

## S-WS450A Wave solder installation and adjust using step

### 1. Wave solder preparation before installation:

- a) Tin : need to prepare enough tin material (lead-free solder material 600 kg or lead solder 650 kg)
- b) 2. The flux per one barrel (lead-free dedicated need to distinguish)
- c) PCB board for testing;
- d) Power supply: power supply frequency 50 hz
- e) The power supply requirements:3P5W, 380VAC , 50/60Hz, 100A  
Noted: 380 v three-phase five line 63 A ,suggested wire diameter is 16mm<sup>2</sup>  
Equipment start power 22 kw  
Equipment operation power less than 14KW
- f) Air requirements: 0.4 ~ 0.7 Mpa industrial gas source after drying.
- g) Exhaust system: the customer requirement: more than 15 m<sup>3</sup> / min x 2 (imports and exports forced convulsions, each tuyere quantity at least 15 m<sup>3</sup> / min).

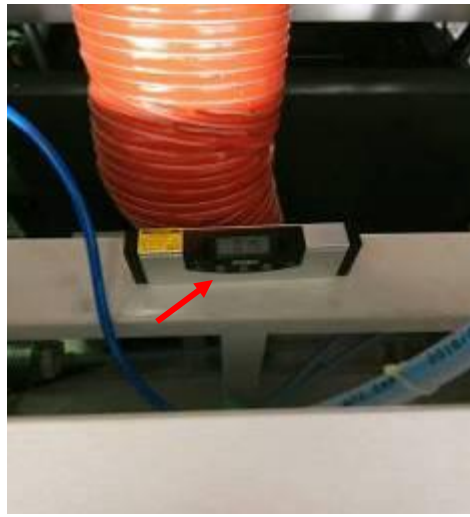
### 2. Machine Unpacking:

- a. After wave soldering machine moved to the specified location, dismantle all packaging appearance first.
- b. After wave soldering machine location, demolition fixed block of tin bath and fixed block transport leading rail (Like below pictured)



### 3. Wave soldering machine playing levels:

- a. Put the level ruler to the machine beam of entrance and exit ,adjust the machine level by lift and lower the machine 's lead cup. (Like below picture)
- b. Levelness Standard is  $\leq 0.2^\circ$  (Like below picture)



#### 4. Prepare the electricity ,air ,flux ,and open the machine

- a) Wire between Wave soldering machine and factory's wire , we suggest, with diameter  $16\text{mm}^2$  can carrying 63 A current, 380 v three-phase five line.(Like below picture)



- b) Air between Wave soldering machine and customer's factory , 0.4 ~ 0.7 Mpa industrial gas source after dry .(Like below picture)

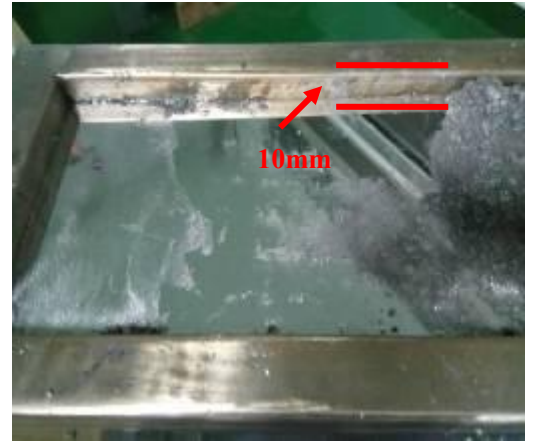
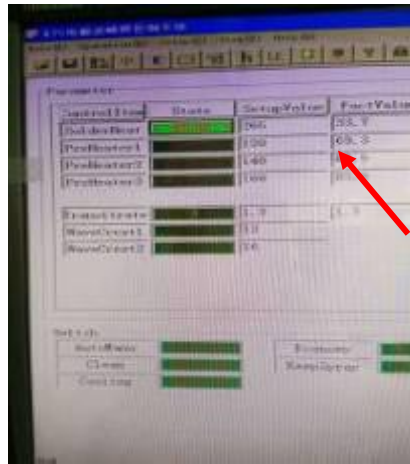


- c) 3, put the whole bucket of flux into the bucket of the machine , and then put the infusion tube into the flux bucket, automatically extract liquid flux after start the machine.



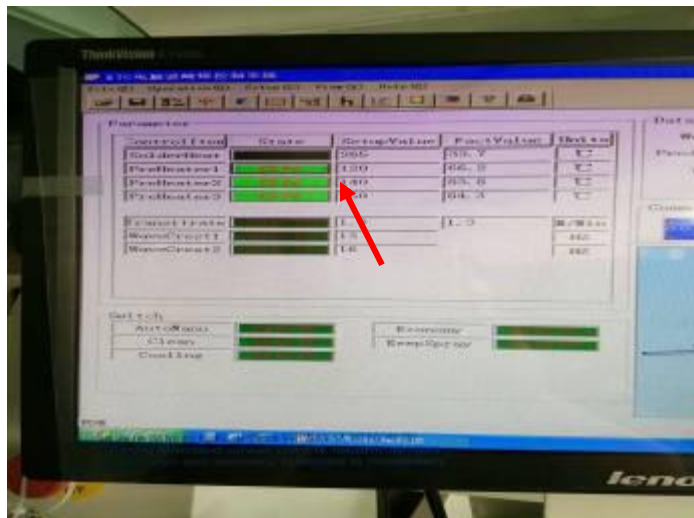
**5. Melt tin in the tin bath :**

Open operation control files on the computer, after login, open tin bath heating and set the temp about 260 °C; Put the tin on the both sides of the tin bath , after heated tin and melt it into liquid; Static state, the liquid level of 10 mm off the surface of the tin bath as normal.(Like below picture)

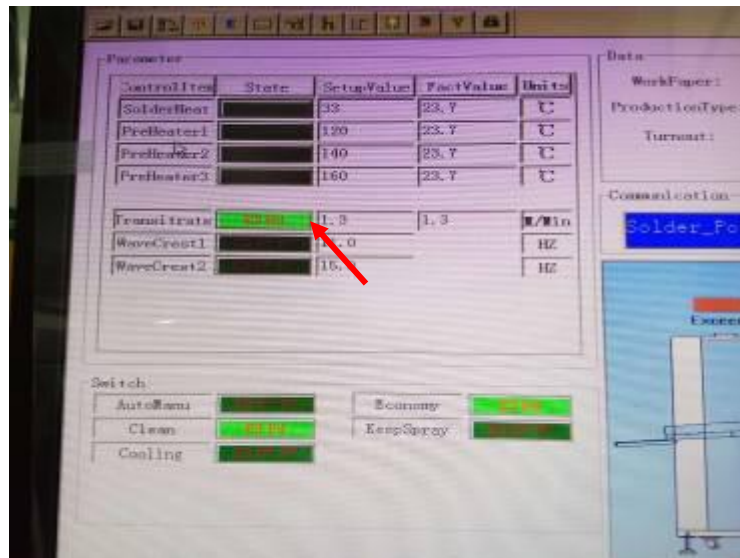


**6. debugging, preheating and transport:**

- a. in the computer control interface software, click and open 3 unit preheating zone, and make sure the normal heating, Settings and display value is consistent. (Like below picture)

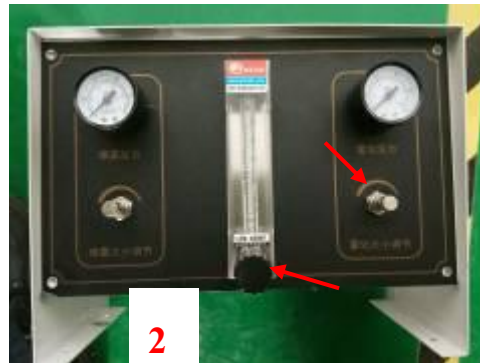
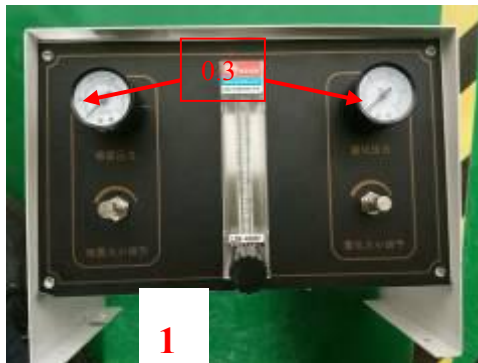


- b. in the computer control interface software, click open the transport, and confirm the normal transportation, Settings and display value is consistent.(Like below picture)



### 7.spray system debugging:

- a. under the normal air pressure , adjust the spray and atomization pressure gauge to 0.3 position (figure 1);According to the requirements of the PCB welding, by adjusting the atomization size knob and the flow adjustment knob;To the best state.(figure 2)



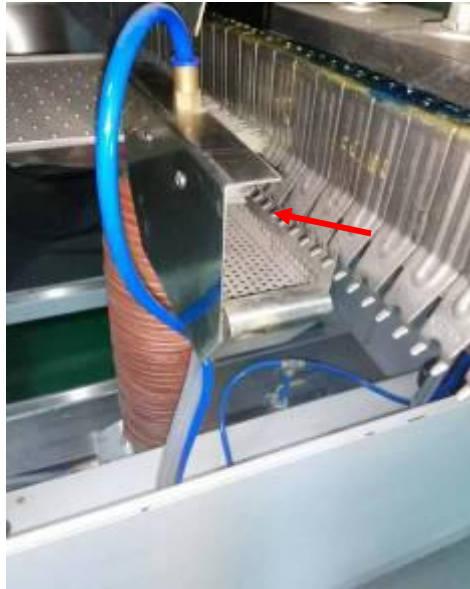
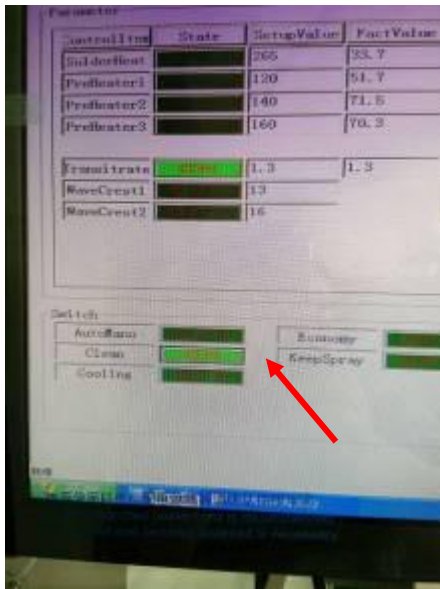
- b. PCB testing spray effect, after atomization ,flux need to cover on the PCB overall and uniformity .(Like below picture)



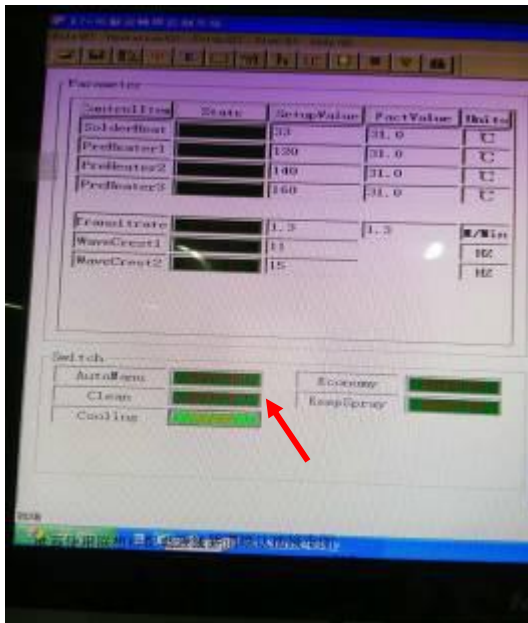
### 8.the jaw cleaning system and cooling system debugging:



- a. After add the liquid of claw cleaning in the paw cleaning liquid, in the computer control software, click the claw cleaning, and confirm the normal cleaning. (Like below picture)

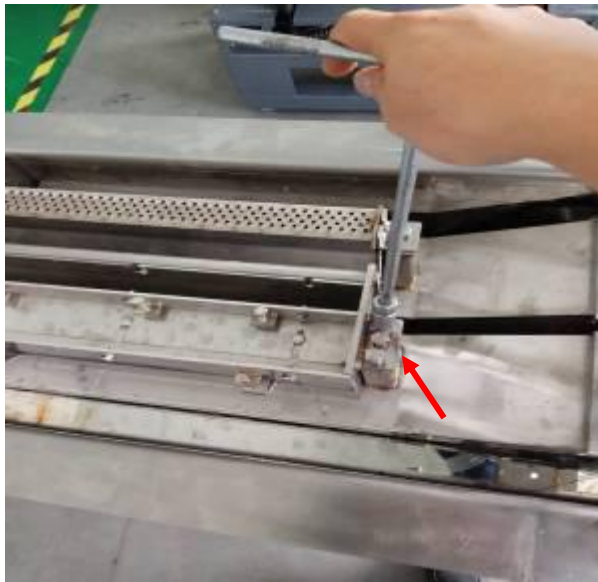


- b. the cooling system, in the computer control interface software, click open the cooling, and confirm that the wind is normal. (Like below picture)

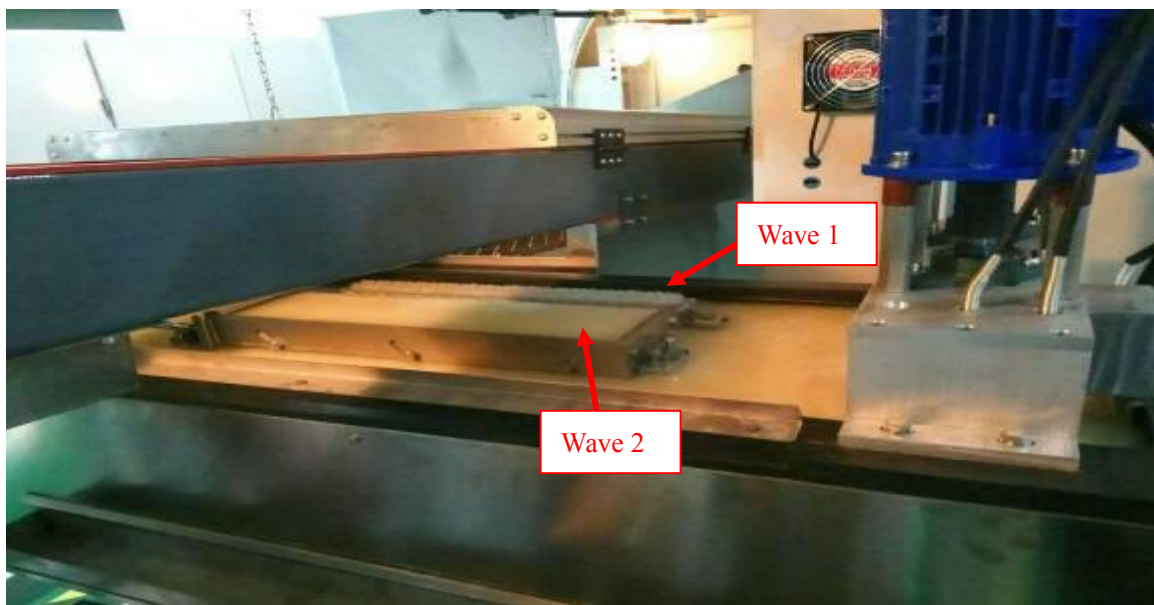


### 9. debugging of tin bath:

- a. According to the actual board transfer, by adjusting the screws on the both side of tin slot nozzle, the nozzle height is suitable for the actual welding plate. (Like below picture)

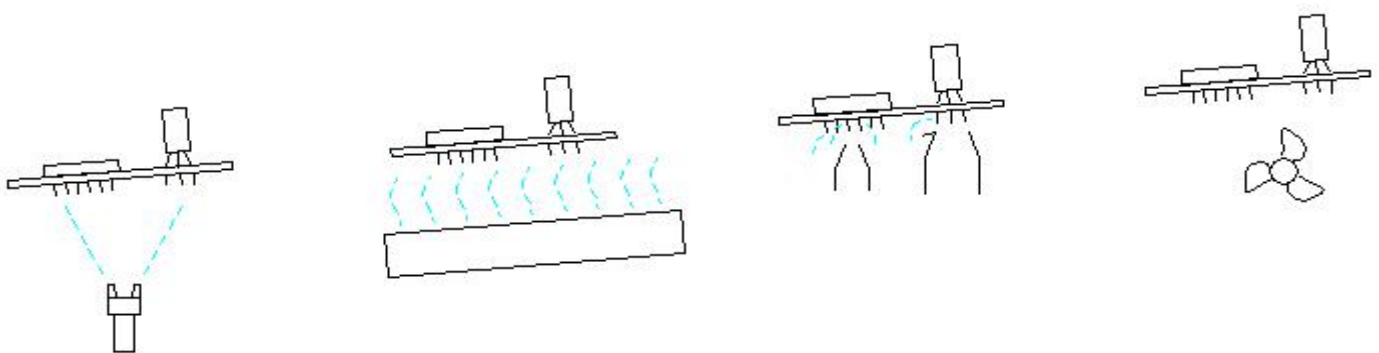


- b. Adjusted the wave to level; Normally suggest you adjust the Wave 1 height to about 12mm, wave 2 height about 10mm, According to actual situation of welding plate to adjust wave height.(pictured)



**10.PCB test:**

From entry into 1 piece of PCB board, after spray →preheat →welding →cooling → export, confirm the inspection welding effect;



**11. S-WS450A** wave soldering machine installation, can be mass production product.