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Integrity Excellence Profession

Titan-jet 19G5 Ricoh Gen5 printer

Instruction manual

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Chapter I Brief Introduction

Summary

Thank you very much for purchasing our product, this manual can help you to assemble and use the printer, through the index, you can find the topic related quickly. Please place the reference manual easy to reach.

This manual is made up of four parts: 1):How to operate the Printer ,
2):How to use Printing control software
3):How to use Maintop software,
4):Daily Maintenance of Printer

The machine have passed the strict inspection before delivery and attached labels .To avoid damage to the printer, please read the manual carefully before you use the printer.

1. Power supplier safety

**Attention: For safety of the operator and Printer, ground wire must be connected!
The printer should be installed by qualified maintenance technician.**

- A.** Power supply: single-phase 220V AC /50HZ. Max power: 1000W, Print power: 100W
- B.** Using only the power type that the printer label identified. You can choose 110V AC or 220V AC power supply according to your countries or regions' applications.
- C.** Connecting all equipments to a properly ground outlet to avoid the use of sockets with those in the frequent switching between on and off the device (such as: photocopiers, air-conditioning systems) in the same circuit.
- D.** Avoid to use of wall-board switch or autotimer controlled outlet, always turn off your printer by the power switch which is on the right side of printer.
- E.** Do not use damaged or broken power wire.
- F.** If additional power wire has to be used, make sure the sum of amperage of other device and the additional power device can not exceed the rated amperage of the power supply. Do remember the sum of amperage of other devices and the additional power wire plugged into the wall can not exceed the wall outlet's rated amperage of power supply.
- G.** Keep your computer system away from electromagnetic interference source(s) such as loudspeaker or wireless telephone. Do not try to repair printer by yourself while meet problems, seeking for help from printer maintenance technicians in time.

2. Attentions for operating printer

- A.** Don't plug off printer power supply or other related data cable before printer power

supply has been turned off.

- B、 To avoid the unnecessary loss caused by behind cleaning the tools or other articles which put on the print table or cover of printer by careless after machine running., Do not put tools or other articles on printer table or cover.
- C、 Make sure the carriage has been fixed on the original place before moving printer.

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- A、 Don't plug off printer power supply or other related data cable before printer power supply has been turned off.
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- C、 Make sure the carriage has been fixed on the original place before moving printer.

3. Attentions for installation and use environment

The printer should be positioned stably and levelly, and well for ventilation, for easier plug on/off, Place your printer close to wall outlet. Don't exposure printer under sunlight, highlight or other heat sources to keep a good temperature and humidity environment. Using temperature: 18-30℃ ; Humidity: 40%-80%. For best printing status, air conditioner and thermometer are required. Printer must far away from strong radiation interference source. UPS and power stabilizer (power above 1500W) is suggested to adopt.

4. Attentions for Ink placement and using

Ink should be out of reach of children to prevent them touch or inhale in, washing with soap and water if ink contact with skin; washing with fluid water immediately if ink contact with eyes; to avoid ink leakage, don't shaking the ink bottle; after a period (2 months) of using, ink bottle should be cleaned and dry in the air, cleaning printer before replace new ink bottle to make sure printing quality. Store ink in a cool place and don't exposure under sunlight

5、 Parameter

Print-head	Ricoh Gen5	Resolution	1440 DPI
Number of print head	2	Number of Nozzle	2560 (320 * 4*2)
Color	C M Y K	Color Range	16.7million
Print table width	1950 MM	Print width	1900 MM
Speed	2 PASS	76 m2 /hr	
	4 PASS	38 m2 /hr	
	6 PASS	25 m2 /hr	
	8 PASS	18 m2 /hr	

Ink	Solvent,	Color Management	ICC or density curve
RIP Software	MAINTOP 5.3, photo print	Operation System	Windows XP/ Windows 7
Interface	USB 2.0	Power Supplier	50HZ/60HZ,220V/110V, 10A
Heating	Front, middle and back heating	Dry	Fun
Material	Paper, Front lit, Flex banner, mesh, leather...	Image format	Bmp,TIF,Jpg,Pdf...
Media Handling	Roll to roll, sheet by sheet	Humidity	40% - 70%
Dimension	3.16M * 0.82M *0.75M	Weight	280KG

Chapter II Installation and Acquaintance of Printer

1、 Acquaintance of Printer

Illustration of Titan-jet 19G5 solvent printer



Clean: Automatic Ink suction button

Roller Start: Automatic material feeding, take up button

Print/Pause: Printing start, pause, continue button

Fan: Fan button for drying

Move Up: Material move backward button

Move Down: Material move forward button

3. Installation of Titan-jet 19G5 water base & eco-solvent piezo printer

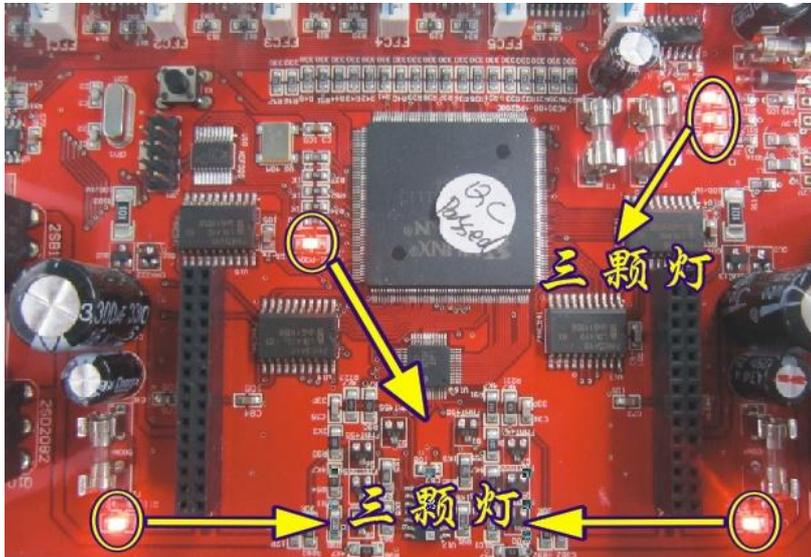
unpacking: Remove the Buffer foam and dustproof plastic wrap after unpack, take out of all spare parts, the stander and printer body are installed when packing, no need to installing.



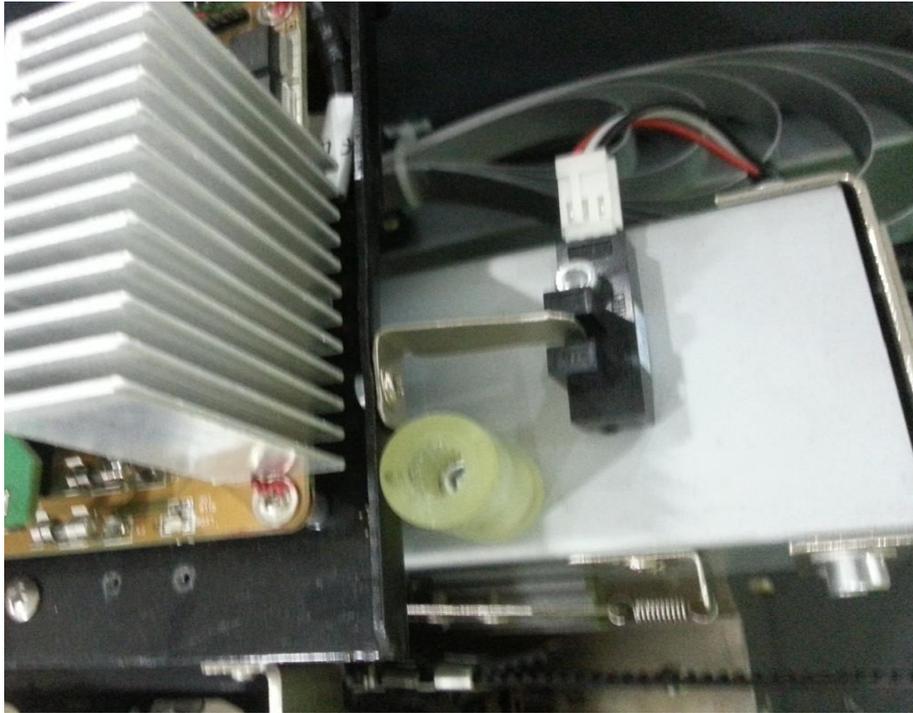
Attention: Check carefully to confirm no spare parts lost!! (along with the printer has one set of ink and other spare parts)

4 、 Electrify, reset of carriage and others

4.1. take out the power wire from spare parts box and connect printer to 220V AC power supplier, main board will release a bee sound when press the switch on, and the 6 lights on the carriage will lighting, see illustration:



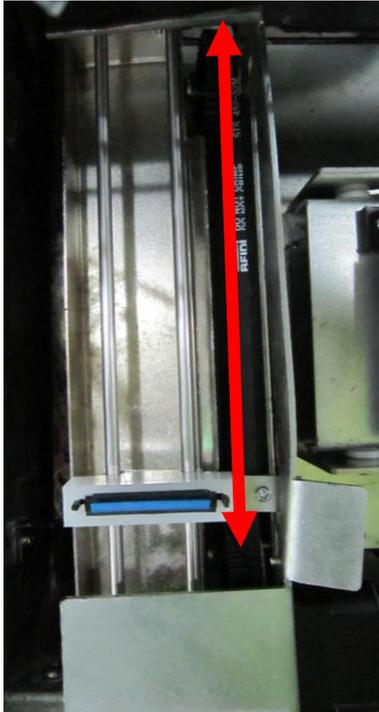
4.2. The carriage will move to right slowly when turn on the printer, then to left a little while the limit stopper which on the right front of the carriage move to the upside position of the yellow limit switch and at least arrived at the middle of limit switch, during this action, the red light on limit switch will gleam, at the same time, the main board will respond a sound, this actions mean the carriage reset normal, otherwise you need to check if the connections of machinery and limit switch connect well or not.



4.3 press the fan button on the key panel  , turn on the power button in the front of the printer. check all fans work well or not, turn on the button for front, middle, back heating, check heating system work well or not.

4.4 press move down  ,move up  button to check material feeding and backward function work well or not, press one time for action, second time for pause

4.5 move the wiper front and back slightly to testing the wipe motor, if the wiper can not move freely; apply some lubricating oil to the small guide rail.

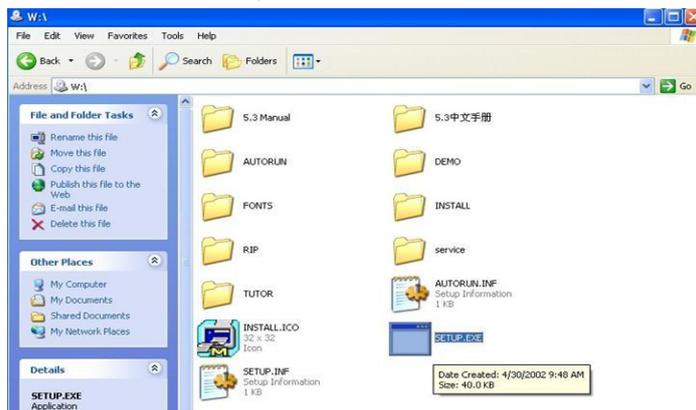


Chapter III Using of Maintop software

1. Installation of RIP software:

1.1、Installing software:

Insert the Maintop CD into CD-Rom of your computer, double-clicking the SETUP.EXE icon, the software will install automatically:

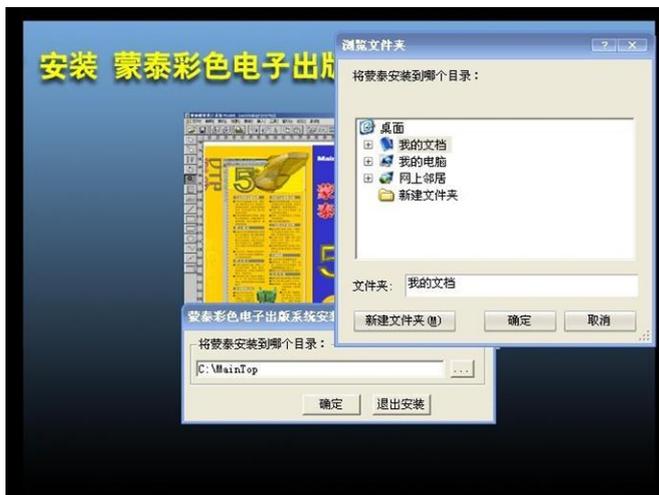




Click first one to start install



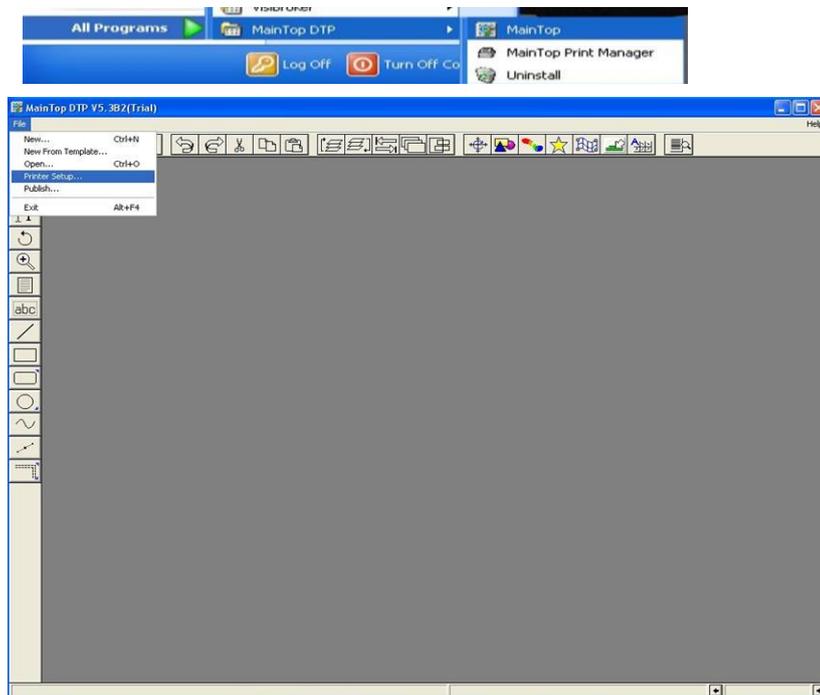
Choose installing root and click OK



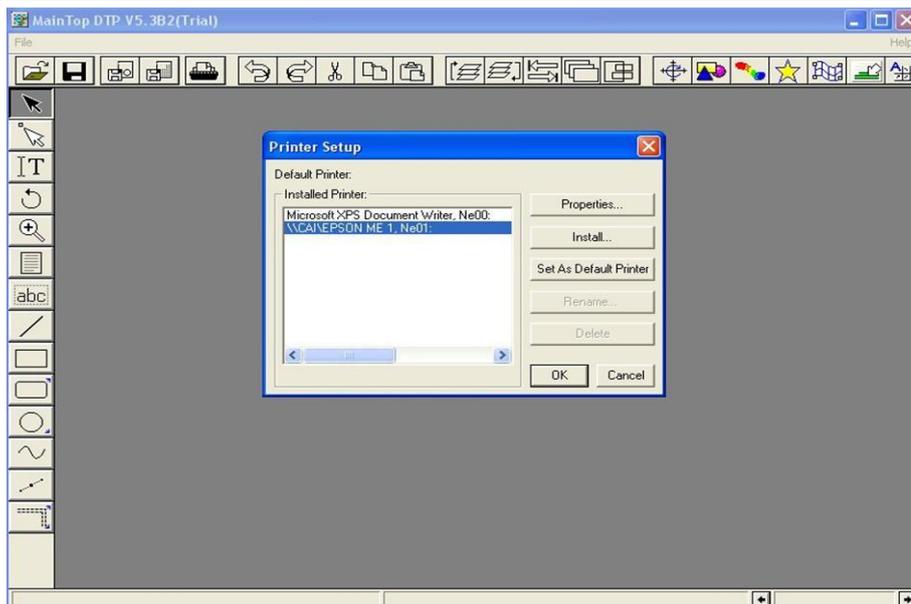


1.2、Maintop printer Setup and installing:

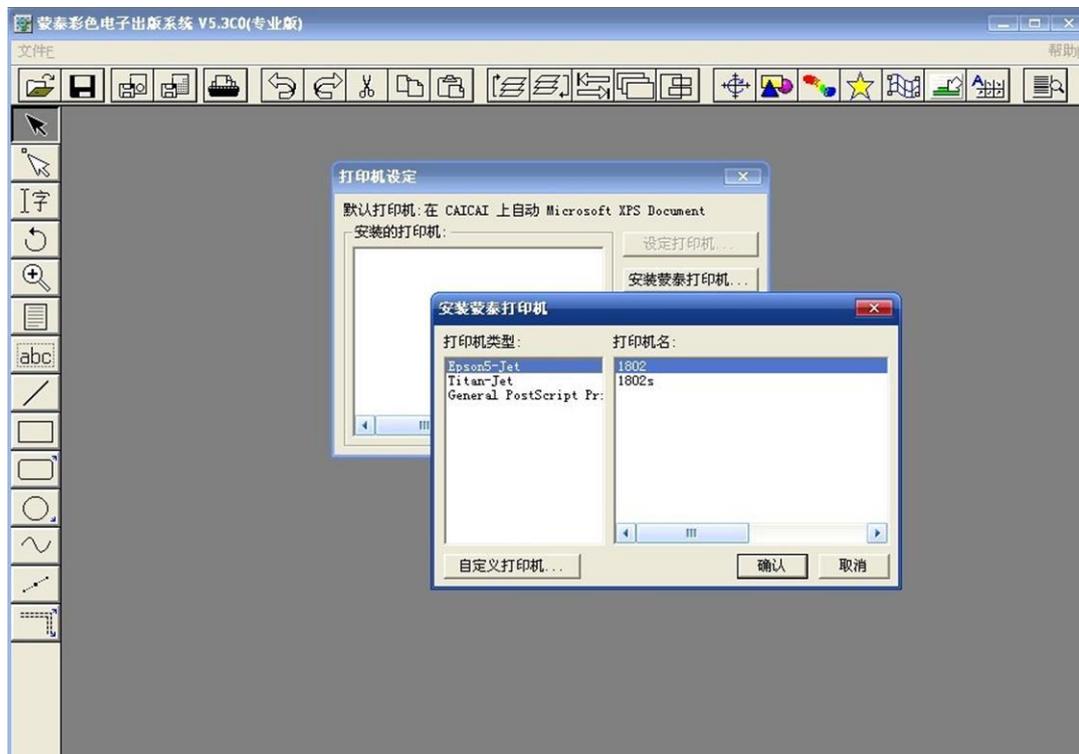
A、 after installed the software, operate as following step: start-procedure-maintop-open software-file-printer setup



B、 dialog box will appears after opening printer setup:



C、C、 Click the button: installing maintop printer



D: Attentions: Users have to choose the printer type 19G5 according to your model no.



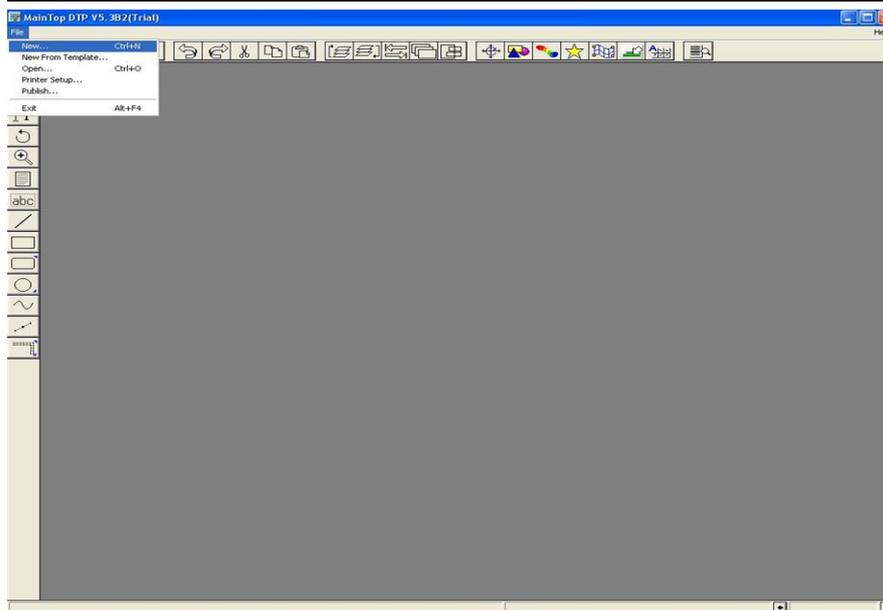
E: the printer will show 1965 “ as below according to your Choice after installing



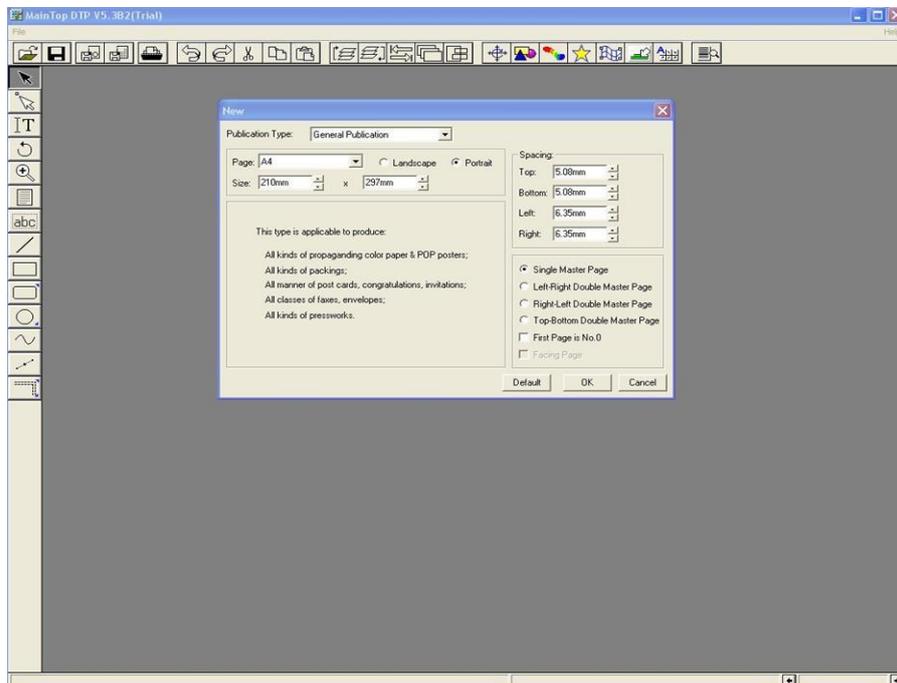
F、 Set the installed Model No. as default printer, installation finished.

2、 Using of software

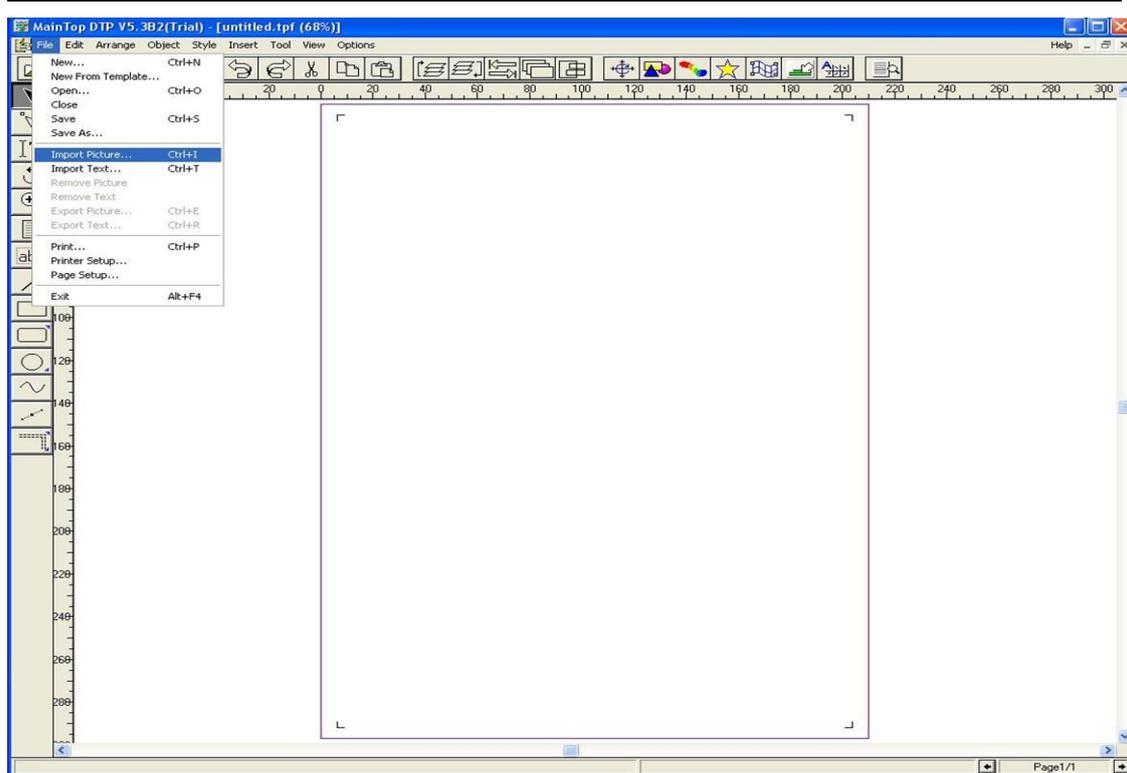
a、 New file: Open software—file—new file



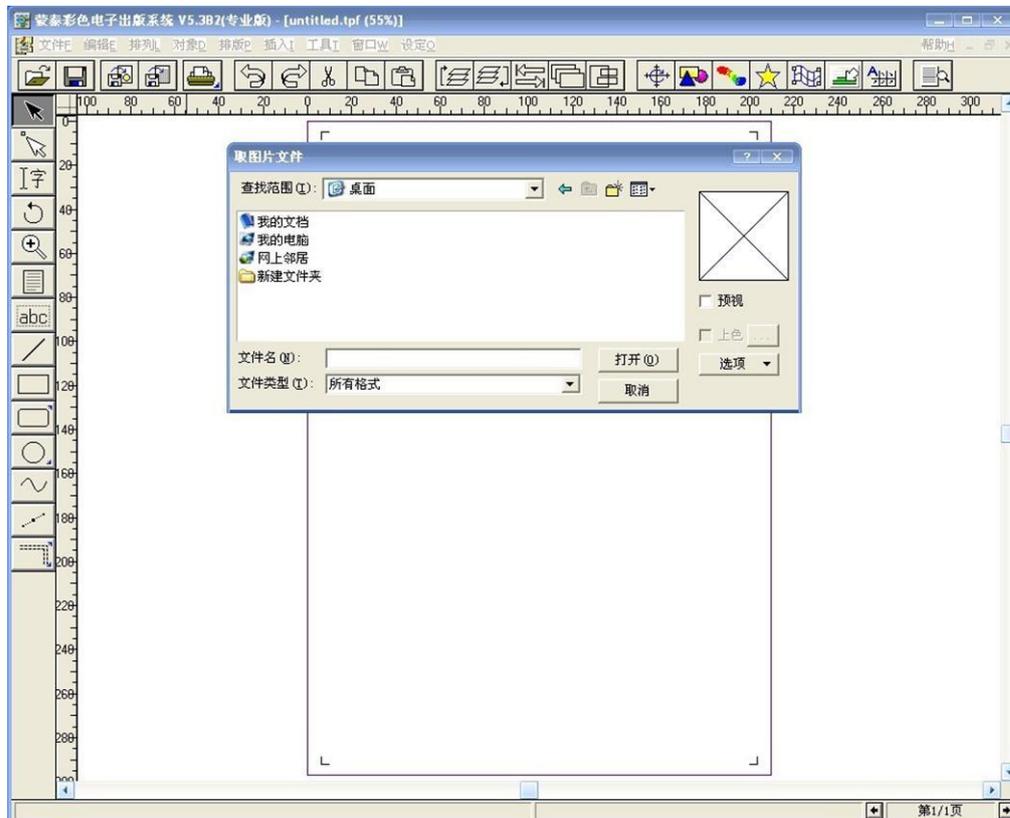
b、 Setup the paper size in dialogue box.



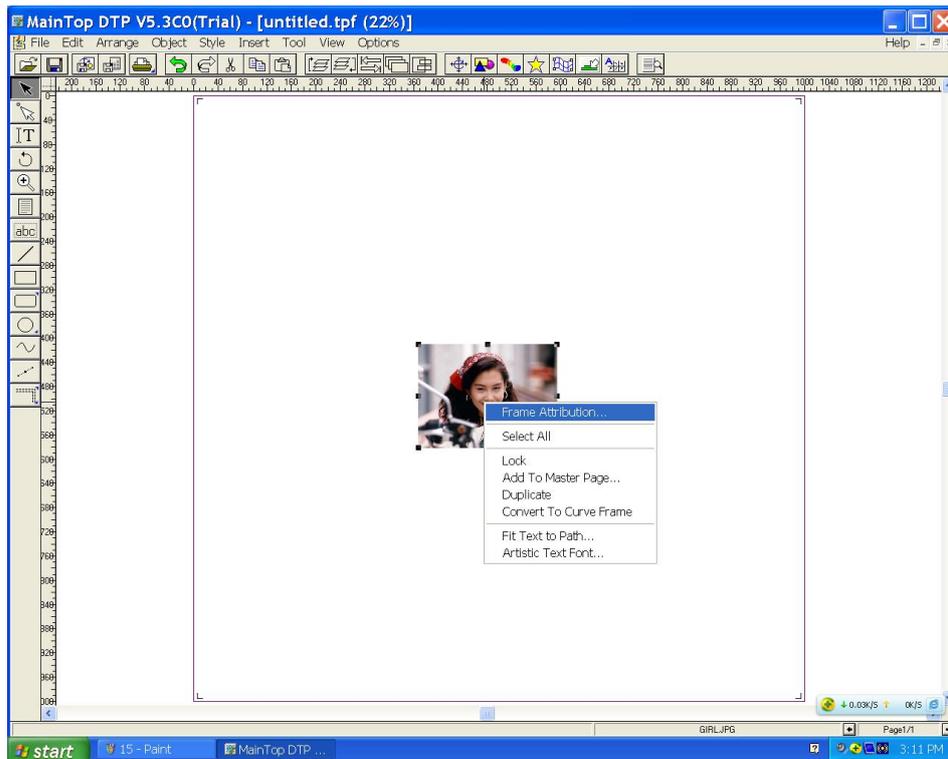
c、 Import picture: file—Import picture



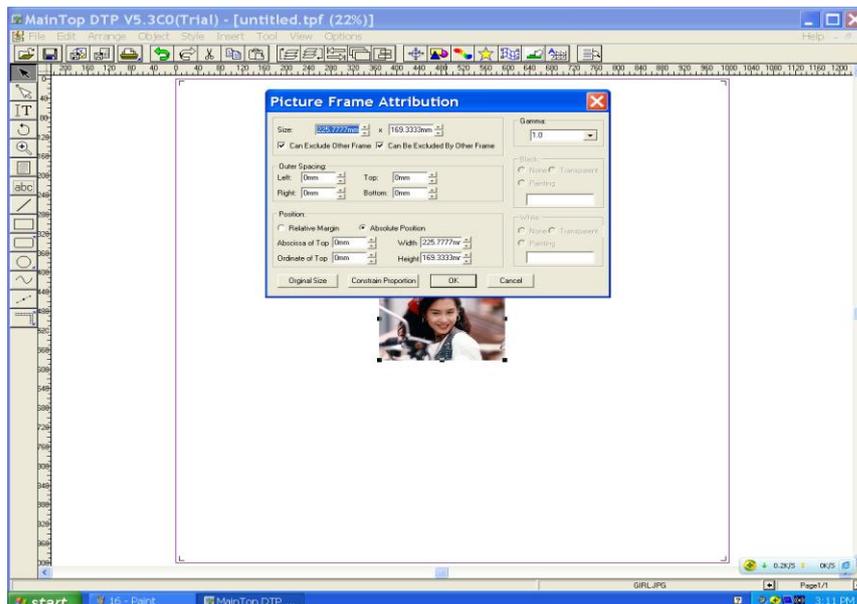
d、you'll see the dialogue box: Import graph file, choose the wanted picture- open



e、choose the imported picture and click the mouse right button, click picture property.

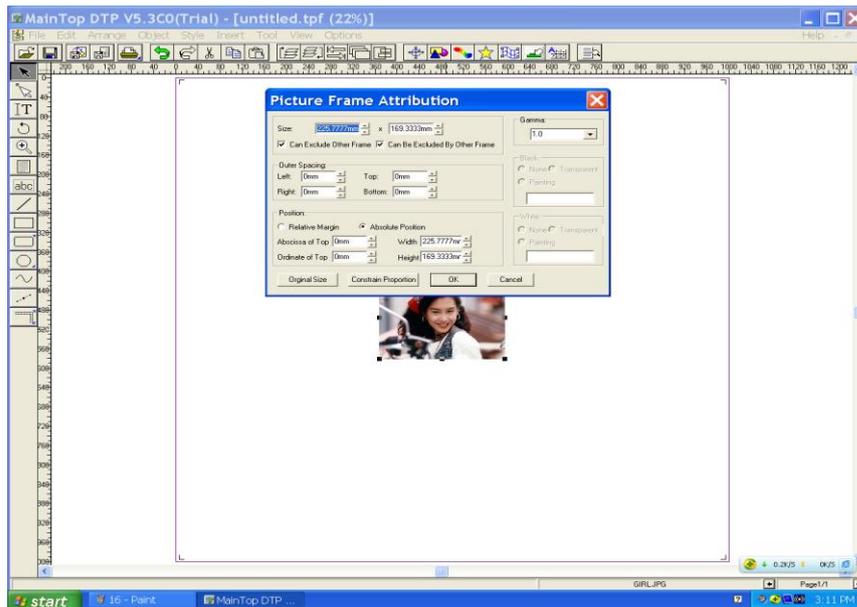


f、 modify the size of picture, choose change picture proportional then click OK

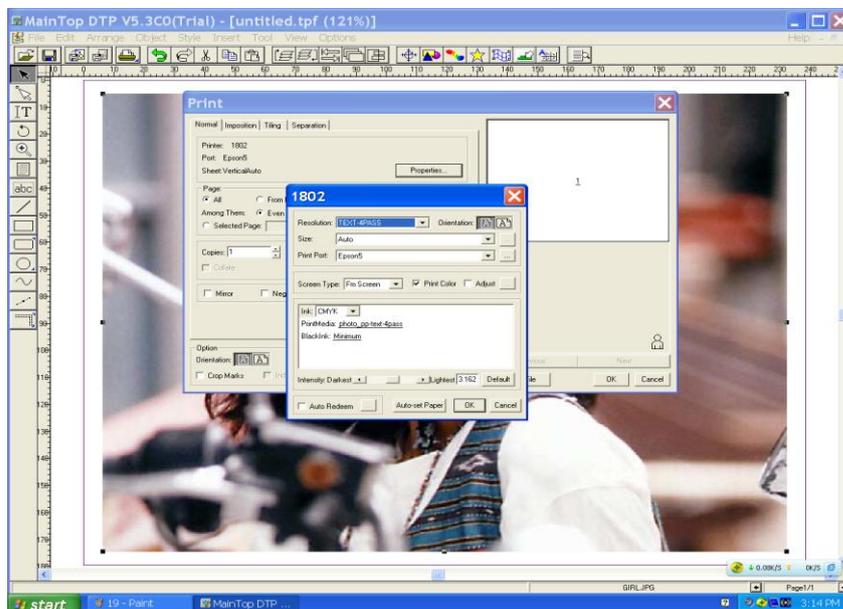


3.printing Image:

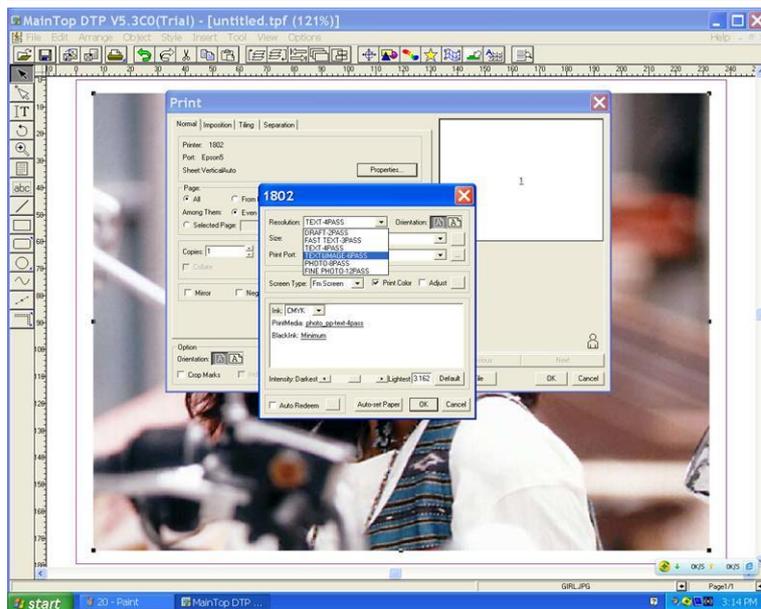
a、 open file—printing



b、 in printing dialogue box, click printer setup button into the setting interface before printing



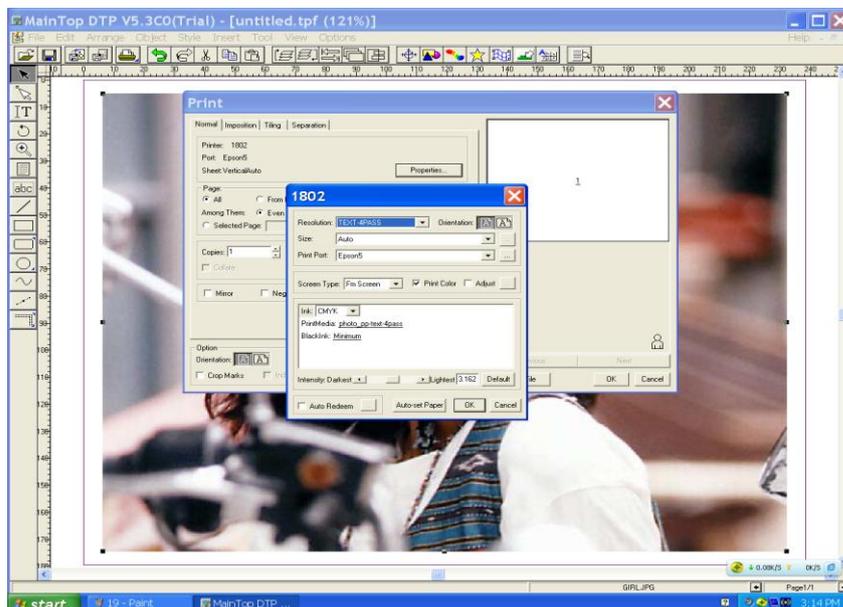
First set the resolution of the picture to be printing, then choose the matched paper type from paper type pull down menu, click OK. See illustration below:



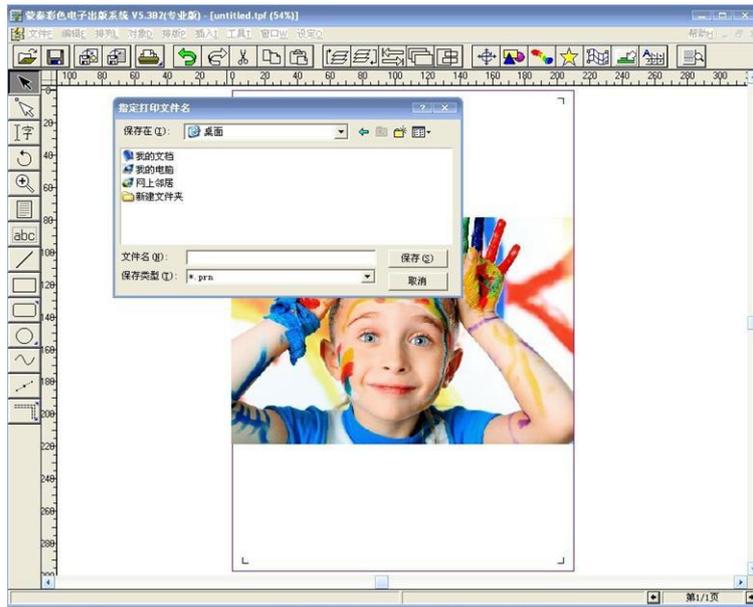
Attention: the paper type of indoor water base will show as synthesis frontlit, outdoor oil base will show as self adhesive vinyl.

c、 we have 2 way for printing(to make sure the print port is Epson 5)

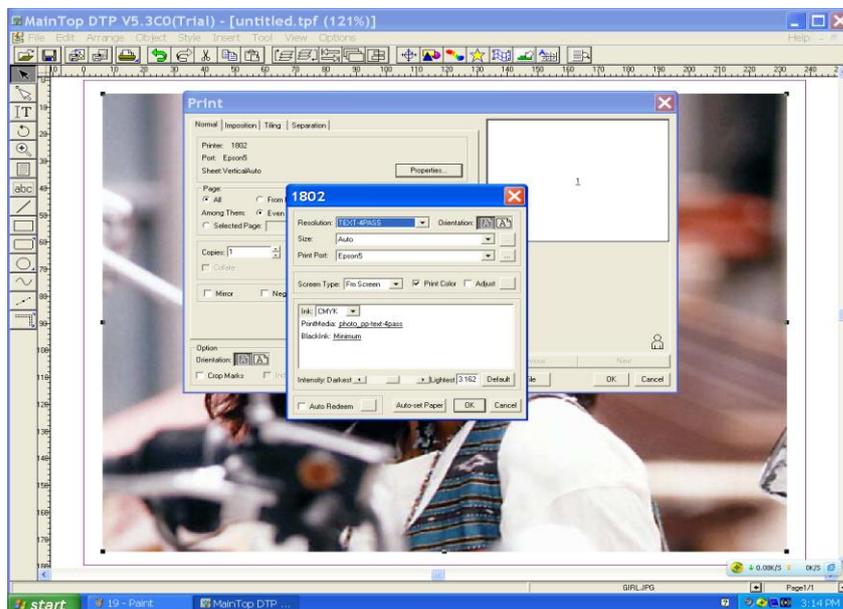
①Printing after RIP



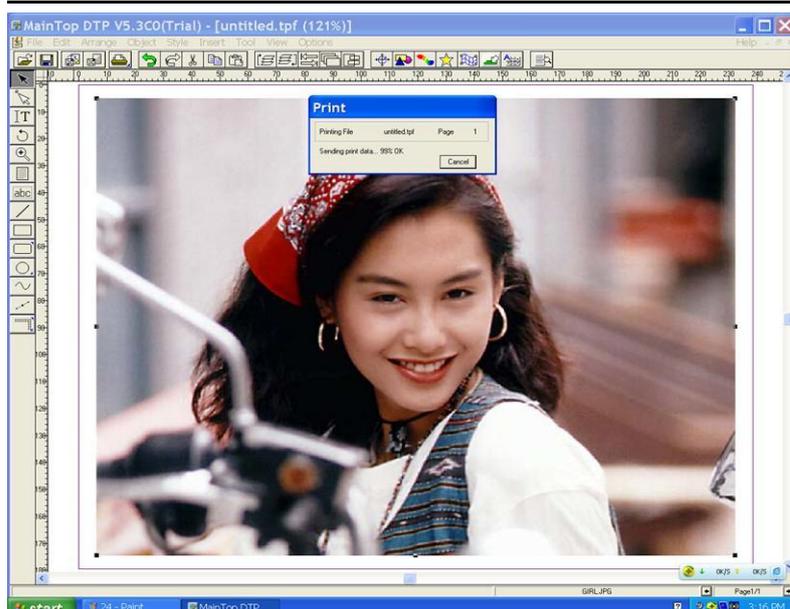
First, select the printing resolution and paper type you wanted, then click AUTOMATIC SETUP PAPER button, click OK, click print to file button, save file(format as *.prn)



②printing and RIP at same time :

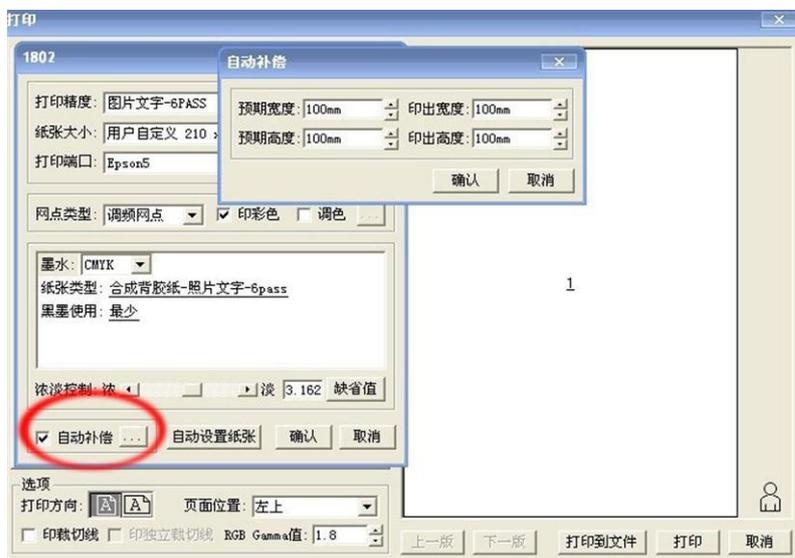


select the printing resolution and paper type you wanted, then click AUTOMATIC SETUP PAPER button, click OK, click printing.



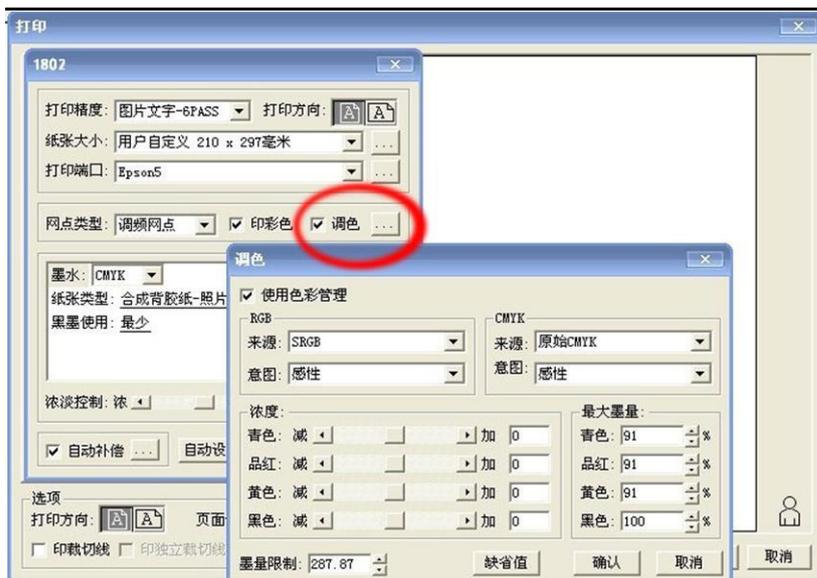
4、Software related

A、 dimension compensation: when dimension tolerance existed between printed and designed picture, try to operate as the following step in Maintop software: click printer setup button in printing dialogue box, and the dialogue box of automatic compensation will appear.



For example: you are planning to print a picture(expected width:100mm,expected height:100mm),in fact, the printed picture width is 100mm and height is 110mm,then you just need to adjust the printing height to 110mm in automatic compensation dialogue box, Click OK, your setup will be saved automatically.

B、 Ink volume adjust: when color tolerance existed between printed and designed picture, try to operate as the following step in Maintop software: click printer setup button in printing dialogue box, and the color adjust dialogue box will appear. Use color management to get the color you wanted.



C、remind: other unaccomplished matter please refer to maintop users manual

Chapter V Printing control software

1、 printing software and main board USB driver installation of TITAN-JET TT-19G5 printer (connection of computer and printer)

1.1、 Find the control software CD of TT-19G5 printer in spare part box, insert onto CD-ROM, find and double-click Titan Print –Epson exe setup icon, start installing.



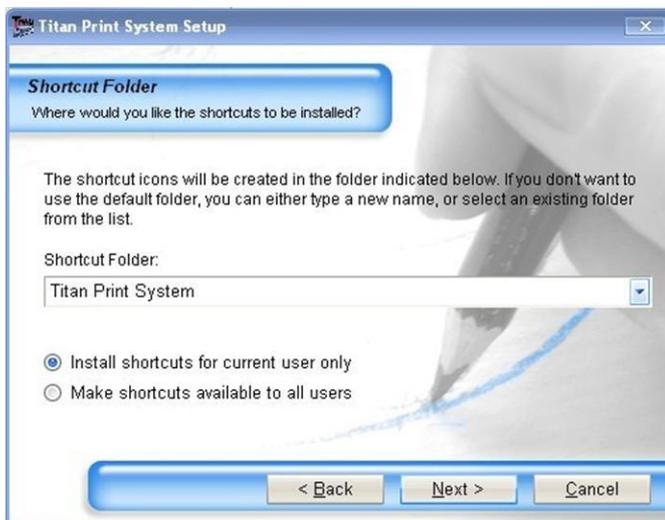
Click“next”



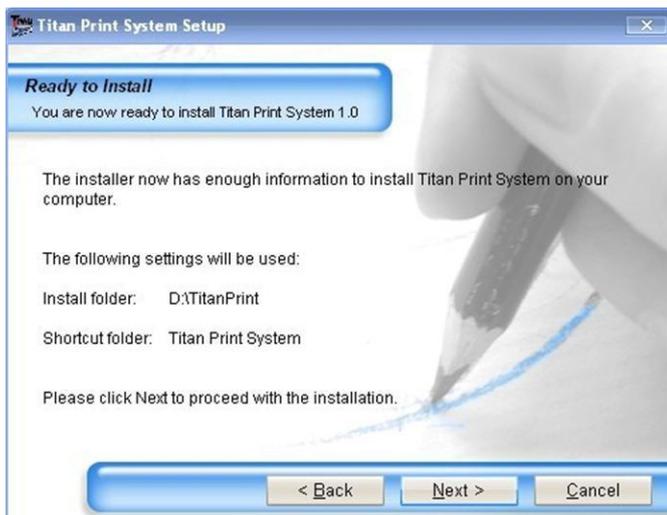
Click“next”



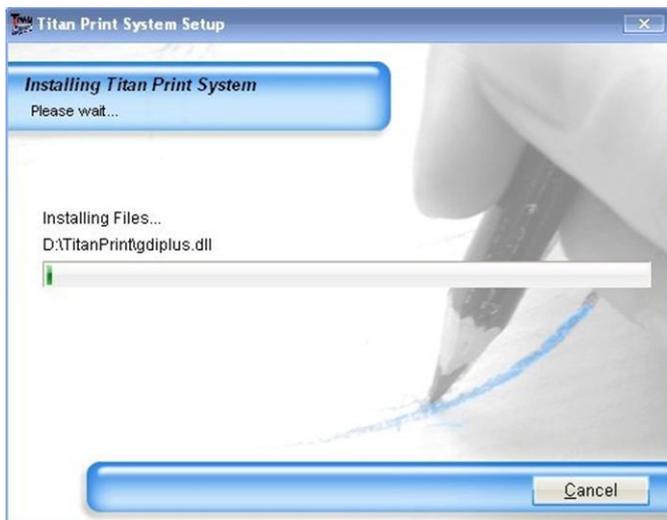
Choose file installation root, set Disk D as default, then click” next”



Click “next”



Click“next”



Software is installing...





Click "Finish", desktop will appear the icon:  , it means finished the installation of printing control software of TITAN-JET TT-19G5 printer.

2、 Open TITAN-JET TT-19G5 control software



A、 Double click the icon  on desktop, or click start-procedure-Titan Print, you will open the control software interface as below:



B、 installation of main board USB driver

Click tools---choose INSTALL PRINTER DRIVER under the pull down menu

Attention: Printer could not connecting to computer while install printer driver!!

然后会显示安装成功，如下图所示



Install success, Click OK, you can printing now!!



C、Connecting Printer to Computer

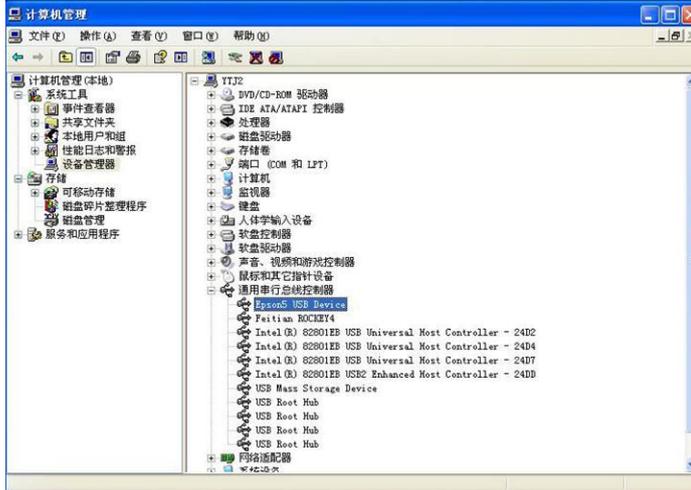
Connecting the USB cable to computer and printer, turn on printer, computer will show new hardware discovered. The new hardware is the main board USB driver of TITAN-JET TT-19G5 printer, with install this hardware, computer will able to control the printer normally.



Click “next”

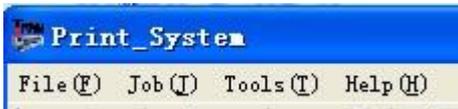


Click “finish” you can find the installed driver in equipment manager. (my computer—property---hardware-equipment manager) , see picture below



If you can not find the“Epson5 USB Device” in your computer or the“Epson5 USB Device” display with a question mark, it means the driver is failed to install.

2、 Main Menu



2.1、 file menu

Click file menu, the pull-down submenu will show as below:



A、 Import File/Import Directory: add file/directory to be printed by printer

B、 Exit: exit control software

2.2、 printing menu



A、 Start print: start to printing current job

B、 Stop print: cancel the current printing job

C、 Pause: suspend the printing job during printing

D、Resume: Continue to printing current job during pause

E、Option: refer to setup of printing parameters (Details see tools menu introduction)

F、Backup/Restore: you can backup/Restore the well performed parameters into a Disk

2.3、Tools Menu



A、Print Head Clear

B、Voltage Adjust: Adjust voltage of Print head (non-Professional technicians are not suggested to operate)

C、External Device Control: control of Take up system, feeding system and Fan device

D、Clear up preview file: clear up the temporary files created by preview

E、Clear up log file: clear up the printed file record

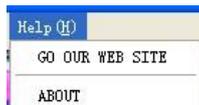
F: Backup/Restore: see Backup/Restore in printing menu.

G: Statistic: the statistic of everyday printing job

H: Install Printer Driver: install main board USB driver, after install driver, computer could connecting to printer.

I: language: language transfer between Chinese and English

2.4、Help Menu



A、Go our web site

B、About: Main board/head board serials number and version of control software

3、Tool Menu



Icon introduction: From left to right in orderly:

A、Import Rip file:

B、Reset: Click one time, the carriage will return to home place

C、Start print:

D、Stop print:

E、Pause:

F、Resume:

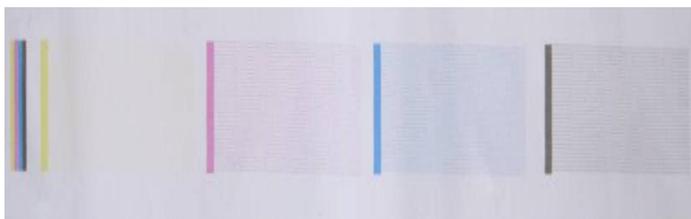
G、Parameter setting: setup related to printing parameters such as adjust stepping, direction, carriage speed and so on

H、Remove Item

I、Printer Tools: adjust voltage of ink pump and ink wiper

J、Voltage Adjust: Adjust voltage of Print head (non-Professional technicians are not suggested to operate)

K、Check Nozzle: Check ink spray status of nozzle, no breaks is normal, see illustration below:



L、One Key Adjust

M: Exit: Exit control software

4、Printing job List Menu

Name	Status	Copys	PASS	Sort	Printed	Mode	Size	Path
------	--------	-------	------	------	---------	------	------	------

Show you the current file name, status, print mode, size, path and so on

5、Usually parameter setting

Usually Parameter

Margin(mm) Print Direction

Zero To Paper: 220 Double Direction

Paper Margin: 0

Color Bar Setting(mm)

Position: NO Color Bar All

Width: 10 To Pic: 10 Half

Stepping Setting

Stepping Num: 533 Pass: 6

Two-way: 12

20111012

A、Margin:

- a、Zero to Paper: setup the margin according to position of material loaded by user
- b、Paper Margin: Start printing distance to material edge

B、Print Direction:

- a、Single direction: Printing while carriage move to left direction, won't printing while move to right direction,
- b、Double direction: Printing while carriage move to left and right direction

C、Color Bar Setting:

- a、Position: you can choose NO Color Bar or printing on left or right side
- b、Width: Color Bar width while printing Color Bar
- c、To Pic: Distance from Color Bar to the picture to be Printed

D、Flash Frequency:

To avoid the nozzle been blocked and dried, also in order to keeping the nozzle in good spray status, you can choose the reasonable flash frequency to wet the nozzle when the printer is turn on but not running for printing. at the same time, the carriage will stay at home place.

E、Stepping setting:

- a、Stepping Number: How many mm that the printer printing 1 pass, different pass matches

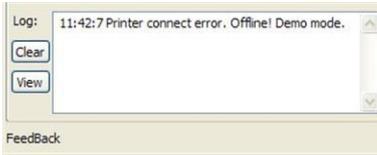
different stepping number(stepping number will mention in the following text)

b、Feather: feather function armed, this can avoid the pass banding. Printing with feather mode is suggested

F: Apply (save)

Remember to click apply button after all parameters been setup, otherwise you've done a blank job.

6、 Status Bar

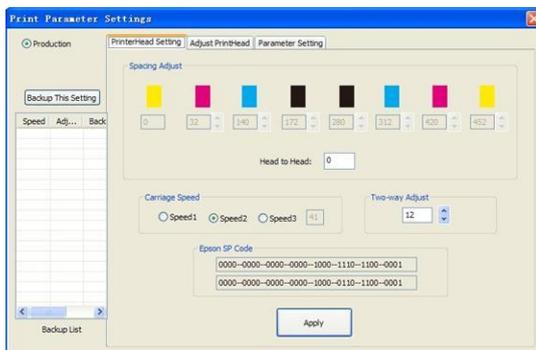


You can get information about what time the printing was started, what time was finished and delivery information of the main board and software, feedback information of Raster.

7、 control software related introduction

Parameter setting:

7.1、 Print head Setting

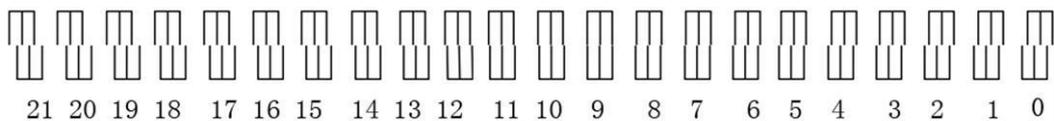


7.1.1、 users don't need to calibrate the print head by themselves due to the calibration has been done before export in factory.

7.1.2、 **Single print head printer no need to adjust.**

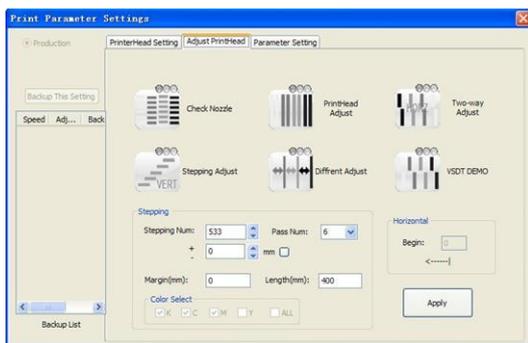
7.1.3、 Carriage speed: there are 3 mode speed of the carriage: speed 1, speed 2、 speed 3 (Low speed、 medium speed、 High speed)

7.1.4、 Two-way Adjust: If you choose double direction in Usually Parameter setting. need to adjust two-way value。 To confirm the printing start line if align or not, click testing, you will see the following printing:



If the up and down line keep alignment at a digital, it means the two-way value is the one; you should type the digital to the Two-way value. For example, in the above printing, the up and down line keep alignment at digital 9, then you should type 9 into the two-way adjust.

7.2、 Adjust print head:



7.2 print head printing adjust 19G5

7.2.1、click this button  to adjust the print head



Tight or loose the following screws in picture 1 for micro adjust to get the results for picture 2,



Picture 1

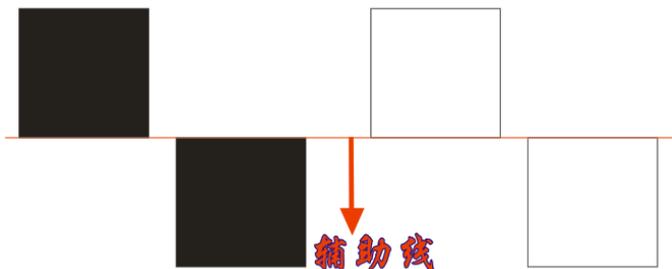


Picture 2



7.2.2 Click 2 Head Adjust button .

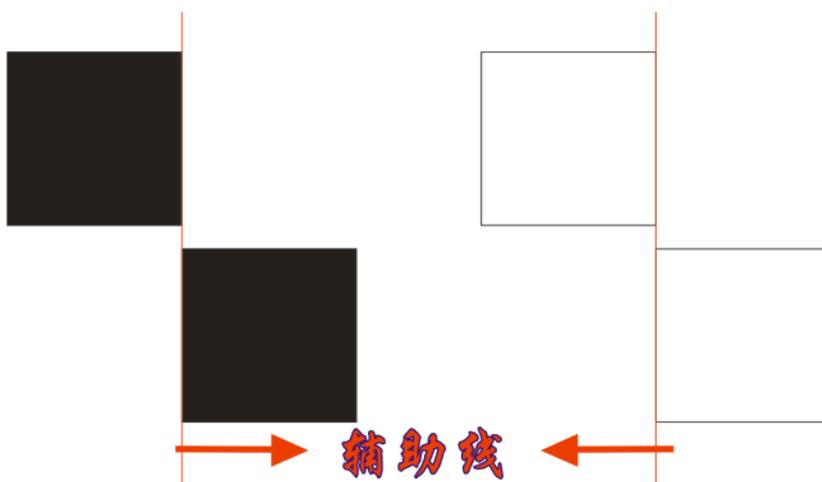
If you see the following:



1) you can adjust the distance value between 2 head:



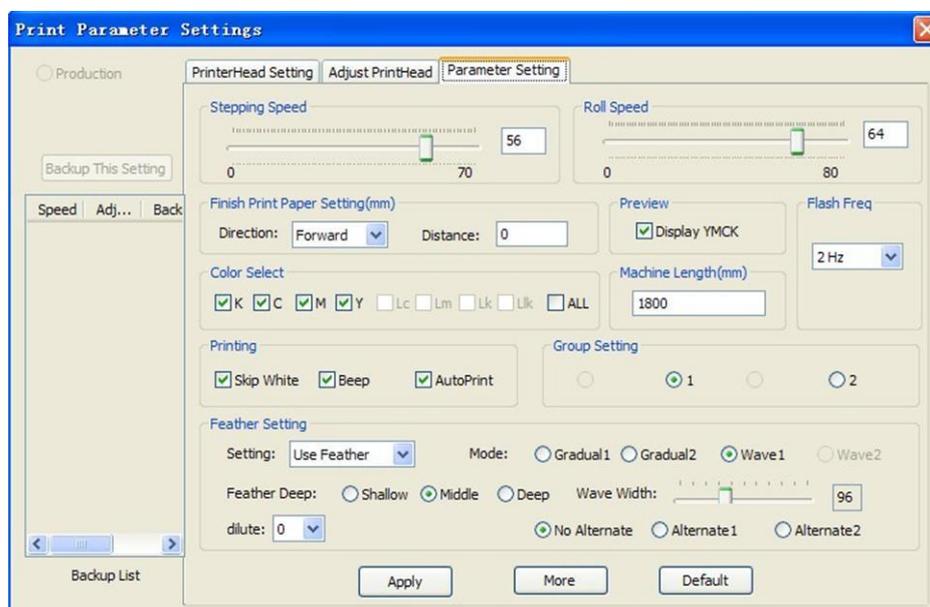
2)、If you get the following image, you need to adjust the 4 screws of picture 3 (tighten screw 1 and 2,adjust screw 3 and 4 to change the print head position.





Picture 3

7.3、 Other Parameter setting



- 7.4.1、 Stepping speed: the speed of the material moving after printing 1 pass
- 7.4.2、 Roll Speed: speed of material move forward or backward when no printing.
- 7.4.3、 Finish Print paper setting: length of paper move forward or backward after finished printing (mm)
- 7.4.4、 Preview: color display on Control software interface
- 7.4.5、 Color select: select the color for printing
- 7.4.6、 Machine length: find the right direction icon  on control software , click it and the carriage will move to right and stop, if it did not move to the max length, you have to change the

value until the carriage can move the max length.

7.4.7、Printing:

Skip white: print  on't printing the blank place, only printing where be with image.

Beep: the computer will alarm you when printing start.

Auto Print: select the file, will repeat printing the file automatically.

7.4.8、Group setting: print head number installed, this model printer only support 1 DX5 Epson head

7.4.9、Feather: this can avoid the pass banding. Printing with feather mode is suggested, this is the default setting, no need to adjust.

7.3.10. More

This function requires technician password. Used by technician of factory to adjust the printer.

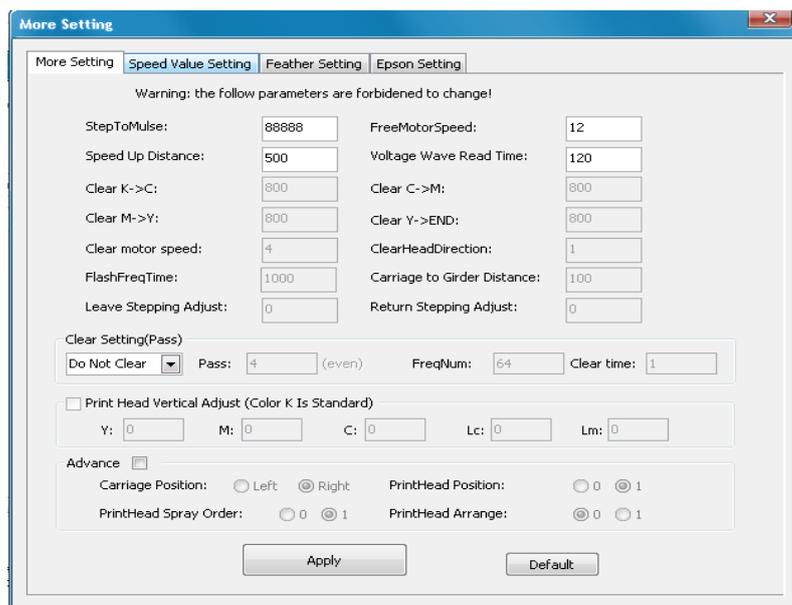


Press MORE button

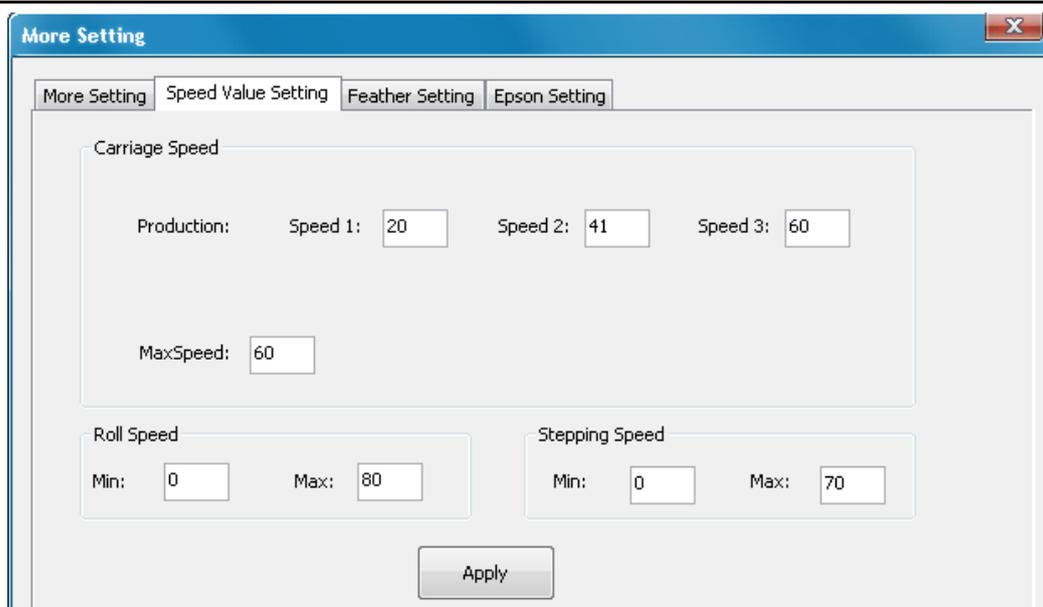


Input the Password: **** and click OK.

Please see following picture.



Attention: If you change the parameters, the printer will be unnormal and the responsibility should be beared by yourself..

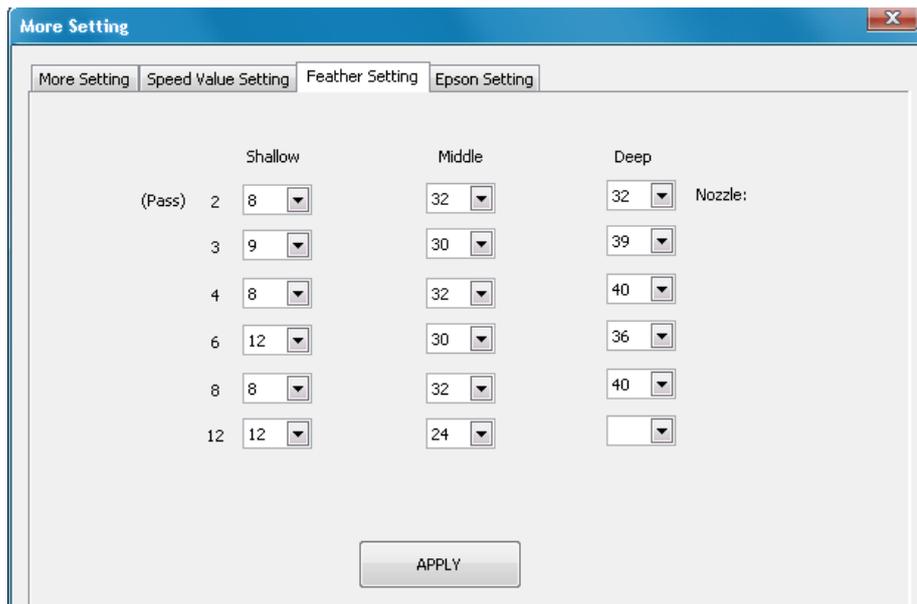


2,Speed value setup:

A:Carriage speed setup: operator can fix several best speed value which can make the printer printing well according to the printing experiences.

B: Roll speed: the speed of move forward or move backward by operator while printer no printing job.

C: Stepping speed: moving speed while finish 1 pass printing,adjust according to printing status.



3、 Feather Setting: Only for technician of Manufacturer

4、 Epson setting: Here we introduce 4 practical functions:

A: Cleaning print head time: the time for automatically cleaning print head,factory sug

gestion is between 4000-12000 millisecond

B: Strong Spray time: to avoid ink mix together, the print head will perform a strong spray action after finish cleaning print head,operators can change the time as you like,to avoid wasting ink,factory suggestion is between 2000-5000 millisecond

C: Original position: the print head will stay at the original position and spraying while no printing job , and the sprayed ink may mix together at the print head,to avoid this happen,operator should setting carriage away from ink station

8、 Adjust after installed control software

8.1 After installed the control software, turn on printer, open printer tools  , click up or down under brush test to check the printer works well or not.If it works unnormal, contact and check the printer under the guide of distributor or factory technician



8.2 Click cleaning button  , to check carriage, ink pump and wiper works well or not.

It should be working like this: the ink pump will pumping the waste ink in ink station with click cleaning button, and carriage move to home place and print head move close to capping, ink pump sucking ink from print head for 10 seconds, the wiper move out while the carriage will move back and print head spray out ink, the wiper should be 0.5-1mm higher than print head.



8.3、 Adjust the distance between print head and media of TITANJET 19G5 PRINTER

According to different printing media thickness, adjust the carriage height, the ideal distance between print head and media is 1mm, to avoid print head scratch the media and damage the printed picture, you'd better to adjust the carriage height, but max distance not exceed 2.5mm. the method to adjust the height of carriage is to tighten or loose the screw on the carriage, see the following picture.



(Attention, For print head safety, before installing, use Maintop to RIP a picture with 1.5X1M and printing to make sure the machinery works well, then install the print head!!)

8.4、 feeding of ink

Attentions:

- 8.4.1、 Keep ink out of the reach of children;
- 8.4.2、 Washing with fresh water if ink splash into eye
- 8.4.3、 to clean ink tube, use the solvent along with the printer
- 8.4.4、 suggested ink temperature between 18°C to 30°C
- 8.4.5、 store the ink at a cool, room temperature place, avoid to exposure ink to hot, cold place and sunlight
- 8.4.6、 use the ink after open,
- 8.4.7、 if ink freeze, move to normal temperature place for dissolving for several hours。
- 8.4.8、 washing your hands or clothes if ink splashed on hands or clothes
- 8.4.9、 Don't try to disassembly ink box
- 8.4.10、 ink is chemical product. for better environment, kindly disposal the empty ink bottle, damaged ink tank and waste ink
- 8.4.11、 don't remove dampers while feeding ink

8.4.12、 use the ink specified, don't mix use with others

8.4.13、 don't shaking the bottle while feeding ink, feeding ink slowly while printer stopped working to avoid air bubble generated

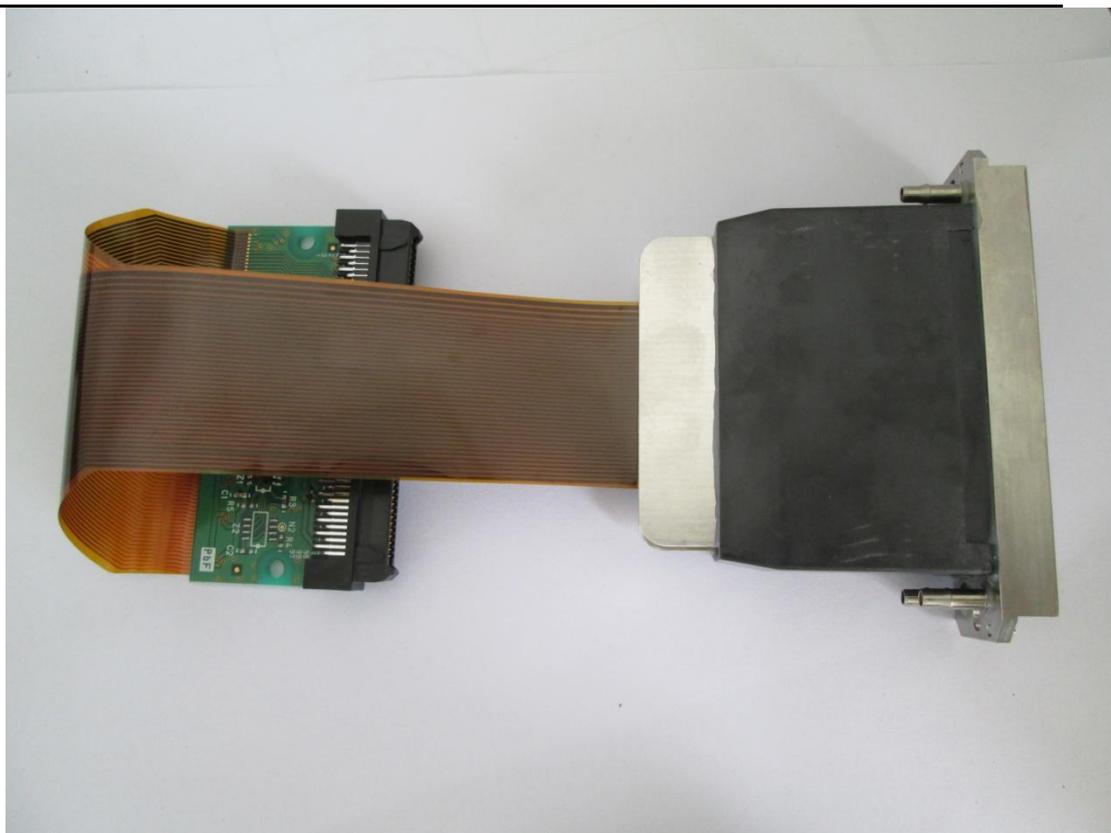
Feeding ink into ink tank and put into ink tank holder

Attention: the correct ink tank order is : **Y1 Y2** **M1 M2** **C1 C2** K1 K2



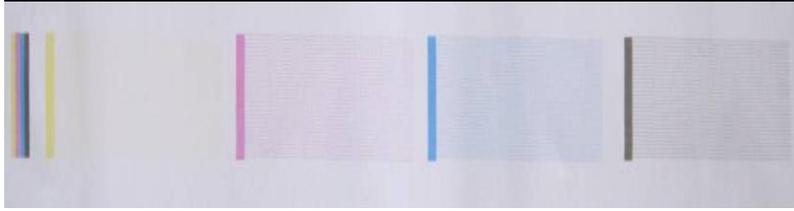
8.4.14、 use a injector to transfer ink from ink tank to damper, each color at least 20ml and the ink level of damper should be the same: 2/3 of the damper volume.

8.5、 Installation of print head, connecting of data cable.



A、turn off printer after ink pump can work well(working voltage of ink pump can be modified by adjust tools in control software,10v-13v is the normal working voltage), and connecting the print head data cable to head board.

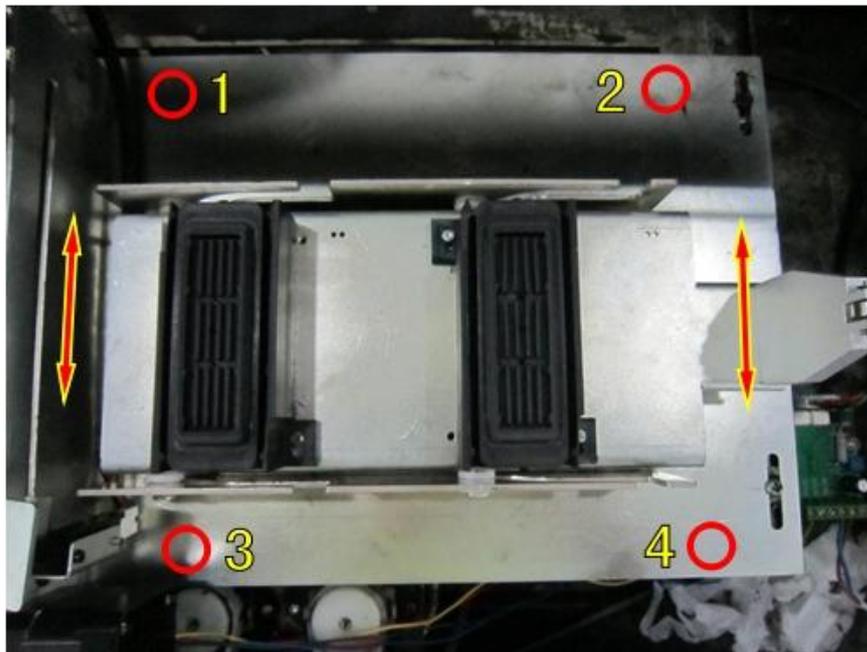
Make sure the connection of print head date cable is correct before turn on printer, then printing the test bar, the print head is in good performance if all lines been printed. See following picture:



If the printer did not printed the test bar well, cleaning the print head until the printing in good performance. you can start to printing if the test bar printed perfect images as the picture.

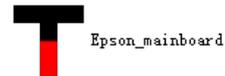
2) 19G5 Ink station Adjustment

Loose screw 1、2、3、4 to adjust ink station height。



9、Voltage adjustment:

Close the printing control system, find Epson Mainboard



click power



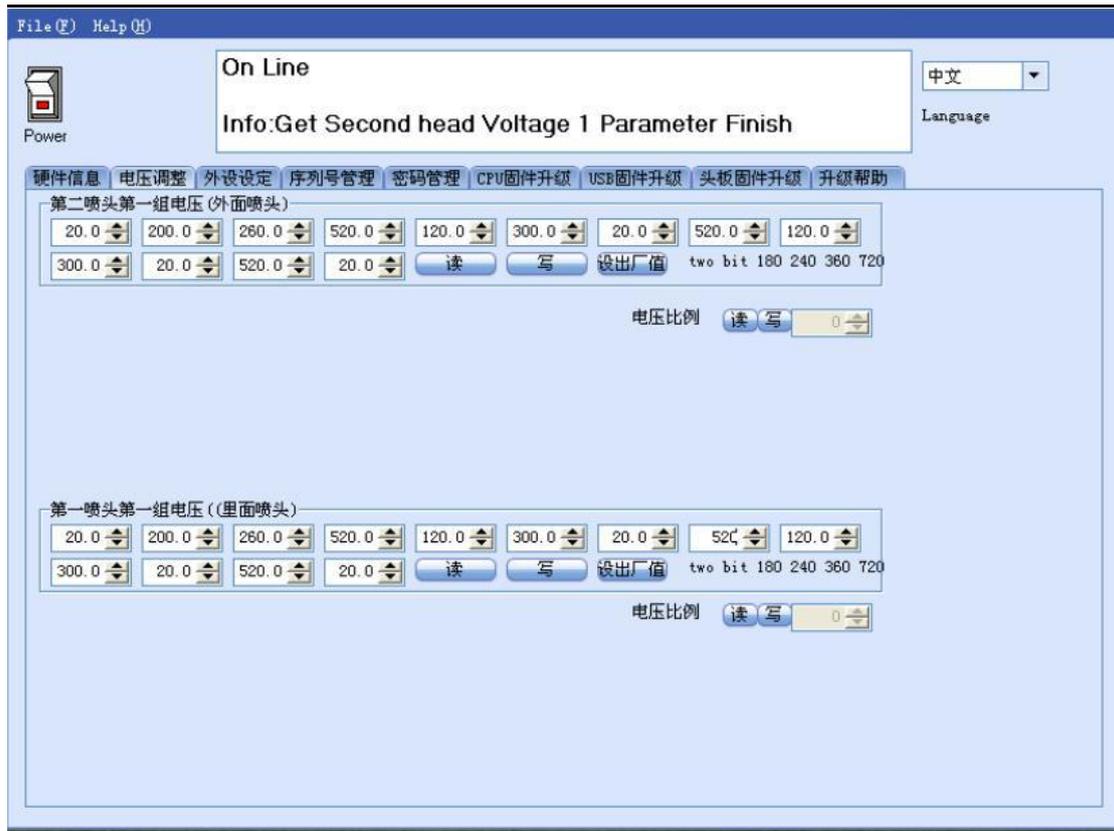
on choose language



you can know the voltage for present, Put the value you

want and click set:





Chapter V Maintenance guide

5.1 maintenance of machine

5.1.1、 the steel beam must be cleaned by paper every half month, and apply bearing lubrication after clean to avoid the worn of bearing.

5.1.2、 other parts is according to the actual operation of printer:

- A、 the pinch roller
- B、 gear on take up and feeding system

Kindly tips :

To avoid effect the print speed, the recommended computer configure is:

- CPU: higher than P4 dual core 3.0G
- ROM: at least 2GB
- Hard disk: at least 160G
- Main board: at least compatible with PC/945
- CD ROM: 1 pcs
- Monitor: VGA true color
- Operation System: Windows XP