## ALLWIN 1.8m hybrid User Manual

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## **Chapter 1 Prepare of installation**

## 1.1 AC Power requirement of machine

A. Machine need 2 separately AC power, one for machine main power system, another for LED UV lamp system.

Machine main power: Single-phase electricity 220V AC 2KW/ 10A LED UV lamp power: Single-phase electricity 220V AC 2KW/10A Tips: AC electricity need good PE which resistance less than 50 ohm

- B. Machine AC power cables requirement, each wires in the cables at least 6mm<sup>2</sup> diameter. This avoid AC power cables get hotting when machine running.
- C. AC 220V 15KVA automatic voltage stabilizer needed for machine main power. This can help machine running not influence by power current fluctuation.

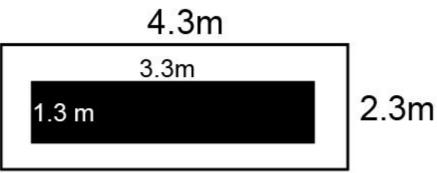


## **1.2 Min Computer configuration**

CPU: Intel i5 8500 or AMD R5 2600 Memory: 16 GB Video Card: 2GB GPU Memory card Storage: SSD 256GB+ 1TB HDD Operating system: WIN10 64Bit / WIN7 64Bit

## **1.3 Environment Requirement**

1.8m hybrid machine dimension:3.33m\*1.32m\*1.42m Min Room Space: 4.3m\* 2.3m\* 2.3m



Room tempreature: 18 to 35 degrees

Room humidity: 35% to 65%

Machine need: dust free, without direct sunlight, not near air conditioner vents or heating source

## **1.4 Machine Operator requirement**

Machine operator must familiar use computer, some knowledge of image design software, such as: Adob Photoshop, Adob Illustrator, CorelDraw.etc.



Operator must carefully use machine and responsibility for machine maintenance

## 1.5 Inks and Spare parts notice

# Machine must use ALLWIN official UV inks and Spare parts, these can ensure machine print quality and print head lifetime.

For machine repair or unknowing issues, please contact ALLWIN local distributor engineer or send email to ALLWIN factory.

## **Chapter 2 Hardware installation**

### 2.1 Unload& Open machine non-fumigation wooden box

A. Please check the machine non-fumigation wooden box broken or not before open it. If meet cargo damaged issue please contact your local forwarder person, they will help deal it and apply insurance compensation.

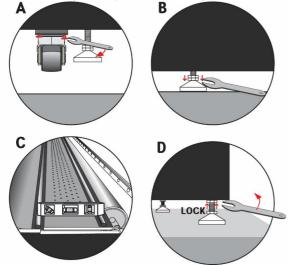
B. Please use professional device to unload and open wooden box. Suggest use 3 Tons forklift with 1.82m lifter arm. Mind the wooden box marked Front and Back



C. Please land the wooden box then open it

D. Use forklift land the machine on floor, then machine can move by Omnidirectional wheels when pushing it.

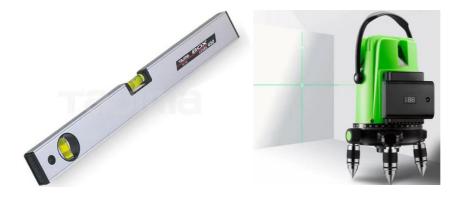
Notice: 1. Before you move machine with the machine wheels, make sure all machine height adjustment legs not touch floor.



2. If hard to move by Omni-directional wheels, try move to different directions to make the wheels get same directions then easy to move

### 2.2 Machine put to right place and leveling

Move machine to right place, adjust machine leveling with professional device, such as: spirit level, Laser horizontal instrument.etc



Notice: Please ensure the leveling again after 8 hours. (This will help ensure machine body 100% well leveling)

### 2.3 AC power connection

AC power cables which already with machine, Please ensure right connect order of the connector: L: RED N: Blue PE: Yellow& Green



L-N:AC220V~250V N-PE:0V

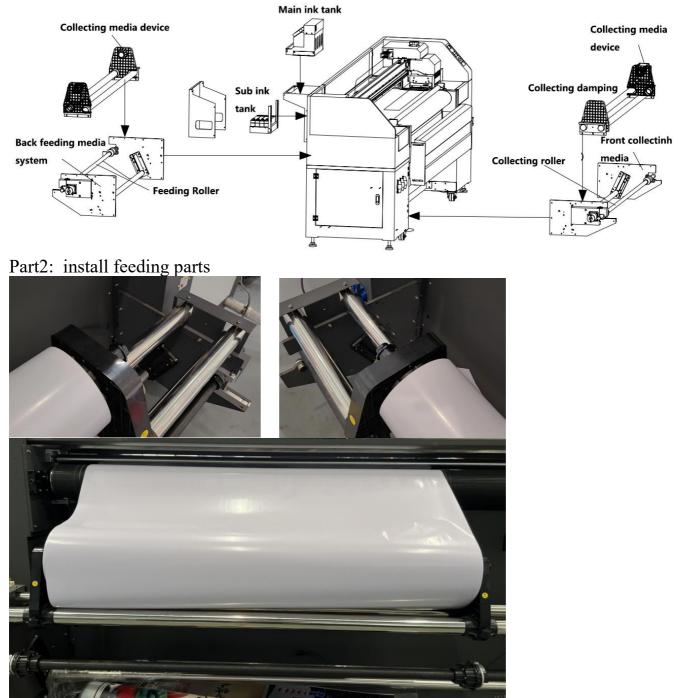
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L with N: 220V AC, L with PE: 220V AC, N with PE: 0V-5V AC (Ensure your PE/ earth wire working good)

Warning: Please use Muti-meter ensure AC 220V connecting right order after you contact it to local factory. Wrong order will damaged the machine

## 2.4 Install Machine parts

part1: install machine main parts



Part3: install collecting media parts



Part3: install LED lamp and chiller system



(It is recommended to mix 30-40% antifreeze with 60-70% purified water and pour it into the water tank).

Connect the water pipes in place according to the line markings.

Water outlet: UV lamp cooling water pipe outlet,

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External Dimming: Connect an external dimming light

UV Lamp: Connect the UV lamps to the left and right lamps respectively

Varnish dimming: suitable for bright varnish

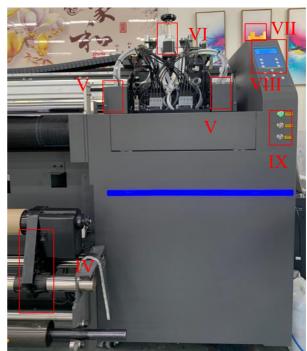
Dimming: As with ordinary lamps, adjust the appropriate power to dry the varnish

UV lamp adjustment : default set 70% , Adjust the power of UV lamp according to the actual situation.

## 2.5 Machine Main parts annotations



## Side 1: machine Front side

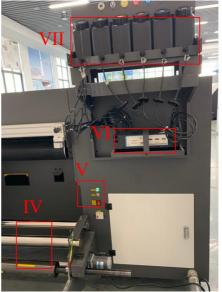


I. Table Vcuum pump II. Table vacuum area III. Media collecting control button IV. Machine collecting media parts V. LED lamp VI. Z movement step motor VII. Emergency stop button VIII. Machine control panel

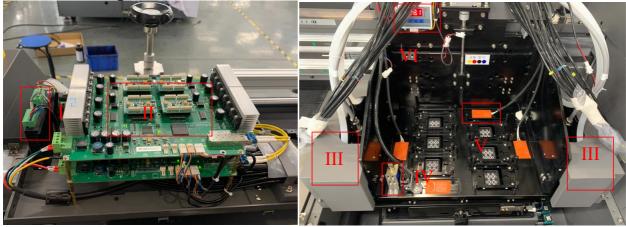
IX. Start machine button, table vacuum button, LED lighting button

#### Side 2: Machine backside





I. Main board
II. LED lamp chiller
III. 220V AC input
IV. Machine feeding media system
V. Table vacuum button, feeding media controller
VI. Sub ink tank
VII. Main ink tank
Side 3: Carriage side

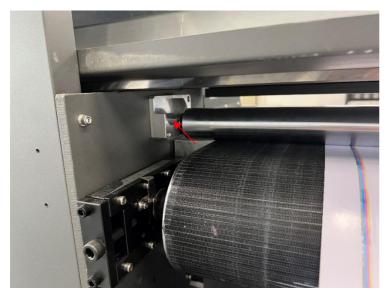


I. Z step driverII.Carriage boardIII. LED lampIV. Z height detection sensorV. Head plate heating barVI. Head plate heating controller

### 2.5 How to take down the media

(1) cut the media

- (2) turn off the vacuum motor
- (3) lift the lever



## (4) Remove the feeding system



(5) Remove the media

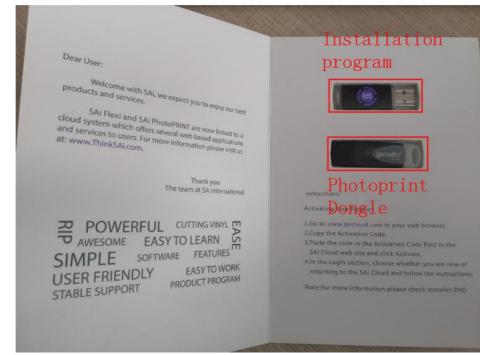


## **Chapter 3 Software install**

## 3.1 Photoprint RIP software

Sai Photoprint software used to process designed images to PRT format file, which will load by printing software. Sai Photoprint support file format: PDF (recommend), JPEG, PNG, EPS, BMP.etc





#### Install Photoprint software

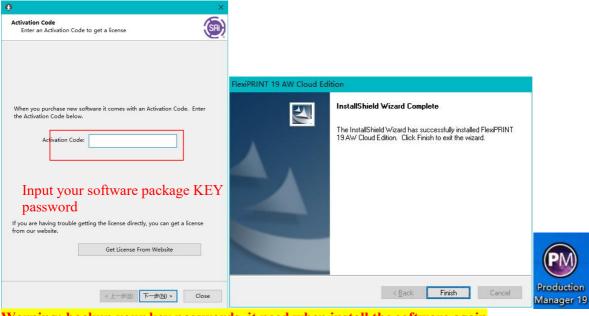
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| 💶 Util                             | 2020/12/7 10:16 | 文件夹           |          |
| 🛞 Autorun.exe                      | 2020/4/29 15:46 | 应用程序          | 252 KE   |
| AUTORUN.INF                        | 2020/4/29 15:46 | 安装信息          | 1 KE     |
| Installation_Activation Guide.pdf  | 2017/9/4 17:29  | Chrome HTML D | 844 KE   |
| SAi Production Suite 19 Readme.pdf | 2020/4/29 15:46 | Chrome HTML D | 3,940 KE |

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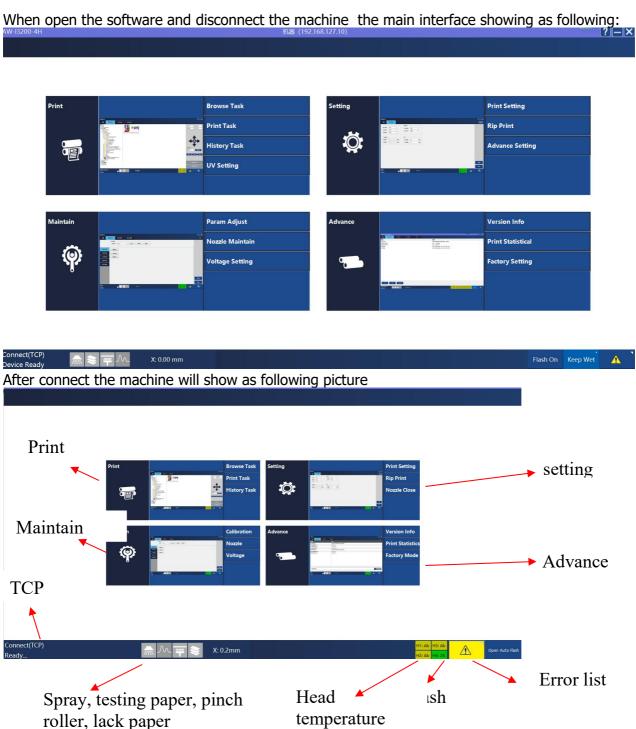
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Warning: backup your key passwords, it need when install the software again

## 3.2 Printing software: print manger



1 Left corner connection shows TCP network

2 The first one is spray, second one is media sensor to measure media, the third one is pinch roller and the fourth one is out of paper;

3 X raster: display the raster position of the carriage, unit is pixel;

4 Lower right corner green and yellow shows the print head connect state: green color means normal; yellow color means warn, Red color means abnormal; above picture shows print head 4connected normal; print head123 not connect print head;

- 5 Exclamation mark means error
- 6 Open auto. spray: waiting for auto spraying start or close

## **Chapter 4 Trouble shooting**

This chapter only list some trouble you will meet, if not clear what to do for fixing machine, please contact ALLWIN local distributor engineer or ALLWIN factory engineer

### 4.1 Ink keep drop from heads when machine power on

- I. Check if you open the ink valves
- II. Check the ink supply system or Negative pressure meter value

If Negative pressure system check the value normally from -3.2 to -5.5, if it near to 0 means machine lost negative pressure, need check the whole negative pressure system

### 4.2 Nozzle Spray Effect

The picture as below shows Nozzle Spray Effect. There's various reason to happen this effect.



- Check your print height right or not, normally 1.5mm to 1.8mm (Reduce print height will get better performance)
- Check anti-statics device work or not, You can use alcohol to wipe media surface before you print

Check Room temp and humidity, Room temperature: 18 to 35 degrees, Room humidity: 35% to 65%

- Check head voltage and Temp in machine software. Professional engineer can try adjust temp and voltage to save nozzle spray
- Check machine PE/ Ground wire
- Isolate printer from outside wind or other wind flow
- Clean head plate bottom (which near head surface), dirty dust will influence print quality

## 4.3 Ink not dry, looks glossy

UV ink need dry directly when printing, if not dry mostly cause by LED lamps which equip on machine carriage.

I. Check LED lamp lighting or not when machine printing

1) Both side not lighting

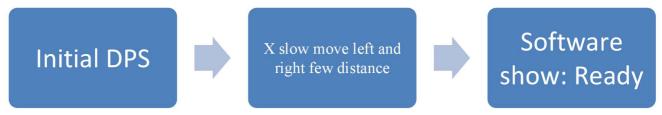
- Check LED Lamp power supply running or not, 220V AC breaker situation
- Check Software setting. Main menu/ Tools/ UV setting
   2) One Lamp 30% not lighting

Exchange LED Lamp power supply box UV1 to UV2 (it directly connect to left/ right LED lamp).

- If problem move to different side means power supply box problem,
- If still same side LED lamp problem means LED lamp body or big power cable problem

## 4.4 Machine can not initial

Power off machine, manual move Z to middle, X move to right 10cm (not and X right or left edge), Y move to backside 5cm (Not stop in front edge), then restart machine, check machine stuck in which initial step



#### **Debug details:**

✤ Initial DSP: basic electronic boards communication initial, if shows initial DPS fail: need enter hardware factory setting error or need update FW. (this need professional engineer to setting, please contact local agent engineer or ALLWIN factory)

✤ X slow move to left and right few distance: If stuck, check X movement, X servo driver if gives error

## 4.5 Software error list info

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|--|------------------------|---|---|
|  |                        |   | Notes same  |
| 2019/01/03 13:15:24  | Softwa                 | are Error 013078  | Language mismatch, Please check the software language version or reauthorize the language |
| 2019/01/03 13:37:37  | Softwa                 | are Error 013078  | Language mismatch, Please check the software language version or reauthorize the language |
| Case Analys<br>Option 1. The<br>Option 2. Mad<br>Solution:<br>1. Contact S | software<br>chine main | e language version is n<br>aboard language autho  | t installed correctly<br>ization is incorrect   |



Please check the error list info analysis and solution.

Notice: If your machine get error in software, take photo and consult ALLWIN local distributor engineer or ALLWIN factory engineer. This will help you faster fix machine