# Software operation and machine debugging

# Software driven installation

## Win7 system

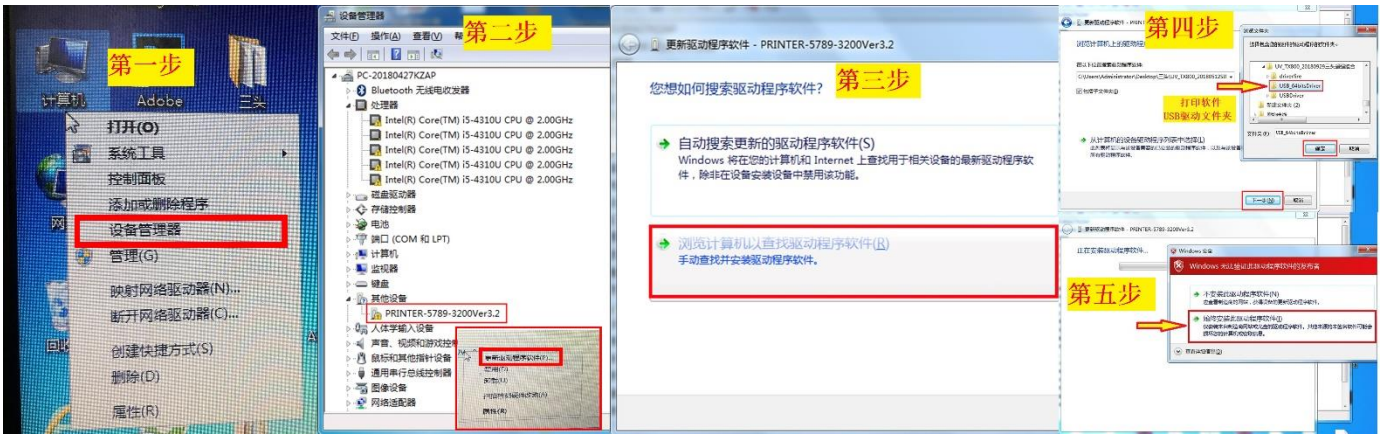
1、My computer → equipment management

2、Find the PRINTER-5789-3200Ver3.2 and then update the software

3、Manually find and install driver software

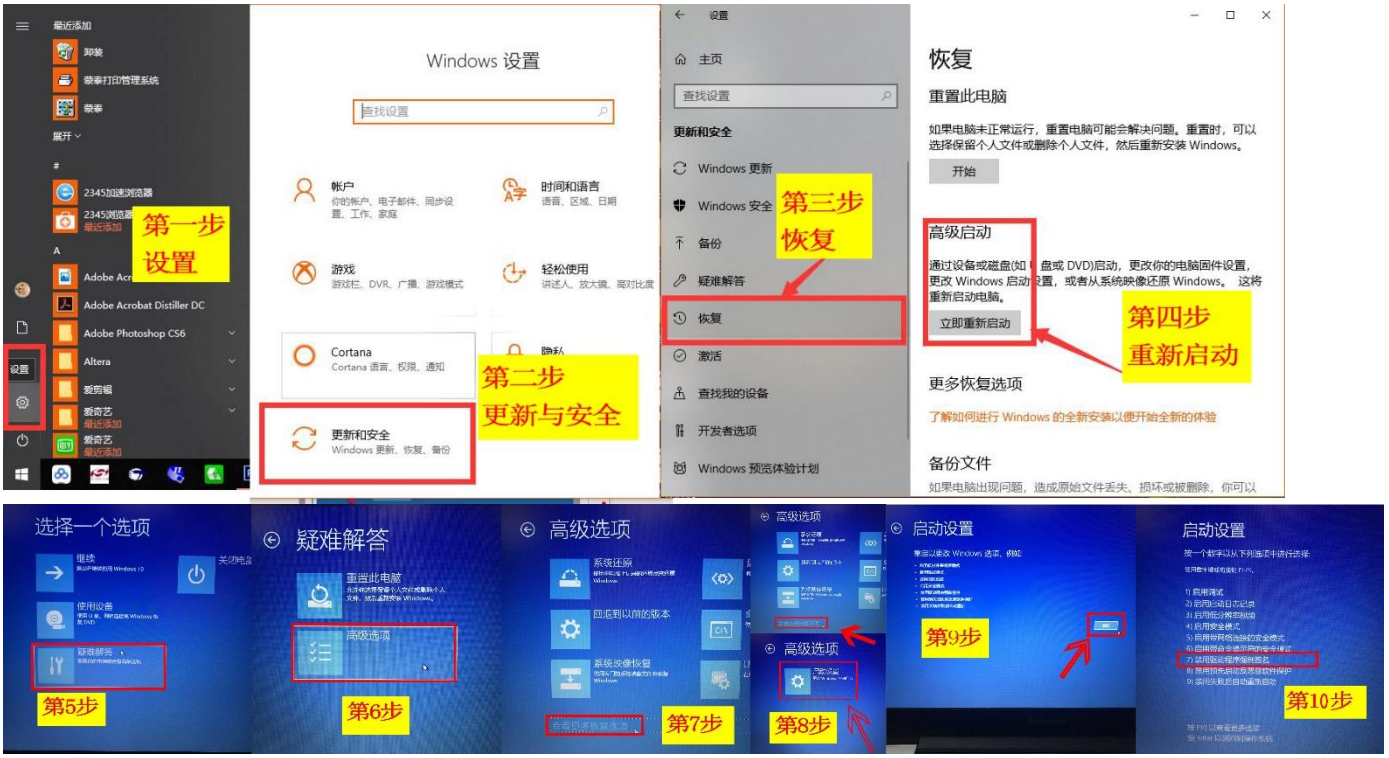
4、Find the file named USB_64bitsDriver　Click ok and next

5、Click always install this driver software to install the software and done!

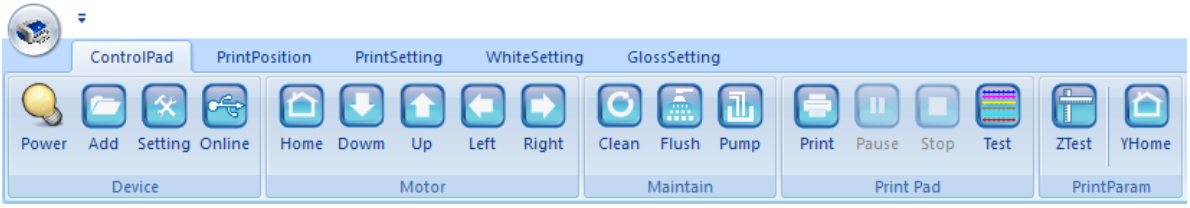



## Win 10 system

1、Set→2、Update and security→3、Restore→4、Restart→5、Troubleshooting→6、Advanced options→7、See more recovery options→8、See more recovery options→Startup Settings→9、Restart→10、No.7 Disable driver mandatory signature

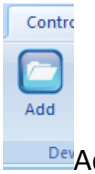



**After installation click online ,then you can see this interface**

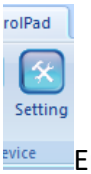



## Operation interface introduction——controlpad

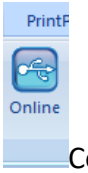

Whether the printer connect to software is power on or not




Add the printing picture

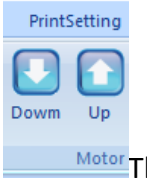



Enter to the printer machine debugging interface

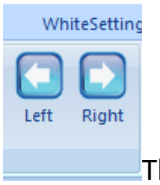



Connect the software to machine

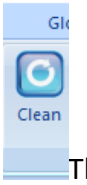

When the car moves out, click it and the car will return to the X original position automatically



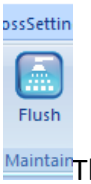

The car moves forward and backward in the Y direction



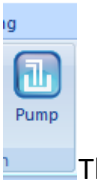
The car moves left and right in the X direction ( need to holding press )



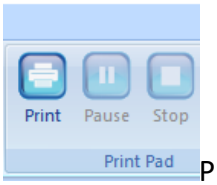
The ink stack suck and wipe the ink to clean the print head automatically, solve the problem of Poor printing.



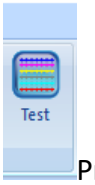
The print head keeps the ink - jet status to wash away any ink remaining on the dirty surface.But only for a while(about 5 seconds, then click it, it will stop ),then repeat the clean action to clean the print head thoroughly.



The ink pump do the suck action to the print head automatic, need to cancel after about 10-20 senconds ( generally it is used when you change new head or when clean is not perfect, after pump, you need to do clean again)

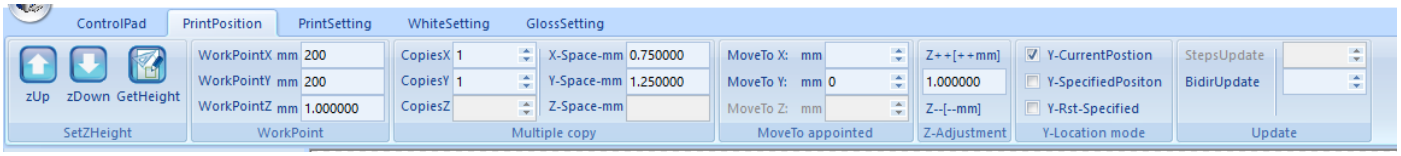


Print , pause,stop

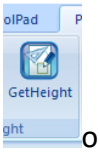


Print the status test strip of print head， Check the printhead output status

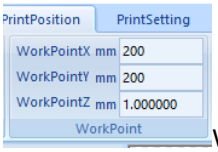
## Print position




control car go up and go down to adjust the print height ( you also can control it from machine button)



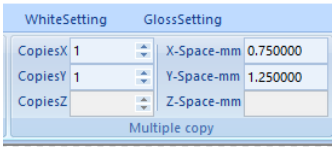
only if you use the button on printer to control the print height, you need to click “GetHeight” after you adjust the height



Work point X⟶ Set up the X direction print start position； Work point Y⟶Set up the Y direction start position； Work point Z⟶ Set up the print Height( this number will be changed automatically when you adjust the print height from Zup / Zdown)

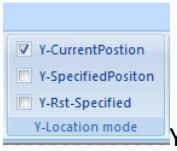
Tips: How to set up the print height:

1. You can click Zup to adjust the approximate print height, 2. Move the car to left and stay on top of the materials to watch the distance between head surface to materials if it is suitable ( generally around 2mm is best) 3. If not suitable, click the Zup or Zdown to adjust it until it is in good position.



set up the job copy numbers in X and Y direction if you need it, X-Space / Y-space, set up the distance between two jobs

move to X, no need to set up, move to Y ( only use for rotary system)



Y-Current position：The printer start print from the current stop position in Y direction；

(generally only used for test printing )

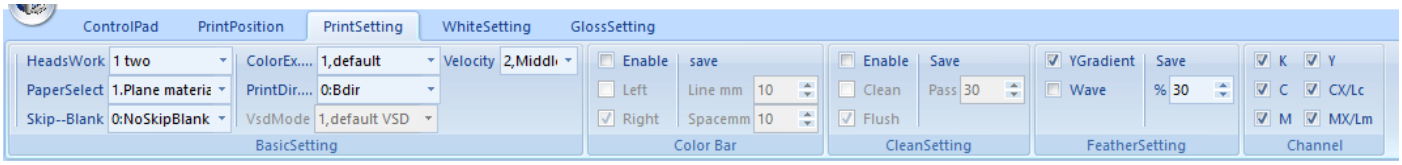
Y-specified position：Start print from the preset work point Y .

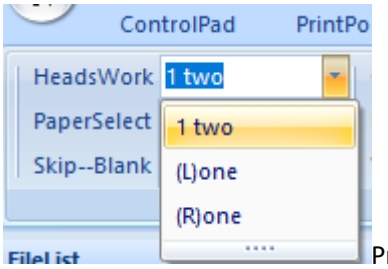
Y-Rst-Specified：before print the unit goes to the origin of Y direction，then move to the preset work point Y location to print

( need to select Y specified position and Y Rst Specified together )

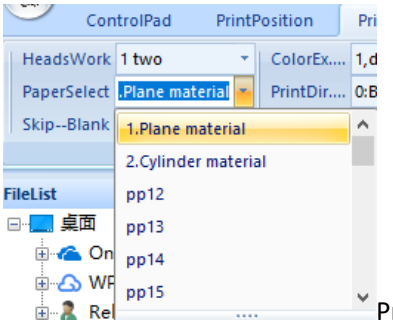
Adjust the alignment during bi-direction printing， avoid problems of overlap or dislocation ( generally no need to use ).

## PrintSetting

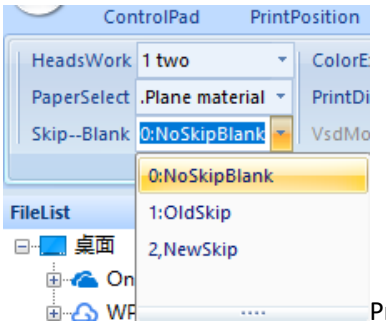




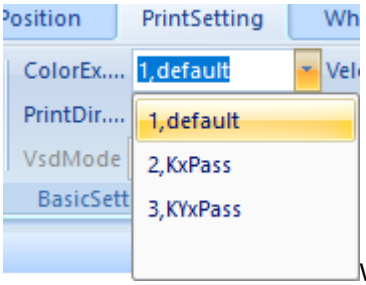
Print head setting ( no need to change )



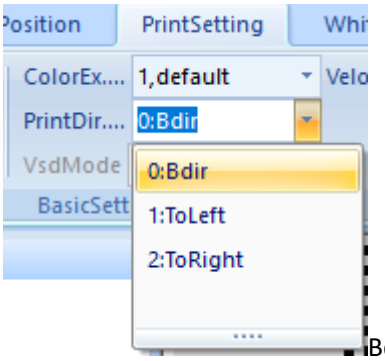
Print material Settings, general choose plane material



Print images automatically skip blank data areas，general choose 0-no skipblank



When the black→K yellow →Y ink is not enough can start doubling mode during printing ( generally, select default, no need to change )



Bdir：When the car go left or right ,the print head keep printing ink ( speed is double)

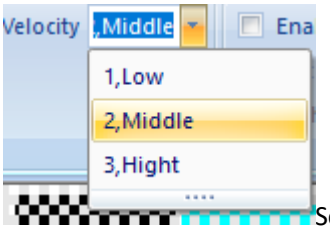
To left ： The head only printing ink when car go left

To right：The head only printing ink when the car go right

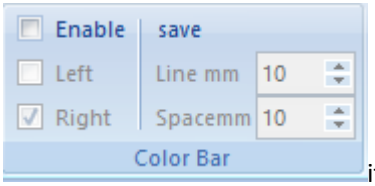
Tips: how to choose the print direction.

If you need fast print speed, select Bdir , but it will affect the print quality. ( generally need to set up the bi-direction value in software when you use this function)

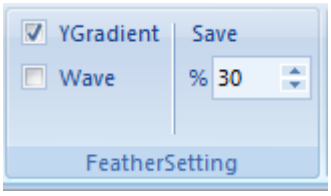
If you need high resolution print quality, choose to left or to right.



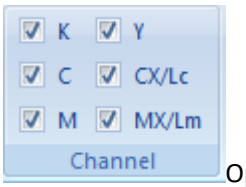
Set up the car move speed when printing in X direction : low, middle and high ( generally select middle )



if select Enable, it will print the ribbon of each color on left or right or both sides of the image, ( this function is used to check the if head status is good or not during printing )

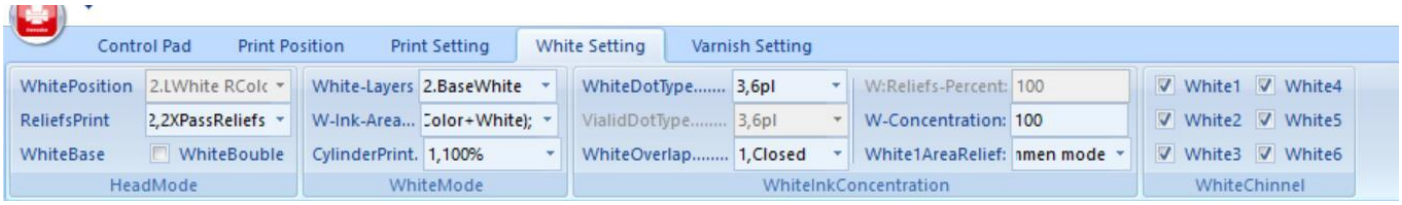


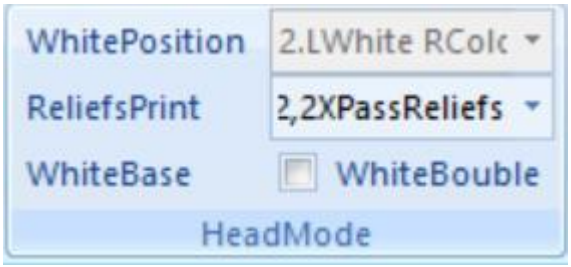
Set up the feather function to achieve a more better print effect ( select Y Gradient, no need to use Wave ), the value more big, print quality is more better, but speed is more slow.



Optionally close the single color channel of the print head ( no need to change)

## White and varnish configuration introduce



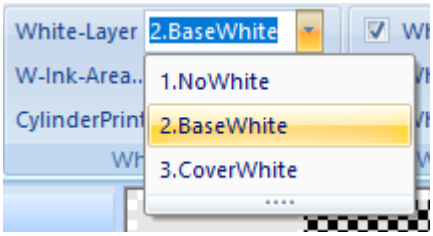




ReliefsPrint(Emboss) : 1,common means print white ink few quantity, but fast speed

2. 2XPassReliefs means print white ink in 2 times quantity, Improve print quality

3, 4XPass Reliefs means print white ink in 4 times quantity , High emboss effect printing and speed is slow

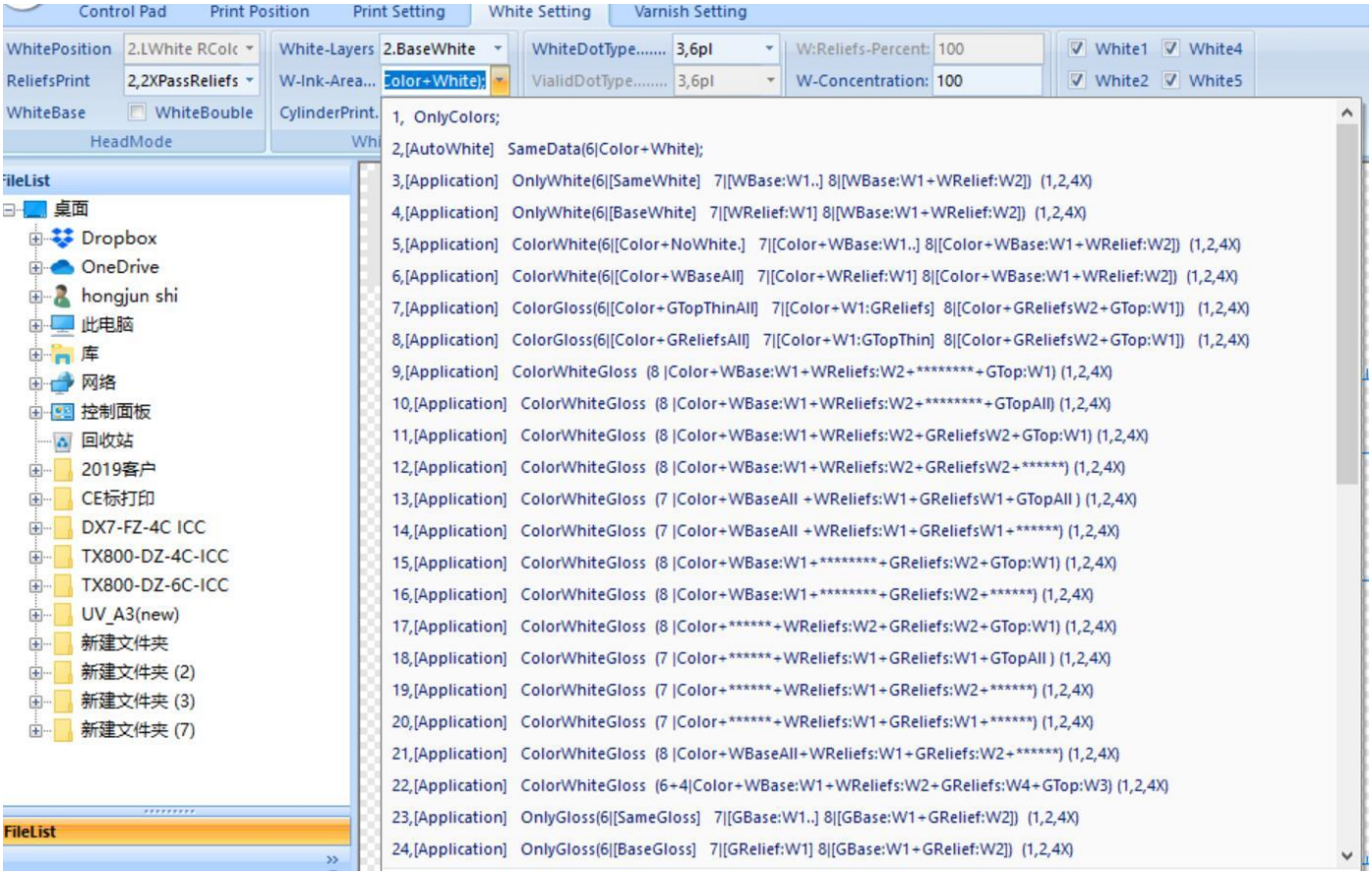
if choose, it will Print Double white ink




1 No white： not print white ink (same to only print color)

2 Base white： print white ink under color

3 Cover white：print white ink on top of color ( normally only used for mirror image print, such as print picture on transparent glass, acrylic etc )




**P.S: W =White G= Varnish (glossy) Reliefs = Emboss print W1= Spot channel 1 W2= Spot channel 2**

**WBaseALL = Print white ink on all area of picture**

**WBase:W1 = Print white ink in W1 area only**

**WReliefs:W1= Print white ink in W1 area only ( but with Emboss result, means it will print more white ink)**

**WReliefs:W2= Print white ink in W2 area only ( but with Emboss result, means it will print more white ink)**

**GReliefs:W1= Print Varnish in W1 area only ( but with Emboss result, means it will print more varnish ink)**

**GReliefs:W2= Print Varnish in W2 area only**

**GBase:W1= Print varnish in W1 area only**

**SameData= Print white under color**

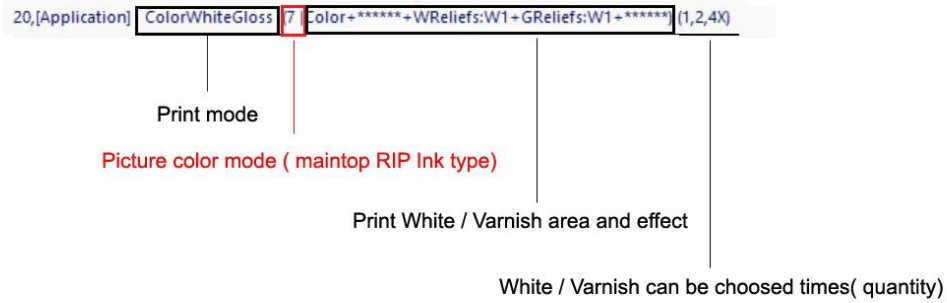
**SameWhite= SameData**

**BaseWhite= WBaseALL**

**GTopW1= Print varnish in W1 area on the top of the picture after printed**

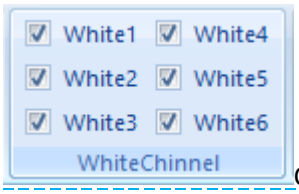
**GTopAll= Print varnish in all area on the top of the picture after printed**

**How to quickly understand it :**

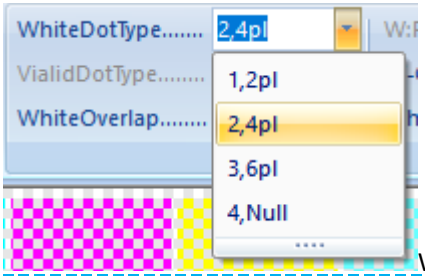



Example:

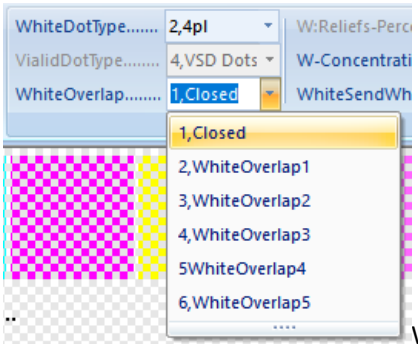
Print mode : ColorWhiteGloss = print color +white+varnish
7 = ink type is CMYK LC LM + W1
Color+WReliefs:W1+GReliefs:W1 = Print white in W1 area and Print varnish in W1 area
1,2,4X = you can choose 1 time / 2 times / 4 times white / varnish quantity print



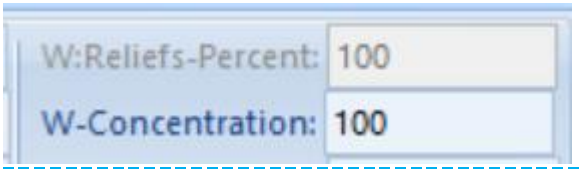

Choose the white ink channels which is out of the ink during printing ( no need to change )




White ink droplets size，2pl small size 4pl middle size 6pl big size, (more big, more white) Null = no ink

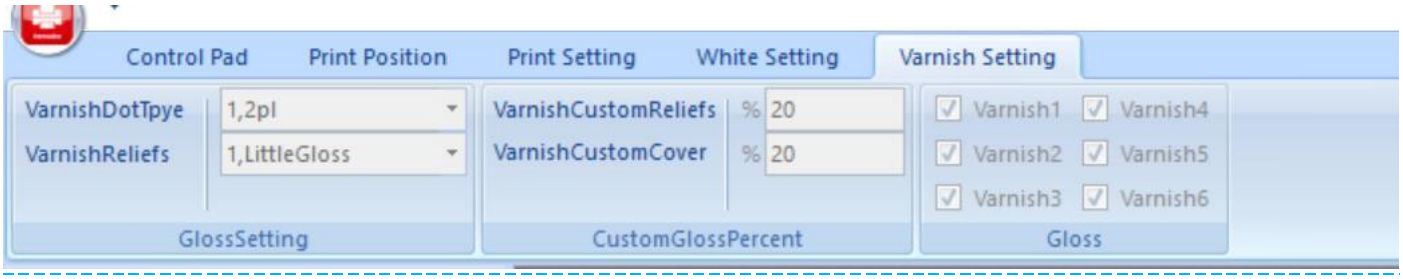



WhiteOverlap means the print times number of white ink. The more times you do , the relief ( Emboss ) is more thicker but the print will be more slower ( generally choose closed )

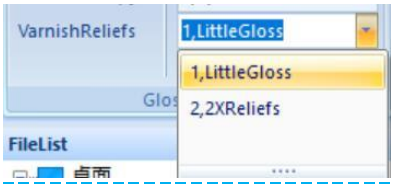


set white ink percent ( from 0 to 100)

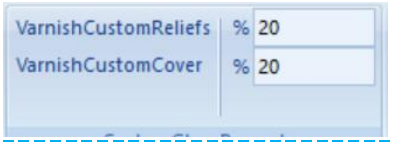
## Varnish configuration introduce



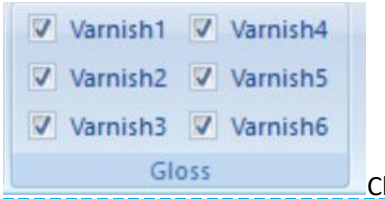

Set Varniash dot size



Set varnish print times quantity



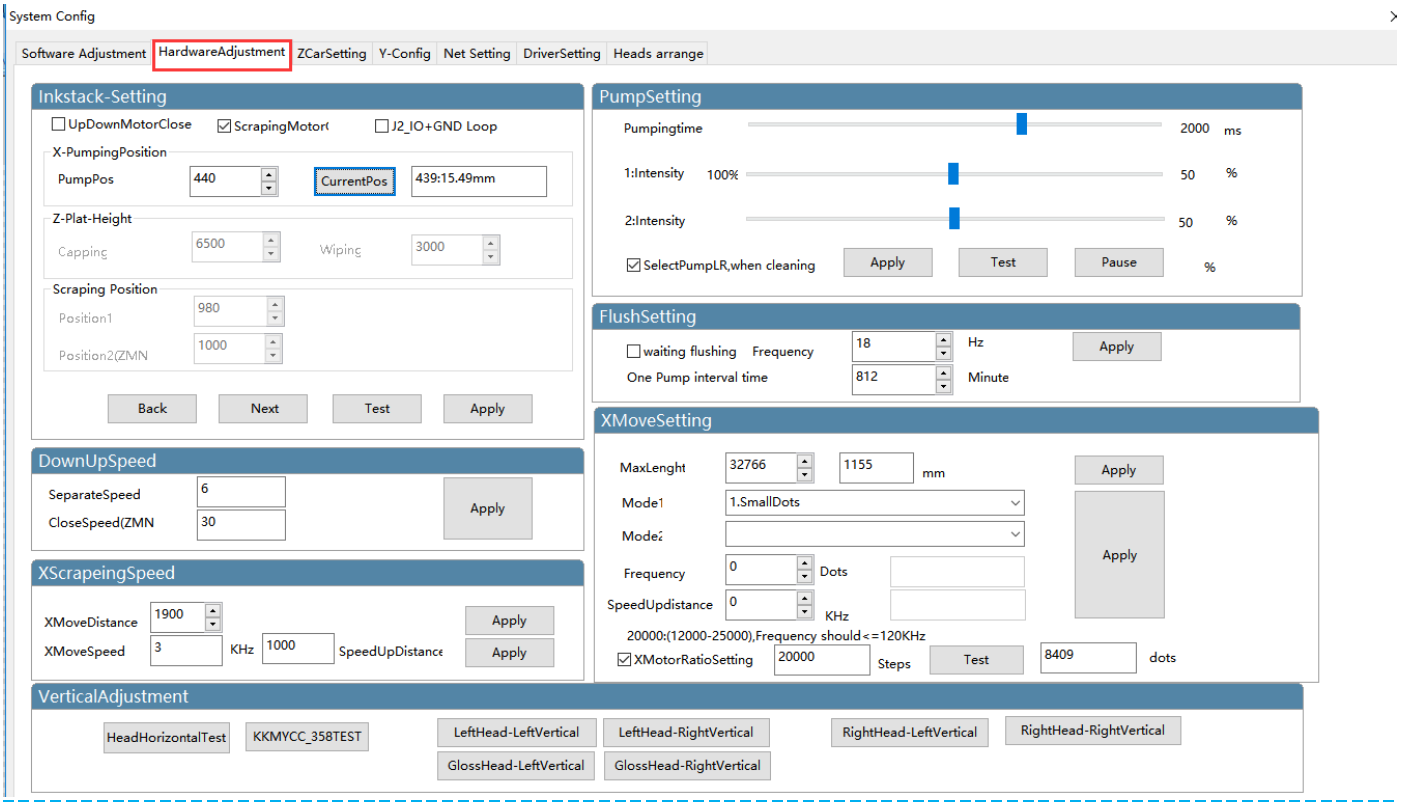
Set varnish percent

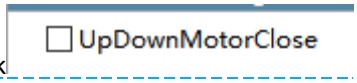


Choose the channels which is out of varnish during printing ( generally no need to change)

# Software debugging machine ( Engineer mode only)

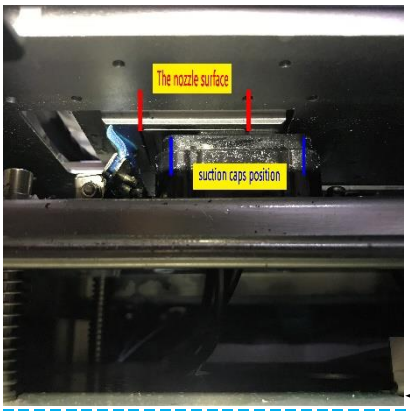
## Mechanical adjustment

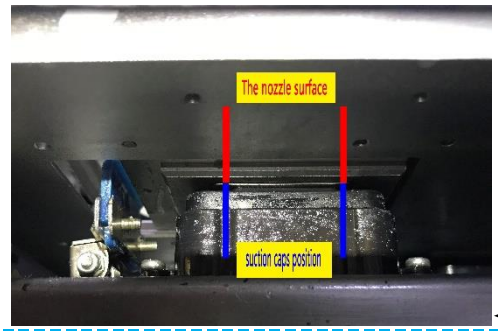



1，Do not check the automatic lifting ink stack 

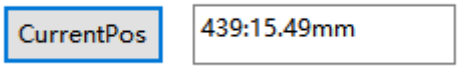

2， 

Adjust the position of car print head and suction caps to align



←The print head is staggered with the suction cap，reduce the numerical then the unit will go right， 

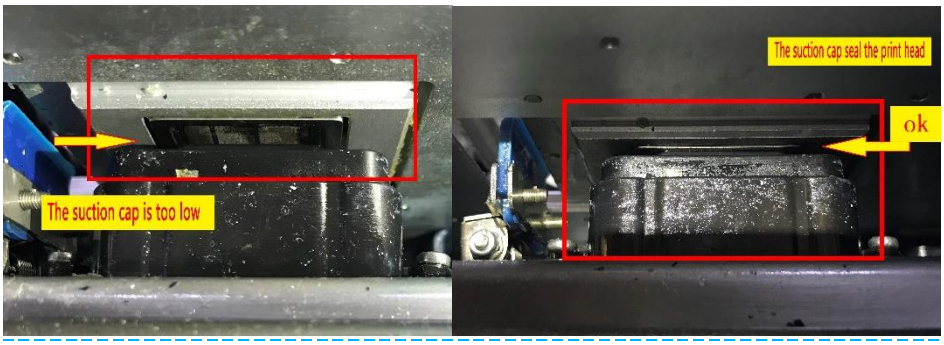
←Make it alignment

3， 

According to the grating value the unit moving in the X direction，the further away from the origin the larger the value

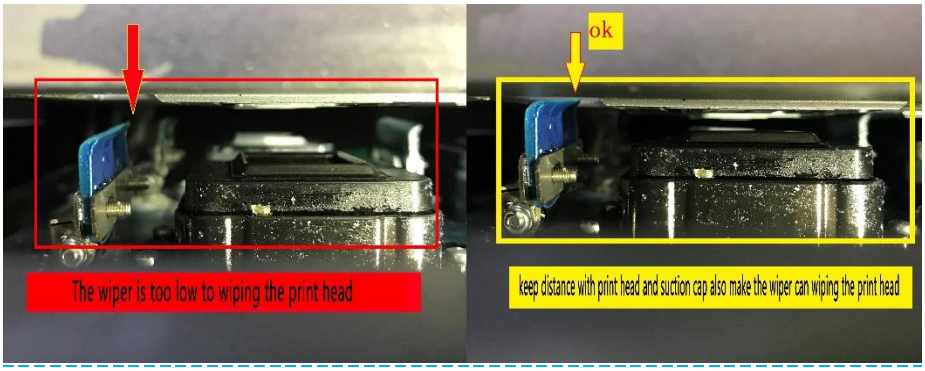
4， 

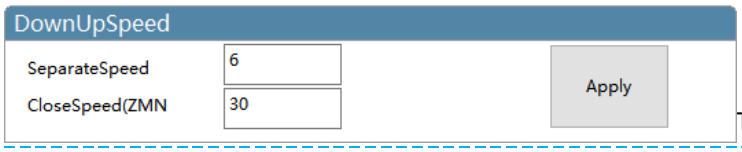
The height of sution cap raise to seal the print head



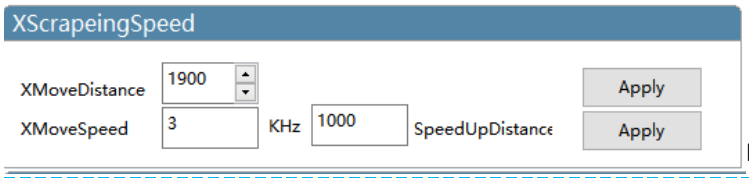

5， 

Wiper height:The raise height of the wiper to wiping the print head，make the wiper can wiping the print head but the print head is separated from the suction cap.

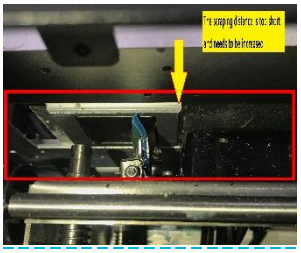


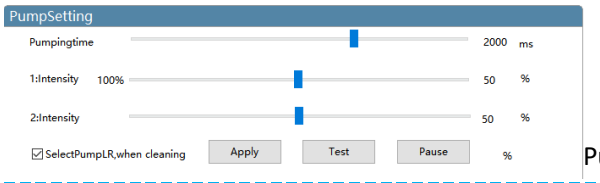

6， 

The down up speed of carriage unit

7， 

Move distance when the unit is cleaning and scraping

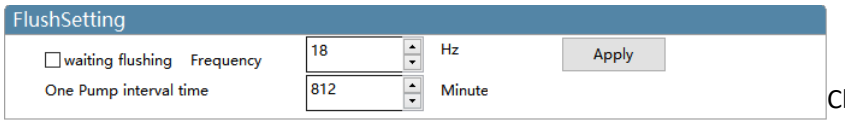

Wiping speed：the moving speed of the unit when scarping ink

8， 

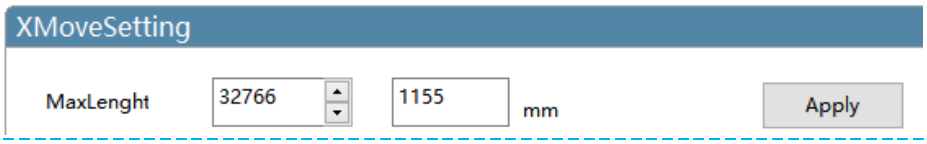
Pumping time：Automatic pumping ink time during cleaning；

The ink pump intensity：Strength of ink drawing

Choose the pump ink channel during cleaning：Choose which pump to clean

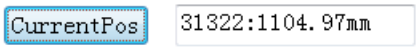
9， 

Check this option,automatic flash after restart,avoid print head blockage

10， 

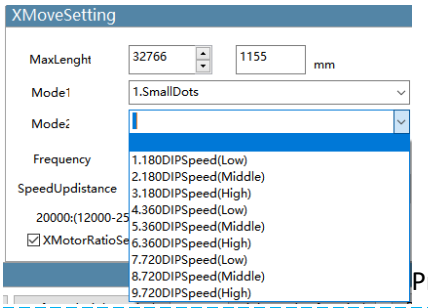
Limit the maximum distance the unit can move in X direction

Move the unit to the farthest distance  View the current grating location

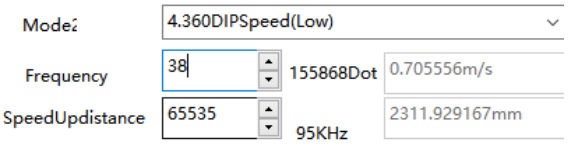




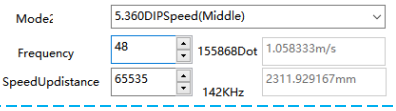
Fill in the number click apply，done!

11， 

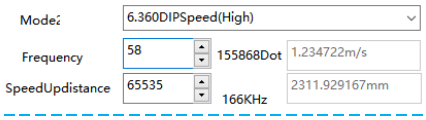

Print speed Settings: choose 360 DIPSpeed




Low speed 38



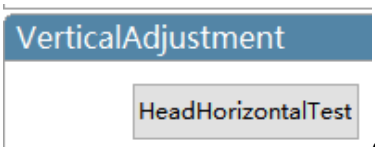

Middle speed 48

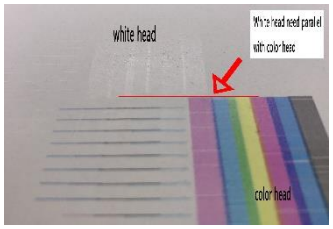



High spped 58

12， 


Automatic test motor gear ratio：fill the number 20000，if motor test number is between 1200~2500，then the gear set is right

13， 


Calibrate the two heads horizontally parallel， 


14， 

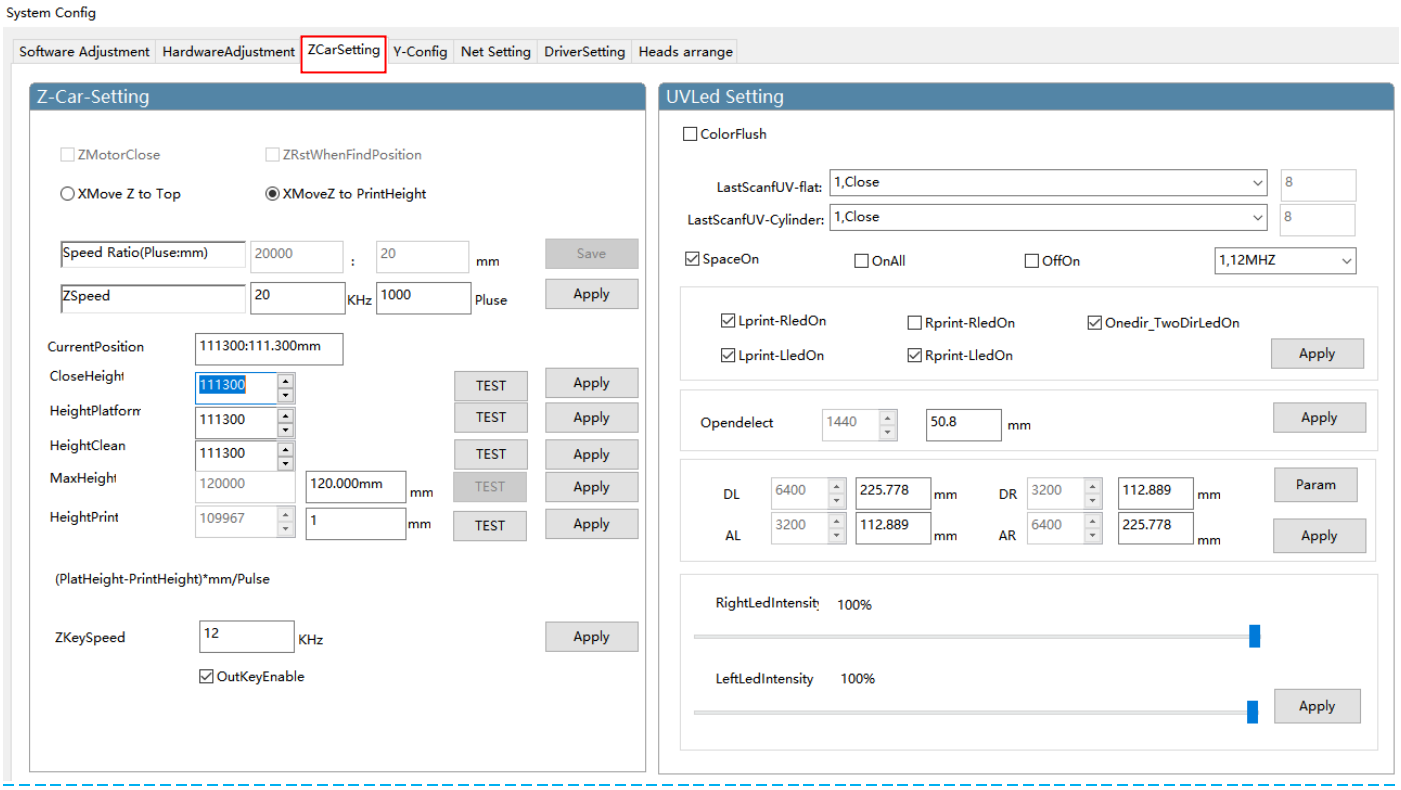


X moving direction and Y's are perpendicular during printing

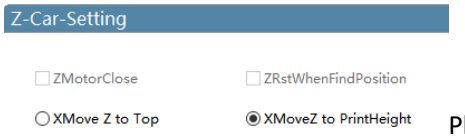
Click test，Move print head slightly to adjust and test 


←Adjust to figure

## Carriage unit setting




The higher the adjusted impulse value, the closer the unit is to the flatbed（The optimal distance is 2mm from the flatbed of the print head ）Test the best position and click apply to save



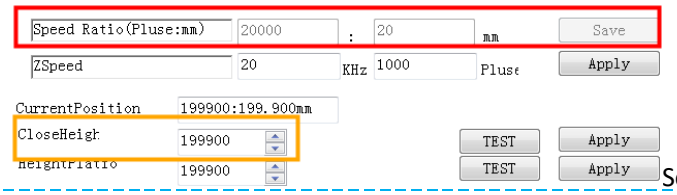




1， Please turn on the print head motor

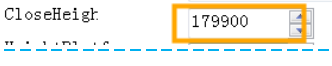
X Move Z to Top：move the unit，the unit automatically rises to the highest point then moving left or right

X Move Z to PrintHeight：move the unit，the unit rises to the set height of Z then moving left or right

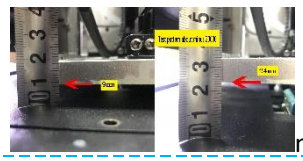



2， Set gear ratio of 20000 first,

For example the close height is 199900 ， Change the value minus 20000，

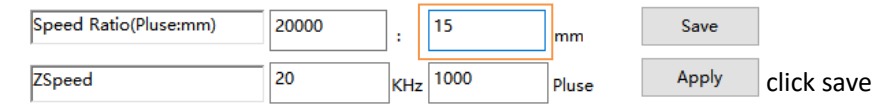



Take a ruler and measure the distance between the unit bottom and the flatbed，click test，

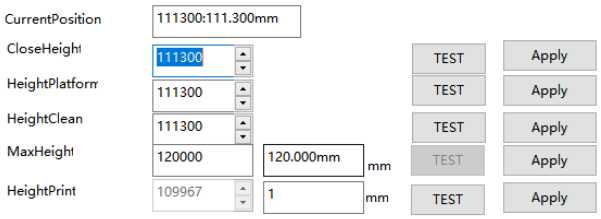


minus 20000

Pulse z moving distance is 15mm , Fill the value into the gear ratio




click save

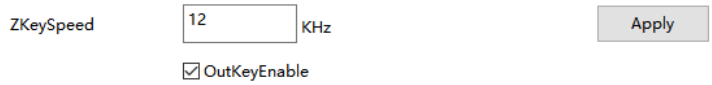



3, Close Height：The unit falling height Height Platform：The car descends to the platform's height (It is recommended to set the distance above 2mm to the platform)

Max Height： the farthest distance for Z axis goes down

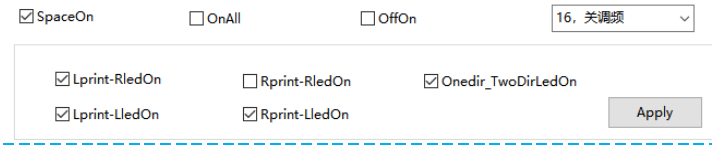
（Suggest Clean height close height and height platform to be consistent)。

Restart the line and slowly move the head to the left. Confirm again that the height of the print head is more than 2MM above the flatbed to ensure the safe distance of the print head）




4, Check the ✔, Machine out key can control the head lift


5, When printing textile or bottles, UV lamp extended irradiation time by tailing

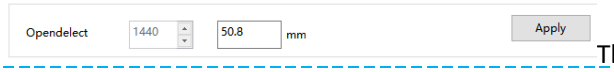



6,

7，UV lamp space on：The UV light is on when printing；On All:UV lamp keeps on；Off On：UV lamp keeps close

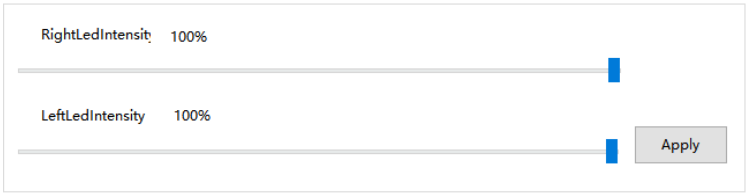
L print-R led on： right light on when printing to the left R print-R led on：right light on when printing to the right

L print-L led on： left light on when printing to the left R print-L led on：left light on when printing to the right



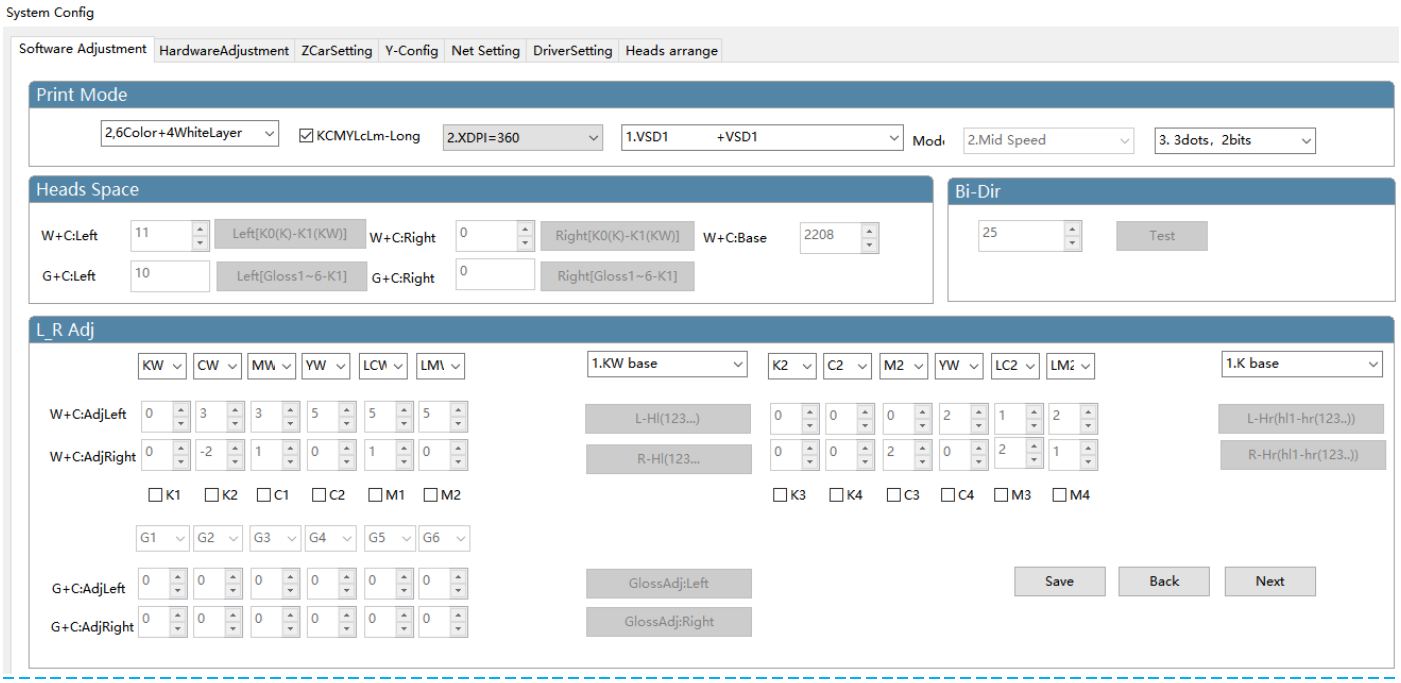

8, The UV lamp illuminates in advance before printing

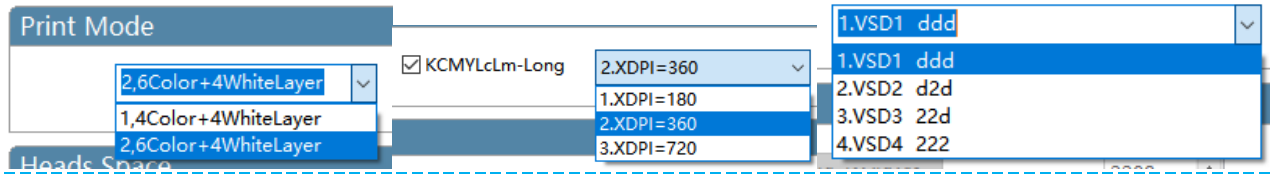

9, According to UV lamp specifications， measure the distance and fill in

10， 

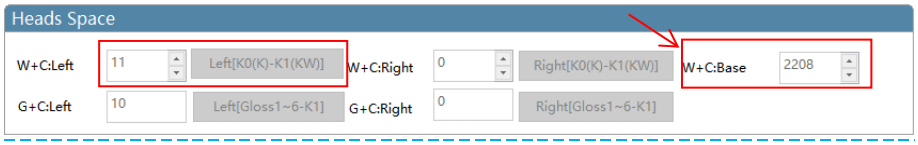
Control UV light intensity

# Software Adjustment



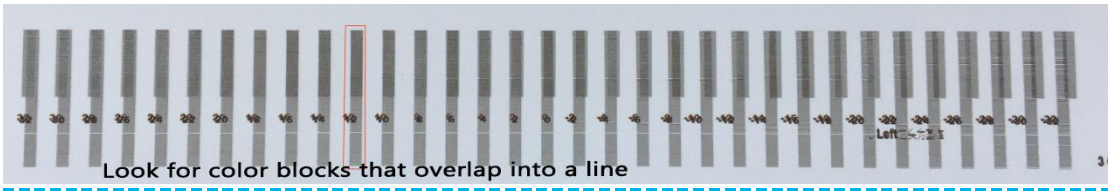

1， 


Select print mode based on print configuration and ink（**Select the best color printing mode according to the company suggestion，Please do not change it.**）

2， 


W+C:Left：Move to the left and print color to align with white

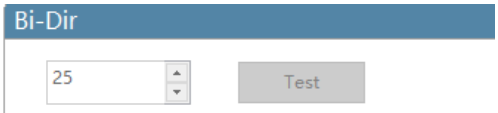
The calibration is based on the left head，make sure the white and color has a left interval of 0，click the test and observe the test bar，find the number where the color blocks overlap，add or subtract the original value of the white and color datum，save，**Calibration standard is the test bar 0 position color blocks overlap into a straight line.**




W+C:Right：Move to the right and print color to align with white

Click the test bar to directly fill in the original value and add or subtract

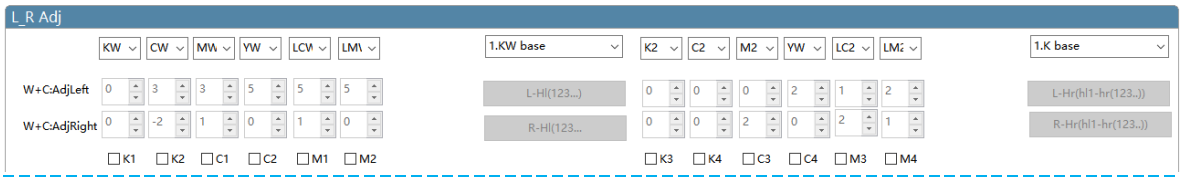

Print the picture at left and right intervals，then manual calibration



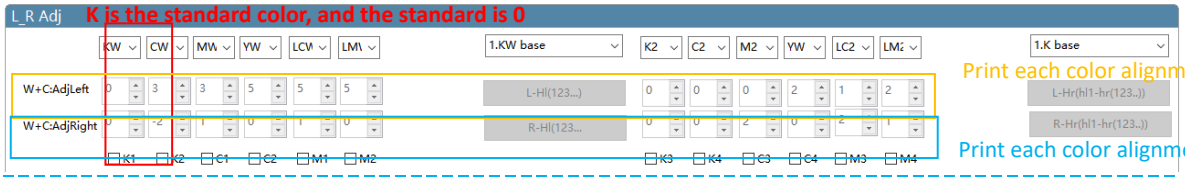

3，

Print the color alignment of the unit to the left and to the right，same with test bar，fill in the numerical add or subtract

4，




Move the white and color head to print left and right ， color calibration for each channel，K is the reference color "0".，click test，observe the test bar，fill in the numerical add or subtract

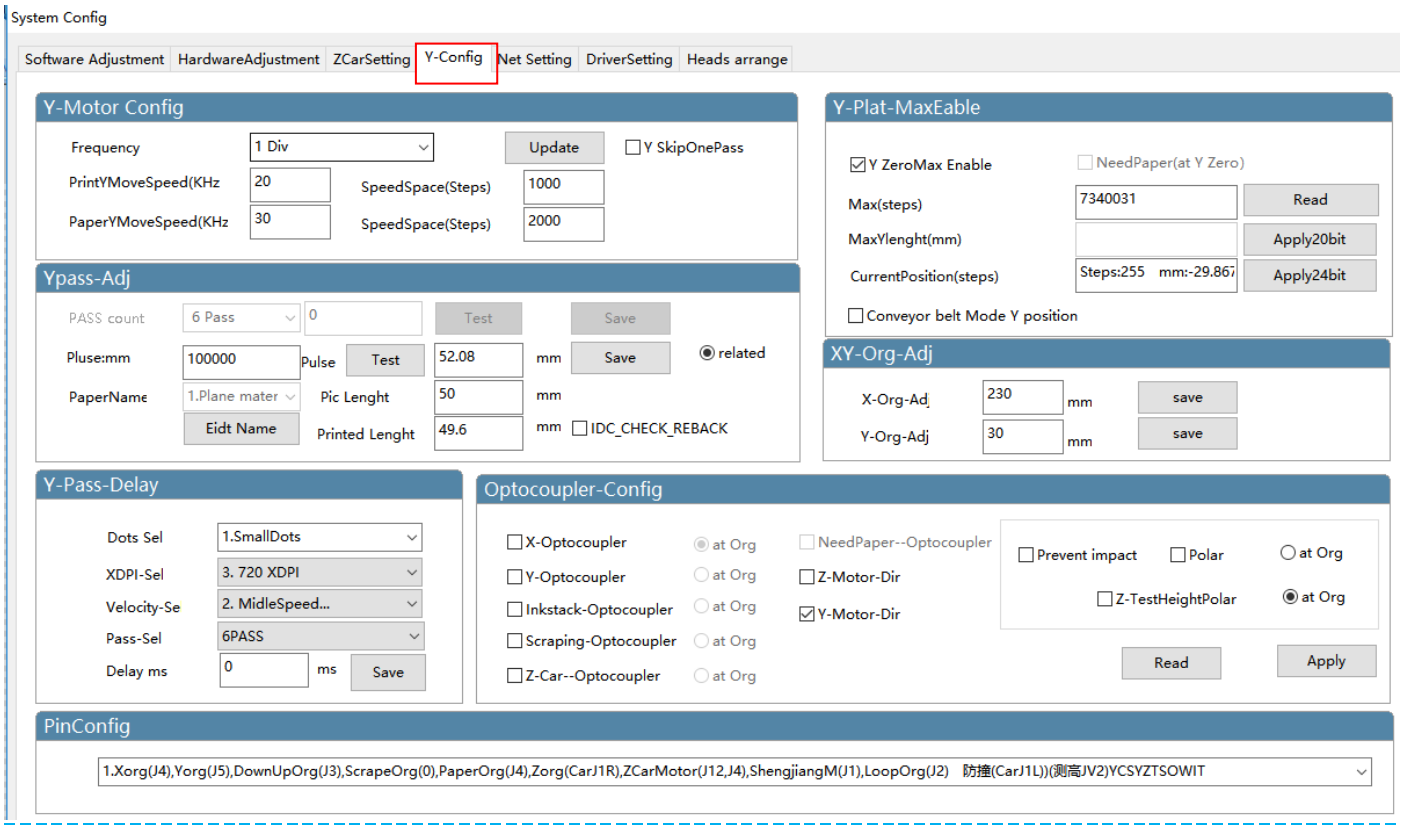


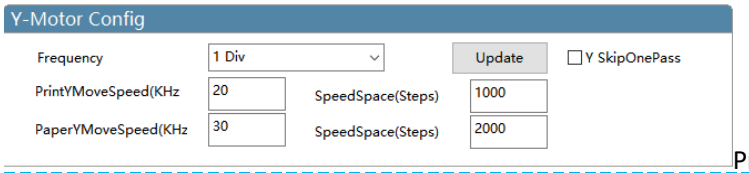


5，

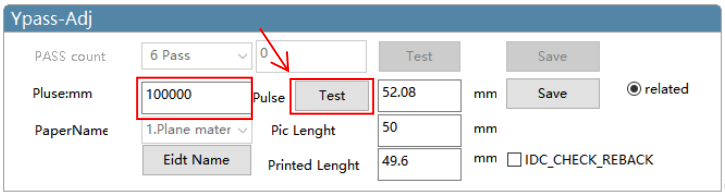
When the test bar appears logical inverse，click the channel，correction logic，please do not check any channel in normal time

# Y-Config

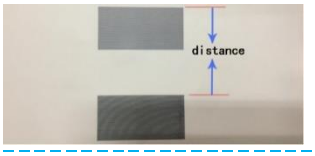


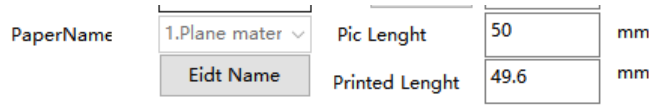

1，Print and paper running speed Settings



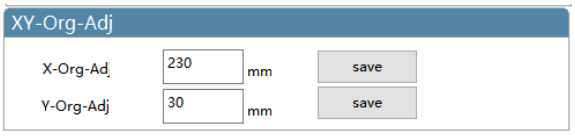

2，Calibrate the Y print step，fill in the number，click test，measure the distance between the two color blocks



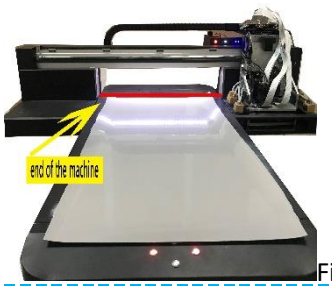

Fill in the measured distance，save

3， 

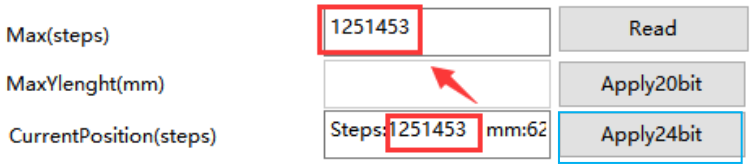
Correct the paper step again.For example：Plot the length of Y is 250mm，The actual size of the printing is 249，Check the √ compensation again

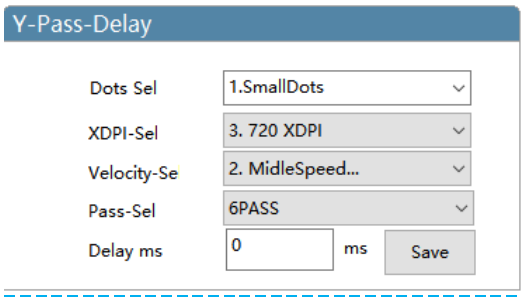
4， 

X,Y-Org-Adj：set the origin of XY to be 0，print the location image，measure the distance of XY starting point and the starting location that needs to be located，Input corresponding value，click save（If the print image exceeds the registration point，you need to subtract the corresponding value at the XY origin compensation，or add the opposite ）

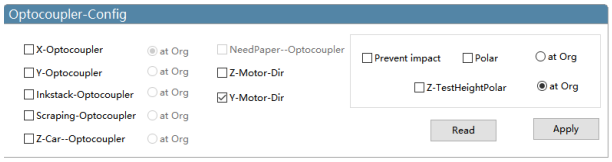
5， 

Fill the current position with the "maximum advance value",ues 24bit



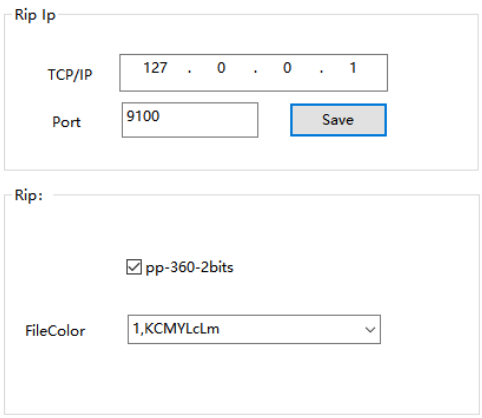

6， 


Y-Pass-Delay：When unit print to the left, it will stop for a time delay before continuing to print to the right

7， 

Optocoupler polarity is set according to different types of optocoupler，if the optocoupler does not respond, need to check the optocoupler polarity，please do not change under normal circumstances

## Net setting ( do not need to use )




Print directly on montop's drawing,

**Net setting setting method:**

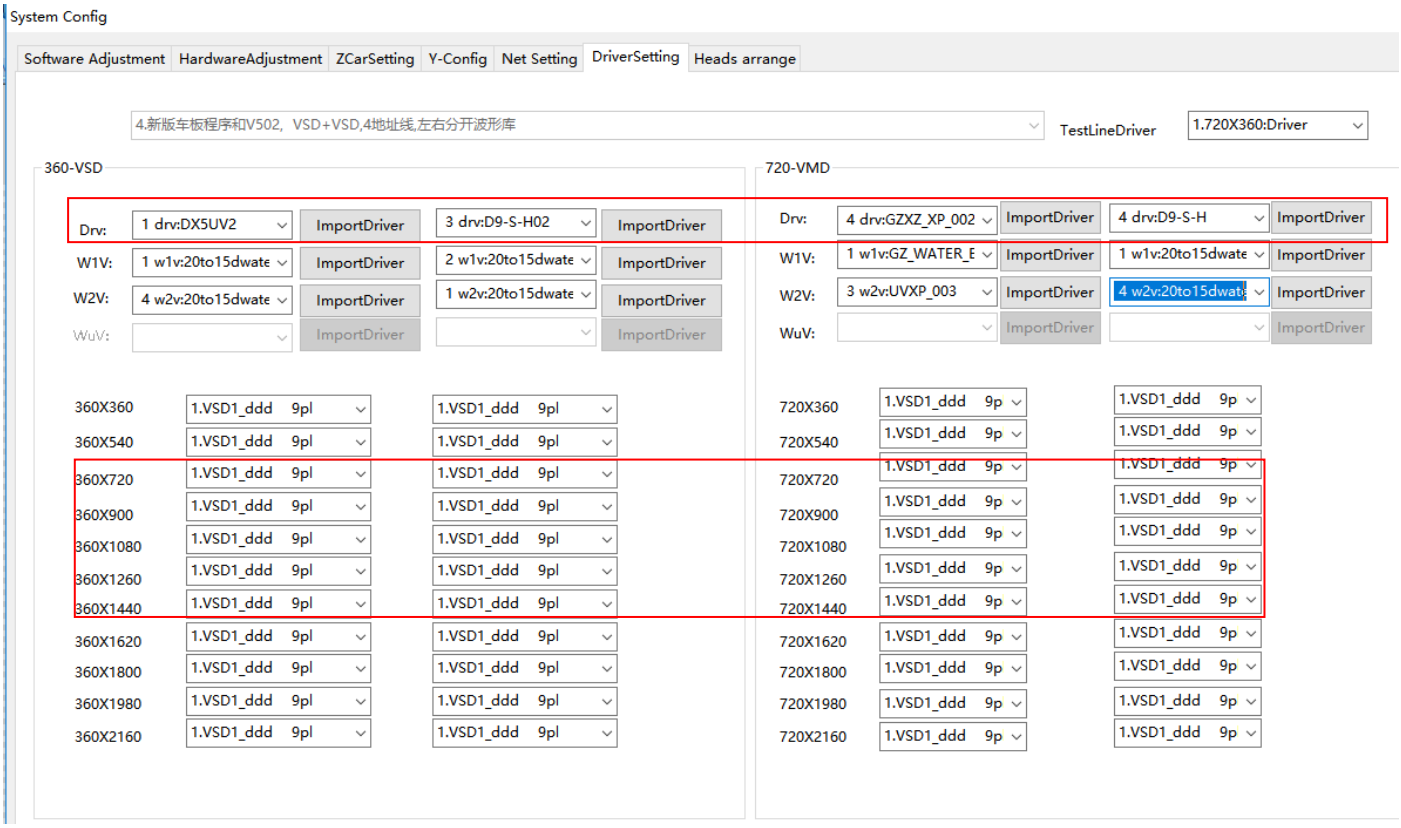
After the first printing file was sent by montop, the port was not added and the printing could not be completed.The method is as follows:

 (click to open the small computer in the lower right corner of the computer)Or open montop one by one.

Montop--MON-mt_mon operational procedure-management-the port set-Setting TCP port-Add the port-IP address 127.0.0.1

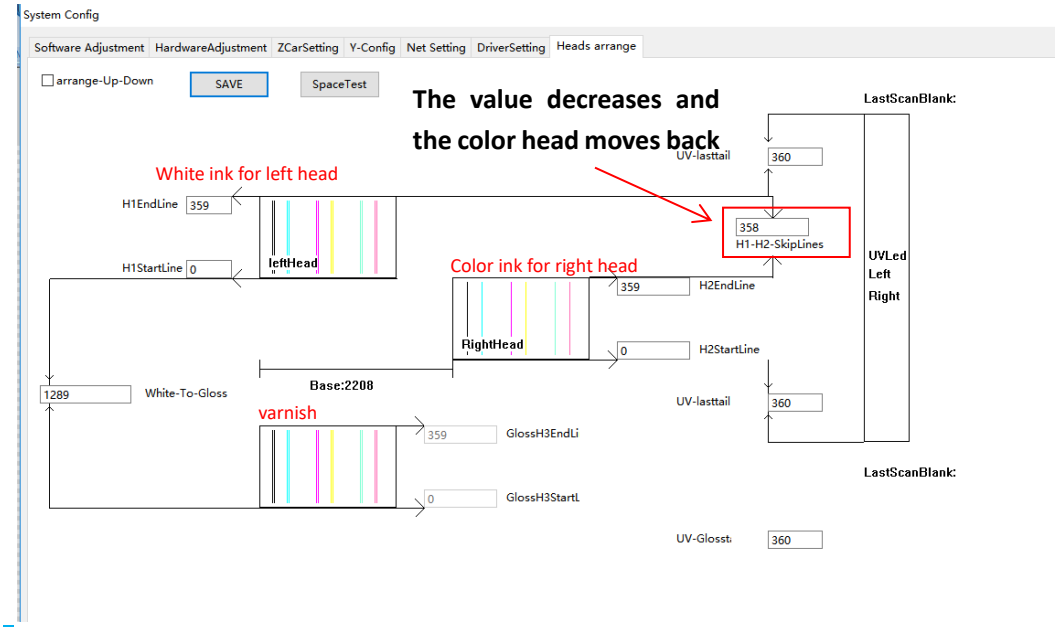
Detection-Jump out of the 9100 port number-Successfully adding

## Driving setting ( do not need to change )




do not change it

## Heads arrange




After vertical adjustment of print head，Painting found before or after white ink and color ink have dislocation,can be adjusted by the print dislocation interval value，software to alignment；

Adjust the white ink on the left head as the benchmark，reduce the value and move the color ink back（The length of the ink hole of the TX800 print head is 360）

Tx800 Color print head ink out sequence