Instruction Manual

Dear customer:

Thank you to purchase the *AUDACES* plotter!

Please read this instruction carefully before using our

plotter!

It is our pleasure that you have been one of our customers. In order to enable you to grasp the AUDACES plotters as soon as possible, we have compiled this instruction manual. You may obtain some basic knowledge: system disposition, installing steps, and operating application method etc. Please kindly be advised that you must read this instruction manual very carefully, it's helpful that you will understand the plotter very well. Any damage caused by incorrect operation, we will not undertake the responsibility.

We have made our best effort to provide correct and reliable information in this instruction manual. However, we could not completely guarantee that there is no mistake in printing. If you find out the mistake in the booklet, please inform us to make the corresponding correction.

In some cases, we possibly make some small adjustments in some products in order to enhance the performance and reliability of the components in the machine. This may lead to the actual situation of the machine slightly inconsistent to those in the instruction manual. But the adjustments will not have any effect on the use of the plotters.

If you encounter any problem in the using process of the plotter, please call the service center of AUDACES, the hot line is: 0086519 86731568, or enter the AUDACES corporation website at http://www.audaces.com/ to get the technical support in the customer information feedback.

Thank you for your kind cooperation!

Audaces Automação e Informatica Industrial Ltda

2

AUDACES

Table of Contents

Chapter 1   Introduction of AUDACES plotter

1.1 Principal Characteristics

The AUDACES series plotters are the professional Apparel CAD inkjet plotters which have been specially developed for the Apparel industry by AUDACES Science and Technology. The plotters have reasonable costs and possess high output speed, high resolution, large output breadth, low work noise, clear line shape, high precision, and completely automatic detection and protection functions. They can be performed by 24 hours non-stop working under unattended conditions. The plotters only require the general ink cartridge and the ordinary drawing paper available on the market. This overcomes the drawbacks of the traditional inkjet plotters that consume large amount of special inks that are difficult to be purchased. Thus, the operation cost can be greatly reduced.

Features

✧ High printing speed: the printing speed can reach 70square meters/hour with 300 dpi resolution.
✧ Low cost: the cost (paper, ink) for printing each square meter is less than USD0.05. In addition, all kinds of the paper (standard paper, hot sensitive paper, recycled paper and so on) are applicable.
✧ Compatible for Windows9X/ME/NT/2000 system
✧ Modular design: the print head and cartridge can be easily replaced.
✧ Self-cleaning: the print head can be automatically cleaned.
✧ Automatic print head protection device.
✧ Paper protection device: the paper damage which may occur in traditional inkjet plotters can be efficiently avoided.
✧ Self-examination: the plotter provides a series of simple self-examinations to detect the running status. If necessary, the plotter can be reset. Self-examination program and parameters are stored in the memory and can be directly operated.
✧ Automatic diagnosis: As the power source is turned on, the system will automatically diagnose all functions of the plotter. When a mistake is encountered, the plotter will give warning signal. The user may operate the plotter by following the orders from the plotter, and find out the problem.

1.2 Technical Parameters

Power source: 86-264V
Power consumption: 150W
Plotting speed: 70 m^2/hour (two way direction), 40 m^2/hour (single direction)
Resolution: 300dpi
Deviations of unidirectional horizontal lines: <0.4mm/m

Deviations of unidirectional vertical lines: <0.4mm/m
Maximum printing length: 50m
Maximum printing width: 1.65m   1.85m
Paper Type: 40-120g/m^2 ordinary roller paper
Paper roll diameter Maximum: 24.1cm (9.5 ")
Paper Core Size 7.6cm (3")
Plotter size: 2220×500×930;2400×500×930
Packing size: 2360×570×1060;2550×570×1060

1.3 Drive Software

The AUDACES Plotter Control Center and special USB driver software are provided together with the plotter.

Chapter 2   System Requirements

2.1 Connecting of power source

An independent power with a proper earth grounded system is required. The power supplier shall not be shared with other machines or devices. The lightning preventing system is highly recommended. The operating voltage of the plotter can be seen in the label on the back of the plotter. The voltage of the AC power could not fluctuate beyond a range of ±8％. Please supply power for the plotter with a 500W or higher UPS. Please confirm whether the supply voltage matches with the marked voltage on the plotter! About the supply voltage fluctuates cannot surpass 8%, please use the UPS 500W or above to provide the power for the plotter.

The AUDACES plotter is shipped with a three-plug power cable. The cable should always be used with a socket that is equipped to receive the pronged plug.

Make sure the plotter is turned off. Plug one end of the power cable into the connector of the plotter. Plug the power cord into an appropriate power outlet.
.
Turn the power switch to ON, the plotter will send out the short ' di ' beep, indicated that the plotter self-check is successful, and status of the plotter is normal. If the plotter does not give the short ' di ' beep, turn off the plotter and wait for at least 10 seconds, then turn on the plotter again. Under normal conditions, the indicator light on the control panel comes on.

Attention! Wait for at least 10 seconds to turn on the plotter again after each normal shutdown.
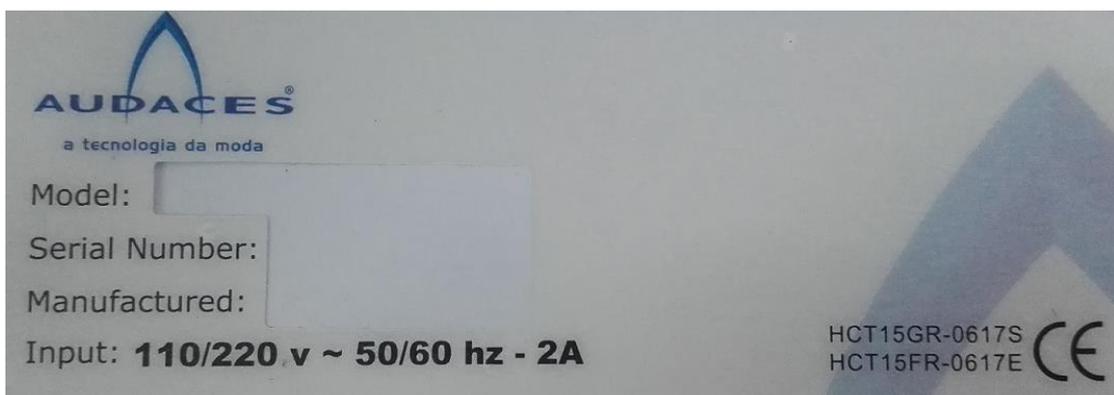
> **Warning: If the voltage of power source is not the same as the marked voltage on the plotter, please contact your supplier.**

Minimum requirements: CPU PII-350，64M RAM，10G HD，CD-ROM Drive，Floppy   Drive, 15" Display
Recommended system setup: CPU P4-1.7G，256M RAM，40G HD，CD，Floppy Drive，17" Display
Operating system：Windows98, Windows2000, Windows XP

Connection to computer: make sure that the plotter is OFF, insert one of the USB line ends into the computer USB port, and connect the other end to the plotter USB port.

Attention: It would be better that a computer is specially used only for the plotter. The USB port cannot be shared with other equipments. Please do not install the special-plotter computer with drive programs for other printer, the scanner or other devices.

Warning: The USB data cable can only be taken off after the computer and the plotter are turned off. Do not use USB hub, otherwise, the plotter could be damaged.

2.3 Working Conditions

Temperature: 10℃ - 30℃.
Humidity: 15%-85%RH non-condensation
Working conditions: clean environment, no strong electro-magnetic source nearby will be better.

Attention: Temperature should not be higher than suggested one, otherwise, possible effect to the performance of the plotter may occur.

Chapter 3   Getting acquainted with your plotter

3.1 Installation of plotter

AUDACES plotters are the overall constructions, after you open the packing case, only need to lift the plotter from the plywood board to a steady position.

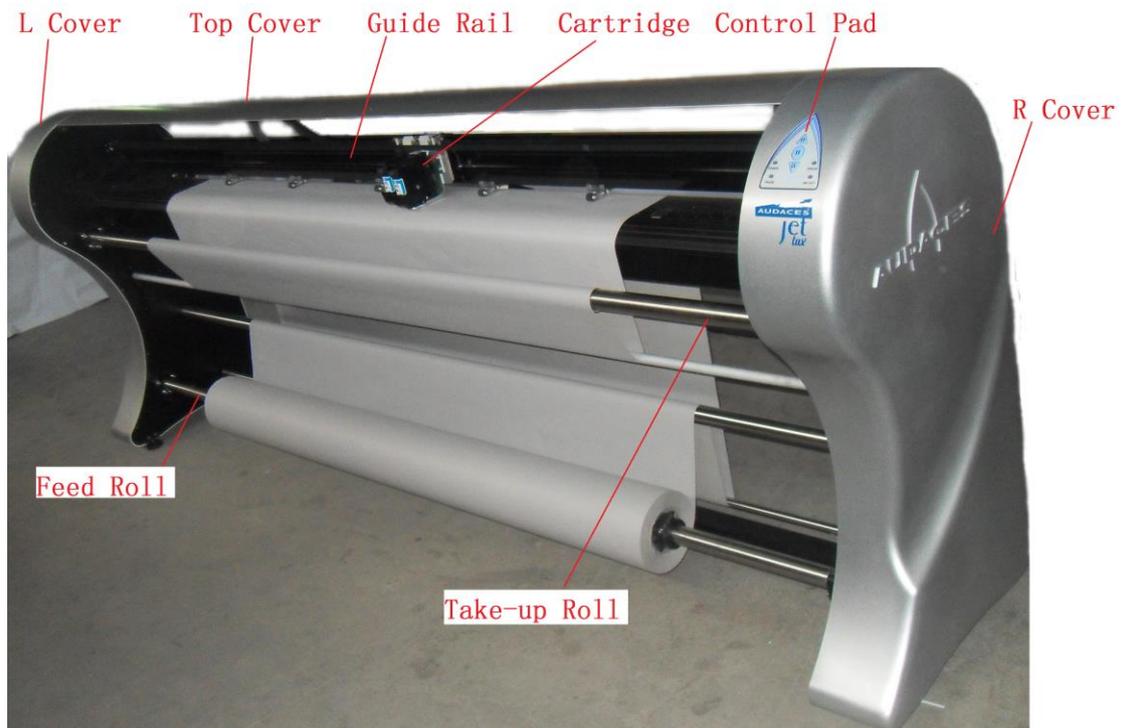### 3.2 Front view of the plotter (Figure3-1)

Figure3-1

3.3 Operator panel

3.3.1 **The control button**

The control buttons are the input keyboard for the communication between operator and computer. Basic operational orders can be made through the control pad. Basic operations such as paper feed, paper unloading and loading

can be independently carried out without an online computer. The status of the plotter can also be observed on the pad, such as proper connection of the AC power, request for the replacement of the ink, the status of the system, etc. The actual view of the control buttons is as following (Figure3-2):
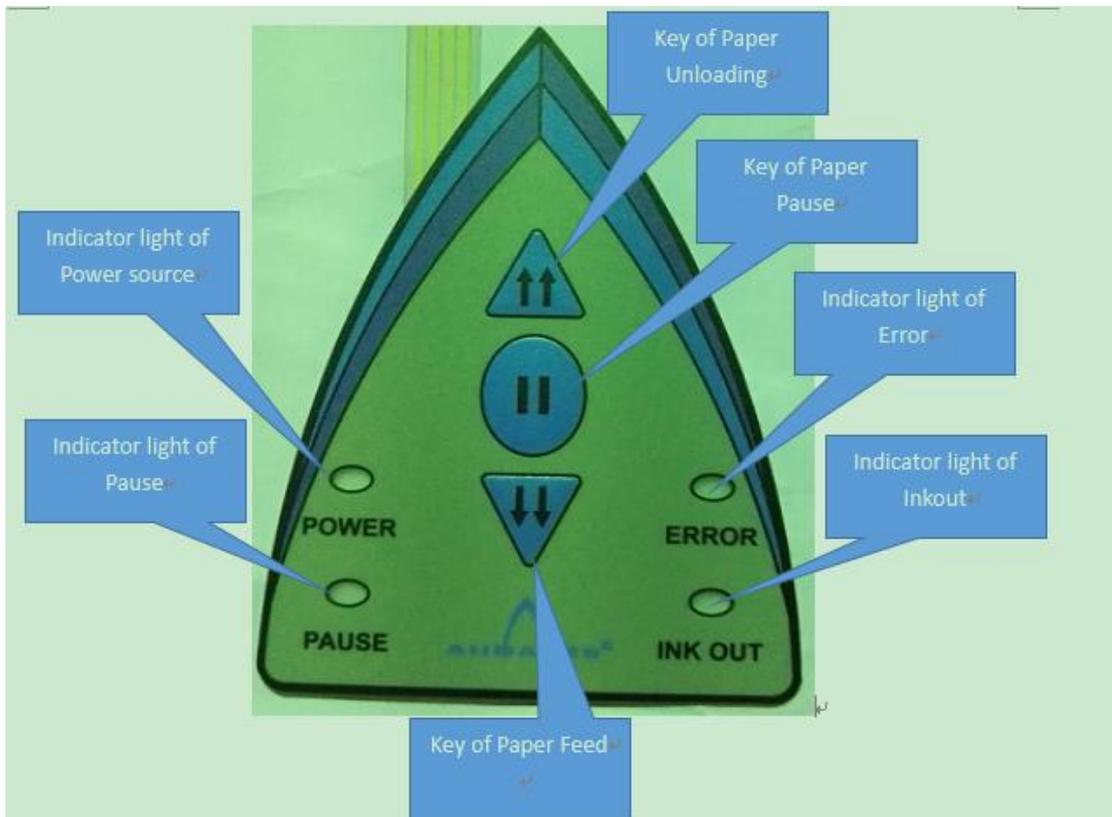

Figure3-2

3.3.2 Indicator lights

Indicator Light of the power source (power)：It indicates current state of power source of the plotter. When the power source is normal or the power switch is set to ON, the indicator light will be on. When the power source is not in the normal state or the power switch is set to OFF, the indicator light will be off.

Indicator Light of Pause (pause)：It indicates current working condition of the plotter. When the indicator light is on, the plotter is in a suspended state. When the indicator light is off, the plotter is in the state of working.

Indicator Light of Error (error)：It indicates current working condition of the plotter. When the indicator light is on or flashes, errors occur in the plotter and

problems need to be solved. Otherwise the plotter is working in the normal state.

Indicator Light of Ink out (ink out)：It indicates current ink-level. When the ink is run out, the indicator light will be on or flash.

3.3.3 Functional buttons

Pause Button（PAUSE）：This button is used in making the plotter enter or exit the pause state. When the button is pressed for the first time（for 2-4 seconds), the plotter will enter the pause state and the indicator light of pause will be on. When the button is pressed again, the plotter will exit the pause state and the indicator light of pause will be off.

Paper Feed Button（DOWN）：When the plotter is in the pause state, pressing this button leads to paper feeding in the forward direction. Releasing the button will stop paper feeding.

Paper Unloading Button（UP）：When the plotter is in the pause state, pressing this button leads to paper unloading. Releasing the button will stop paper unloading. When you press the button for 3-4seconds or longer，the plotter will enter the state of paper unloading at a high speed. Under such a circumstance, paper unloading will be speeded up. Even if the button is released, paper unloading will continue at a high speed. You may stop the state of paper unloading at a high speed only by pressing the button of paper feed or pause.

Warning: The pause period during the plotting should not be over 2 minutes, or the cartridge may be damaged. It is normal that the color may be faded as the plotter is restarted after a pause.

Chapter 4   Loading Printing Media

4.1 Loading of a new feed roll

Switch off the plotter, stand behind and face the plotter, and pull the feed roll to the left by hand with a little strength. As the right side of the feed roll is separated from the coupling, lift up the feed roll and take it off. Loosen the internal hexagonal screws on the paper hub of the feed roll with a 5mm internal hexagonal wrench and take off the old paper roll. Load a new paper roll, install the paper hub, grip the paper roll tightly and beat it gently until it is not loose between the paper hub and the paper roll. Move the paper roll (together with the paper hub) and make the plotting paper in the middle of the feed roll. Then tighten the internal hexagonal screws on the paper hub with the internal hexagonal wrench. Install the feed roll to the plotter.

4.2 Paper loading of the take-up roll

Switch on the power, make the feed roll unload some paper (about 1m), and then switch off the power. Open the cover of the plotter to a steady position. Pull paper between the encoder-roller and the main beam, hold the edge of paper and rock it gently to the left and to the right, until the paper is level on the whole. Then cut surplus paper according to the position of the take-up roll. Prepare 3-5 rubberized tapes and each is of 3cm-4cm in length. At first, stick a rubberized tape on the center of paper and pull the tape to stick on the take-up roll with a little strength. Then stick on other prepared tapes from the center to both sides in proper order. After that, check whether the paper is level. Switch on the power of the plotter, use the tension roll to press paper and put it to the slide slot.

Up to this point, paper loading of the take-up roll is complete and the plotter is ready for plotting.

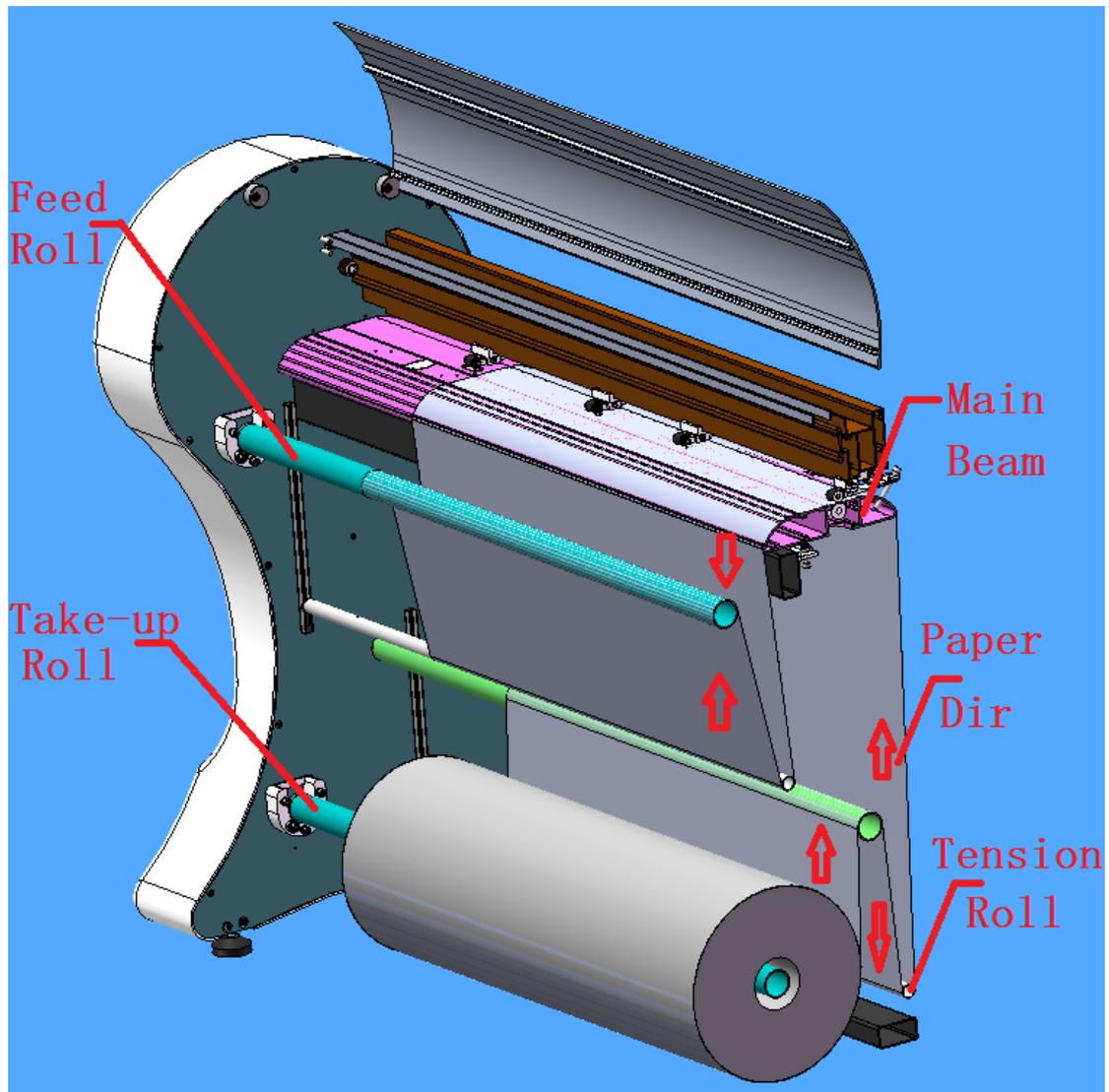## 4.3 The directions of the movement of paper (Figure4-1)

Figure4-1

4.4 Paper Roll Weight requirement

Do not use paper which is moist, torn or crumpled. Do not use paper with holes or dirty dark spots which may lead to unclear printing result. Please use smooth plotting paper of 40g-120g/m2 and the weight of paper roll shall be less than 35~40kgs.

Chapter 5   Cartridges

5.1 Cartridge models

The cartridge used in AUDACES is HP 51645A or HP 51645B. It can be purchased from your supplier or the HP Company.

5.2 Ink level

The following figure (Figure5-1) shows the position of the ink level marker on the cartridge. When the marker changes color from green to other colors, it means that the cartridge is out of ink. Please replace the cartridge.
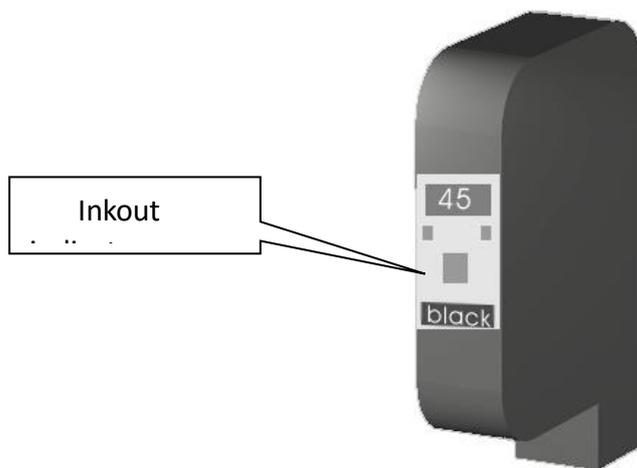

Inkout

45

black

Figure5-1

5.3 Replacing a cartridge

The cartridge can be replaced under two circumstances:

1. The plotter power status is ON. Under such a circumstance, click PAUSE on the control pad to make the plotter paused. After that, open the cover of the plotter, replace the cartridge, then close the cover and click PAUSE again to make the plotter to be in the normal status.
2. The plotter power status is OFF. Firstly, switch on the plotter, plotter will finish automatic cleaning print head process and then protect print head, then open the top cover (please note that before open the top cover the print head must stop steadily, otherwise, the plotter will alarm), the print head will move slowly to the middle of the plotter, then switch off the plotter and change the cartridge. Then close the top cover, switch on the plotter.

How to replace the cartridge: After cartridge stops steadily, lift the lock lever on the cartridge holder, pull out the empty cartridge. Remove the nozzle covering tape of a new cartridge carefully (Never touch the nozzle and the gold contact points), install a new cartridge (Note: The insertion of cartridge must be gentle, if you feel any resistance while pushing down the lock lever, stop. Otherwise the cartridge may be damaged). Push down the lock lever of the cartridge tightly, and close the top cover.

Attention: It's better that to replace a cartridge while plotter power status is OFF to avoid any damage to cartridge.

5.4 Cleaning a cartridge

This plotter is equipped with automatic print head cleaning and protection device. The dust accumulated on the nozzle can be automatically cleaned during the printing process. When the plotting is stopped, the nozzle will be automatically sealed to prevent the ink from being dried after a long period time. At the same time, this can also prevent the nozzle from the dust contamination. The cartridge can also be cleaned manually by taking off the cartridge from the plotter and cleaning the nozzle gently with the soft cloth.

5.5 Adjustment of the cartridge

Adjustment of the cartridge：If the printed lines are jagged or not straight (as shown in the following picture (Figure5-2), please adjust the cartridge.
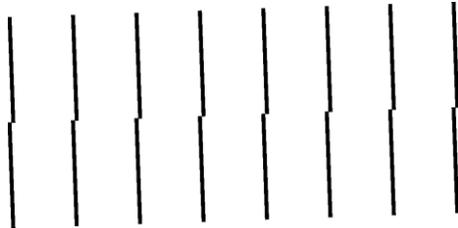
Deviation of the ink reservoir

Figure5-2

Warning: Changing the cartridge in the plotting process may damage the nozzle, please do not change the cartridge during the plotting.

Chapter 6   Installation and use of the software

6.1 Installing the software

6.1.1 USB driver installation instructions

If the connection port between computer and plotter is USB port, the USB driver software must be installed on your computer so that the plotter can be operated normally.

Attention: Before the installation, please close all the running programs as well as the anti-virus program, if your computer has installed control center software of other edition, please uninstall them.

Turn off the computer and also the plotter; connect the USB cable to the main-board port of the plotter and the computer USB port.

Turn on the plotter and computer; the computer can automatically find the hardware. After a few moments, a message such as "New Hardware Found" appears. The software can be installed according to following messages:

[1] -Choose the floppy disk installment, and then click "NEXT".

[2] Choose search routine, click browsing, choose installation directory.

[3] If the system is WIN98, please choose Drive R:\USBDRIVER \WIN98.
     If the system is WIN2000 or WIN-XP, please choose Driver R:\
     USBDRIVER \WIN2K-XP.

Attention: You must choose the correct driver software; otherwise the plotter will not work normally.

[4] And then click "NEXT", follow below guide to finish the installation.
    After seeing "Figure6-1", click "continue anyway". "Figure 2" means installing successfully.

Figure6-1

Figure6-2

6.1.2 Running the installation software

Open the folder "Control center software" on the CD-ROM and double click the "setup.exe" file, and then you can install the software according to the prompts on the screen.

6.2 Running the software and interface of the software

6.2.1 Running the software

Start the computer, enter the Windows system, and this program will be started automatically. You can also click Start/Program/Start-up Program of Audaces Ultraspool 8 in the Start menu to run the program. After the program is started, it will be in a minimized state. Click AUDACES in the taskbar, an icon (main interface) appears as shown in the figure (Figure6-3).
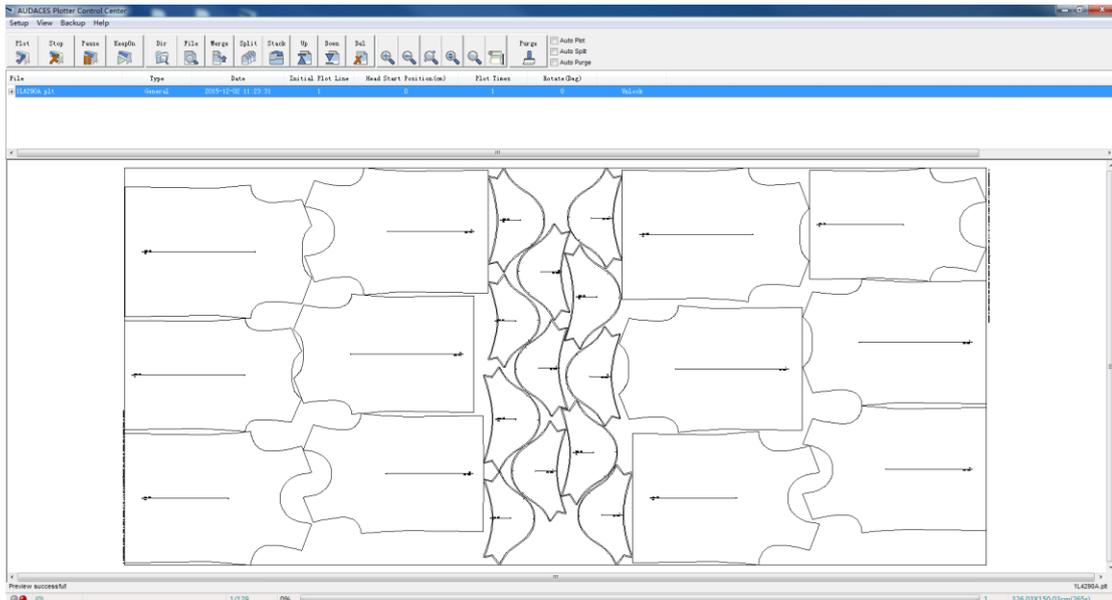

Figure6-3

Click <Setup>-<Plotter Type>, select "plotter type" according to your plotter, there are one head, two head and four head three types, as below picture(Figure6-4)：
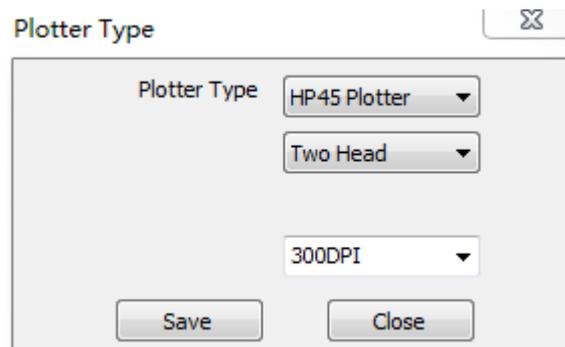

Figure6-4

The program will automatically detect the plotter is on line or not. If the plotter has been correctly connected with the computer and powered on, the green light in the bottom left corner of the Control Center is on, which shows that the plotter is idle and the Plot button is available. Otherwise the red light is on, and if click the Plot button, "not connect the plotter" box will pop up.

6.2.2 Plotting

The operation area includes:

<Plot>, <Stop>, <Pause>, <Continue>; <Directory>, <File>, <Merge>, <Split>, <Stack>, <Up>, <Down>, <Delete>; and some auxiliary plotting buttons: <Zoom in>, <Zoom out>, <Z+A>, <Eagle Eye>, <Bird's-Eye>, <Enlargement>, <Box select>, <Pan>,   <Measure>; and <Auto plot> tick box.

The window below the operation area is for "Prepare files to be plotted" (Figure6-1). <Plotting times> is used to change the plotting quantity of a same file.

- The directory of plotting files can be changed by selecting <Directory>. Click<File> to add the file to be plotted, this file name will be displayed in the dialogue window.
- If click <Delete>, the current file which already be chosen will be deleted.
- If click <Up>, then the current file which already be chosen will be move up. The button plays a role to change plotting priority in the process of auto plot.
- If click <Down>, then the current file which already be chosen will be move down. The action is similar to that of <Up> previously discussed; only the direction is opposite.
- First add the file to be plotted, and then click the file, the analyzed pattern will be displayed in the window below. After select a file to be plotted, click <Plot>, the file will be plotted.
- Click<Merge> and box select several files, a new file will be created, which can realize two files or more output simultaneously.
- While the file size exceeds the actual print range, we can click <Split>, change the file width in Setup→Plotter parameter→Other into each size what you want to split. And you may also split by rotating 90 degree as needed. (Note: The connections of the splitting have been marked with different gap dot lines.)
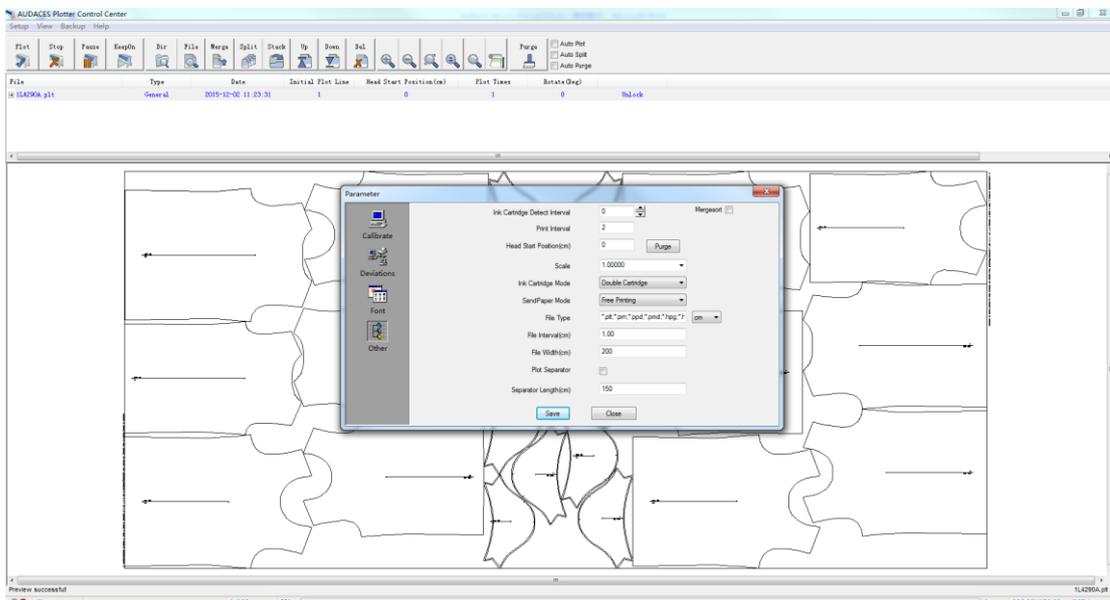
- <Stack> can stack several files into one file by center aligned methods. For example, same model with different size can be stacked into one marker.
- During the plotting, if click <Pause>, the plotting will be paused, and <Pause> will become <Continue> in several seconds.
- If click <Continue>, then the file will be printed continuously.
- If the user hopes to stop printing, please click <Pause> first, and then click < Stop>, the plotting file will be stopped; in this case, the plotted file won't be deleted.

- If click <Pause> first, then click <Delete>, the plotting file will be stopped and deleted.

Note: After the plotting is finished each time, then the file which has been plotted will be deleted automatically.

- In the operation area, the user will find <Auto plot>, tick <Auto plot>, then the plotter will in the automatic plotting situation. The plotter will print all the files which are displayed in the upper dialogue window completely.
- In the row below the operation buttons, <File>, <Type>, <Date>, <Initial Plot Line>, <Head Start Position>, <Plot Times> and <Rotate> are displayed. We can change the value of the last four parameters before-mentioned. Generally the value of Initial Plot Line is 1. In case the plotting stopped unexpectedly, Control Center will remember the Plot Line automatically and if you click <Plot > again, the plotter will continue to plot the unfinished lines. If you want to plot from the first line, you may change the value of Initial Plot Line into 1.
- The user can input an appropriate value in <Head Start Position>, and the start printing position can be adjusted in this way.
- If a file needs to be plotted several times, you can click the number below <Plot Times> and change it.

6.2.3 Setup

Click Setup menu, pull-down menu will appear as Plotter Parameter, Plotter Type, Connect Type, and Language.

6.2.3.1 Plotter parameter setup

Click Setup menu, a dialogue window will appear as shown below:
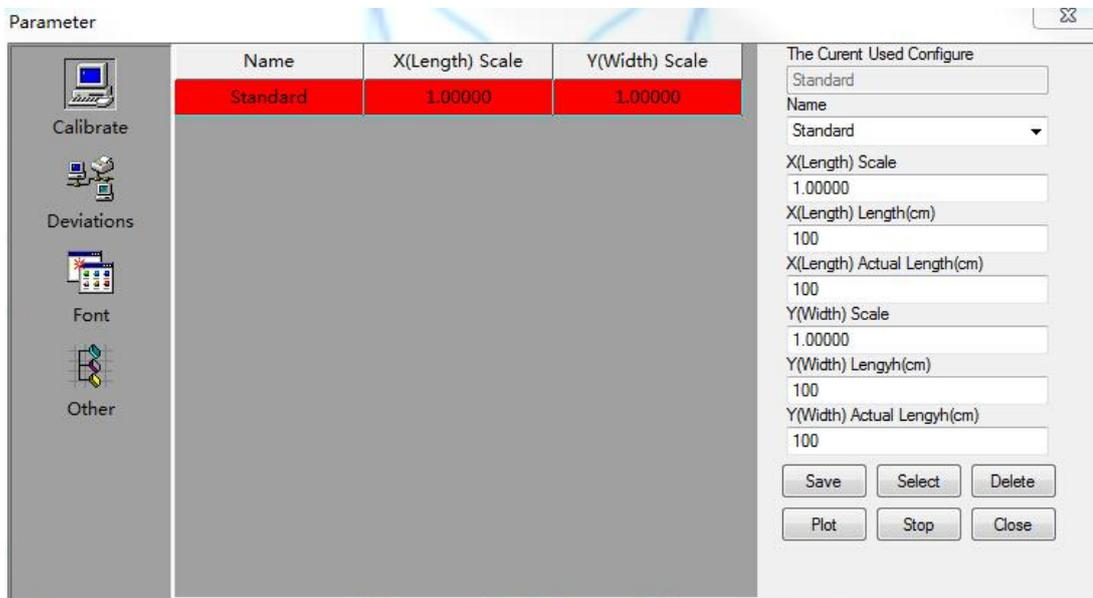
6.2.3.1.1 Calibrate

Click <Calibrate>, a dialogue window will appear as shown above.

Click <Save>, X (Length) Scale and Y (Width) Scale can be backed up in the middle boxes. It is suggested that the paper type is used for the Name of the Configuration. According to the different paper, calculate several sets of scale factor and save them so that you can choose different calibration parameters as needed.

Make a square drawing with 100cm length both in X and in Y directions in the CAD software, and then click <Plot> and measure the picture on the output plotting paper. Fill in the boxes of X (Length) Actual Length and Y (Width) Actual Length with the data measured accordingly. After that, click <Save> to complete the error correction.

Note: X direction refers to the direction along the length of the plotting paper and Y direction refers to the direction along the width of the plotting paper. The scope of X (Length) Scale and Y (Width) Scale is 0.1-1.08.

6.2. 3.1.2 Deviations

1. If *One Head* is chosen in *Plotter Type* menu, click tab <Deviations>, a dialog window appears as in the following picture:
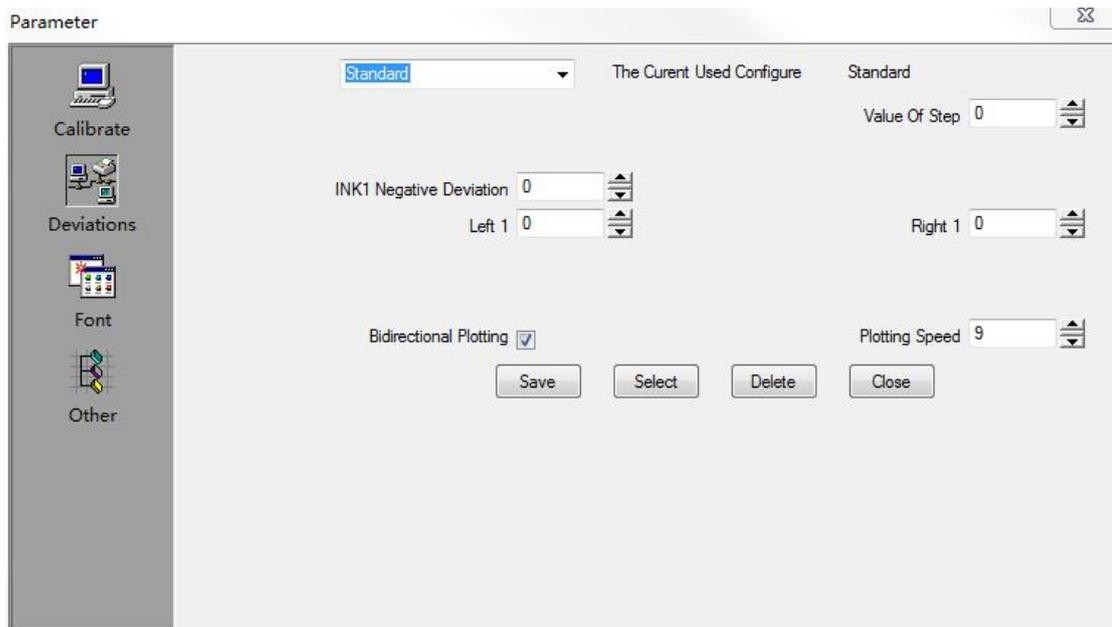
Select the box of Bidirectional Plotting, the plotter will enter the state of bidirectional plotting mode. Bidirectional plotting will increase the speed of plotting. But in this mode the <INK1 Negative Deviation> / <Left1> / <Right 1> need to be adjusted carefully.

<Value of Step> is to adjust the deviation of plotting along X (Length) direction.

Methods of adjusting lines deviation：

INK1 Negative Deviation：(Shown as following figure6-5)
This parameter used to adjust all lines deviation in printing area

Left 1：(Shown as following figure6-5)
This parameter used to adjust most left lines deviation in printing area

Right 1：(Shown as following figure6-5)

This parameter used to adjust most right lines deviation in printing area
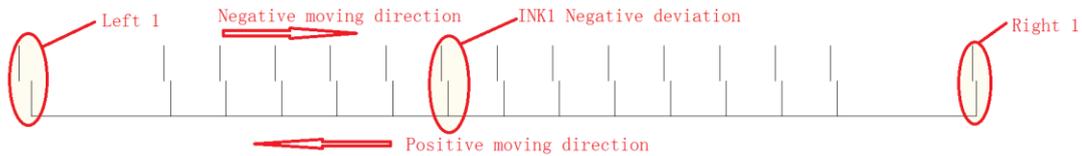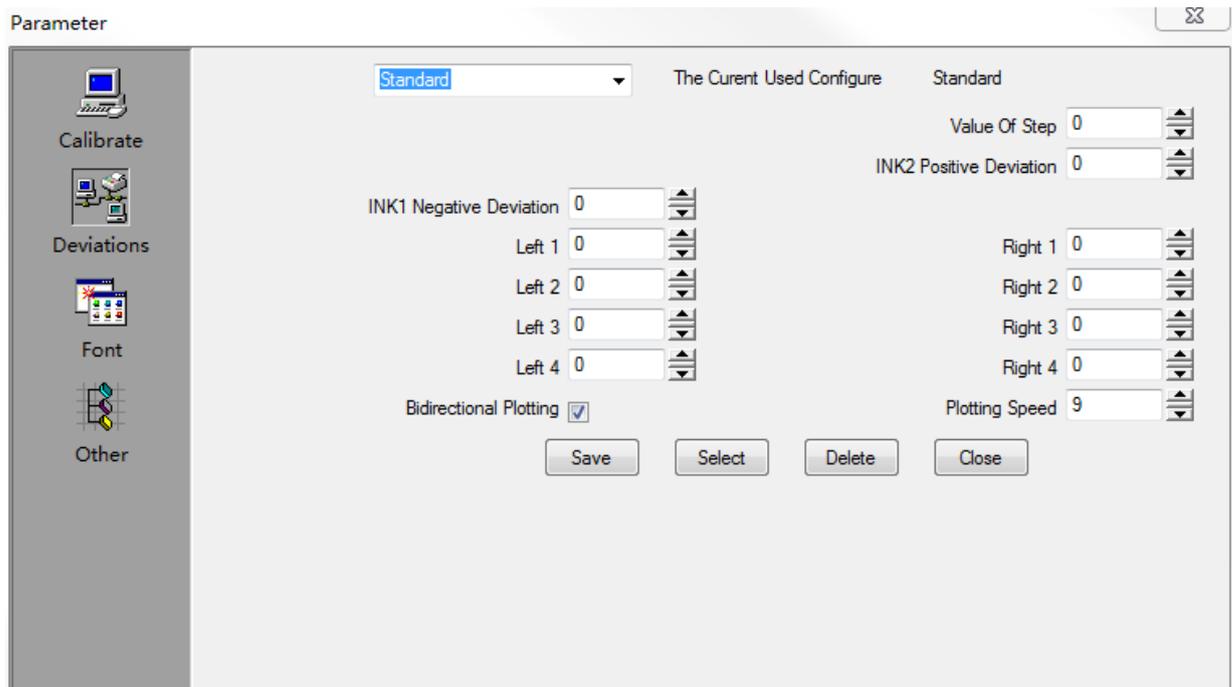

Figure6-5

Step1. Adjust middle line in printing area first. Adjust <INK1 Negative Deviation> value to make sure middle line straight. As picture <figure6-5>, printing line left deviation, you should decrease <INK1 Negative Deviation> value; otherwise you should increase <INK1 Negative Deviation> value.

Step2. Adjust most left line. Adjust <Left1> value to make sure most left line straight, as <figure6-5> most left line deviation left, you should decrease <Left1> value; otherwise you should increase <Left1> value.

Step3. Adjust most right line. Adjust <Right1> value to make sure most right line straight, as <figure6-5> most right line deviation left, you should decrease <Right1> value; otherwise you should increase <Right1> value.

2. If *Two Head* is chosen in *Plotter Type* menu, click tab <Deviations>, a dialog window appears as in the following picture:

There are 9 kinds of Plotting Speed available, in case lower speed selected, noise will be lower, please choose Plotting Speed according to your different requirements.

Select the box of Bidirectional Plotting, the plotter will enter the state of bidirectional plotting mode. Bidirectional plotting will increase the speed of plotting. But in this mode the value of <INK1 Negative Deviation> / <INK2 Positive Deviation> / <Left 1>/ <Left 2>/ <Left 3>/ <Left 4>/ <Right 1>/ < Right 2>/ < Right 3>/ < Right 4> needs to be adjusted carefully.

<Value of Step> is to adjust the deviation of plotting along X (Length) direction.

Methods of adjusting lines deviation：
1>, Adjust middle line in printing area:
A>.adjust parameter <INK2 Positive Deviation>

Add "ImpressaoGabarito-2AB.PLT" into control center. Use two heads bi-directional print this file, after print one row then print STOP bottom. Observe the lines inside first row which we use small ellipse to mark; see which line is perfect straight then put line number into <INK2 Positive Deviation> parameter. As below Figure6-6:
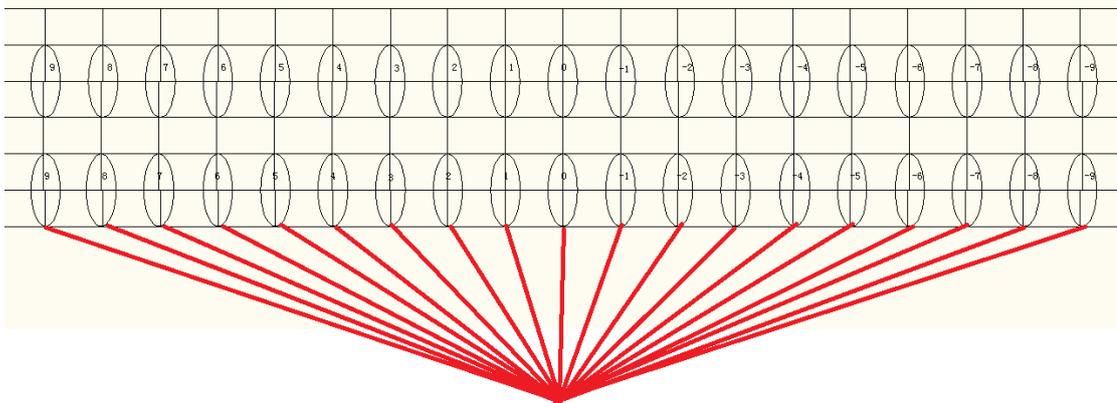

Figure6-6

B>.adjust Parameter <INK1 Negative Deviation>

Use two heads bi-directional print "ImpressaoGabarito-2AB.PLT" file, finish print complete file. Observe second and third row lines which we big ellipse to mark, see which line is perfect straight then put line number into <INK1 Negative Deviation> parameter, as below Figure6-7:
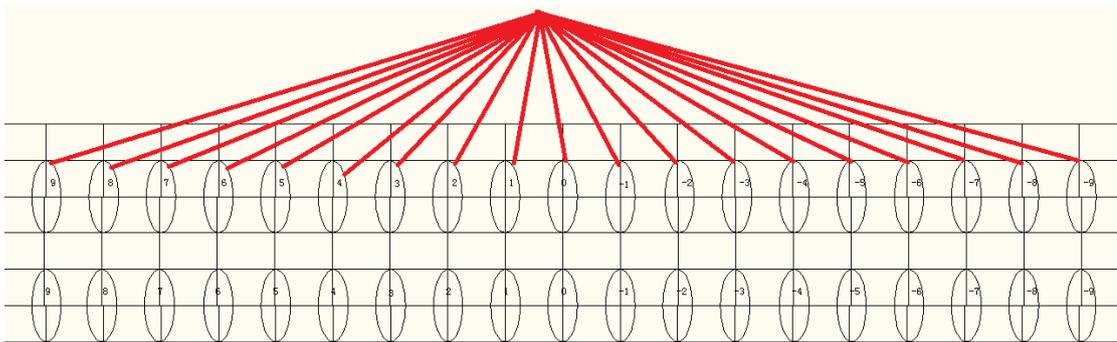

Figure6-7

2>，Adjust two side lines parameter in printing area:

A>, Adjust most left line. Make most left line straight by adjusting <Left 1>/<Left 2>/<Left 3>/<Left 4> value. As below picture <Figure6-8>. Normally <Left1> value keeps same, adjust Left 2/Left 3/Left 4 value. If printing line deviation left, you should decrease value; if printing line deviation right, you should increase value.

B>, Adjust most right line. Make most right line straight by adjusting <Right 1>/< Right 2>/< Right 3>/< Right 4> value. As below picture<Figure6-8>. Normally <Right1> value keeps same, adjust Right 2/ Right 3/ Right 4 value. If printing line deviation left, you should decrease value; if printing line deviation right, you should increase value.
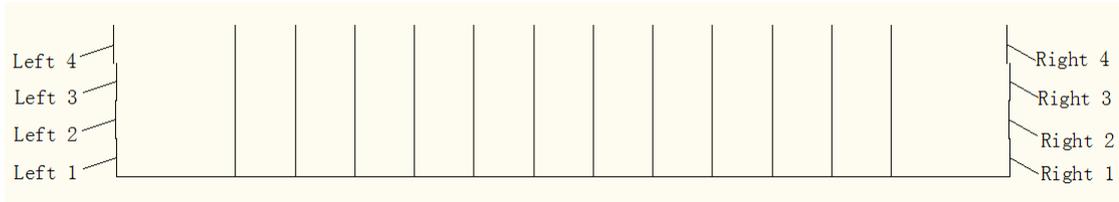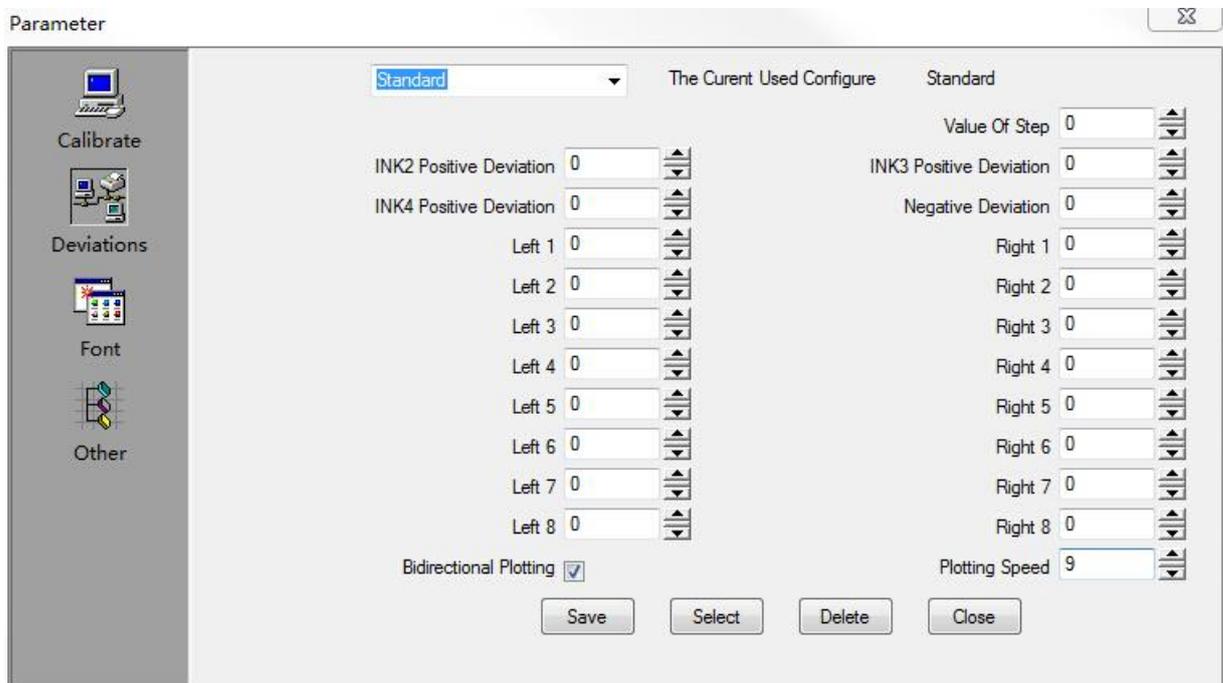

Figure6-8

3，If *Four Head* is chosen in *Plotter Type* menu, click tab <Deviations>, a dialog window appears as in the following picture:

There are 9 kinds of Plotting Speed available, in case lower speed selected, noise will be lower, please choose Plotting Speed according to your different requirements.

Select the box of Bidirectional Plotting, the plotter will enter the state of bidirectional plotting mode. Bidirectional plotting will increase the speed of plotting. But in this mode the value of <INK2 Positive Deviation> / <INK3 Positive Deviation>/ <INK4 Positive Deviation>/ <Negative Deviation> / <Left 1>/ <Left 2>/ <Left 3>/ <Left 4>/ <Left 5>/ <Left 6>/ <Left 7>/ <Left 8>/ <Right 1>/ < Right 2>/ < Right 3>/ < Right 4>/ <Right 5>/ < Right 6>/ < Right 7>/ < Right 8> needs to be adjusted carefully.

<Value of Step> is to adjust the deviation of plotting along X (Length) direction.

Methods of adjusting lines deviation：

1>, Adjust middle line in printing area:

A>.adjust parameter <INK2 Positive Deviation>

Add "ImpressaoGabarito-4AB.PLT" into control center. Use four heads bi-directional print this file, after print one row then print STOP bottom. Observe the lines inside first row which we use small ellipse to mark; see which line is perfect straight then put line number into <INK2 Positive Deviation> parameter. As below Figure6-9:
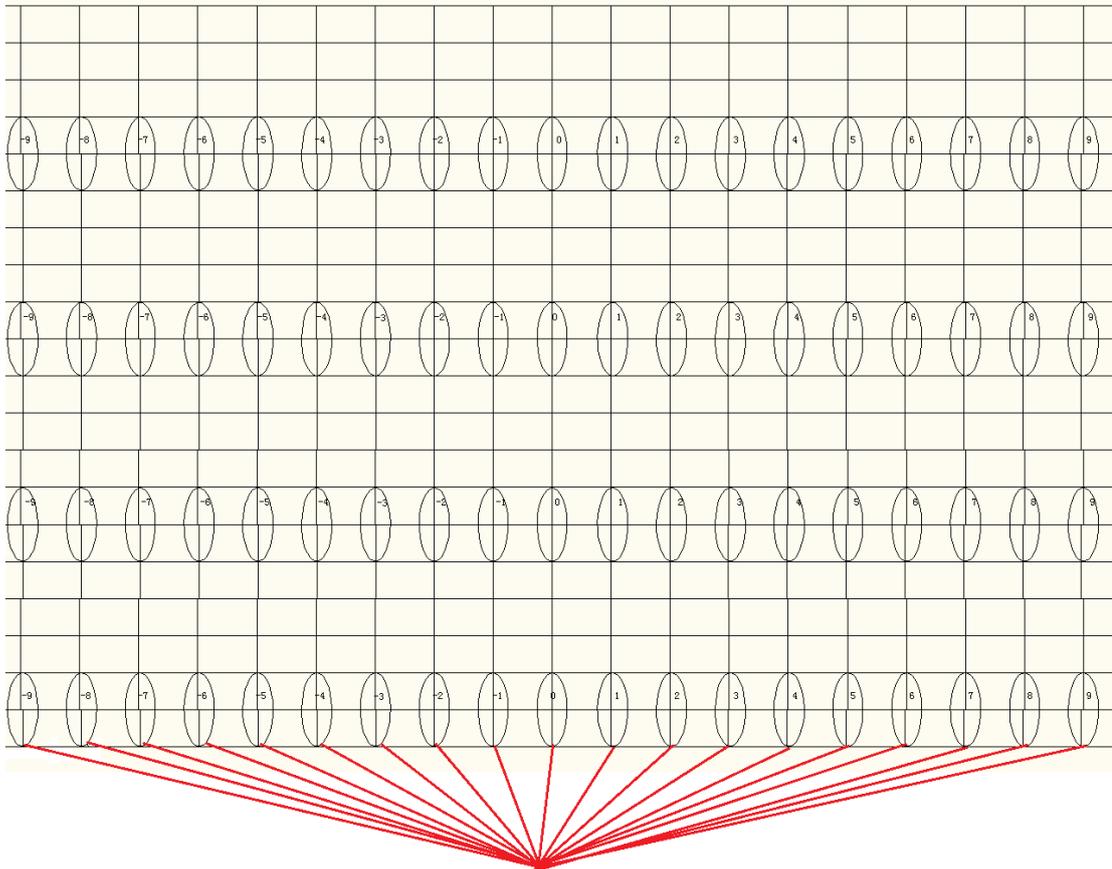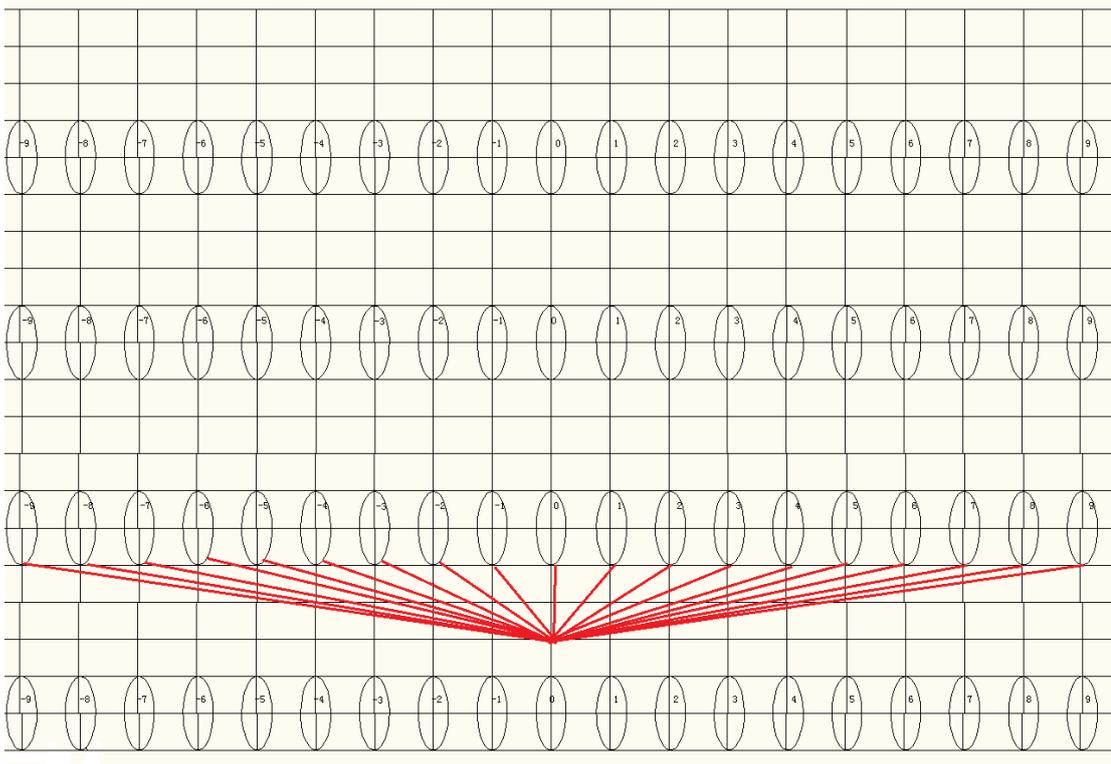

Figure6-9

B>.adjust parameter <INK3 Positive Deviation>

Add "ImpressaoGabarito-4AB.PLT" into control center. Use four heads bi-directional print this file, after print one row then print STOP bottom. Observe the lines inside first row which we use small ellipse to mark; see which line is perfect straight then put line number into <INK3 Positive Deviation> parameter. As below Figure6-10:
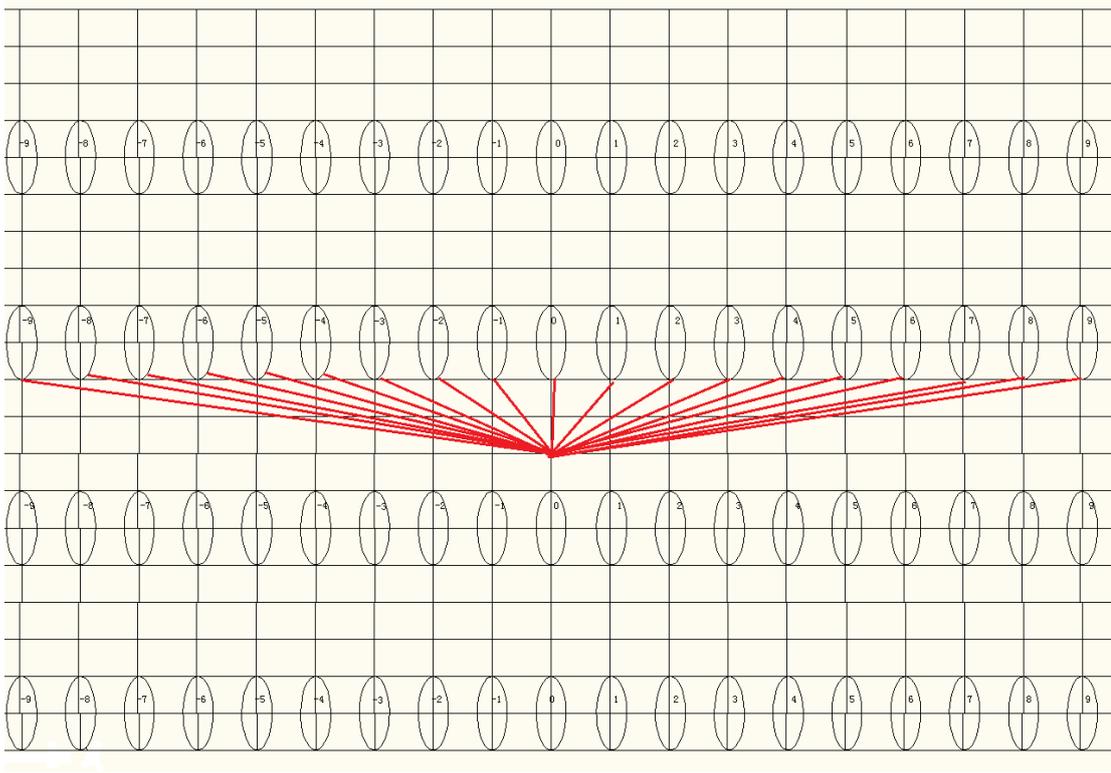
Figure6-10

C>.adjust parameter <INK4 Positive Deviation>

Add "ImpressaoGabarito-4AB.PLT" into control center. Use four heads bi-directional print this file, after print one row then print STOP bottom. Observe the lines inside first row which we use small ellipse to mark; see which line is perfect straight then put line number into <INK4 Positive Deviation> parameter. As below Figure6-11:

Figure6-11

D>.adjust Parameter <Negative Deviation>

Use four heads bi-directional print "ImpressaoGabarito-4AB.PLT" file, finish print complete file. Observe second and third row lines which we big ellipse to mark, see which line is perfect straight then put line number into <INK1 Negative Deviation> parameter, as below Figure6-12:
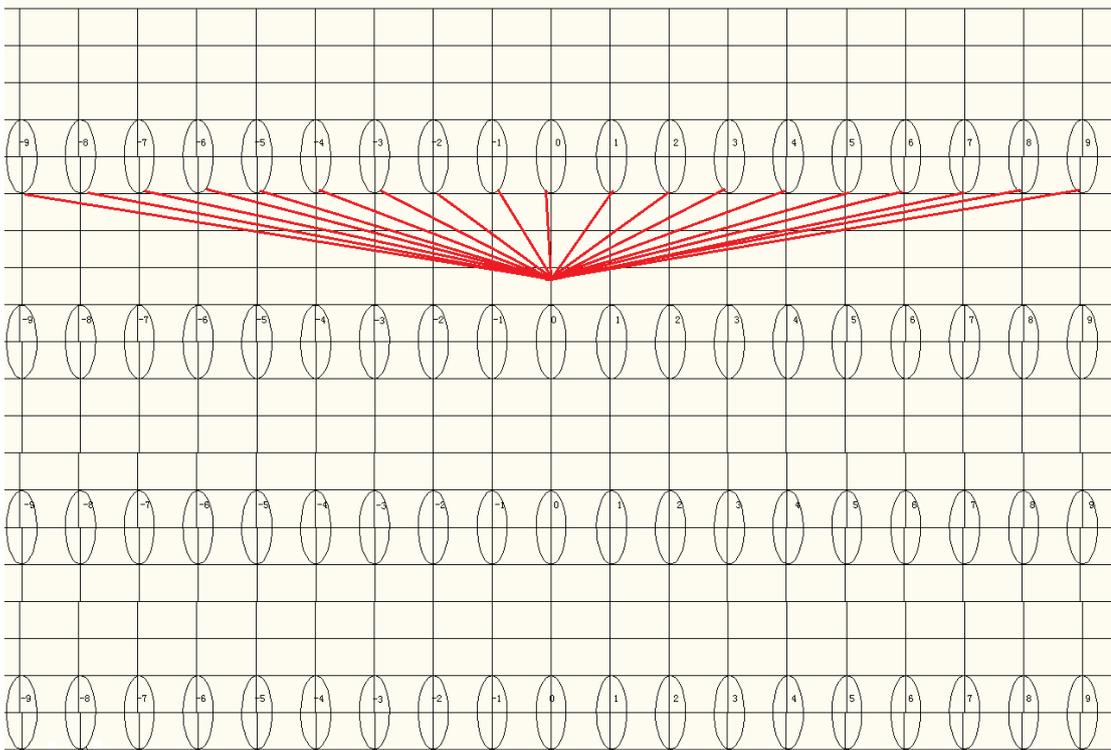
Figure6-12

2>，Adjust two side lines parameter in printing area

A>, adjust most left line. Make most left line straight by adjusting <Left 1>/<Left 2>/<Left 3>/<Left 4>/<Left 5>/<Left 6>/<Left 7>/<Left 8> value. As below picture <Figure6-13>. Normally <Left 1> value keeps same, adjust <Left 2>/<Left 3>/<Left 4>/<Left 5>/<Left 6>/<Left 7>/<Left 8> value. If printing line deviation left, you should increase value; if printing deviation right, you should decrease value.

B>, adjust most right line. Make most right line straight by adjusting <Right 1>/< Right 2>/< Right 3>/< Right 4>< Right 5>/< Right 6>/< Right 7>< Right 8> value. As below picture <Figure6-13>. Normally <Right 1> value keeps same,a adjust < Right 2>/< Right 3>/< Right 4>< Right 5>/< Right 6>/< Right 7>< Right 8> value. If printing line deviation left, you should increase value; if printing line deviation right, you should decrease value.
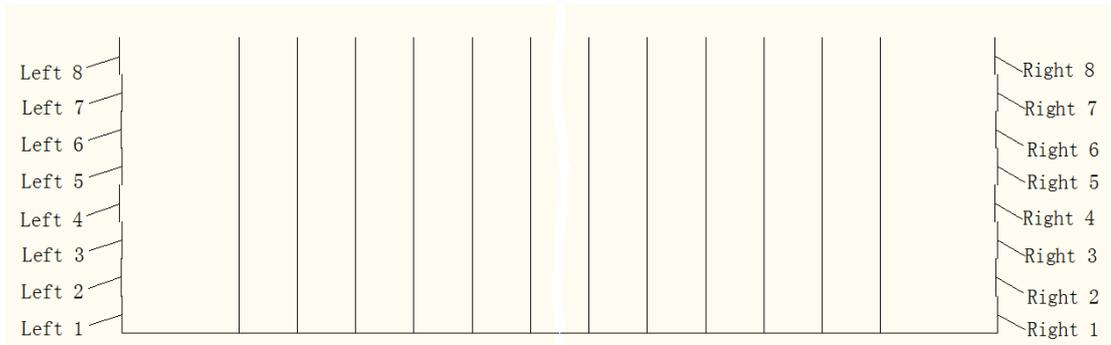

Figure6-13

4，Forward-and-backward deviation(Shown as following figure)：

<Value of Step> is to adjust the forward-and-backward deviation of plotting. Increasing the Value of Step will increase the interval between the paper feedings during plotting. Reduce the Value of Step to reduce the interval between the paper feedings during plotting.

Reduce the Value of Step in case there is clearance between the paper feedings while plotting.

Clearance between paper feeding
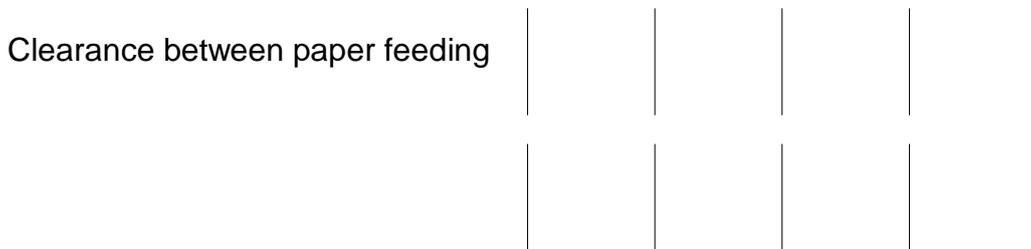
Increase the Value of Step in case there are overlaps between the paper feedings while plotting.

Overlaps between paper feedings
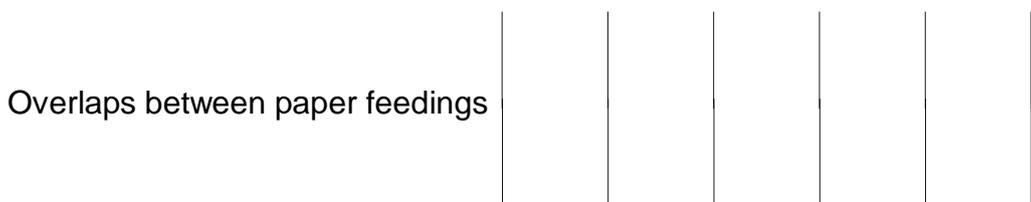
6.2.3.1.3 Font

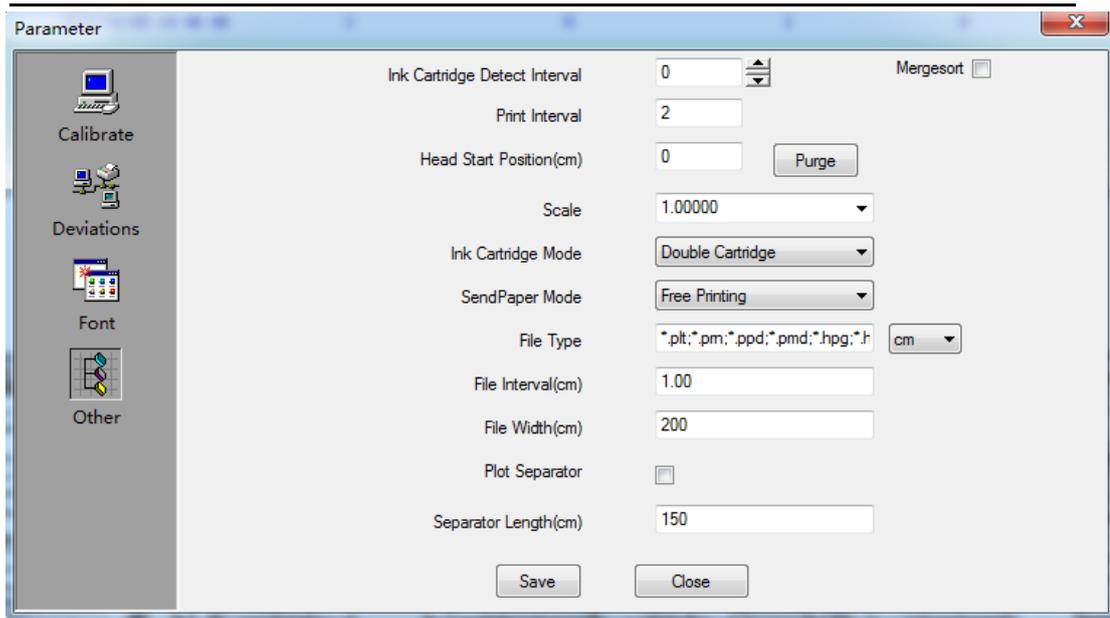Click tab < Font >, then appears following dialogue box:
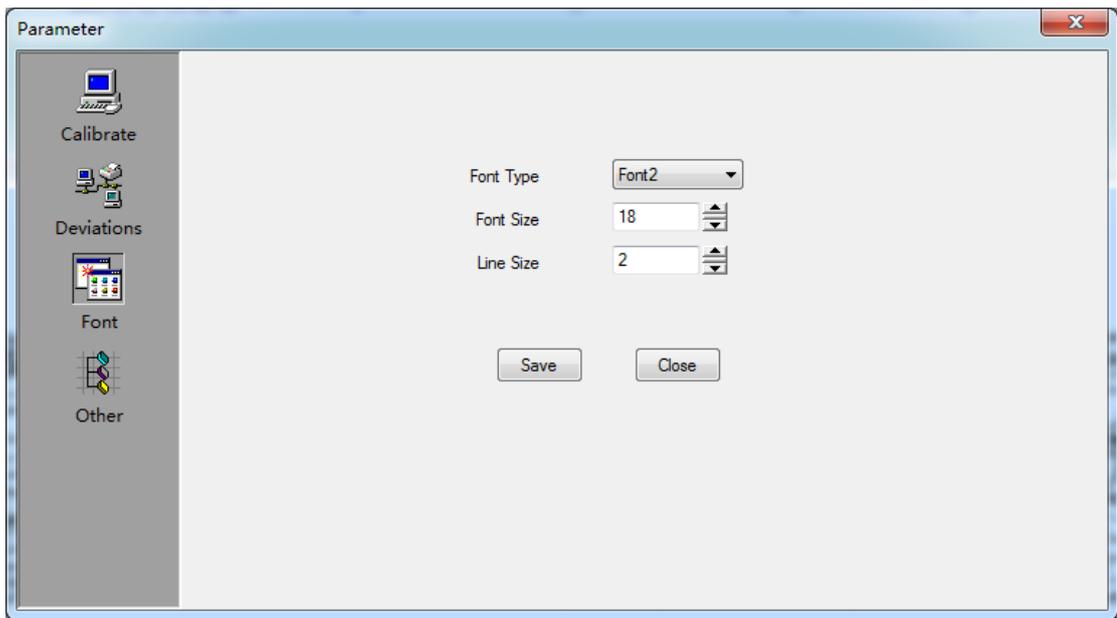
According to your plotting file, you might select font size and line size.

6.2.3.1.4 Other

Click tab < Other >, then appears following dialogue box:

<Ink Cartridge Detect Interval>: It is set to realize 24 hours non-stop plotting under unattended mode. You can input the interval parameter you want and the plotter will self-examine its cartridge working status when finish such an interval. Once the cartridge is damaged or without ink, the plotter will give warning signal and stop plotting. Click <Save> to save the parameter. You need install ink cartridge detect sensor to get this function.

<Print Interval>: You can move the pointer to select the distance between the two markers from the pull-down parameter list, or can input the parameter of the distance that you want. Click <Save> to save the parameter.

<Mergesort>: this option only work for Merge. If not click this option press <Merge>, you need select files one by one, also the sequence according to your select sequence; if you click this option and press <Merge>, you can select several files one time, file sequence is random. Click <Save> to save the parameter.

<Head Start Position (cm)>: this is printing width direction start position. If this data changed, the files add into control center after this will be new value. But now work for files add before data changed. Click <Save> to save the parameter.

<Scale>: this option is scale factor, use to zoom in or out printing file, X and Y direction can be zoomed in or out at same time. Click <Save> to save the parameter.

<Ink Cartridge Mode>: three selections for this option. Double Cartridge means left and right ink cartridges both work; this is default setup; Right Cartridge means only right ink cartridge work, left ink cartridge not work; Left Cartridge means left ink cartridge work, right ink cartridge not work. Right Cartridge and Left Cartridge two modes can be used when one ink cartridge damaged. Note: if use Right Cartridge and Left Cartridge X scale need to be adjusted again. Click <Save> to save the parameter.

<SendPaper Mode>: two selections for this option. Free Printing means push down rollers to print paper directly to floor; Take-up Paper means use take up roll and lift up rollers to print. Click <Save> to save the parameter.

<File Type>: this option use to add printing file name extension. Use <;> as separator; * is wildcard character, it can add or delete file name extension accordingly; if you want to use any extension you can add *.* to achieve. cm/inch/mm three options used to assign dxf or dwg file unit, according to actual file to select. Click <Save> to save the parameter.

<File Interval(cm)>: this option only work for <Merge> and <Split> function, it is use to setup distance between merge files, including X and Y direction, unit is cm. Click <Save> to save the parameter.

<File Width(cm)>: this option work for <Merge> and <Split>, it is used to assign merge or split file width. This option value should be smaller than paper width, also smaller than plotter maximum printing width. Click <Save> to save the parameter.

<Plot Separator>: this option for your click. After you click there will be a separator line between two markers. The line length is depends on <Separator Length (cm)> value, unit is cm. Click <Save> to save the parameter.

<Separator Length(cm)>：this option only work if you click <Plot Separator>,it is used to setup separator line length between two markers, unit is cm. Click <Save> to save the parameter.

6.2.3.2 Plotter type

Click <Setup> / <Plotter Type>, then appears following dialogue box:
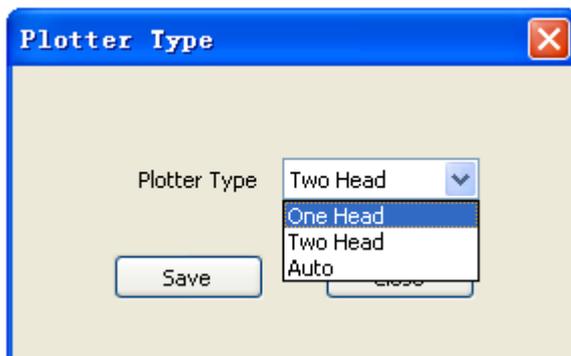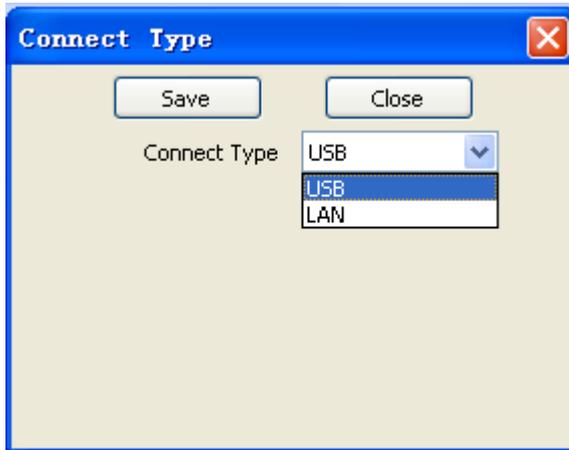

You can choose <One Head> or <Two Head> according to your plotter type.

If it is LAN port plotter, choose <Auto> to let the plotter automatically identify it is one head or two head.

6.2.3.3 Connect type

Click <Setup> / <Connect Type>, then appears following dialogue box:

There are two types according to the port of the plotter: one is USB port, another is LAN port. If it is USB port, select <USB> and click <Save>. If select <LAN>, following dialogue box will appear:
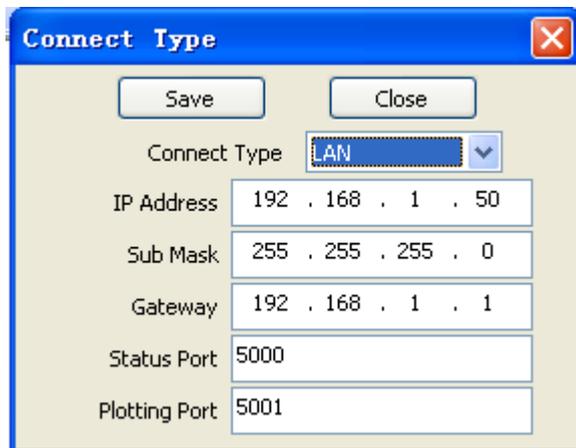
It is plotter's default value. Computer also has own data: "sub mask", "gateway" and "IP Address". To make plotter's "sub mask", "gateway" the same as computer's "sub mask", "gateway", also plotter and computer front 3 data of "IP Address" are the same, but "IP Address" last data is different-----then plotter can be used.

"Front 3 data" and **"last data"**
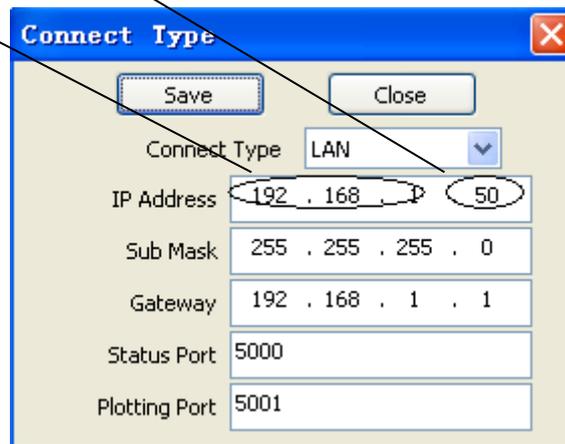
- **Method:**

1. In case computer not connected with Local Area Network,

(1) Use AUDACES supplied LAN cable to connect computer and plotter,
(2)Open "IPConfig.exe", then Click "Set" (ensure success)
(3)Open AUDACES control center, click 'Setup"---"Connect Type"----select "LAN"

Then in the control center left and down corner, green light is on, and plotter model shown------that means plotter can be used.

2. In case computer connected with Local Area Network,

(1)Ensure computer log in Local Area Network but disconnected with plotter
(2)Open "IPConfig.exe", then Click "backup" (ensure success) -----then computer's: "sub mask", "gateway" and "IP Address" will be saved in "AdapterIPConfig.ini"
(3)Disconnect computer from Local Area Network both wireless and cable connection
(4)Connect computer with plotter by using AUDACES LAN cable only
(5)Open "IPConfig.exe", then Click "Set" (ensure success)
(6)Open AUDACES control center, select "LAN", Then in the control center left and down corner, green light is on, and plotter model shown, click 'Setup"---"Connect Type"----"LAN", you can find "sub mask", "gateway" and "IP Address".--------Change "sub mask" and "gateway" the same as

"AdapterIPConfig.ini"; also front 3 data of "IP Address" the same as "AdapterIPConfig.ini"; but "IP Address" last data is different (data between 2~254, you can select bigger data such as 250 etc)------click "save"----click "yes" (ensure success)----click "close"

(7)Open "IPConfig.exe", then Click "restore" (ensure success)

(8)Disconnect computer and plotter-----then connect plotter with "hub" or "Router" by using AUDACES LAN cable

(9) Connect computer with "hub" or "Router" by using other LAN cable or using wireless-------then this computer can control plotter successfully

(10) THEN ALL COMPUTERS BELONG TO ABOVE LOCAL AREA NETWORK CAN CONTROL THIS PLOTTER, BUT MUST ENSURE SET-UP DATA SAME AS ABOVE NO2. (6).

6.2.3.4 Language
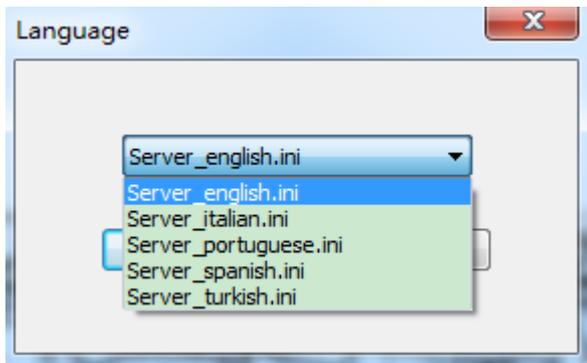
You can choose Chinese or English language interface as needed.

6.2.4 Plot history

Click <View> / <Plot History>, then following dialogue box appears:

The top shows AUDACES logo and header, then a Plot History window screenshot, then text.
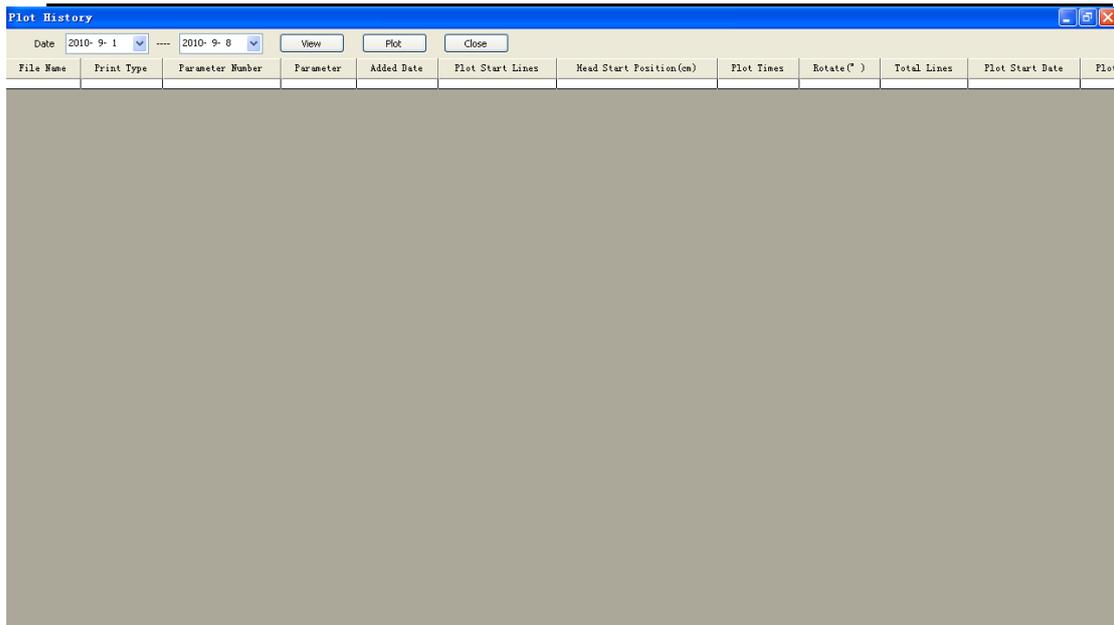
AUDACES

Choose the related date, and you will get the information of plotting files.

6.2.5 Backup

Click <Backup> / <Backup Plot Parameter>, then following dialogue box appears:
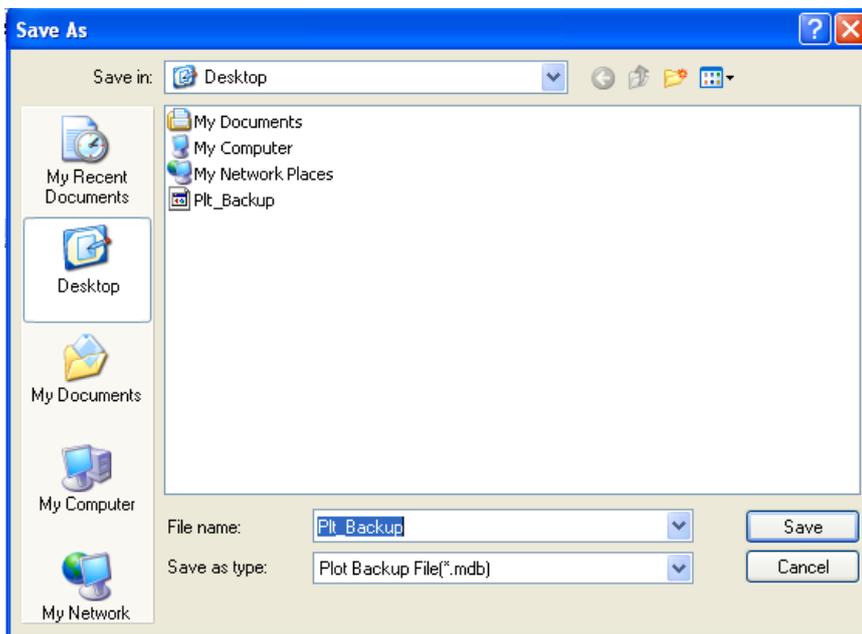
We can copy the parameters on the other place of the computer by <Backup Plot Parameter> to prevent data losing after all the parameters are set up while the first installation of the control center.

The parameters can be restored by clicking <Restore Plot Parameter> while the control center is reinstalled next time. Click <Backup> / < Restore Plot Parameter>, then following dialogue box appears:
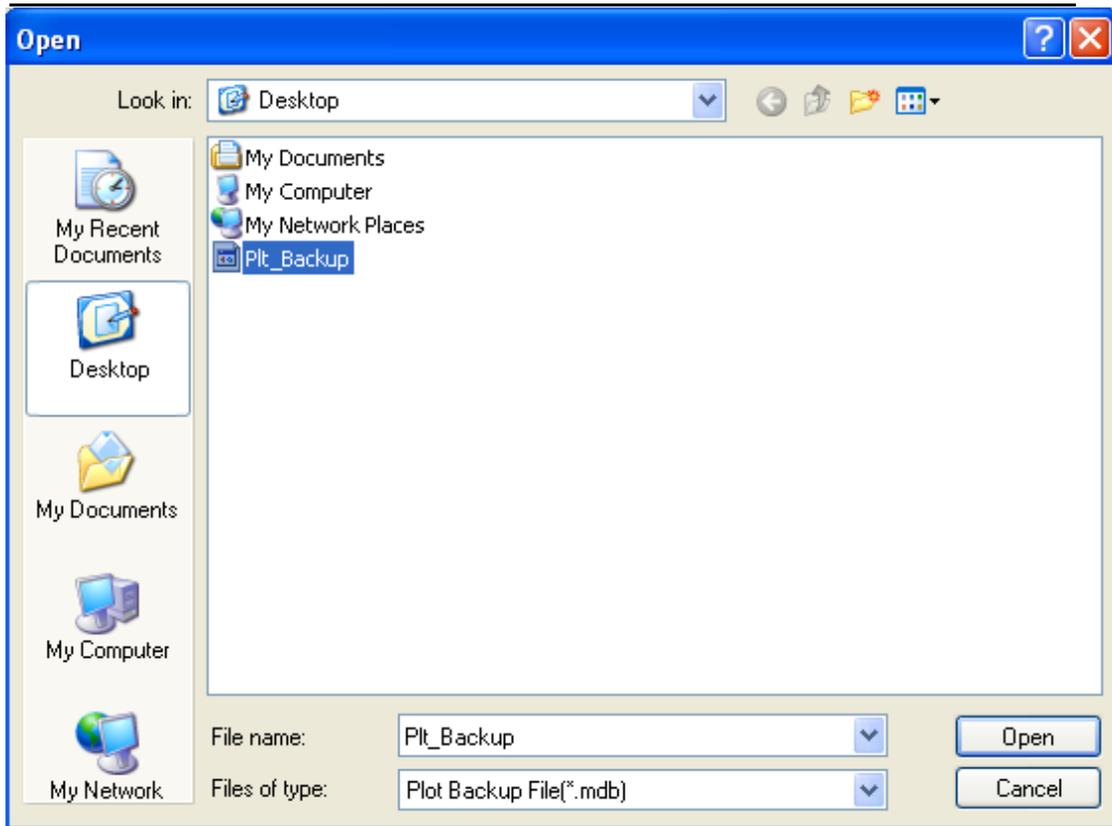
6.2.6 Help

Click <Help> / <Help>, then following dialogue box appears:
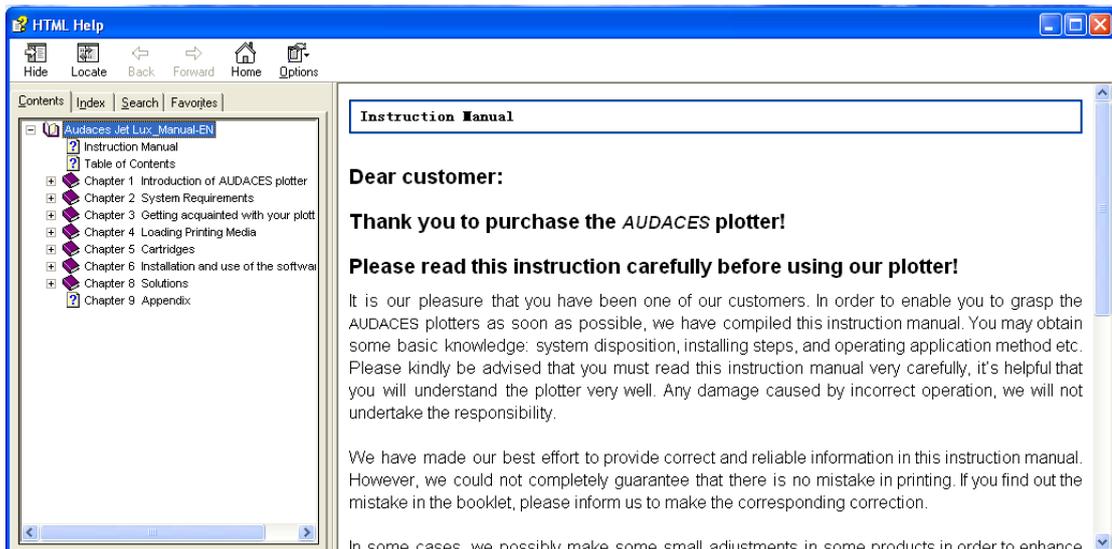
Please read it carefully, and pay attention to the details of the operations.

Chapter 7 Maintaining and Troubleshooting

7.1 Cleaning the plotter

Notice: Before the cleaning process, the plotter power must be turned off; power source should be disconnected to avoid being shocked. Please avoid having water remaining inside the plotter.

Attention: Please do not use the corrosive cleanser to clean plotter.

Please use sponge or soft cloth and the neutral home-using detergent, such as non-corrosive liquid soap, to clean the out cover of the plotter according to the requests.

7.2 Lubricating the guide track

Clean the guide track regularly with the sponge or the soft cloth and the neutral home-using cleanser, and lubricate the guide track surface with 50# calcium based or lithium based oil. (Once a week or based on actual situation)

7.3 Cleaning the paper rolls

Clean the paper rolls regularly with alcohol.

Attention: Besides the content mentioned above, any maintaining work should be done by the well-trained technical service person.

Chapter 8   Solutions

8.1 General Problems

Problems	Possible reasons	Solutions
Indicator light of power source is not on.	1. Connecting of power source	1. Check whether the power cord is connected correctly. 2. Check whether the power switch is set to ON
No short sound of "di" after switching on the plotter.	1. Switch off the plotter and then switch it on immediately.	1. Please switch on the plotter 10 seconds later after switching it off.
Marker files have been printed but nothing is plotted on them.	1. The plotter is not switched on. 2. There are problems with the cable. 3. Plotter model is wrong.	1. Check whether the plotter is working in the normal state. 2. Check whether the cable is connected correctly. 3. Choose correct plotter model.
Output of marker files is stopped.	1. The plotter is in the suspending state.	1. Check the indicator light of pause and exit the suspending status.
Marker files could not be plotted.	1. Check whether the USB connection is correct 2. Check whether the setting of the USB driver is correct.	1. Connect the computer and the plotter correctly by using USB cable line. 2. Reset the USB driver

If the problems could not be solved according to the above solutions, please contact your supplier.

8.2 Software errors

Problems	Possible reasons	Solutions

| The software of control center could not be started up. | 1. Problems with the software or WINDOWS. | 1. Reinstall the software of the plotter or WINDOWS software. | |

8.3 Plotter errors

Problems	Possible reasons	Solutions
Indicator light of ERROR is on all the while.	1. The cover is not put on correctly.	1. Put on the cover correctly and switch on the potter again. 2. Replace the switch of the cover.
Indicator light of ERROR is on for 2 seconds and off for 1 second. At the same time, the indicator light of INKOUT is on	1. Short of ink	1. Replace the print-head.
Indicator light of ERROR is on for 2 seconds and off for 1 second.	1. Errors occur in the data tablet.	1. Check whether the cable is connected correctly. 2. Check whether the marker files are correct.
Indicator light of ERROR is on for 0.5 second and off for 0.5 second.	1. X Motor protects itself (be not able to take up paper for some time).	1. Check whether the paper bail is laid down. 2. Check whether the plotter is out of plotting paper.
Indicator light of ERROR is on for 5 seconds and off for 5 seconds.	1. The stated length and width is exceeded for receiving data for MPU1.	1. Check whether the marker files are correct and whether the width exceeds the range of the plotter.

Indicator light of ERROR is on for 1 second and off for 2 seconds.	1. Motor stops operation and protects itself due to the outside force/bump in Y direction.
	    2. The carriage does not move to the
		1. Check whether the surface of slide guide is smooth, then wipe & clean it with lubricating oil.
		2. Check whether there obstacles on the track of the carriage, and remove them if there are.
		3. Check whether the carriage has been moved by hands before.
		    4. Switch on the plotter again.

	indicated position which is between the RIGHTPLOT and LEFTPLOT.	

Remarks：When the indicator light of ERROR is on, the plotter will alarm.

8.4 Problems of output

Problems	Solutions
There are gaps in plotting lines.	Clean the nozzle of the print-head.
There are left and right deviations in plotting lines.	See 6.2.8 Deviation adjusting
There are forward-and-backward deviations in plotting lines.	See 6.2.8Deviation adjusting
The actual size of the marker plotted is not correct	See 6.2.7 Errors ratio correction and Adjustment

Chapter 9   Appendix

Please fill in following values in the Control Center after finish the software installation

9 speed

Values:	The related <Control Center> items:
Scale in X:	control center\control\calibrate \ Scale in X
Scale in Y:	control center \control\calibrate \ Scale in Y
Value of even deviation:	Control center\control\\Deviations adjust\Value of even deviation
Value of left uneven deviation:	control center \control\Deviations adjust \Value of left uneven deviation
Value of right uneven deviation:	control center \control\Deviations adjust \ Value of right uneven deviation
Value of step:	control center \control\Deviations adjust \ Value of step

5 speed

Values:	The related <Control Center> items:
Scale in X:	control center\control\calibrate \ Scale in X
Scale in Y:	control center \control\calibrate \ Scale in Y
Value of even deviation:	Control center\control\\Deviations adjust\Value of even deviation
Value of left uneven deviation:	control center \control\Deviations adjust \Value of left uneven deviation
Value of right uneven deviation:	control center \control\Deviations adjust \ Value of right uneven deviation
Value of step:	control center \control\Deviations adjust \ Value of step