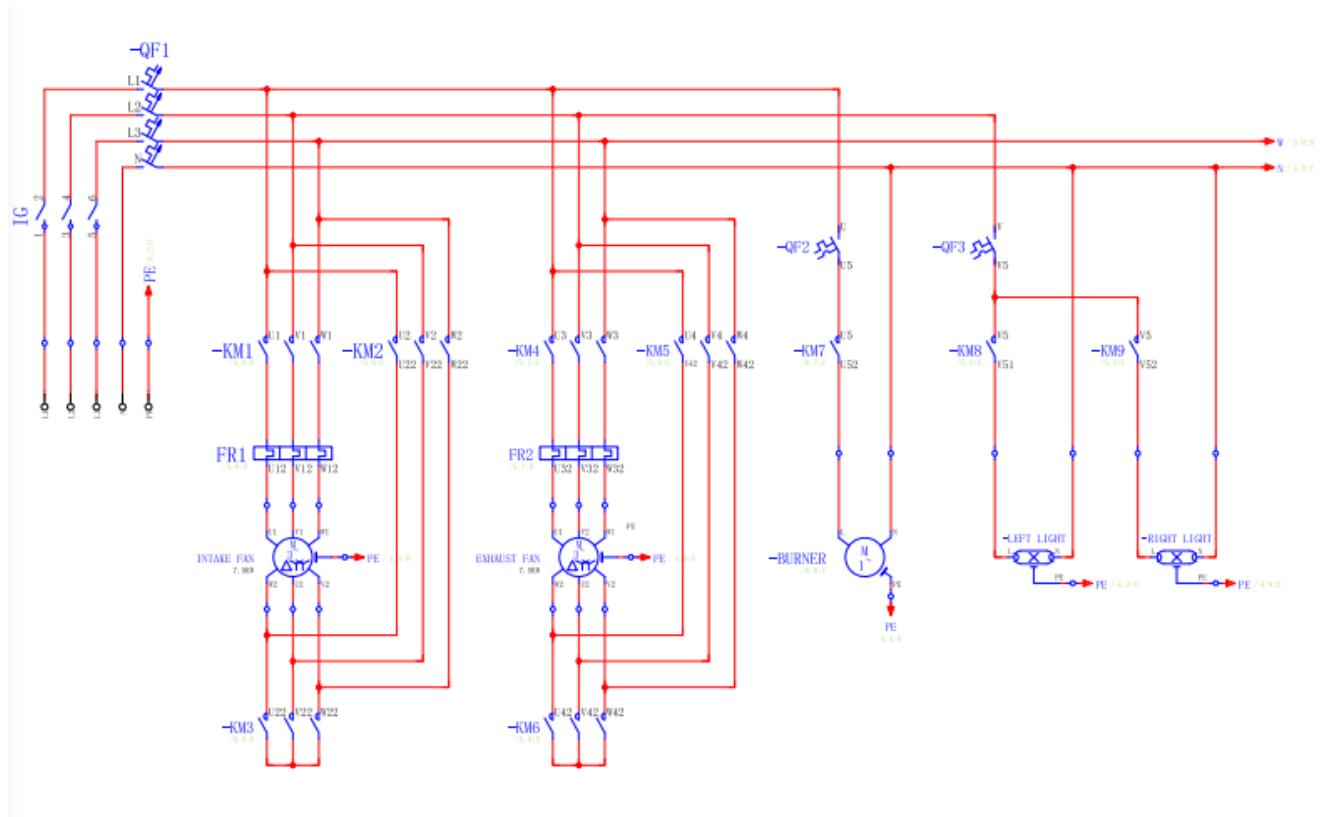
6. When spraying need open light switch, turn light switch to left side can open light, at this time will open only left side light, right side light is off; When need open all light, turn it to right, then can open all light; turn to middle position is turn off light.(When baking can't open the light).



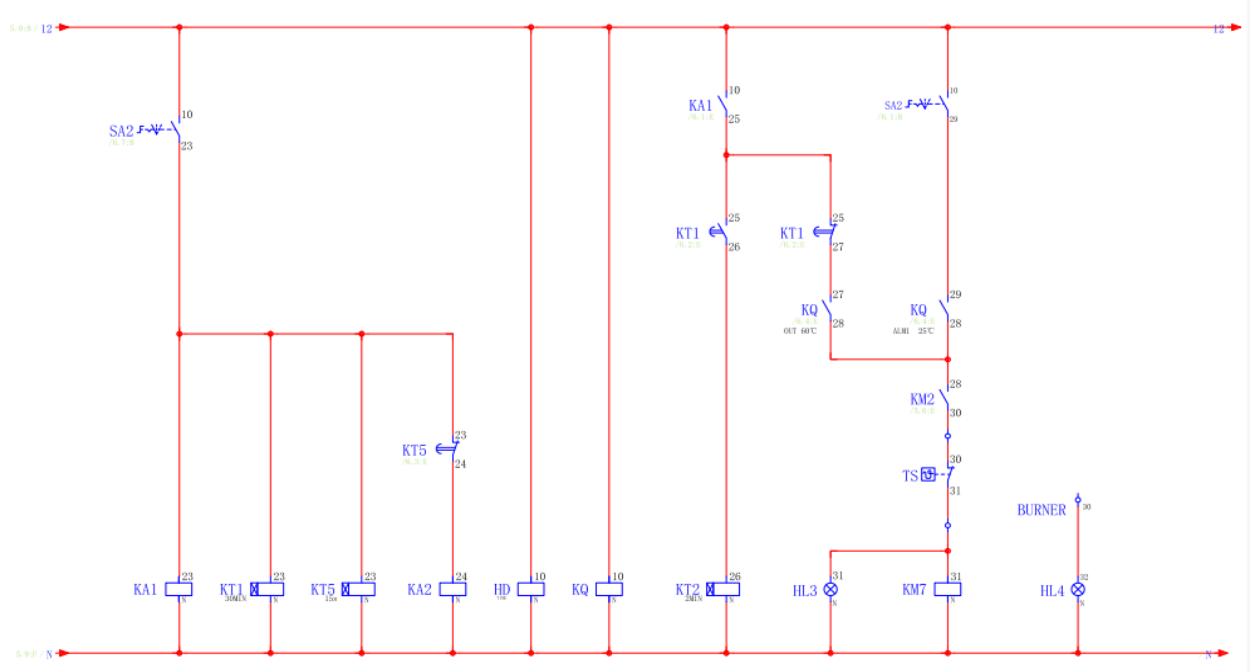
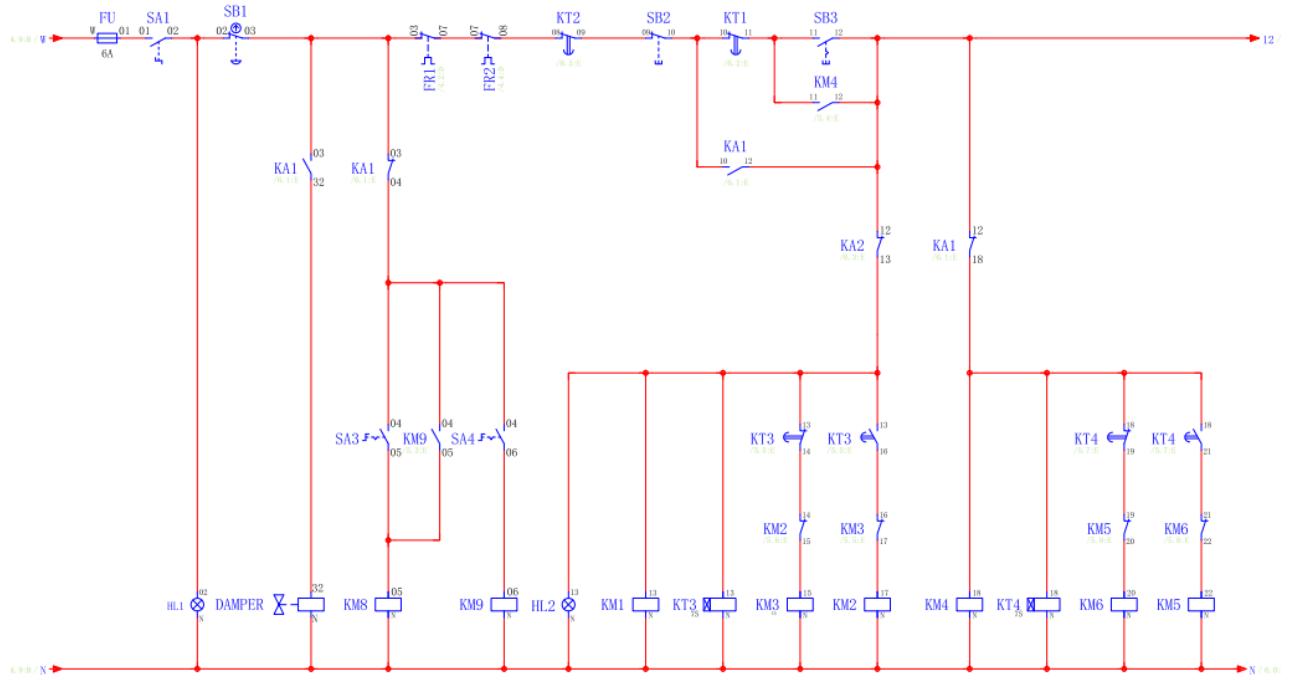
Notice: During the process of normal combustion of the burner, don't fill oil into the oil tank, as massive steam bubbles will be generated in the oiling process, and these steam bubbles will be sucked into the oil pump through oil pipe, which will give rise to burning-out due to sudden stop of fuel supply. On this account, the burner shall be refueled when it is not burning.

Notice: The fuel used by the burner is diesel oil and it is prohibited to use gasoline and other oils.

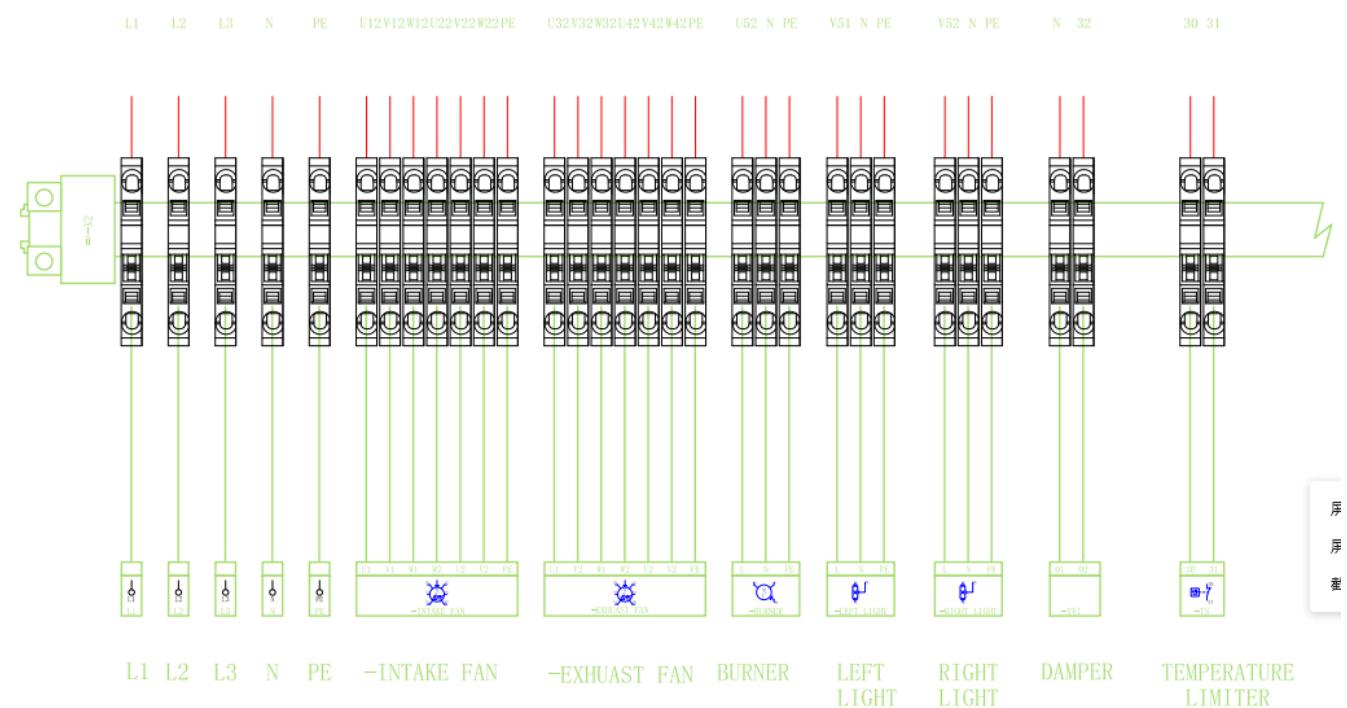
VIII. Connection Diagram for Paint Spraying/Baking Booth



IX. Circuit Diagram:



WIRING DIAGRAM



X. Common Failures and Maintenance of Paint Baking Booth

Failure	Possible Cause	Maintenance Method
The indicator lamp for failure of burner turns on after the burner has been started for 15 seconds.	<ol style="list-style-type: none"> 1. No more oil in oil tank 2. Air leak at the joint of oil pipe 3. Too dirty filter screen on oil inlet 4. Too dirty magic eye 	<ol style="list-style-type: none"> 1. Fill up the oil tank with oil. 2. Re-connect the oil pipe properly. 3. Clean the filter screen. 4. Dismantle the electrical control box to towel off the magic eye.
4. Dismantle the electrical control box to towel off the magic eye.	Too small openness of air door at the air suction inlet of the burner	To widen the air door until no black fume emits.

The motor of burner fails to rotate.	<ol style="list-style-type: none"> 1.1. The set time for time meter is up. 2. The temperature shown on the thermometer has reached the set temperature. 3. The oil pump is blocked 	<ol style="list-style-type: none"> 1. Re-set the time Re-set the temperature. 2. Check whether or not the rotating shaft of oil pump is blocked with any contaminant or oil dred.
The air inlet is fairly small during paint spraying.	<ol style="list-style-type: none"> 1. The 1st course of filter cotton fiber is blocked. 2. The air valve is in the open status 	<ol style="list-style-type: none"> 1. Clean the 1st course of filter cotton fiber. 2. Check for the action of air valve.
Heating is slow during paint baking.	<ol style="list-style-type: none"> 1. The air valve is not opened. 	<ol style="list-style-type: none"> 1. Check for the action of the air valve.
The main blower fan fails to start	<ol style="list-style-type: none"> 1. The fuse is blown out. 2. The thermal relay is displaced. 3. The motor is in short circuit. 	<ol style="list-style-type: none"> 1. Replace the fuse. 2. Press the reset button. 3. Replace the motor.