

## Safety Instructions

### Manual application standards

To prevent injury and loss of property, please use T-shirt printer safely and properly. The knowledge of safety and prevention is classified into 3 categories in the manual. Ensure that the differences between these categories are fully understood before reading the manual.

**DANGER** If this kind of preventive information is ignored, will most likely cause serious injury to the operator.

**WARNING** If this kind of preventive information is ignored, will be likely to injury the operator seriously.

**CAUTION** If this kind of preventive information is ignored, Can lead to operator injury or T-shirt digital printer damage.

### Safety symbol interpretation



This symbol indicates information: Note dangerous.



This symbol indicates information: Disable operation.



This symbol indicates information: Must perform the operation.

### T-shirt printer installation notes

## WARNING

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Not install the T-shirt printer nearby volatile solvent, such as ethanol or diluent.

Contact of volatile solvent with inner electronic components may cause fire or electrical short circuits.

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The following similar goods shall not be placed on the T-shirt printer.

Contact of these goods with inner electronic components may cause fire or electrical short circuits.

Metallic goods similar to neck ring.

Goods similar to glasses, vase, indoor plants, including water and other liquids.

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## CAUTION

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Not place T-shirt printers in a weak position, such as slope or place liable to shake or vibrate.  
This placement area would result in turnover or damage of the T-shirt printer.

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Not place heavy object on the T-shirt printer.  
Heavy objects may tip over and damage to the machine.

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If the T-shirt printer is placed on a smooth and flat desk, wheel brake shall be used to avoid moving while using T-shirt printer.  
Improper placement of the T-shirt printer would result in turnover or damage of the machine.

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Avoid using the T-shirt printer in the following places.  
Use of the T-shirt printer in the similar places would likely result in fire or short circuit.  
The excessive wet or dry place.  
Place subjected to direct sunshine.  
Place at high temperature.  
Place nearby open fire or moisture.  
Use of the T-shirt printer in the following places would result in printer fault or failure.

- The place would generate strong magnetic or near the magnetic field equipment.
- The appropriate temperature for using T-shirt printer is 20°C-30°C and 50%-70% humidity.

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Sufficient operation space shall be ensured around the T-shirt printer.

- For smooth operation, adequate operating space should be reserved around the T-shirt printer (Before and after about 2m and left and right about 3m).

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#### **Precautions for safety of power supply**

## **WARNING**

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Not damage power cable or try to repair it, not place heavy object on power cable or excessively bend it.

- Otherwise, electric leakage may result from the damage location, which would cause fire or short circuit.
- Not insert or withdraw the power supply with wet hand, which would result in short circuit.

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#### **Not connect excessive devices on the same power socket**

- Otherwise, fire or short circuit would occur.

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#### **Not bind or wind power line**

- Otherwise, fire or short circuit would occur.

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**Surely insert the power cable into power socket**

- Otherwise, fire or short circuit would occur.
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**Not use power cables different from the T-shirt printer provided ones**

- Otherwise, fire or short circuit would occur.
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**At connection of the earth, the followings shall be noted:**

- Connecting-allowable earth wire
  - Earth terminal of power supply
  - Perfect earth terminal of ground rod
  - Connecting-unallowable earth wire
  - Water pipe
  - Gas pipe
  - Phone wire and anti-lightning wire
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## CAUTION

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**Use adequate power voltage as per the instruction**

- Use of undersigned power voltage would result in fire or short circuit.
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**For disconnecting the power cable, withdraw the plug, instead of the power cable proper.**

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**Generally, additional power cables shall not be used.**

If additional power cables are used, the total ampere of the additional power cables inserted into the equipment shall not exceed the rated ampere of the said power supply. The total ampere of the all devices inserted to wall shall not exceed the rated ampere of the socket on the wall.

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**The power plug shall be easily withdrawn at any time and around it there is no object.**

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**Well earthing shall be ensured. The used socket shall not be in the same circuit with the devices which are regularly switched on/off such as copier or air conditioning system.**

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**The socket which is controlled by on-wall switch or automatic timer shall not be used.**

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**Keep your computer system away from the potential electromagnetic interference sources.**  
e.g. louder speaker or wireless phone base.

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**Not use damaged or worn out power cable**

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**Instruction to operation safety**

# WARNING

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**Not try to disassemble or repair the T-shirt printer by yourself.**

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**In case of abnormal noise,smog,elevated temperature,strange odor,or other abnormal function of the T-shirt printer,immediately cut off the power supply,withdraw the power cable,and contact with Atexco.**

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**Around the T-shirt printer,not use inflammable goods or other similar things.**

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**Before moving T-shirt printer,cut off the power supply and withdraw the power cable.**

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**The power switch shall be used to cut off the T-shirt printer.At pressing this key,the power is cut off.Before the power supply is cut off,the plug or data wires of the T-shirt printer shall not be withdrawn.**

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**Before moving T-shirt printer,set the printhead at its initial position and fix it.**

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**During operation of the T-shirt printer,not touch any metallic components or printhead.**  
Otherwise,printing fault would occur.  
Static charge would be generated,which would lead to damage.

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# CAUTION

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**Be aware of internal electrical components that prevent metal objects or liquids from touching,otherwise,fire or electric shock would occur.**

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**During printing,do not put hands on the T-shirt printer.**

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**The printhead shall not be moved by hanads,otherwise,the T-shirt printer would be damaged.**

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**The power cable shall be correctly connected.**

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**In any of the following cases,cut off the power supply and then make repair by experienced maintenance personnel:**

Damage of power cable or plug

Splashing of liquid into T-shirt printer

Dropping of the T-shirt printer or breaking of the casing

Failure of the T-shirt printer to normal operate or obvious change of performances

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**Maintenance and preventive check**

## **WARNING**

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**Before cutting off the power supply and withdrawing the power plug from the power socket,not conduct any cleaning operation.**

Otherwise,fire or electric shock would occur.

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**Wash T-shirt printer with cloth that has been moistened with cleaning solution,and shall not be washed with volatile solvent such as ethanol and benzene.**

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**No lubricant may be used for any components of the machine.**

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## **CAUTION**

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**The place from the power plug to the power socket as well as the surrounding area shall be cleared off at least once a year.**

The collected duct would result in fire.

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**During cleaning or checking inside of T-shirt printer,take cares not to touch the metallic objects(such as neck ring or bangle)with any inner components.**

Which would result in injury or electric shock.

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**Precautions for use of consumables**

## **WARNING**

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**Take cares to avoid splashing of ink into the eye or mouth**

Which would result in difficult breathing or damage of your eyes.

In case of splashing of ink into eyes,immediately see doctor,

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**In case of taking ink accidentally,immediately see doctor,instead of trying to induce vomiting.**

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**Entrance of ink into the T-shirt printer would damage the machine and impair its surface coat.**

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# CAUTION

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**For sake of safety,store the printhead and ink in the palce inaccessible to children.**

If the ink is contacted by tongue or is ingested,immediately see doctor.

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**The not-designed ink shall not be used,otherwise,the printing quality would be impaired,and fault would occur.**

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**The expired ink shall not be used,otherwise,the fault would occur.**

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**Dispose the wasted ink in accordance with related regulations.**

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**Take cares to avoid contacting the ink with your skin or cloth.If the ink contacts your skin,immediately flush skin with soap and water.**

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**Regularly check waste ink bottle to avoid overflow.**

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**Store the ink in dark,and cold place,and prevent it from high temperature or direct sunshine.**

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#### Required items

●During printing ,do not move the ink bottle.Otherwise, the printing quality may be reduced or the printer will fail.

●During printing,do not cut off the power.Otherwise, the printer may fail or print failure.

Before ink fixed,please be careful to the T-shirt.If the ink gets dirty T-shirt,even cleaning would not be completely clean.

●To maintain print quality,clean the printheads,wipes and ink caps regularly.Insufficient maintenance,will stain T-shirt and block printhead to make painting worse.

●Do not use ethanol to wipe the printhead and wipe.Otherwise,printhead would be damaged.Be sure to use the cleaning solution to clean the surroundings of printhead.

Pay attention to ink usage in ink bottle and add ink in time.

●Avoiding direct sunshine to store new consumables.Please use it before the expiration date indicated on the ink and the pretreatment agent. In addition, color ink should be used up within 6 months after opening.

●If the printer is unused for a period of time, the printhead and maintenance module will be blocked due to ink drying.To avoid this, recommend that you clean the printhead once a week to clean the surroundings of the printhead.When not using the printer for at least 2 weeks, please follow the maintenance rules required for long-term storage.

●String white ink one time daily(about 30 seconds to 60 seconds) before use.

●When used, please keep the gap between the sensor and the printing surface at least 2mm.If the gap is too large, the ink fog will fly to the inside of the printer to make the surface of the printing surface and trigger the malfunction of the sensor.

●Using the sprayer or former treatment agent to apply the pretreatment agent, the pretreatment agent maybe atomized and dispersed.Please pay adequate attention to the ventilation if you do pretreatment . In addition, please wear a mask and goggles.

●Some T-shirts may have traces of pretreatmentagents ,please rinse them with water .

Furthermore, some dyes will be decolored due to pretreatment agents. So for the first time printing, try printhing on the inconspicuous position.

●The residual wastes and waste ink shall be treated as waterborne waste water in accordance with relevant laws and regulations.

- Apply a pretreatment agent on a white or light-colored T-shirt, the T-shirt may turn yellow.
- After pretreating, avoid direct sunlight storage, then wash as soon as possible after printing.



# Chapter I Outline of Iris2000pro T-shirt Printer

## 1.1 Requirement on environment of Iris2000pro T-shirt printer

The suitable temperature and RH for printer is 10℃-35℃ and 45%-85%.

The printer shall be protected from direct sunshine, strong light, or heat source.

The surrounding of the printer shall have sufficient space for normal ventilation.

The operation place shall be clean and free of dust and prevented from fire and smog.

The installation floor shall be flat and the printer shall not be fixed on slope.

## 1.2 Main characteristics of Iris2000pro T-shirt printer

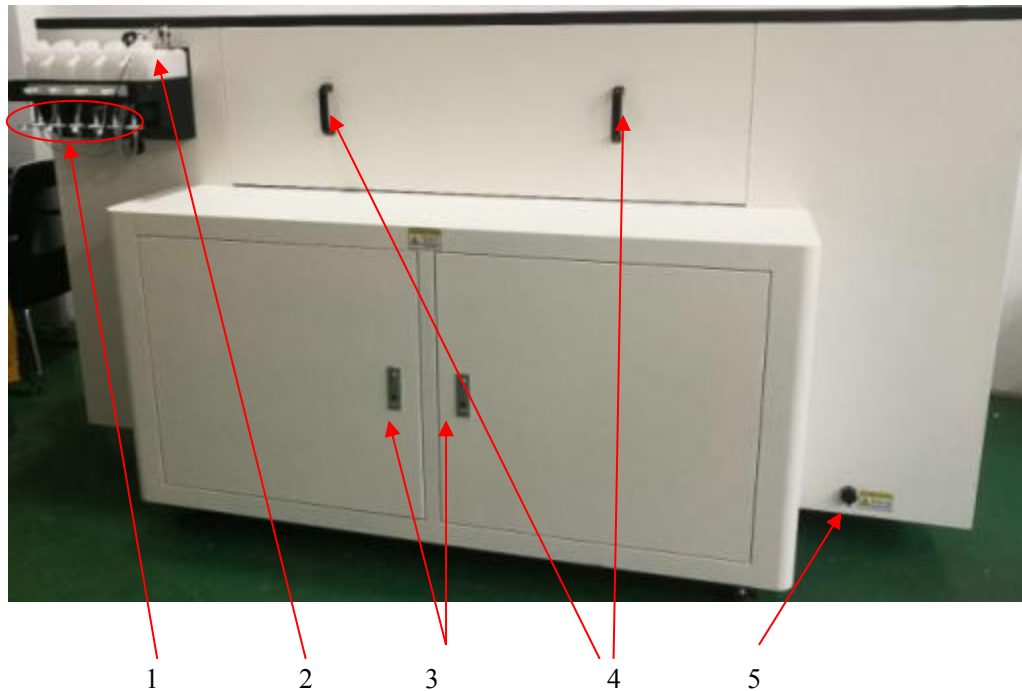
Model	Iris2000Pro	
Printing Technology	VSD Pizeo Inkjet Method	
Print Head & Quantity	Industrial Heads 4	
Printing Size	270mm*330mm    365mm*534mm    600mm*850mm	
Ink System	Ink Type	Pigment
	Ink Color	CMYK/CMTK+W
	Ink Volume	2000ml/color
Printing Mode CMYK	Mode	Printing Speed
	Standard Mode	36s/pc (A4)
	Production Mode	48s/pc (A4)
Printing Mode CMYK+W	Mode	Printing Mode
	Standard Mode	36s/pc (A4)
	Production Mode	48s/pc (A4)
	High-precision Mode	72s/pc (A4)
Fabric Standard	Fabric Size	270mm*330mm    365mm*534mm    600mm*850mm
	Fabric Size	cotton,linen,silk,wool and cashmere
Working Condition	Humidity	45%-85%
	Temperature	10℃-35℃
Operating System	Windows XP,Windows 7 ,Windows 8 or later versions	
Display	Computer Display	
Interface	100MB network interface	
RIP Software	AJet RIP or third party	

Language	Chinese/English
Power	AC110/220V, 50HZ/60HZ
Noize	60dB
Printer size/Weight	2670 mm(L) X 2018 mm(W) X 1400 mm(H) 750KG
Packing Size/Weight	2800mm(L) * 1610mm(W) *1646mm(H) 1050KG

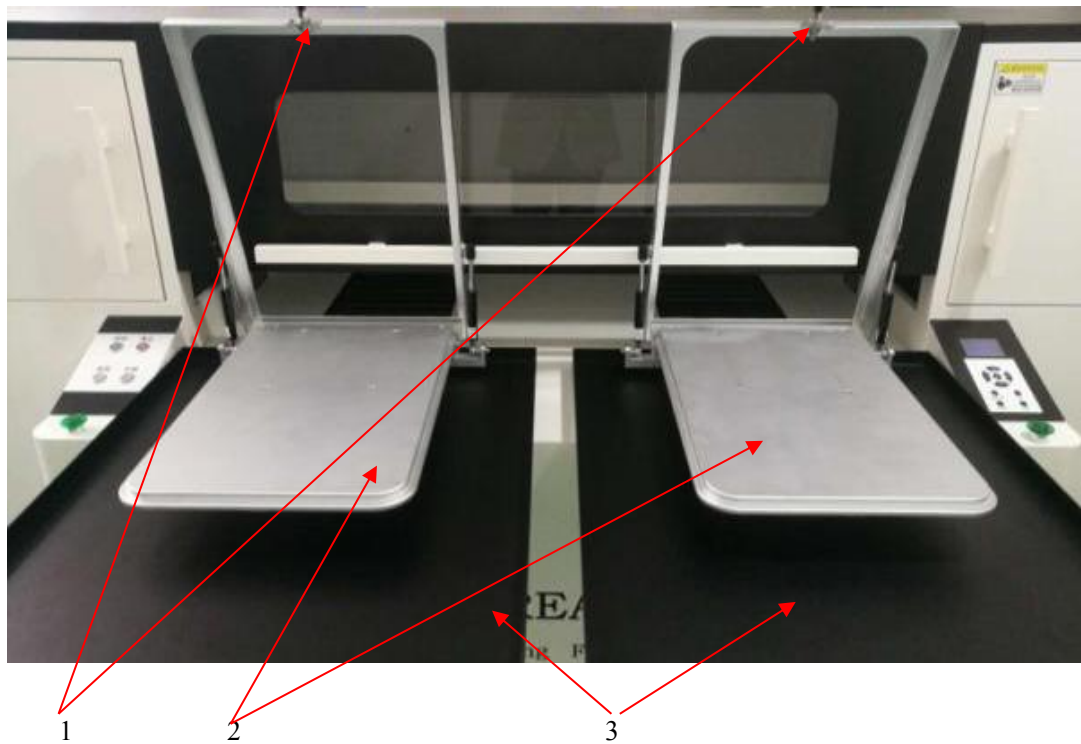
### 1.3 Schematic diagram of main structure of T-shirt printer



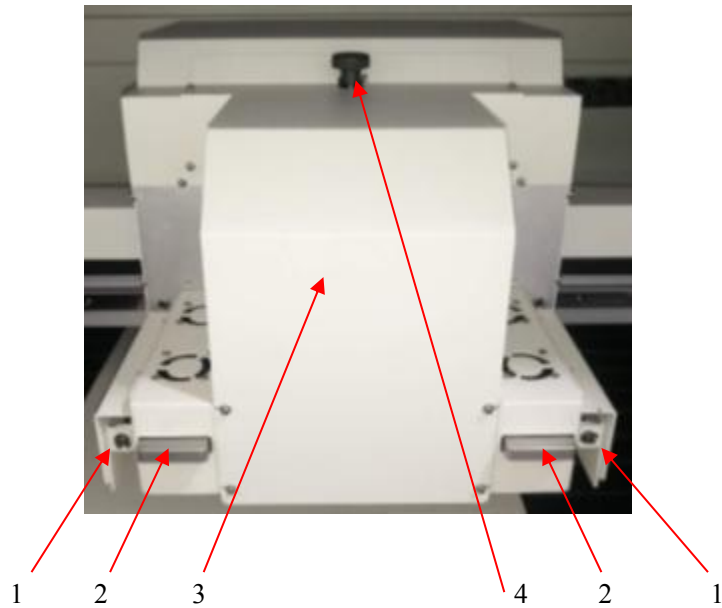
NO.	PART	FUNCTION
1	Left door	Open this door can watch and maintance the scan motor and PH carriage parts
2	Left control panel	This panel can start or stop the printer and the fan and the LED lighter
3	Ready button 2#	This button can control No 2 platform and indicate the ready signal
4	Front cover	Open the cover and see the printer inside clearly
5	1# and 2# platform	Place T shirt on this two paltform
6	Right door	Open this door can watch and maintance the PH carriage and PH capping system
7	Left control panel	The main control interface ,for controlling nozzles cleaning, moisturizing and other functions
8	Ready button 1#	This button can control No 1 platform and indicate the ready signal



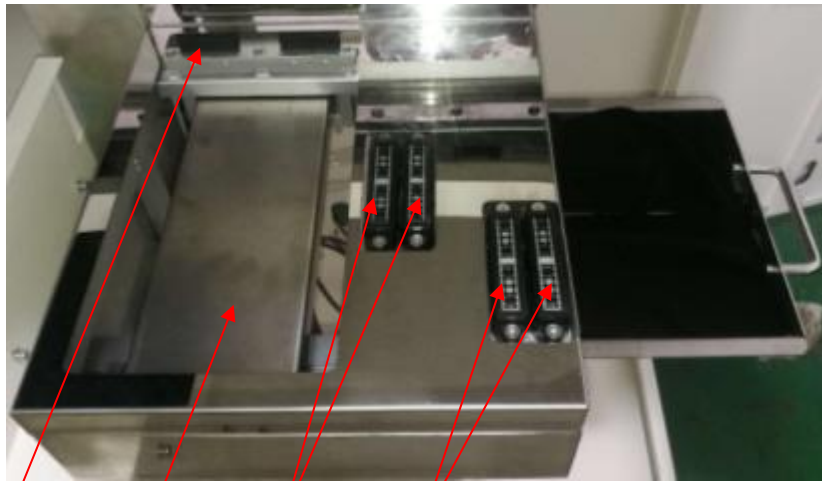
NO	PART	FUNCTION
1	Filter	Filter out impurities that may exist in the main ink path to prevent clogging of nozzles
2	Main ink tank	Used to store five colors of CMYKW ink
3	Back door	This door can be used to observe or repair the core components of the platen motor, platform position sensor, screw rod, etc
4	Rear cover handle	Easy to disassemble the rear cover
5	The power plug	The machine power supply wiring socket, after the power is connected, the machine can start normally



NO	PART	FUNCTION
1	Press frame	Used to press T and keep it flat
2	Platform	Used for fixing T
3	Platform support	Drag the fabric on the back of T, such as the place not printed, to prevent it from being rolled into the printer



NO	PART	FUNCTION
1	L&R collision switch	In order to prevent a foreign body from hitting the sprinkler on the platform, the collision switch is to crash foreign objects ahead of time and stop the carriage immediately
2	L&R vacuum	The negative pressure is generated, and the flying ink is sprayed out through the internal filter to prevent the ink from polluting the printer
3	PH cover	Cover the PH and control circuit to protective
4	Z axis rotary knob	When the automatic control is out of order, the knob can be manually controlled to rise or fall the carriage



1

2

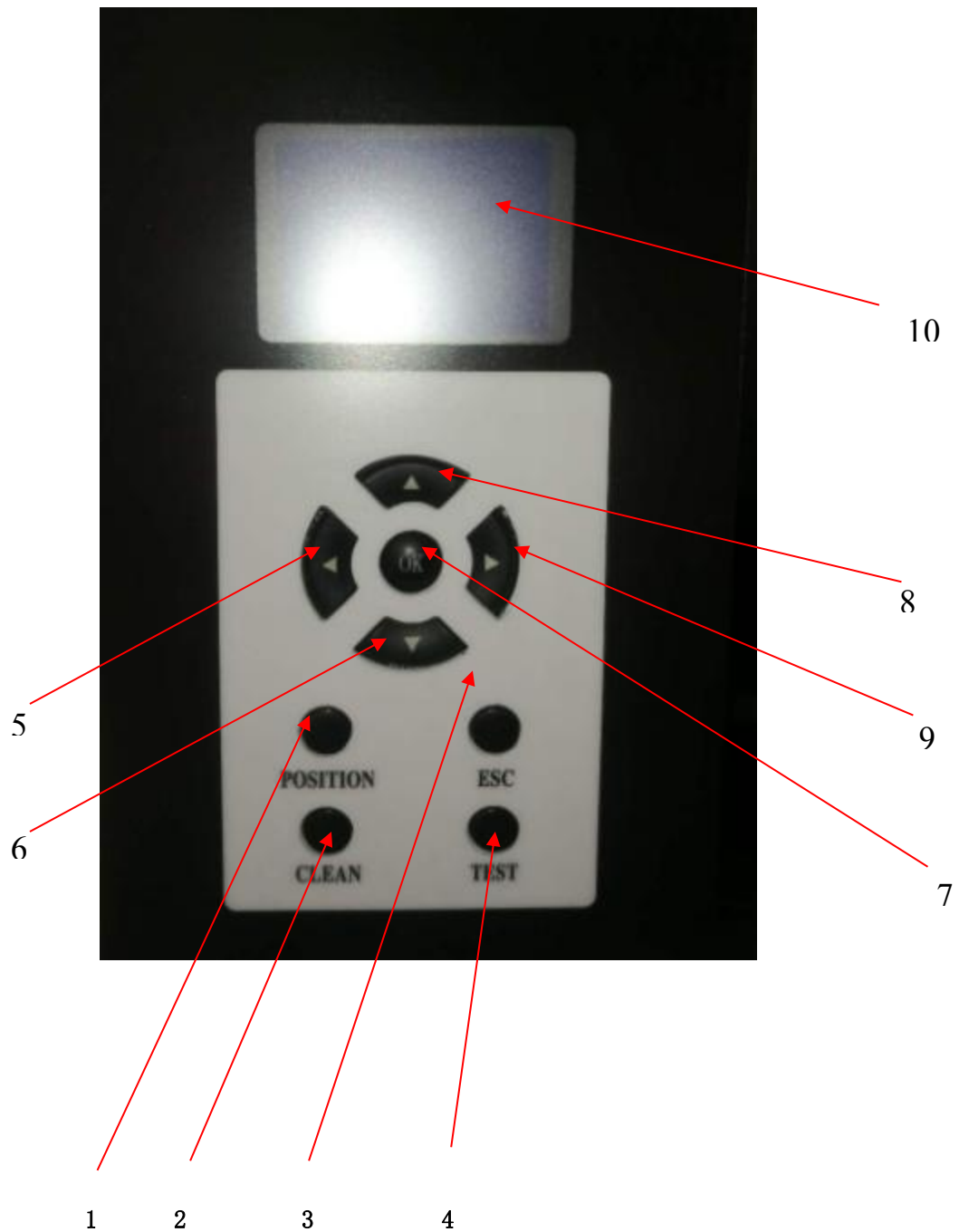
3

4

NO	PART	FUNCTION
1	Wiper	Scrape the excess ink on the surface of the nozzle to ensure that the nozzle is normal
2	Capping cover	Cover shell of the capping system
3	Cap	Ink suction sealing device for negative pressure cleaning nozzle
4	Waste ink tank	Collection of excess waste ink during cleaning process and timely replacement of ink absorbing sponge to ensure tidiness

## Chapter II The operating instructions of T-shirt printer

### 2.1 The operating instructions of the control panel

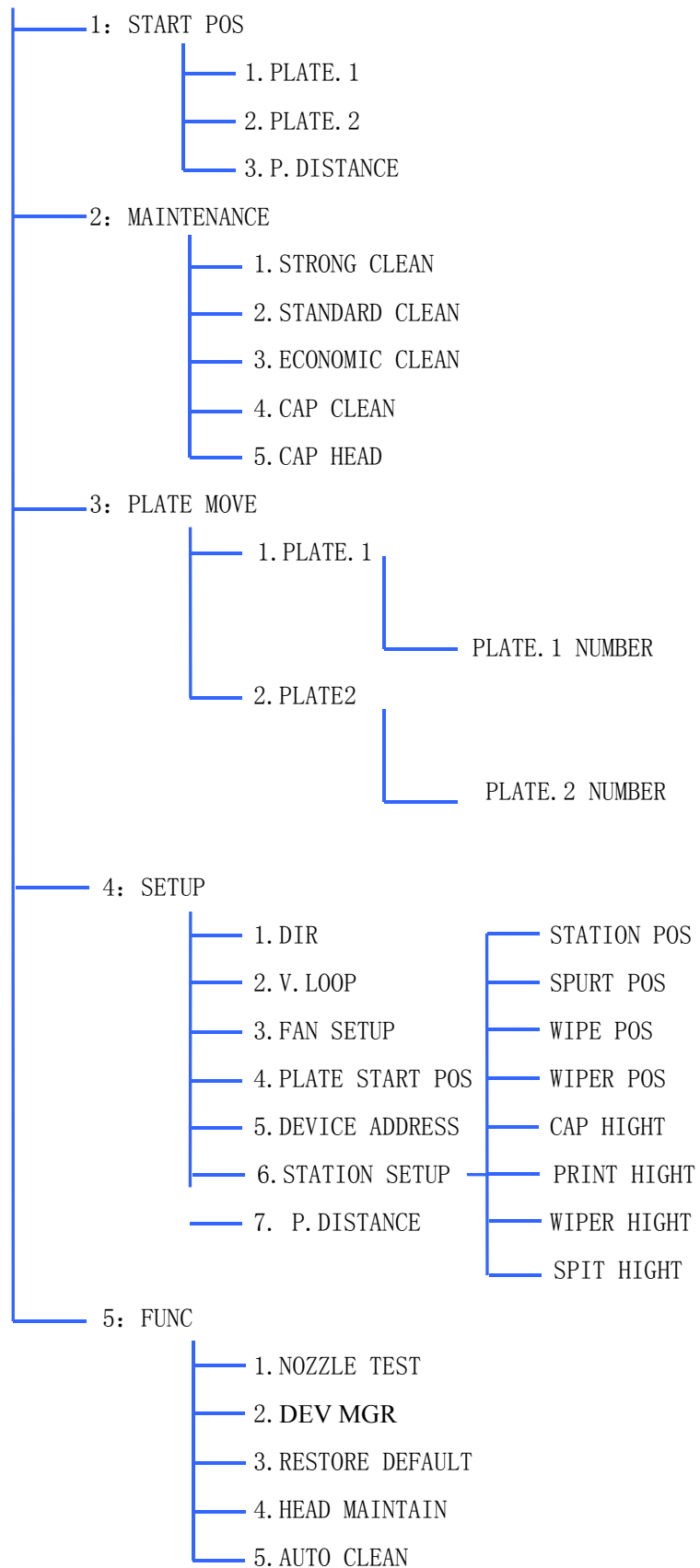




NO	PART	FUNCTION
1	POSITION	Press this button to enter the print start position directly (same menu)
2	CLAEN	Press this button to quickly enter the PH cleaning menu (same menu)
3	ESC	Press this key to cancel the superior operation
4	TEST	In the main menu mode, press the key system for nozzle print test to determine whether the nozzle is good or not
5	LEFT	Press the left key to reduce the value, the car moves to the left and so on
6	DOWN	Press the button to turn down the menu, etc.
7	OK	Press the OK button to perform the current task, and enter the sub menu in menu mode.
8	UP	Press the button to turn up the menu, etc.
9	RIGHT	Press the right key to increase the value, the car moves to the right and so on
10	LED DISPLAY	Display the man-machine interface

## 2.2 Menu Tree

### Main Menu



## 2.3 Menu instructions

Main	Sub	Function
START POS	PLATE. 1	Go into the 1# platform menu, Then the Carriage automatically moves left to the start position of number 1 platform, then press "left" or "right" button to move the carriage left or right, determine the position that needs to be printed, then press "OK" button, the new print starting position parameter is effective, press the "ESC" button to exit the submenu
	PLATE. 2	Go into the 2# platform menu, Then the Carriage automatically moves left to the start position of number 2 platform, then press "left" or "right" button to move the carriage left or right, determine the position that needs to be printed, then press "OK" button, the new print starting position parameter is effective, press the "ESC" button to exit the submenu
	P. DISTANCE	Go into the sub menu and set the actual distance between the 1 and 2 platform when the starting position of the No. 1 plate is set up, the starting position of No. 2 plate is the starting position of the No. 1 plate plus the distance of the plate. At this time, the starting position of the No. 2 plate will be automatically generated, and it is not required to be set up manually
MAINTENANCE	STRONG CLEAN	Go into the sub menu, press the "OK" button, and the printer automatically carries out PH clean. The clean time is longer in this mode. This clean mode is chose while the nozzles are clogged in seriously.
	STANDARD CLEAN	Go into the sub menu, press the "OK" button, and the printer automatically carries out PH clean. The clean time is in normal. This mode is chose for regular clean request.

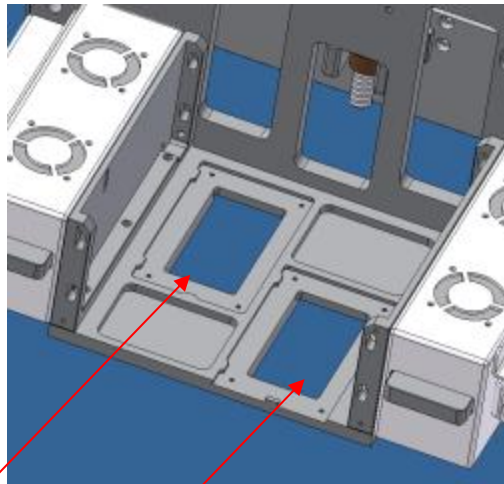
	ECONOMIC CLEAN	Go into the sub menu, press the "OK" button, and the printer automatically carries out PH clean. This is chose for a tender clean while start printer in second day.
	CAP CLEAN	Go into the sub menu, press the "OK" button, Next to press "DOWN" button to start sucking the waste ink from head capper by vacuum generated by pump. The operator can add some solution into the capper and let them sucked out. Put the solution again until the form pad in the capper becomes clean. Press Up key again to stop. Press Exit key, the carriage will move to home position, the display back to last Manu.  Do this clean procedure every week.
	CAP HEAD	Go into the sub menu, press the "OK" button, the carriage moves right to capping station. The capper will rise up to cover the head. Please observe the rubber edge of copper touches the head surface well, there is no gap between the surface and rubber edge.  It is must to do before switch off the printer.  Otherwise the nozzle of head would not be wet well and gets dried out and damaged.  Press Exit key, the carriage will move to home position and standby.
PLATE MOVE	PLATE. 1	Go into the sub menu, press the "OK" button, At this time, enter 1# platform movement state information, press "down" button, the 1# platform forward movement, press "up" button, the 1# platform backwards movement, LCD screen display 1# platform position data
	PLATE. 2	Go into the sub menu, press the "OK" button, At this time, enter 2# platform movement state information, press "down" button, the 2# platform forward

		movement, press "up" button, the 1# platform backwards movement, LCD screen display 1# platform position data
SETUP	DIR	Go into the "DIRECTION" sub menu, Can set the BID direction or SID direction printing mode
	V. LOOP	After go into "white ink cycle" menu Press "LEFT" button to reduce the cycle and wait time Press "RIGHT" button to increase the cycle and wait time press the "ESC" button to exit the submenu
	FAN SETUP	No function is this printer
	PLATE START POS	Same as upper
	DEVICE ADDRESS	It is the IP address of the computer connected to the printer Press "LEFT" or "RIGHT" button to reduce or increase the number (1、6、7、5、3) access to the native IP address settings 196.12.0.188 (This is the default IP address) In addition, the "user address" sets the IP address option for users
	STATION SETUP	STATION POS: Set the margin of the carriage
		SPURT POS: Set the plush position of the carriage
		WIPE POS: Set the carriage position when the wiper begin to wipe the head
		WIPER POS: The wiper position when the wiper begin to wipe the head
		CAP HIGHT: The carriage height position when the head is capped
		PRINT HIGHT: The carriage height position when printing
		WIPER HIGHT: The carriage height position when wipe the head
		SPIT HIGHT: The carriage height position when

		head is flush
	P. DISTANCE	Go into the sub menu and set the actual distance between the 1 and 2 platform when the starting position of the No. 1 plate is set up, the starting position of No. 2 plate is the starting position of the No. 1 plate plus the distance of the plate. At this time, the starting position of the No. 2 plate will be automatically generated, and it is not required to be set up manually
FUNC	NOZZLE TEST	The same as the shortcut key "TEST" function
	DEV MGR	Go into the sub menu, press the "OK" button, Displays version information of printer motherboard and carriage board
	RESTORE DEFAULT	Go into the sub menu, press the "OK" button, After entering the "factory" function, do you choose to restore factory settings? It is not recommended to be used regularly
	HEAD MAINTAIN	Through the use of "peristaltic pump" to spray negative pressure on the nozzle, the nozzle is blocked and the nozzle is maintained Same as above
	AUTO CLEAN	Go into the sub menu, press the "OK" button, The "left (minus) / right (plus)" key is used to control the printing process of the sprinkler head and the frequency of automatic cleaning (high / medium / low / close) at rest

## Chapter III PH installation and capping setting

### 3.1 Nozzle installation



White ink head position    Color ink head position

A: The height of the PH plate from the printing surface can be set through the menu of the control panel, Enter the "SET UP" - "STATION SETUP" - "PRINT HIGHT" menu settings  
There are 4 waist holes on both sides of the slide plate of the PH base, and the distance between the bottom plate and the platform can be adjusted by manual adjustment of the 4 waist holes

B: Install the print head.

Caution:

The print head inlet ink tube should be on left side, Then put the print head on the left and back position.

Use M3\*8 screw to fix it. A tightening screw is screwed in front of the PH to adjust the perpendicularity of the PH before the PH is adjusted. The follow up group of sprinklers are installed in the same way.

C: Print head cable connection

As the picture below:

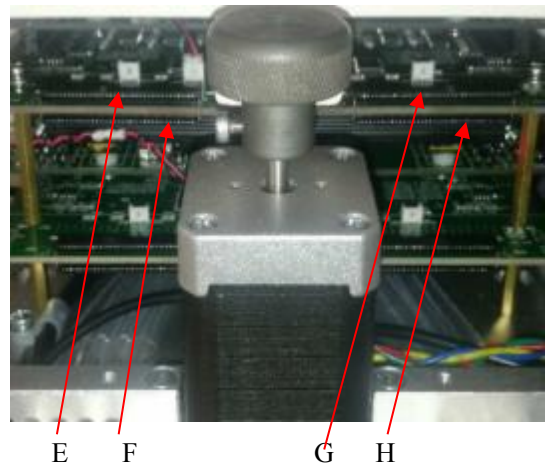
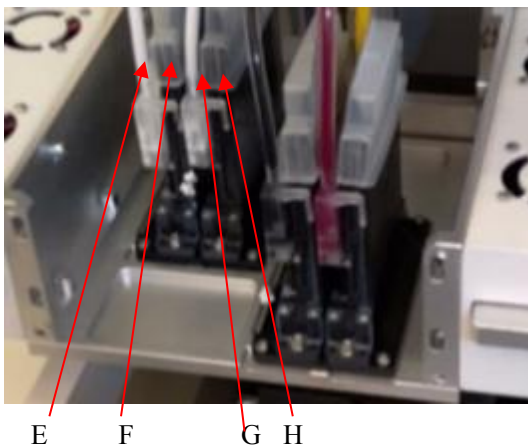
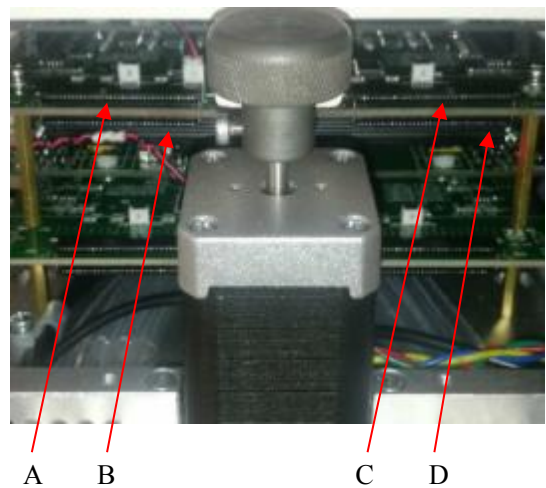
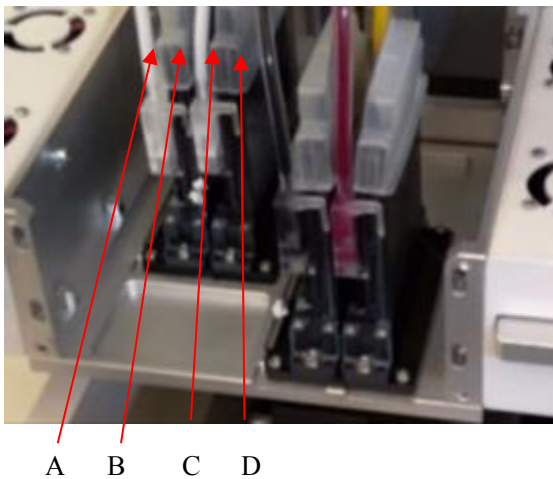
First group head(white ink) left connection **A** Corresponding to main board left-up connection **A**

First group head(white ink) right connection **B** Corresponding to main board left-down connection **B**

Second group head(white ink) left connection **C** Corresponding to main board Right-up connection **C**

Second group head(white ink) right connection **D** Corresponding to main board Right-down connection **D**

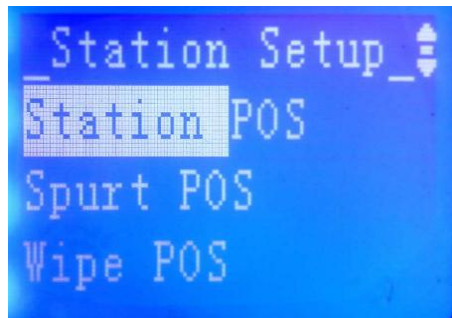
Similarly, The color head is same to the white ink head see **E F G H**





## 3.2 STATION SETUP

Before the printer is first used, station setup parameters need to be set up. Click on the “SETUP” and go into the “STATION SETUP” settings page



The “STATION SETUP” have below parameters need to set

STATION POS   SPURT POS   WIPE POS   WIPER POS   CAP HIGHT   PRINT HIGHT  
WIPER HIGHT   SPIT HIGHT

**STATION POS:** Go into the "STATION POS", As below picture

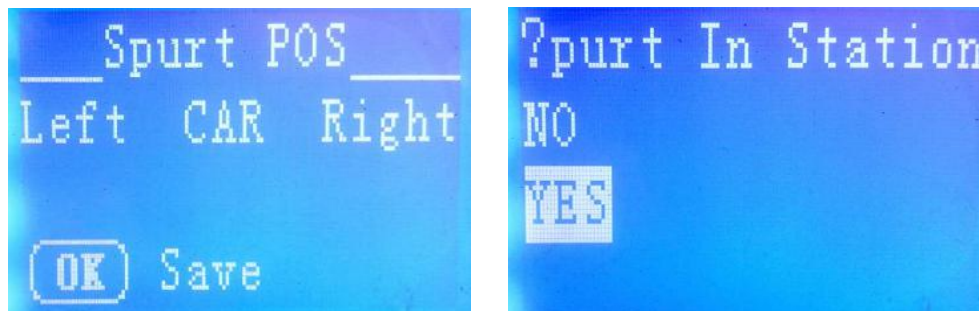


The default position of the home position is the same as the station position

Go into the "STATION POS" Press "LEFT" button the carriage move to left and press "RIGHT" button the carriage move to right. The operator move the carriage to the same position above the capper, Then press "OK" button to confirm the parameter

Press the "ESC" button to exit the submenu

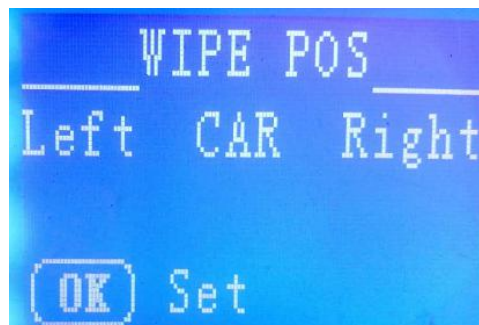
**SPURT POS:** Go into the "SPURT POS", As below picture



Go into the "SPURT POS" Then press "OK" button, Then system will ask whether the SPURT position is same with STATION position?

Our printer the default SPURT position is same as STATION position, So please select "YES"

**WIPE POS:** Go into the "WIPE POS", As below picture



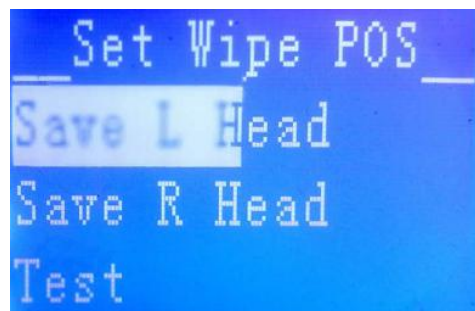
Go into the "WIPE POS" menu Then the wiper will move to the beginning position meanwhile the carriage will move to the wiper above position.

Operator press "LEFT" or "RIGHT" button to move the carriage to the appropriate position

Our printer have two print head units One white ink unit another is color ink unit, So we need to separately to set the two print head units, System will call it left head and right head

## White ink head setting

Press "LEFT" or "RIGHT" button to move the carriage to below picture then press "OK" button

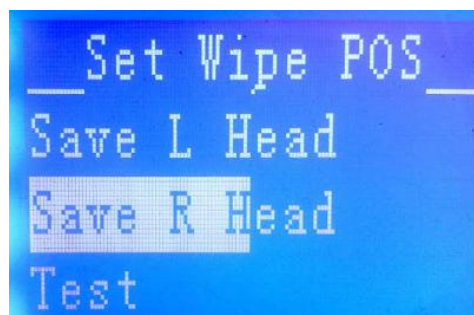


Go into the "SET WIPE POS" menu, Select " Save L Head "

So the left head unit(white ink head unit) position parameter setting is finished

## Color ink head setting

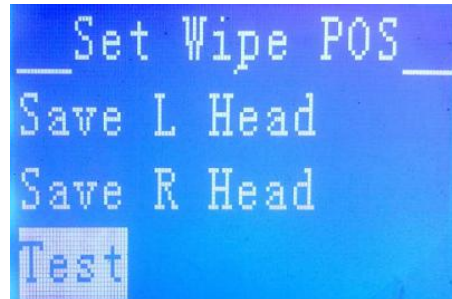
Press "LEFT" or "RIGHT" button to move the carriage to below picture then press "OK" button



Go into the "SET WIPE POS" menu, Select " Save R Head "

So the right head unit (color ink head unit) position parameter setting is finished

After finished setting the left and right head wiper position, You can go into "SET WIPE POS" menu, Select " TEST " function



Press " OK" button then The system will automatically carry out the wipe working function simulation in the cleaning process

**WIPER POS:** Go into the "WIPER POS", As below picture



After enter "WIPER POS" menu, operator can press "LEFT" or "RIGHT" button to move the carriage to left or right

We suggest operator to press "LEFT" to let the carriage move to left position, So operator can better to watch the wiper position

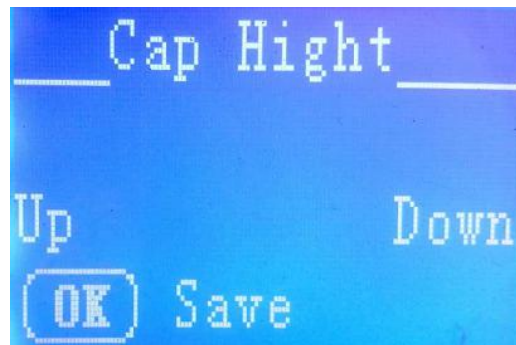
Press "UP" or "DOWN" button to move the wiper to forward or backward

The final wiper stopped position is the starting position of the wiper working process

Caution:

The starting position of wiper should be kept at 5 millimeters outside the print head.

**CAP HIGHT:** Go into the "CAP HIGHT", As below picture



After enter " CAP HIGHT " menu, Press "UP" or "DOWN" button carriage will corresponding up and down movement

Operator observe the surface of print head to contact with the capper surface, then continue to go down around 2-3mm Press "OK" button to confirm the parameter,

Press the "ESC" button to exit the submenu

**PRINT HIGHT:** Go into the "PRINT HIGHT", As below picture



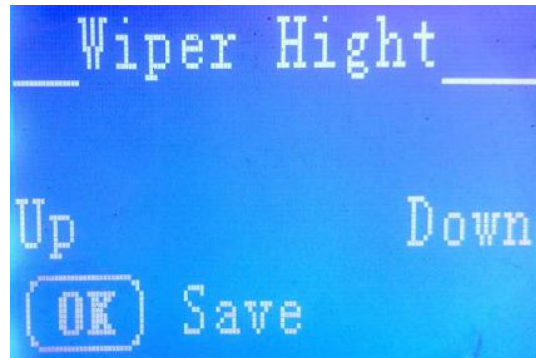
After enter "PRINT HIGHT" menu, operator can press "LEFT" or "RIGHT" button to move the carriage to left or right

We suggest operator to press "LEFT" to let the carriage move to left position, Then to press "UP" or "DOWN" button to let the carriage up or down movement

Operator observe the gap of print head surface to the printing platform, It is suggested that the gap be adjusted to about 2.5MM-3MM, Press "OK" button to confirm the parameter

Press the "ESC" button to exit the submenu

**WIPER HIGHT:** Go into the "WIPER HIGHT", As below picture



After enter " WIPER HIGHT" menu

Press "UP" or "DOWN" button to let the carriage up or down movement

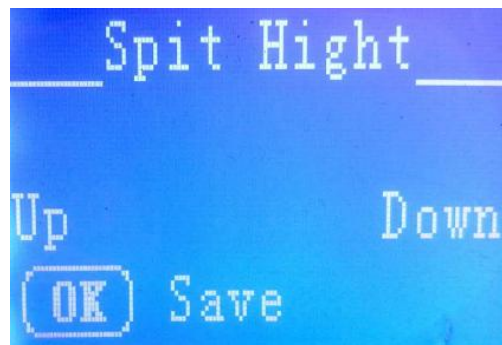
Operator observe the gap of print head surface to the wiper surface,

The manufacturer recommends that the height of the wiper surface is 2-3MM higher than that of the print head surface

Press "OK" button to confirm the parameter

Press the "ESC" button to exit the submenu

**SPIT HIGHT:** Go into the "SPIT HIGHT", As below picture



After enter " SPIT HIGHT" menu

Press "UP" or "DOWN" button to let the carriage up or down movement

Operator observe the gap of print head surface to the capper surface,

The manufacturer recommends that the height of the capper surface is 2-3MM gap to the print head surface

Press "OK" button to confirm the parameter

Press the "ESC" button to exit the submenu

# Chapter IV Nozzel calibration and color correction

## 4.1 IP setting

1: The mouse right click the "start" on computer desk"(fit for windows 7),as shown in Fig. 4-1



2: choose "control panel", as shown in Fig. 4-2

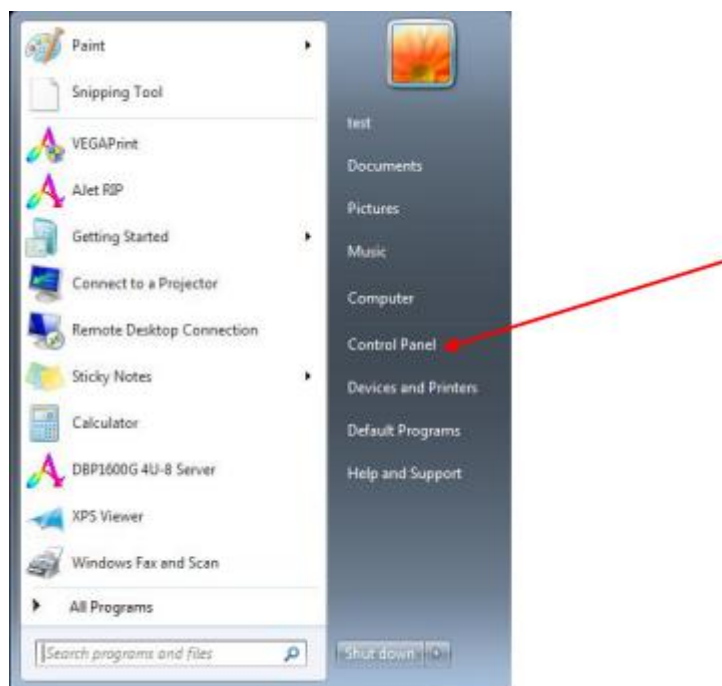
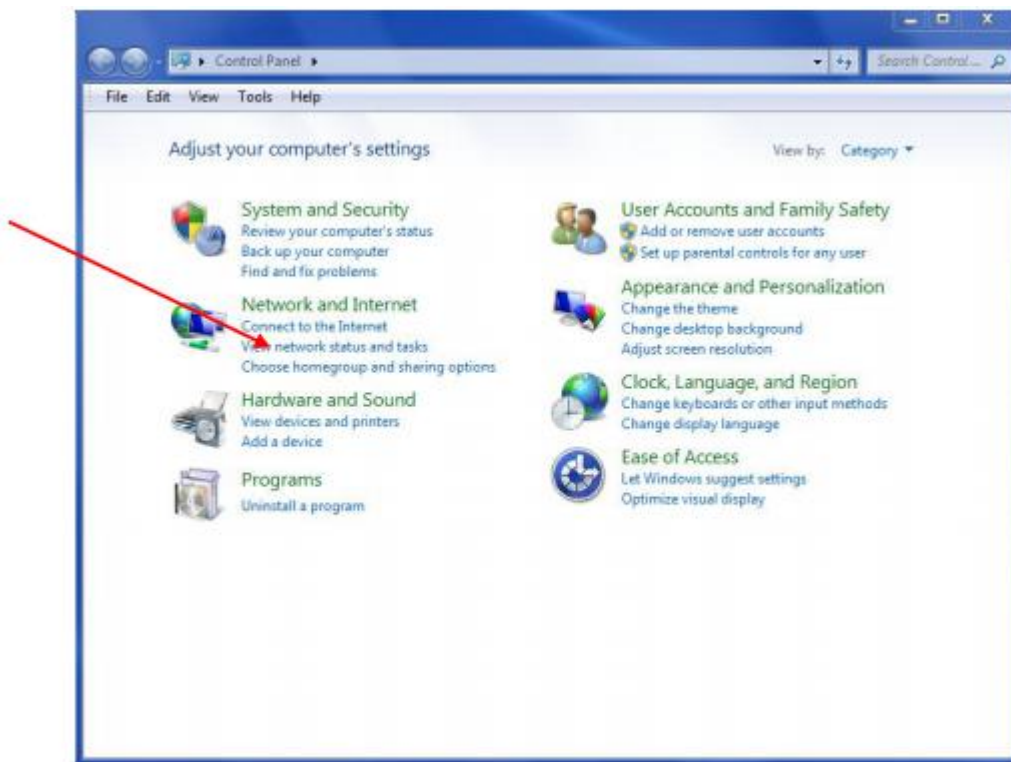


Fig. 4-2



3:Double click'' view network status and tasks as shown as Fig 4-3



4:And than double click “change adapter settings”,as shown as Fig.4-4



Fig.4-4



5:Double click “network cable unplugged” as shown in Fig4-5

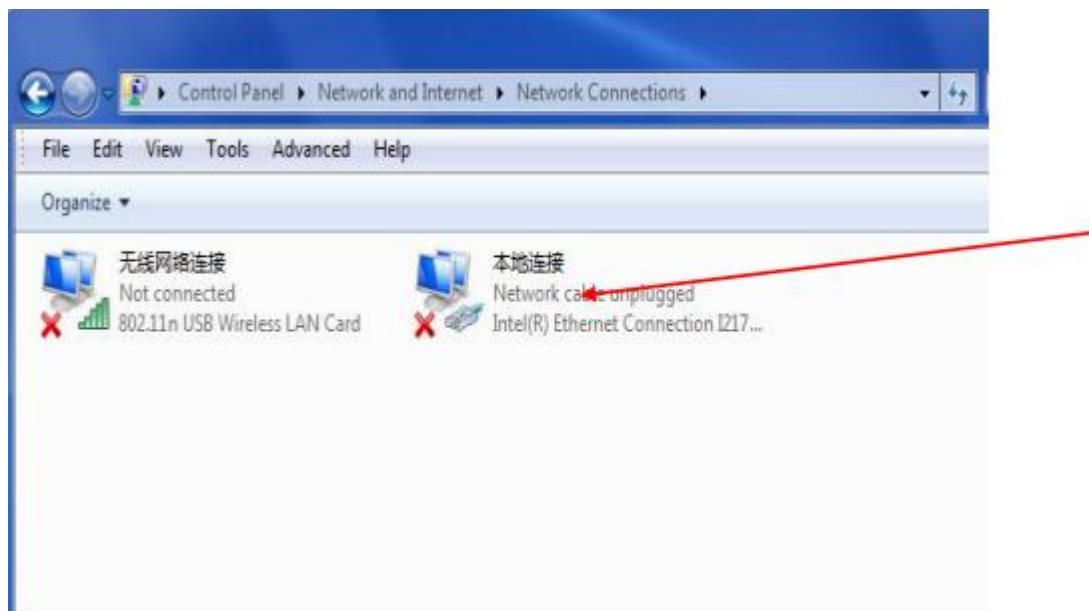


Fig.4-5

6:Double click “Internet protocol version 4(TCP/IPv4),as shown in Fig.4-6

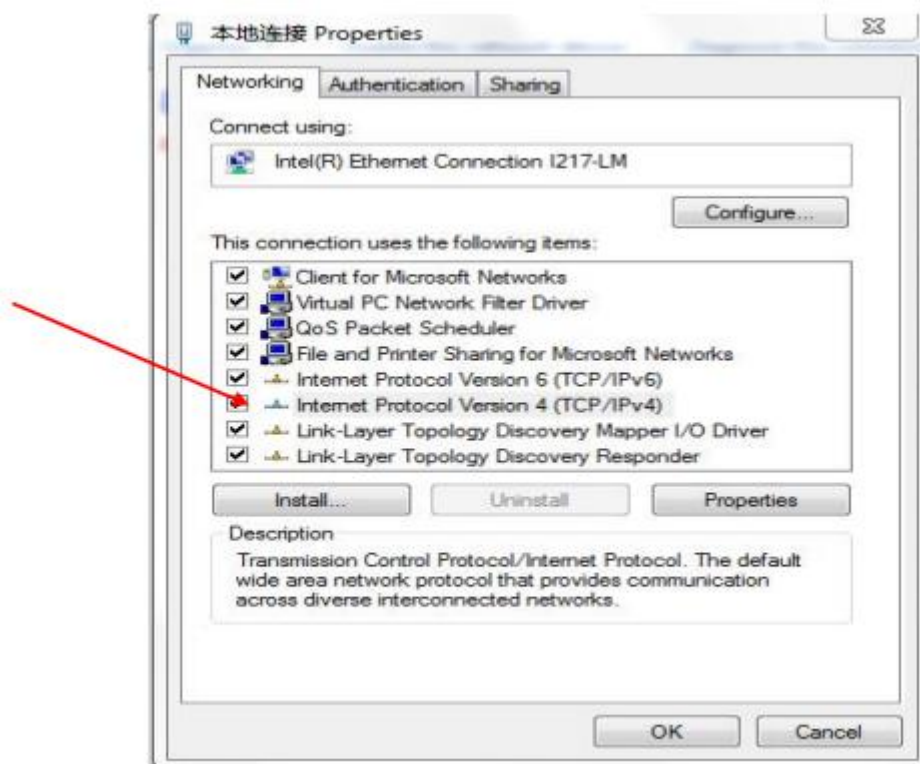


Fig. 4-6

7;Setting IP address : 196.12.0.188 as shown in Fig 4-7

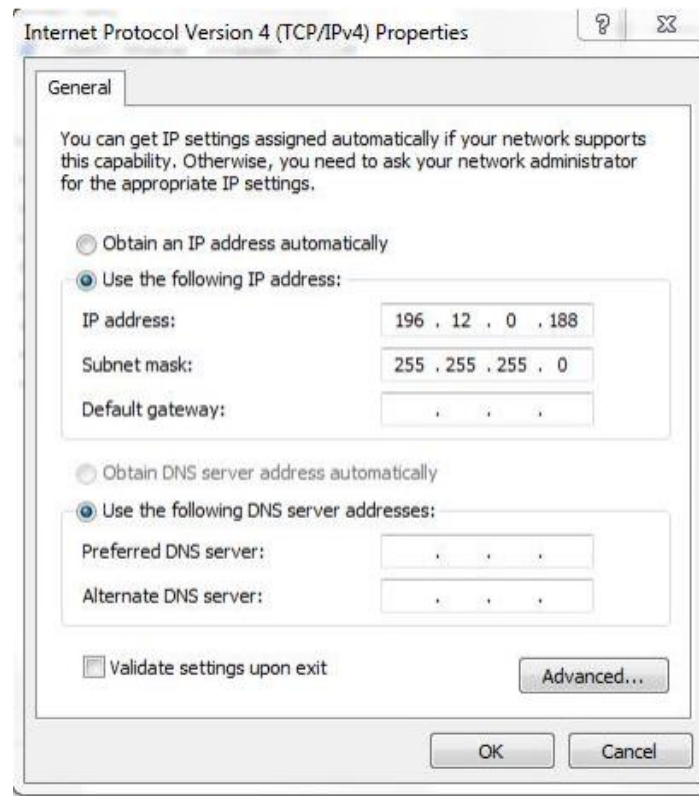


Fig. 4-7

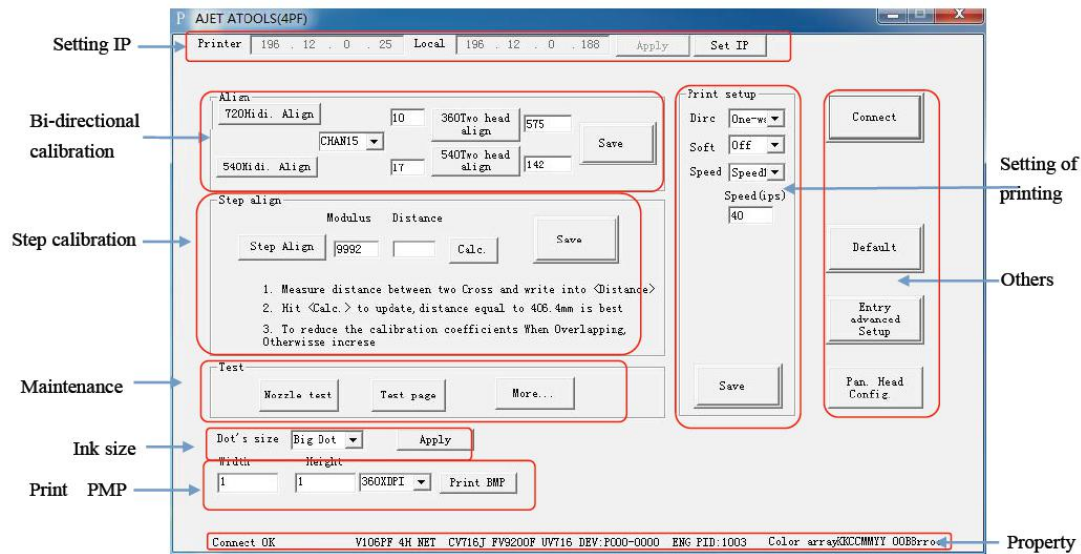
## 4.2 Instruction the calibration tool

Duplicated "calibration tool document"(as shown in Fig.-4-8) to computer desk and than open it

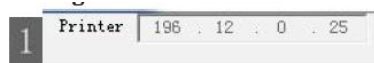


Fig.4-8

## Main interface of calibration tool



## Setting IP



:IP of Ajet1 printer:196.12.0.25, can't modify when it



:IP address of the computer connected with Ajet1:

196.12.0.188,can't modify when it displayed in grey



:Parameter key , click into IP address Setting : before enter please

input

password(16753).

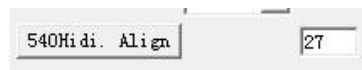
## Bi-directional calibration



:Used for 720Dpi bi-directional fast

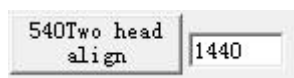
calibration.Calibrating each nozzleholes based on the channel that we have

chosen.(Generally choose channel 15)

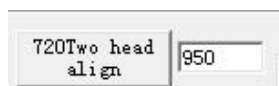


: Click to enter 540XDPI bi-directional fast calibration

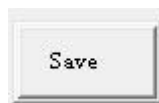
(Since differentDPI would affect movement speed of print cart,add and subtract in the parameters of the original. )



:Used for 540Dpi two head horizontal spacing calibration.

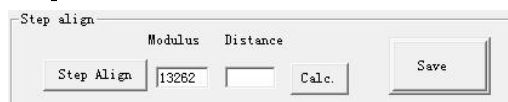


:Used for 720Dpi two head horizontal spacing calibration



:After set up bi-directional calibration parameters , click"Save" to take effect.

## Step calibration

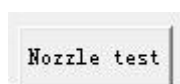


: Measure the vertical distance between the

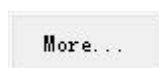
two cross pattern ,fill in the <measuring distance> column, then click the "Cal"

button to update the calibrationcoefficients.

## Maintenance



:Print nozzle state diagram.



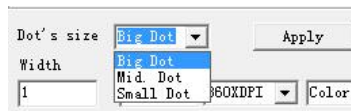
: Click this button to enter more testing and calibration options.

In the maintenance interface, customer only needs to set ink channels and

vertical test, others

customer do not change on its own.

### Ink size



:Select different ink size print mode, and finally need to

click the

"Apply" button to save the settings.

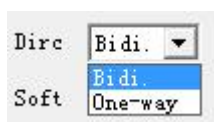
### Print PMP:



:print pmp,check nozzle calibration

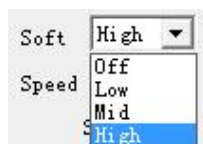
completely .

### Setting of printing.



:It can choose two modes of printing :one-way or bidirectional

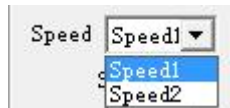
direction .



:Left-click the drop-down menu to select the degree of soft, there

are four

options:off, low, medium and high.



:Left-click the drop-down menu to select the printing speed,

there are two

options:speed1 and speed2 . Speed1 is custom mode should select the print speed manually. Speed2 is default mode the printing speed is fixed .



:After selecting speed1,input specific printing speed manually.

Tip: Do not casually change this value. After changeing, the value can not exceed the default value,otherwise it will cause the printing image abnormal.



:Any of the above settings are modified , then must click

the"Save"button to take

affect.

#### Other settings



:After clicking"Calibration tool", click"Connect" key to connect

printer and

computer then do the next operation .

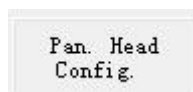


:Click to restore factory settings



:Use to modify ink sequence of nozzle , nozzle voltage value and

other calibrationfunctions: Before log in , enter password .



:Used to set the nozzle parameters、 temperature 、 waveform and

other functions.

Properties

1

Connect OK V100 4PF FlatBet NET CV716K FV9200F UV1710 DEV:P000-0000 ENG Color array OOBBrroo KKCCMMYY

: Displays the online status of calibration tools、the software version and the ink sequence of nozzle inboard program : KKCCMMYY OOBBrroo.

Tip: Clicking the "Advanced Settings" to set the " Host color" and “Slave color”, then change the color arrangement in the board program .

Head setting

Click“Pan Head Config”, as shown in Fig.4-10 .

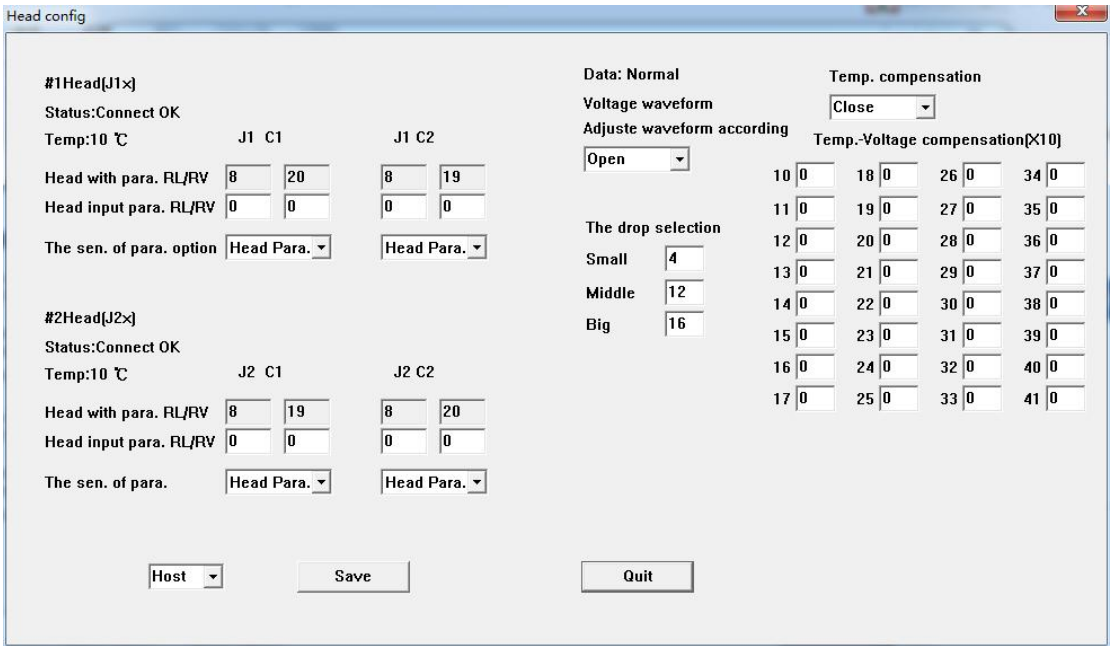


Fig 4-10

Head with para. RL/RV 8 20 8 19 : The sensitivity of the nozzle ,is a default value.

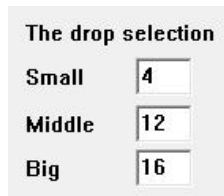
Head input para. RL/RV 0 0 0 0 : Manually input the nozzle

sensitivity, and click " the sen.of para.", select "Input para.", then save.



Data: Normal  
Voltage waveform  
Adjust waveform according  
Open

10: Shows whether the waveform load normally .



The drop selection  
Small 4  
Middle 12  
Big 16

: Choose ink droplet size, generally it is a default value, do not

recommend change, or change in the guidance of engineers.



Adjust waveform according  
Open

11: "On" means that the waveform can be loaded into the

board; "off" means cannot be loaded into the card .



Temp. compensation  
Close

: "On" means that can use the temperature compensation,

and temperature can be changed, then the voltage are correspondingly to be

changed ; "Off" means do not use.

Temp.-Voltage compensation[X10]

: Generally it is a default value, do not recommend change, or change in the guidance of engineers.



Host  
Host  
Slave

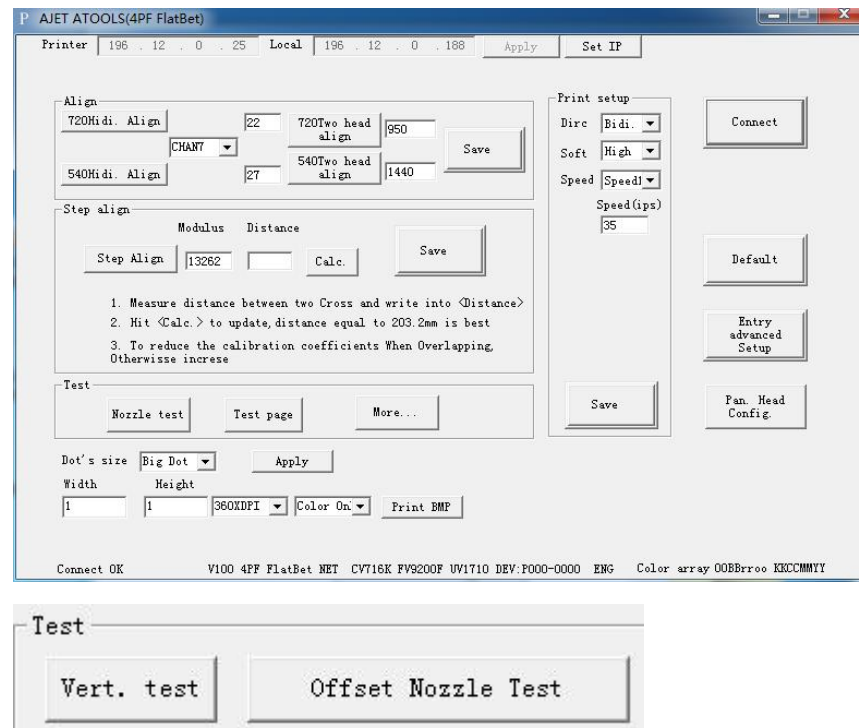
: Select to set host or slave nozzle voltage.



## 4.3 Calibration operating instruction

### 4.3.1 Vertical test

Open Atools , then connect, then click “More ”→“Vertical test”,as Fig 4-11 .

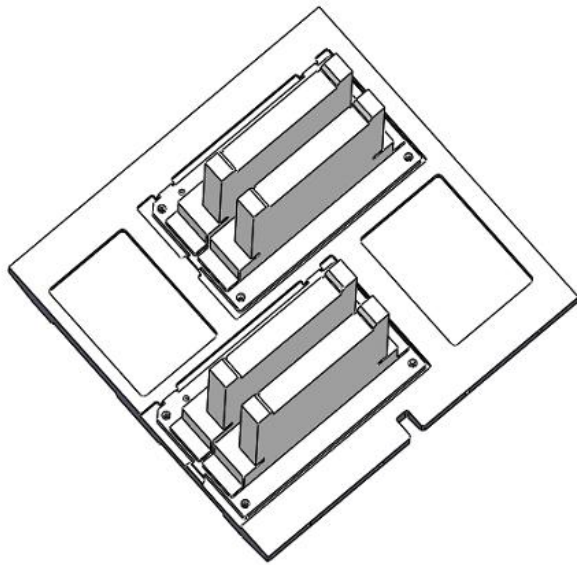
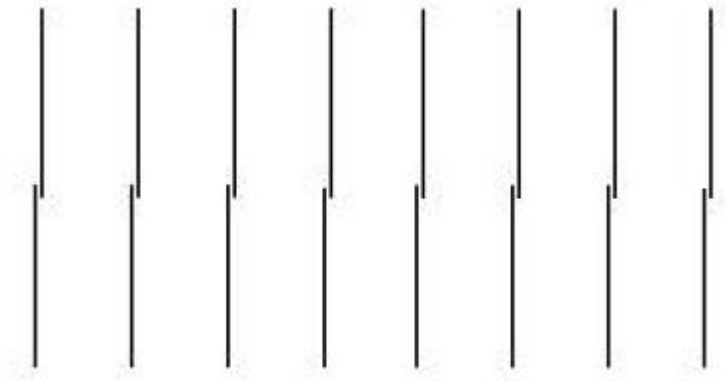


**Fig 4-11**

Print out eight lines (as Fig.4-12 ), observe the junction of line , compared with first pass lines ,the

second pass lines print to the right , which means the nozzle tilts to left side .

Loosen two cross screws of nozzle, tighten the right side taper screw clockwise and tighten the cross screws again , then print vertical line ,repeat the above operation until the different pass in a line ; Whereas the opposite.



**Fig 4-12**

#### **4.3.2 One-way calibration**

**Click "Entry advanced Setup"--enter password "16753" ,click "Yes",**

then click into Enter advancedalign .

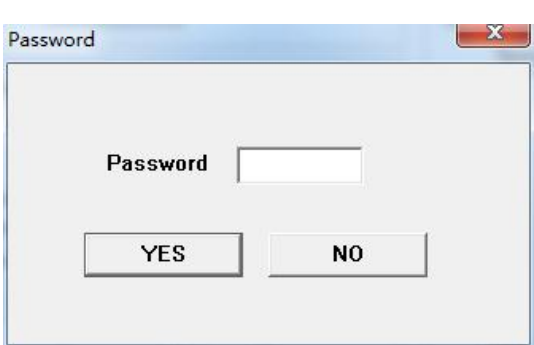


Fig 4-12

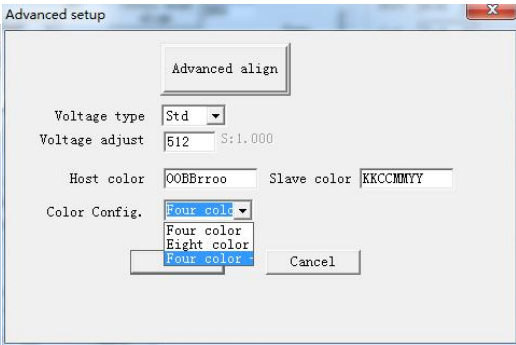


Fig 4-13

Left align

Click "540dpi left align",shown as Fig 4-15,printing sixteen rows test lines.

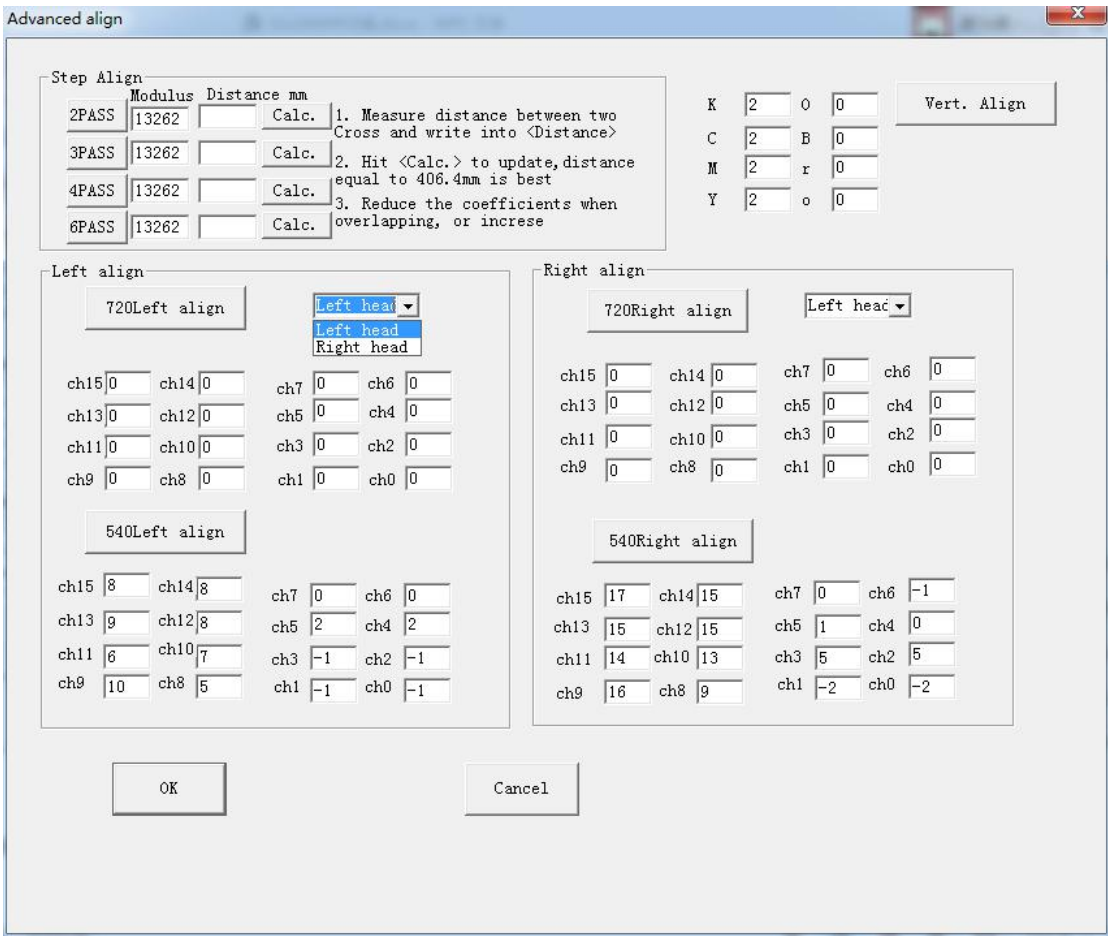


Fig 4-15

There are 16 rows of testing bar in the printing paper and it is based on CHAN15

as the datum line

.It displays 0~15 in longitudinal,shows any item compared with CHAN15.It

displays -9~+9 in

horizontal,means the distance between this item and the datum line

CHAN15.correspondingframe

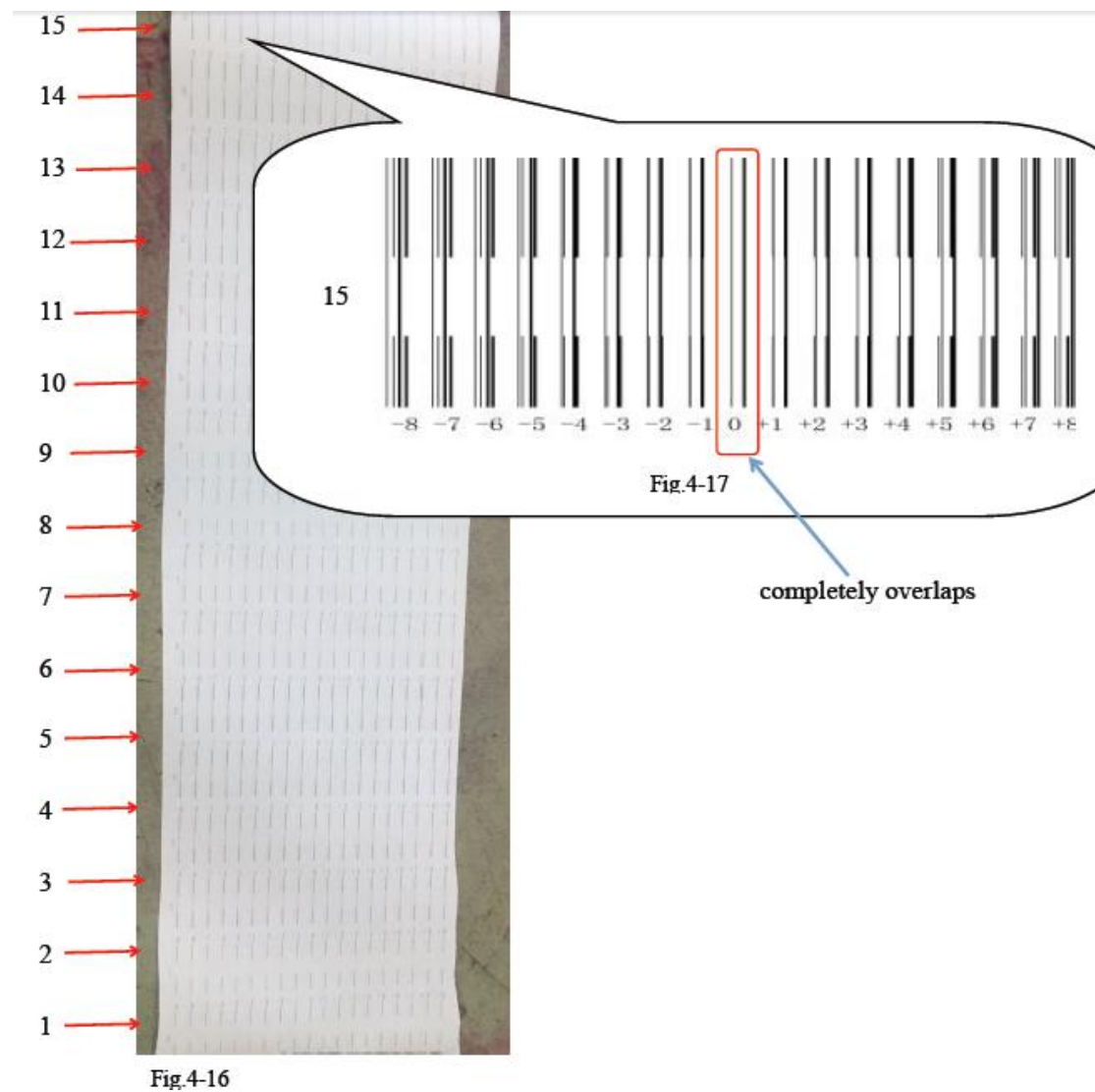


Fig.4-17 is an enlarged drawing of CHAN15, find it only completely overlaps in the

"0"line, so

input"0" in Figure 4-15 chan15 at the corresponding position.

Observe the remaining lines , fill the number when the line is overlapped in the corresponding frame.After setting,click"OK" to save.

.Right align

Click"Enter advanced setup"—inputting the password—"Enter advanced align"—

540dpi right

align",printing the corresponding figure.

Repeat"left align"as 2,3,4 steps.

After setting,click"OK" button to save

### 4.3.3 Two head horizontal compensation

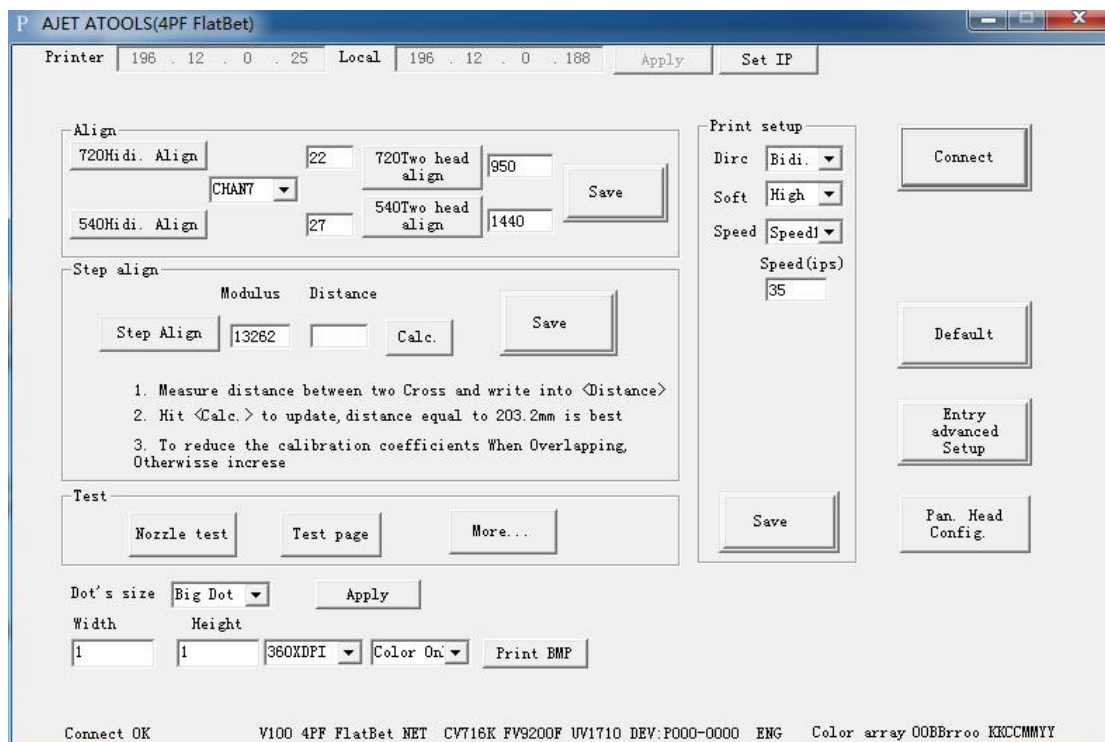
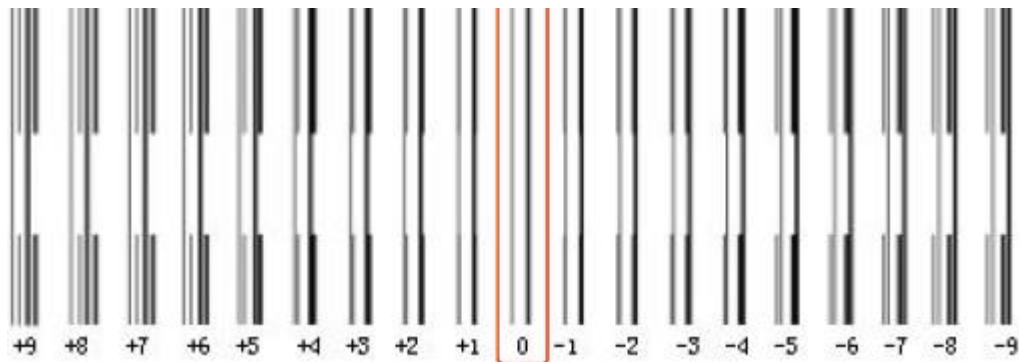


Fig 4-18

Click "360Two head align", then print calibration graph.



Observe two lines only overlapped at 0, then input "0" at the corresponding position in Fig4-19 .

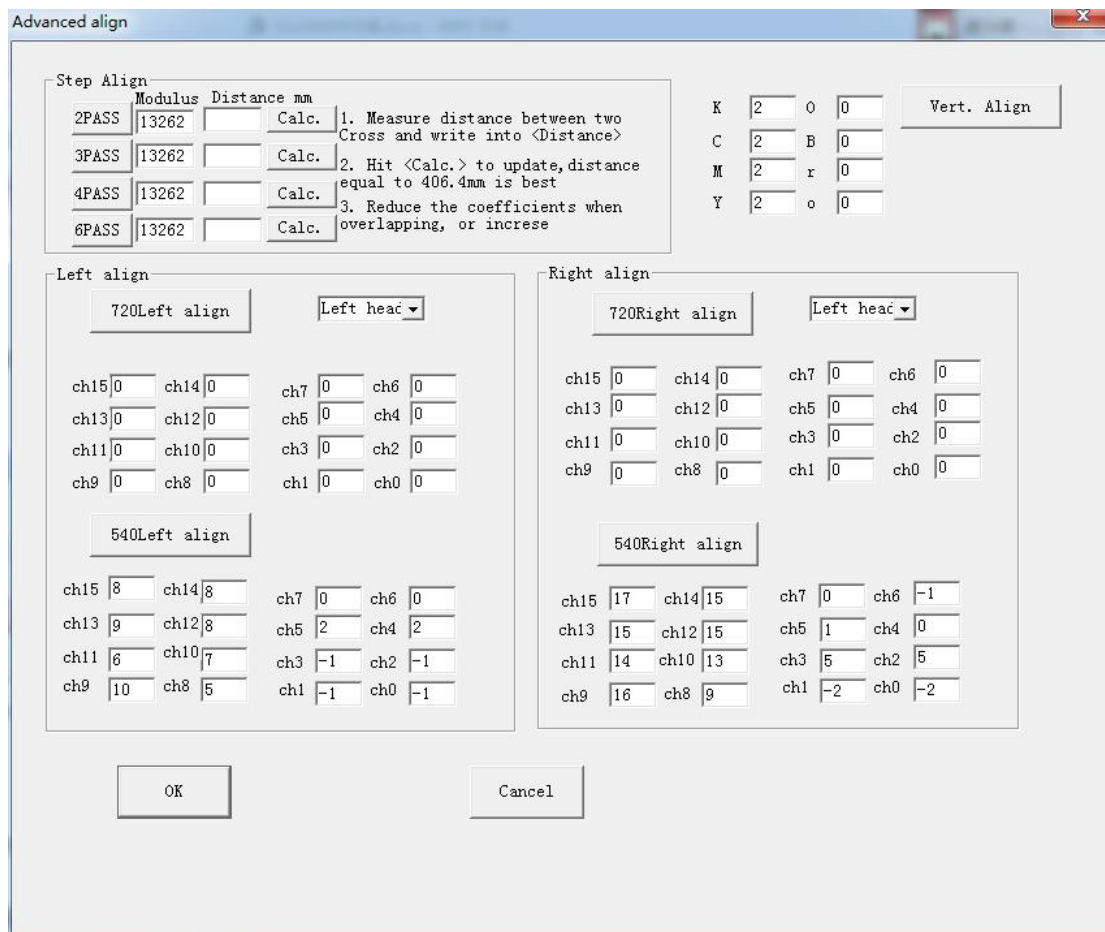
Click "save".

### 4.3.4 Vertical calibration

Click "Enter advanced setup"—inputting the password—"Enter advanced align"—

"Vertical

align",printing the line graph,as Fig 4-20.



The "Advanced align" dialog box is used for aligning multiple passes. It contains several sections for inputting data and instructions.

**Step Align**

	Modulus	Distance mm	
2PASS	13262		Calc.
3PASS	13262		Calc.
4PASS	13262		Calc.
6PASS	13262		Calc.

Instructions:

1. Measure distance between two Cross and write into <Distance>
2. Hit <Calc.> to update, distance equal to 406.4mm is best
3. Reduce the coefficients when overlapping, or increase

**Coefficients**

K	2	O	0
C	2	B	0
M	2	r	0
Y	2	o	0

**Left align**

720Left align Left head

ch15	0	ch14	0	ch7	0	ch6	0
ch13	0	ch12	0	ch5	0	ch4	0
ch11	0	ch10	0	ch3	0	ch2	0
ch9	0	ch8	0	ch1	0	ch0	0

540Left align

ch15	8	ch14	8	ch7	0	ch6	0
ch13	9	ch12	8	ch5	2	ch4	2
ch11	6	ch10	7	ch3	-1	ch2	-1
ch9	10	ch8	5	ch1	-1	ch0	-1

**Right align**

720Right align Left head

ch15	0	ch14	0	ch7	0	ch6	0
ch13	0	ch12	0	ch5	0	ch4	0
ch11	0	ch10	0	ch3	0	ch2	0
ch9	0	ch8	0	ch1	0	ch0	0

540Right align

ch15	17	ch14	15	ch7	0	ch6	-1
ch13	15	ch12	15	ch5	1	ch4	0
ch11	14	ch10	13	ch3	5	ch2	5
ch9	16	ch8	9	ch1	-2	ch0	-2

Buttons: OK, Cancel

Fig 4-21

Observe line graph , use the long-line as a benchmark , check the overlap of short-line with long-line ,shown as Fig4-22 , two lines overlapped at 1 , then add the value below the overlap in the calibrationframe , click "ok" , and "save" .

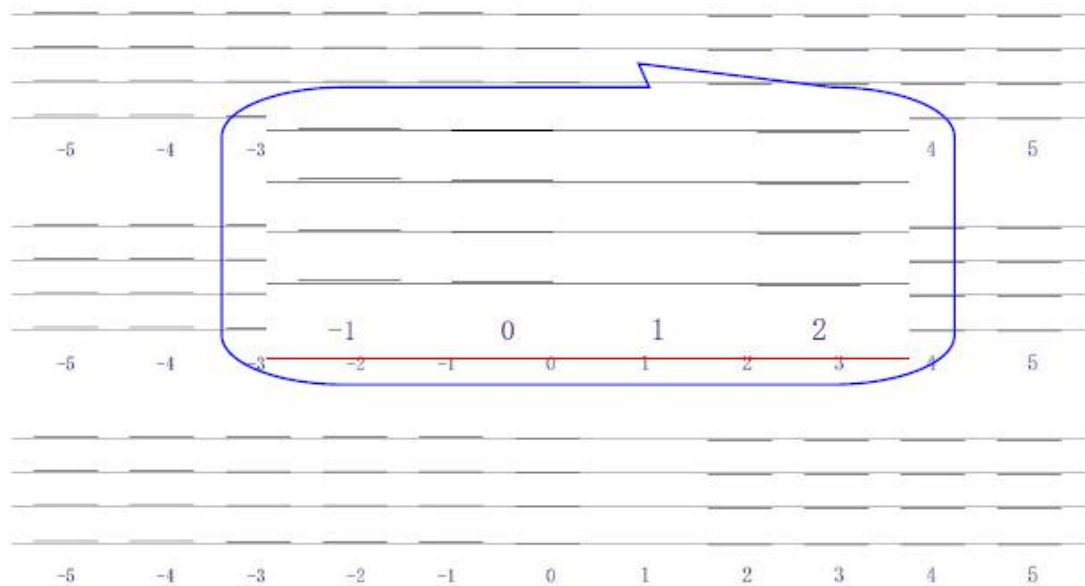
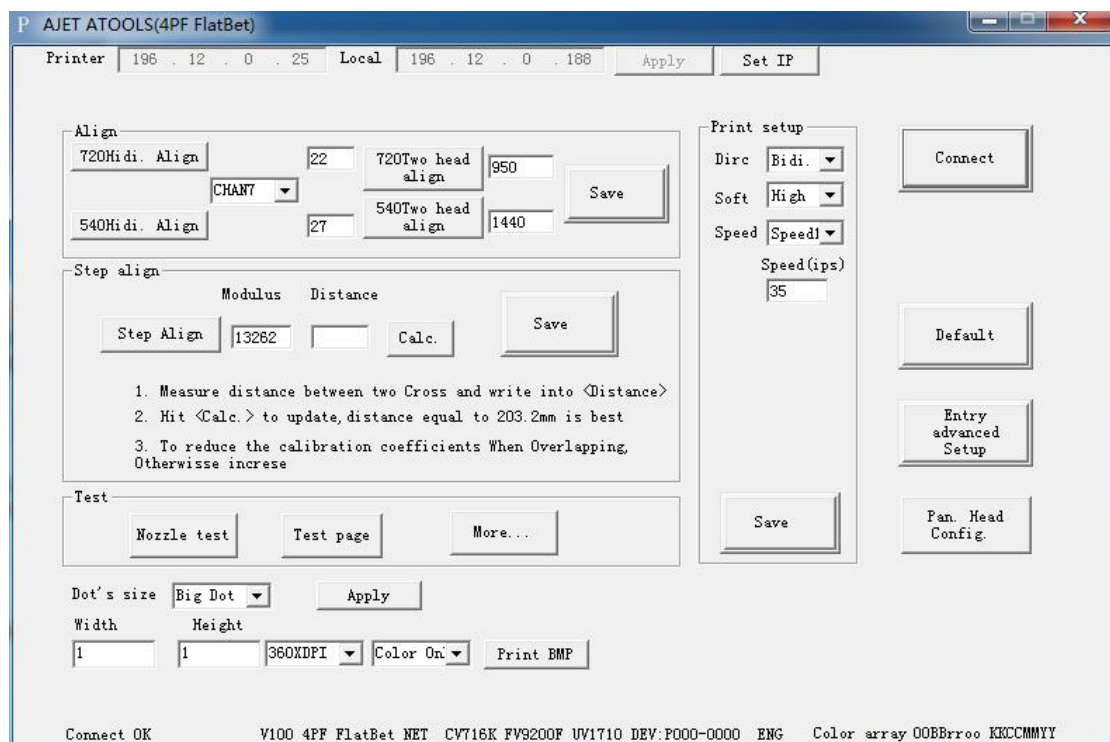


Fig 4-22

Observe the remaining lines , fill the number when the line is overlapped in the corresponding frame.After setting,click"OK" to save.

#### 4.3.5 Step calibration

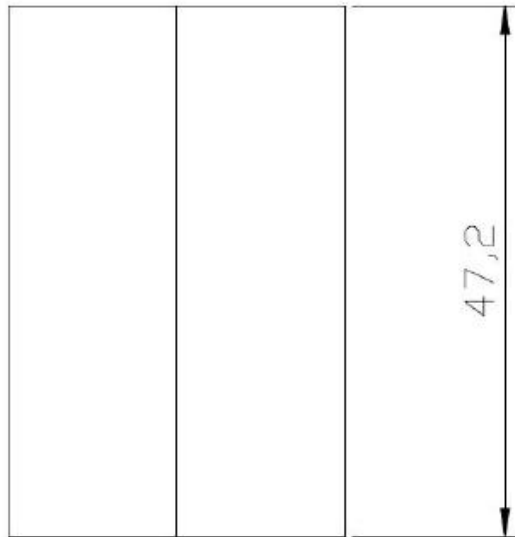
1 after horizontal alignment of nozzle , enter Atools main interface(as Fig4-23) , clicking"Step align"button .





**Fig4-23**

after horizontal alignment of nozzle , enter Atools main interface(as Fig4-23) , clicking "Step align" button .



**Fig. 4-24**

- 2 Measure the length of pattern, it displays 47.2cm above. Fill the value in "Distance" column
- 3 Clicking "Calc" button to update the calibration coefficients , then store the figures.
- 4 Repeat the above steps until the distance is about 406.4 , save , calibration completed.
- 5 To check step by printing any color-block , then modify the calibration coefficient as appropriate .

### 4.3.6 Bi-direction calibration

1 First, choose the corresponding color channel, as shown in Fig is

CHAN15. Click "360XDPI

bi-directional calibration" button, printing the bi-directional calibration graph as

Fig.4-26 .

2 Select the value below the overlap of lines and add the value in the corresponding calibration frame.

3 Click "Save parameter" button in effect.

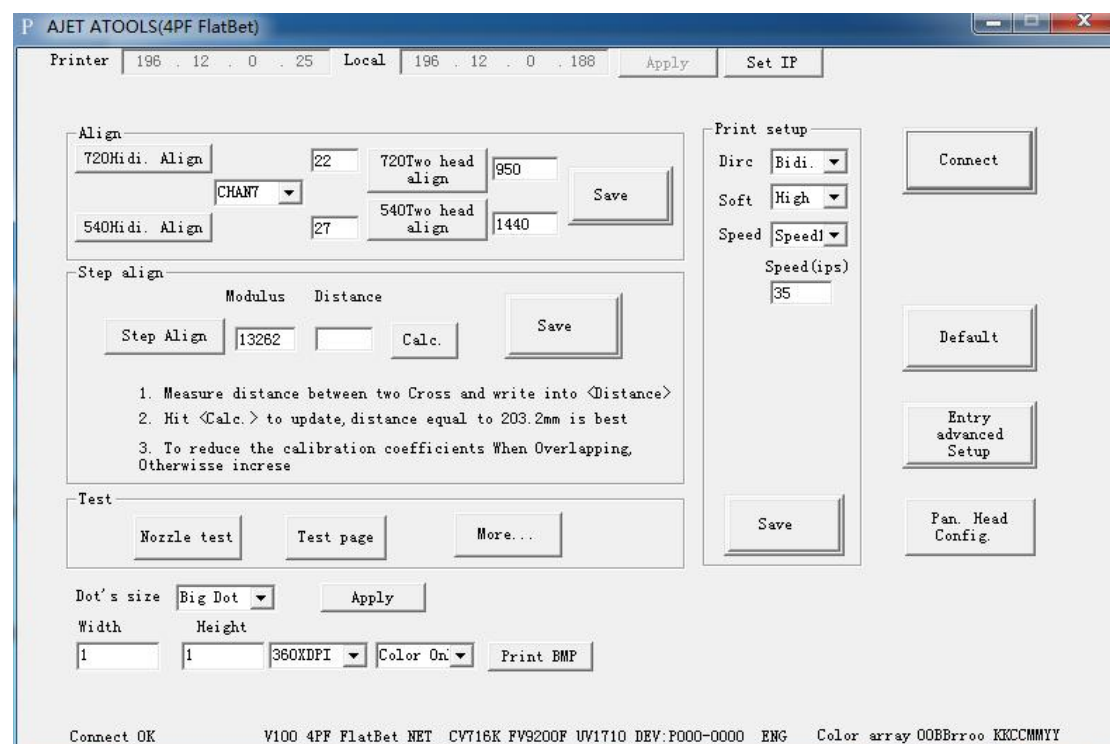


Fig 4-25

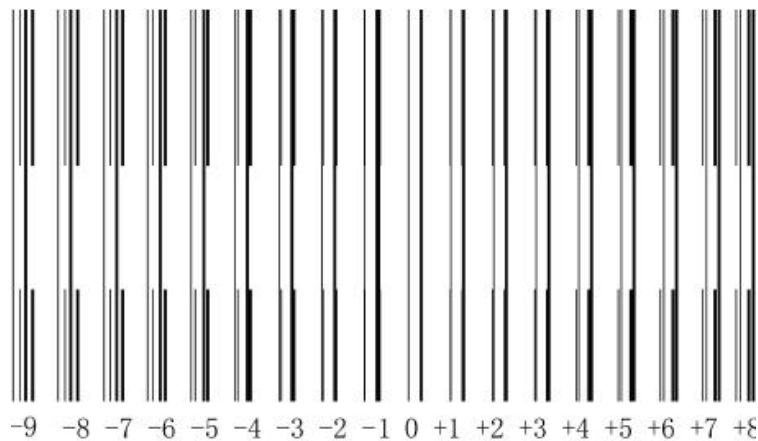


Fig4-26

Tip: After completing the above operation, select corresponding printing precision, print bmp, observe the junction of each pass and different colors overlap is both ok, show that the calibration qualified, whereas needs to be calibrated again .bi-directional calibration button.

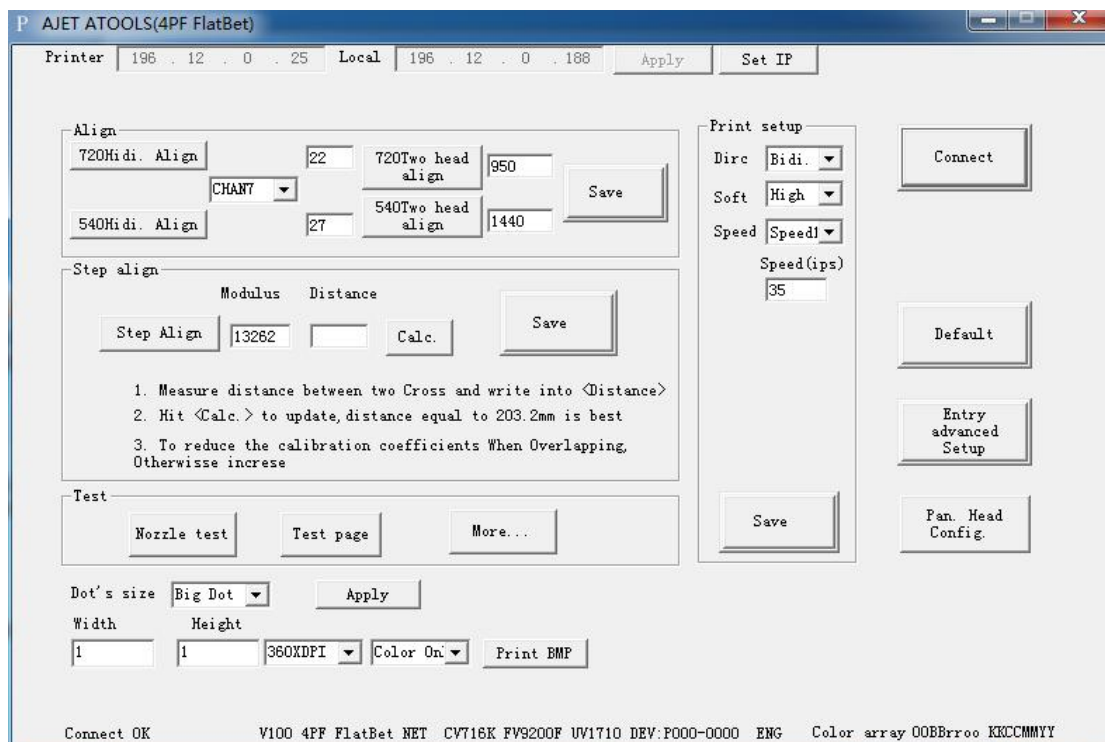


Fig4-27

## ChapterVI Rip operation and Printing process

### 5.1 Briefing of RIP

After double clicking left key to open AJET RIP software on desk, the following dialogue block will pop up:

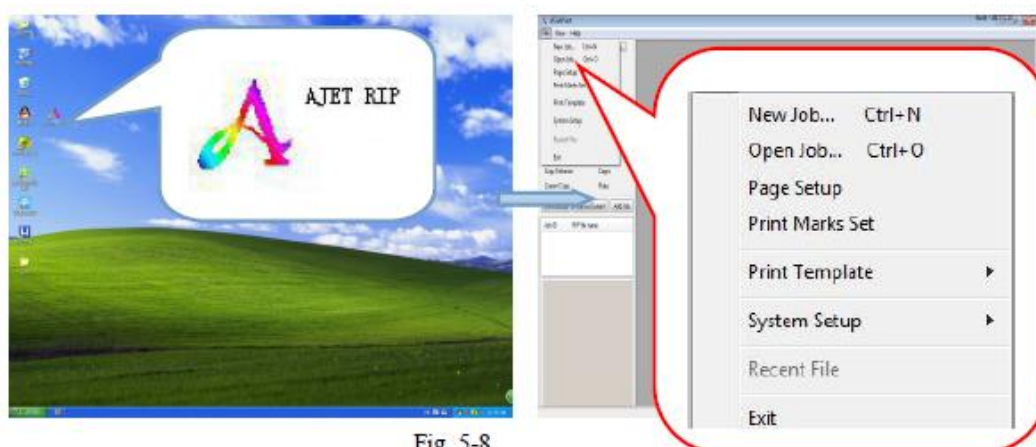
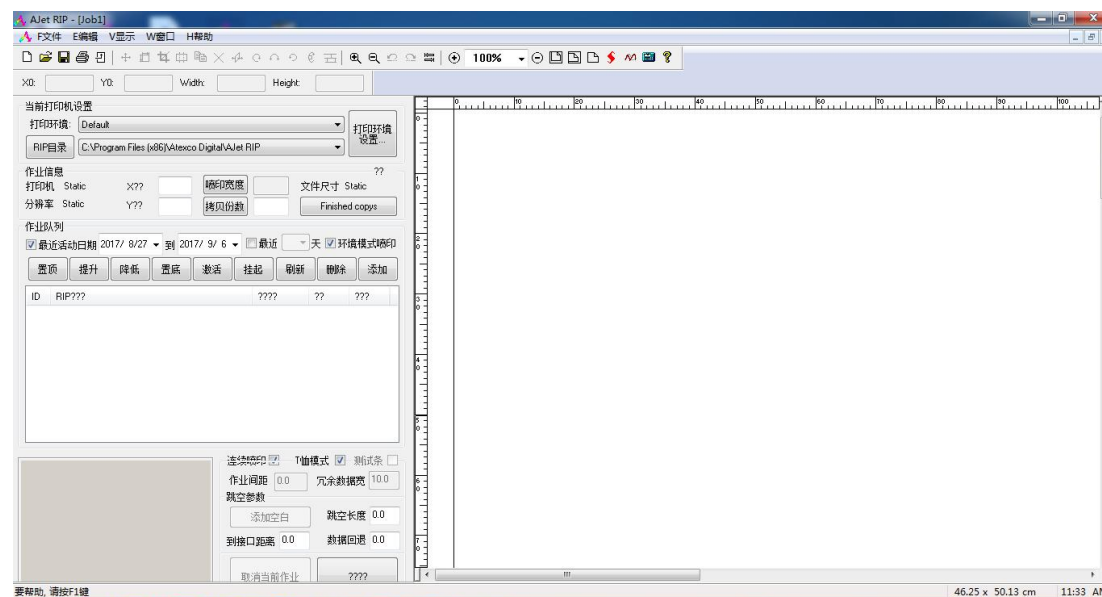


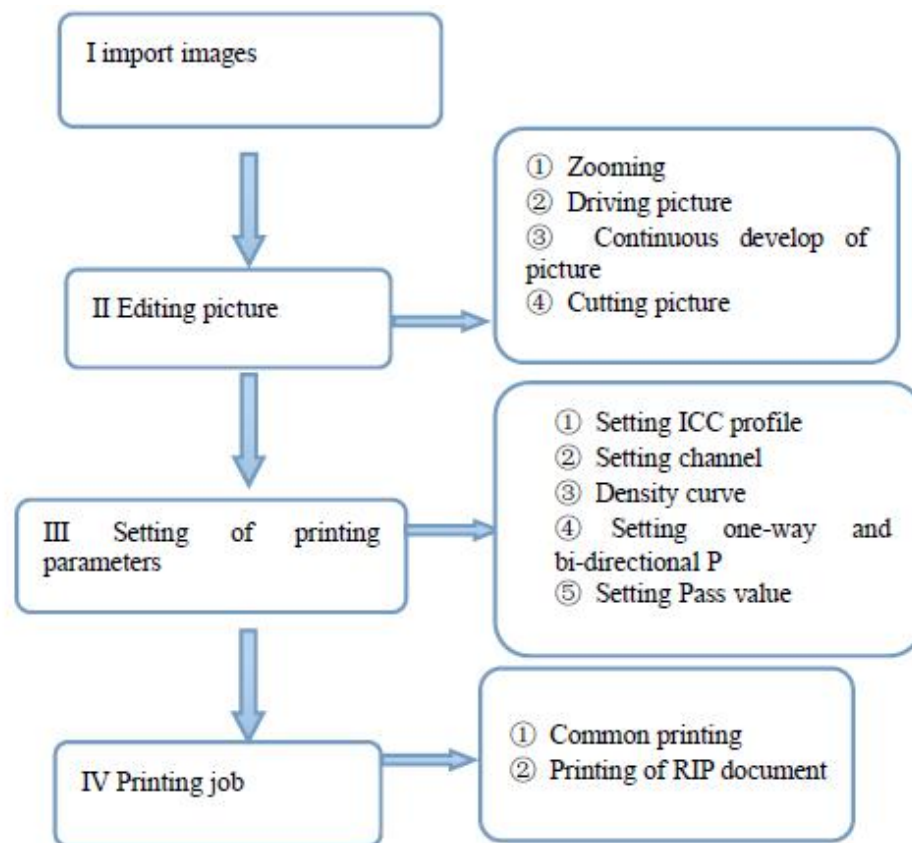
Fig. 5-8

Single click the left key from "File" in menu column, open "new job" and establish a blank job page, as shown in the below diagram:

AJETRIP program window includes the following parts:



## 5.2 Printing process



### 1.Import images

Import images : left-click the “New job” in the” file” to create a new blank task window,then click “Open job” to import images.

Tip :The software settings can not be used if you can’ t create a new blank task.

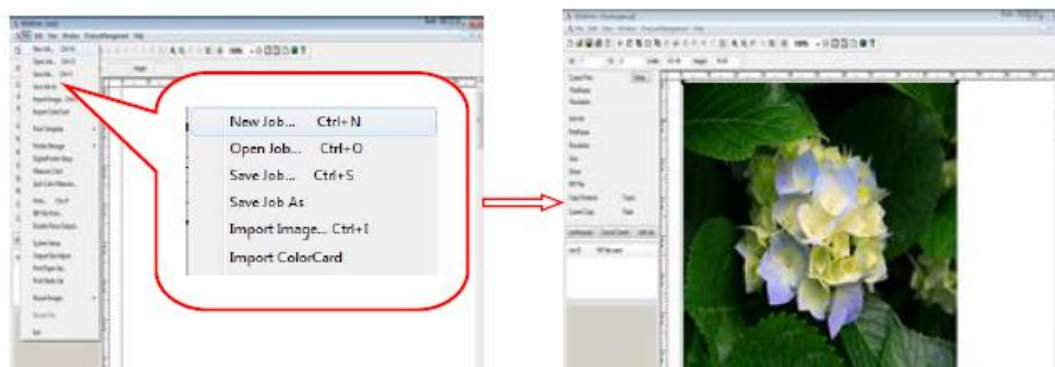


Fig 5-11

### 2.Editing picture

Move the mouse to picture and single click right key to pop up the editing menu.

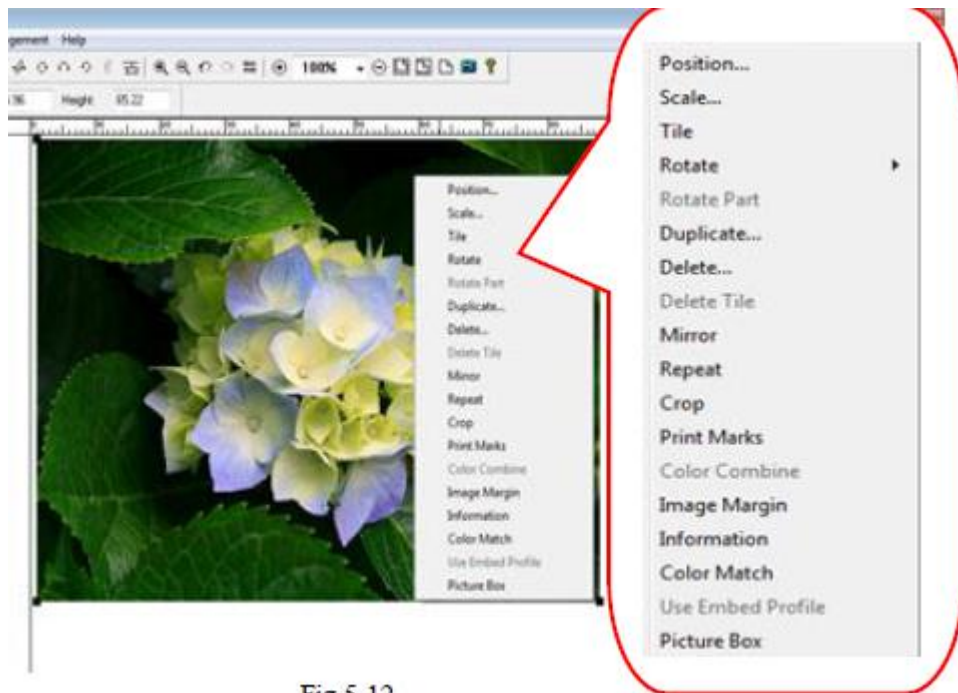


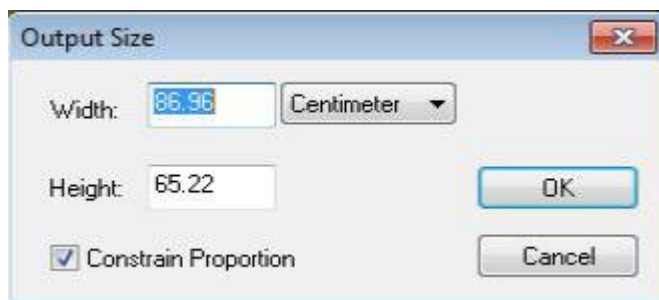
Fig.5-12

①Position: Single click left key to pop up the following dialogue block. In “H” and “V” input horizontal and vertical position to position the picture.



Fig. 5-13

②Size: Modify picture size in the form of number, first select the picture, single click the "Size" in tool column and in the dialogue block input the to-be-modified size. For proportional zooming size, select "constrain proportion"; if not, don't tick.



③Crop: Right click, the following dialogue block will pop up. Drag to select area with right key manually, or input the desired width and height of picture.



Fig. 5-17

Input the desired width and height of picture:

The dialog box is titled 'Crop' and has a close button (X) in the top right corner. It contains four input fields arranged in a 2x2 grid:

- X: 0 cm
- Y: 0 cm
- Width: 0 cm
- Height: 0 cm

At the bottom right, there are two buttons: 'OK' and 'Cancel'.

Fig. 5-18

### 3.Setting of printing parameters

## 6.2 Notes to safety

Note I:

The power supply of the machine shall be AC 220V  $\pm 5V$ , otherwise, voltage stabilizer above 1000W or UBS UPS shall be additionally fixed.

Note II:

A. The machine shall not be fixed on window table of room; otherwise its circuit board would be damaged by thunder. B. At installation, the machine shall not be close to high-power electric device (3000W) (within 2m distance or from a same power supply) to avoid disordered code resulted from grid interference. C. At installation of machine, its earth wire shall be surely connected as per requirements.

1. The wire shall be single- or multi-stranded copper wire.
2. The sectional area of the wire shall be at least 2.0mm<sup>2</sup>
3. The earth end shall be connected with one ca. 1 m-long iron rod or iron triangle and filled with 65% saline.

Note III:

At installation of nozzle, cares shall be taken to the installation sequence of nozzle data wire to ensure correct installation, no liquid (ink and water) in the connection between nozzle and data wire and to avoid nozzle short-circuit.

Note IV:

At replacing ink bag, cares shall be taken to avoid ink outflow, ensure clean connection between nozzle and ink bag, and prevent ink from flowing into the slot of nozzle and data wire along nozzle data wire, otherwise, short-circuit or burn-out of nozzle would occur.

Note V:

A. At disassembly/assembly of ink cart cover and cart board (nozzle board), the plug of nozzle data wire and the plug of data wire connecting nozzle board and main board shall be correctly connected with the insertion slot without false connection or inclined insertion (The inclined insertion, if any, would result in short-circuit or burn-out of nozzle or circuit board). Only after confirmation of normal conditions, may the machine be energized and started.

B. B. During normal printing after repair, the compression piece of the data wire connecting the cart board (nozzle board) and the main board shall surely press the data wire, (otherwise, disordered printing code or nozzle short-circuit would occur after normal run of the machine for a period).

Note VI:

At insertion and withdrawal of net wire port of main board, hot insertion and withdrawal shall not be allowed. Leftwards/rightwards torsion at insertion and withdrawal shall not be allowed, otherwise, the chip of the net port would be burnt out.

Note VII:

During run of machine, no person is allowed to handle the platform of drier (front rotation angle of machine) to avoid burning of other person, which would result in serious consequence.



## Chapter VII Daily maintenance

In order to ensure normal work of printer, routine maintenance is very important, which shall be detailed below:

### 7.1 Periodic maintenance

This chapter explains the daily operation, the change of consumables and the maintenance method of the T-shirt printer. White ink can not always be placed not to move may cause the pigment precipitation to cause the white degree uneven, or trigger the serious failure of the printer. Please do the following maintenance regularly. The implementation period of maintenance is as follows.

Operation	Period	Ffunction
Stir white ink	Before printing (once a day)	Stir white ink to prevent the precipitation
Cycle white ink	Turn on the machine for 2-3 minutes at a time, then the macmachine works on its own.	Make the white ink smooth and prevent the white ink from clogging the ink pipe.
Nozzle Check	Before printing(once a day)	Confirm the printing quality
Clean white pipe	Monthly	Prevent the ink bottle from being blocked by white ink.