ALLWIN Pinch roller 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 3.5KW/15A LED UV lamp power: Single-phase electricity 220V AC 3.6KW/20A 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 6mm² 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

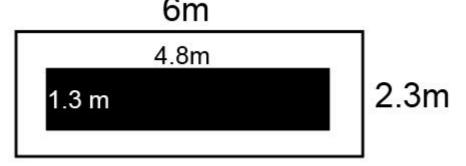
Memory: 16 GB

Video Card: 2GB GPU Memory card Storage: SSD 256GB+ 1TB HDD

Operating system: WIN10 64Bit / WIN7 64Bit

1.3 Environment Requirement

2 row pinch roller machine dimension: 4.84m(L)*1.32m(W)*1.56m(H) Min Room Space: 6m* 2.3m* 2.3m (width include 2 extend table)



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.

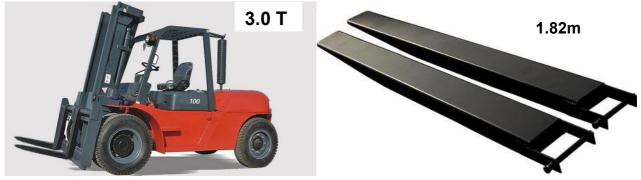
For machine repair or unknowing issues, please contact ALLWIN local distributor engineer or send email to ALLWIN factory.

Chapter 2 Hardware installation

2.1 Unload& Open machine non-fumigation wooden box

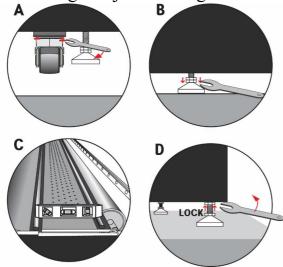
A. Please check the machine non-fumigation wooden box broken or not before open it. If meet cargo damaged issue please contact your local forwarder person, they will help deal it and apply insurance compensation.

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.

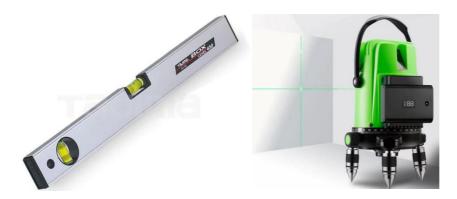
Notice: 1. Before you move machine with the machine wheels, make sure all machine height adjustment legs not touch floor.



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

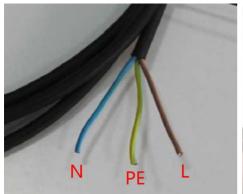
Move machine to right place, adjust machine leveling with professional device, such as: spirit level, Laser horizontal instrument.etc



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

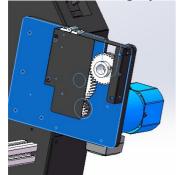
L-PE:AC220V~250V

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 feeding system and take-up system

part1: install take up system

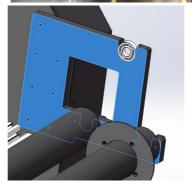


Part2: install feeding system









Part3: balance feeding media system

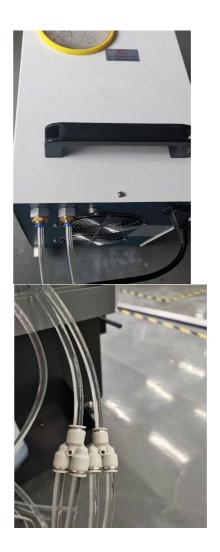






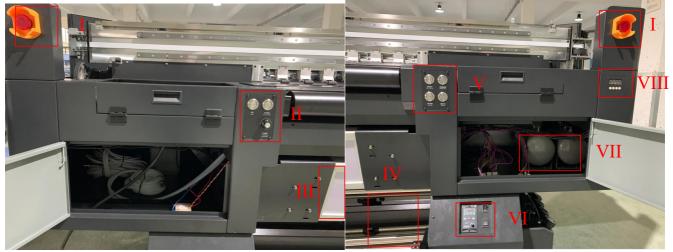
2.4 intall LED lamps chiller





2.5 Machine Main parts annotations

Side 1: machine Front side

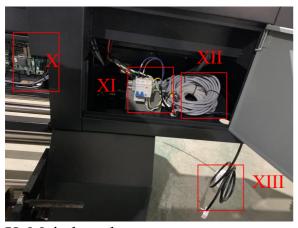


- I. Machine emergency stop button
- II. Machine start button, table vacuum button, adjust table vaccum
- III LED lighting for check backlit job
- IV. Machine collecting media parts
- V. Pinch Roller button, front tension roller button, LED lighting button, print table heating button
- VI. Collecting media system controller
- VII. Negative pressue store air tank
- VIII. Print Table heating controller

Side 2: Machine backside



- I. Ink pump and main filter
- II. Main ink tank
- III Feeding system controller
- IV. Emergency stop button
- V. Pinch roller button
- VI. X Y servo driver
- VII. Negative pressue pump and controller board
- VIII. 24V DC power box
- IX. Feeding media system

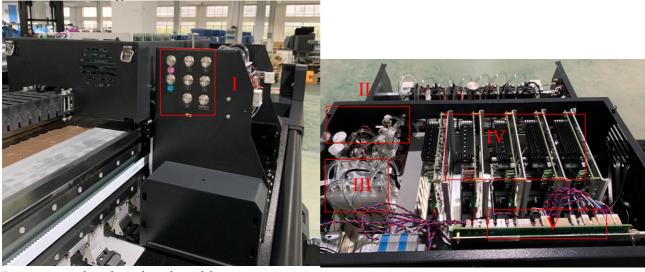


X. Main board XI. 220V AC breaker

XII. LED lamp power cable

XIII. 220V AC inputer

Side 3: Carriage side



I. Separately cleaning head buttons

II. Positive pump and 3 way electronic valves

III. Head adapt board

IV. Carriage board



VI. Left led lamp

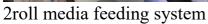
VII. Negative pressuemeter

VIII. Sub ink tank and pre heating control board IX. Right LED lamp

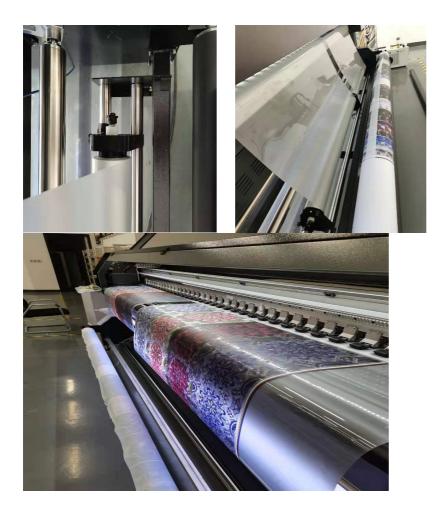
2.5 Loading media introductions

Install media and adjust the rotate speed according to different media Air shaft feeding









Soft film system











Chapter 3 Software install

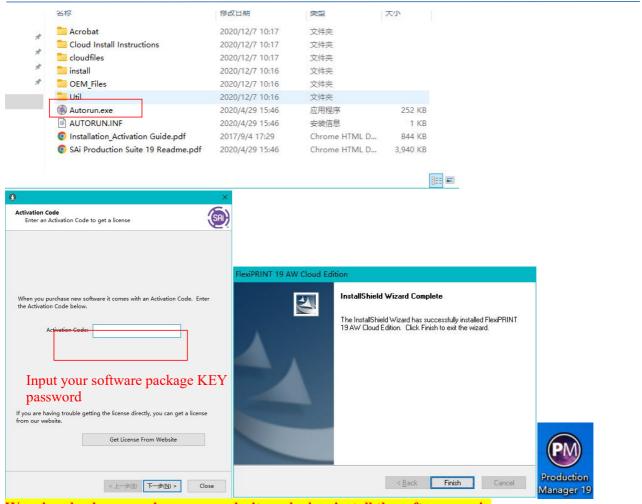
3.1 Photoprint RIP software

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





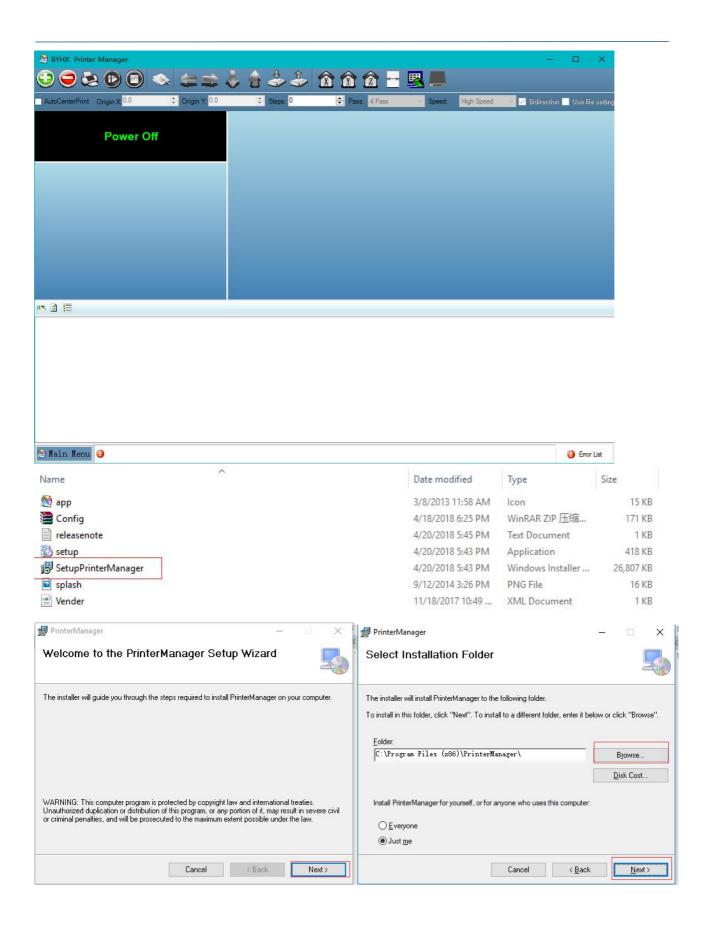
Install Photoprint software

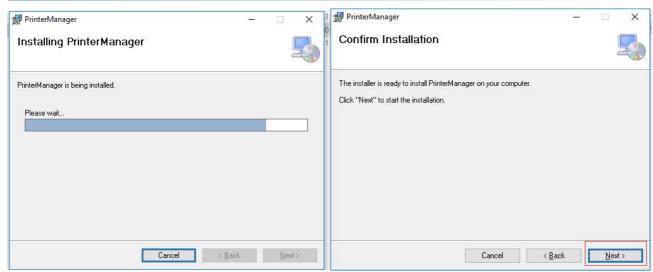


Warning: backup your key passwords, it need when install the software again

3.2 Printing software: print manger

Print software will load PRT format files which processed by Photoprint software. Notice: Please use right software version. If not clear what version needed please contact ALLWIN local distributor engineer or contact with ALLWIN official engineer





Last you get the software in Desktop



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 Negative pressure meter value

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

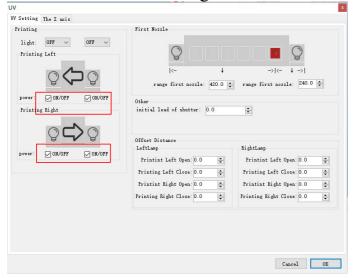
Check Room temp and humidity, Room temperature: 18 to 35 degrees, Room humidity: 35% to 65%

- Check head voltage and Temp in main menu/ Tools/ Real setting. 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



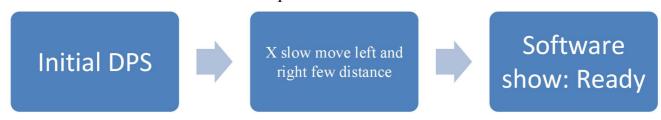
2 One Lamp 30% not lighting

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

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

