



Jaguar IV Series User Manual



<http://www.GCCworld.com>

NOTICE

GCC reserves the right to modify the information contained in this user manual at any time without prior notice; un-authorized modification, copying distribution or display is prohibited. All comments, queries or suggestions concerning this manual please consult with your local dealer.

Important Information

Thank you for purchasing the **GCC Jaguar IV Cutting Plotter**.

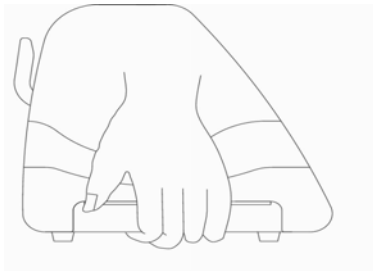
Before you use the cutting plotter, please make sure that you have read the safety precautions and instructions below.



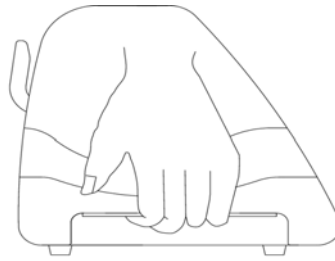
Caution

SAFETY PRECAUTIONS!

- For safety concern, please always hold the cutter firmly **from the bottom** while moving it. Do not move the cutter by clasping the depression area on both sides.



O (Correct)

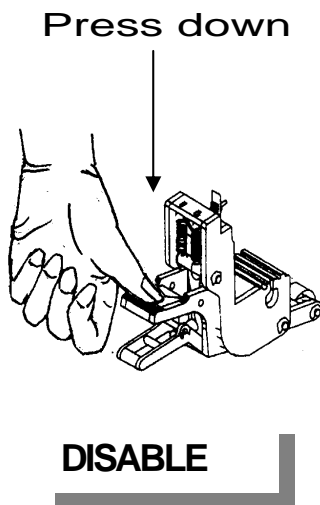
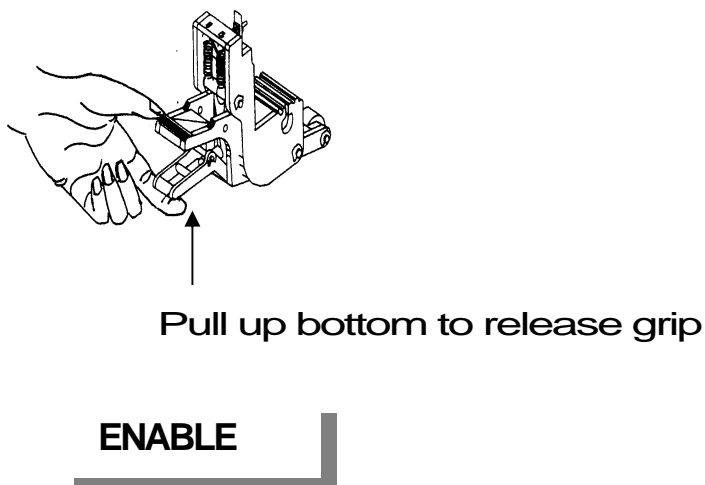
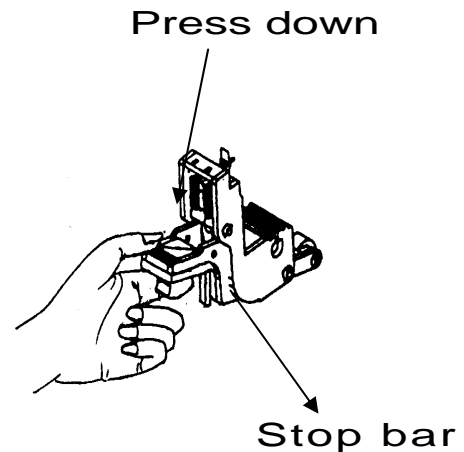


X (Incorrect)

- Do not shake or drop the blade holder, a blade tip can fly out.
- During an operation, do not touch any of the moving parts of this machine (such as the carriage). Also be careful to make sure that clothing and hair do not get caught.
- Always connect the power cable to a grounded outlet.
- Always use the accessory power cable which is provided. Do not wire the power cable so that it becomes bent or caught between objects.
- Do not connect the power cable to branching outlet to which other machines are also connected, or use an extension cable. There is danger of overheating and of mis-operation of the machine.
- Keep the tools away from children where they can reach.
- Always put the pinch rollers within the white marks.

Warning

Never press the top release grip and pull the bottom release grip at the same time as the pictures shown below:

O (CORRECT)**✗ (INCORRECT)****Note:**

In case the grips clipped together due to your wrong operation, please use a tweezers to pull out the stop bar when pressing down the top release grip. Keep the stop bar outside then release the grips as the right figure.

Table of Contents

Important Information

1. General Information

1.1	Introduction	1-1
1.2	Package Items	1-1
1.3	Product Features	1-2
1.4	Appearance of Jaguar IV	
1.4.1	The Front View	1-3
1.4.2	The Back View	1-3
1.4.3	The Whole View	1-4
1.4.4	The Left-hand Side	1-4
1.4.5	The Right-hand Side	1-5

2. Installation

2.1	Precaution	2-1
2.2	Stand & Flexible Media Support System	2-2
2.3	Desktop Flexible Media Support System	2-6
2.4	Blade Installation	2-8
2.5	Cable Connections	
2.5.1	USB Interface	2-10
2.5.2	Parallel Interface	2-14
2.5.3	RS-232 Interface	2-14
2.5.4	Data Transmitting	2-14

3. The Control Panel

3.1	The LCD Panel	3-1
3.2	Menu in On-line Mode	3-2
3.3	Menu in Off-line Mode	3-3
3.4	Menu Items	3-4

4. Operation

4.1	Media Loading	
4.1.1	Loading the Sheet Media	4-1
4.1.2	Loading the Roll Media	4-3
4.2	Tracking Performance	4-5
4.3	Cutting Force and Offset Adjustment	4-6
4.4	How to Cut 3mm Letter	4-7
4.5	How to Make A Long Plot	4-7
4.6	When Completing the Cutting Job	4-8

5. Accu-Aligning System

5.1	Introduction	5-1
5.2	Calibrating the System	
5.2.1	Media Calibration	5-2
5.2.2	AAS Calibration	5-2
5.2.3	AAS II on Jaguar IV	5-3
5.3	Printer Test	5-4
5.4	Contour Cutting	5-6
5.5	Tips for AAS	5-8

6. Maintenance

6.1	Cleaning the cutting Plotter	6-1
6.2	Cleaning the Grid Drum	6-2
6.3	Cleaning the Pinch Rollers	6-2

7. Trouble Shooting

7.1	Non-Operational Problems	7-1
7.2	Operational Problems	7-2
7.3	Communication Problems	7-3
7.4	Software Problems	7-4
7.5	Cutting Quality Problem	7-5
7.6	USB connection Problems	7-6

Appendix

A-1	Jaguar IV Specification	A-1
A-2	Blade Specification	A-2
A-3	CorelDRAW Plug-In Instruction	A-3
A-4	SignPal 8.5 Instruction	A-4
A-5	EasySIGN Instruction	A-5
A-6	GreatCut Instruction	A-6

1. General Information

1.1 Introduction

Jaguar IV series cutting plotters have been designed to produce computer-generated images or perform contour cutting on sheets or rolls of vinyl media.

This manual covers the following models of Jaguar IV series cutting plotters:

• J4-61	for media width: 50mm(1.97") ~ 770mm(30.3")
• J4-101S	for media width: 50mm(1.97") ~ 1270mm(50")
• J4-132S	for media width: 50mm(1.97") ~ 1594mm(62.7")
• J4-183S	for media width: 300mm(11.8") ~ 1900mm(74.8")

1.2 Package Items

The package of the Jaguar IV model contents the items listed below, please check carefully. If you find any item missing, please consult your local dealer for further assistance.

If you find any item missing, please consult your local dealer for further assistance.

Standard Item				Quantity																																							
1. Cutting Plotter				1																																							
2. Stand Set (for J4-101S/132S/183S only)(Optional for J4-61) <ul style="list-style-type: none"> 2 piece of T-shape stand 1 piece of stand beam 18 pieces of M6 screws 1 piece of M5 L-shape hexagon screw driver 1 piece of Installation Guide for Stand Set 				1																																							
3. Flexible Media Support System Package <table> <tr> <th>Items</th> <th>183S/132S/101S</th> <th>61</th> </tr> <tr> <td>1 set of Roll Media Flange (2 pieces)</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>1 set of Roll Holder (2 pieces)</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>1 set of Roll Holder Guide Bushes (4 pieces)</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>1 set of Roll Holder Support (2 pieces)</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>1 piece of M6 L-shape hexagon screw driver</td> <td>✓</td> <td>✓</td> </tr> <tr> <td>1 piece of Installation Guide for Roll Holder</td> <td></td> <td>✓</td> </tr> <tr> <td>1 piece of M5 L-shape hexagon screw driver</td> <td></td> <td>✓</td> </tr> <tr> <td>1 set of Desktop Support Brackets (2 pieces)</td> <td></td> <td>✓</td> </tr> <tr> <td>4 pieces of Plastic Foot</td> <td></td> <td>✓</td> </tr> <tr> <td>4 pieces of M4 screws</td> <td></td> <td>✓</td> </tr> <tr> <td>12 pieces of M6 screws</td> <td></td> <td>✓</td> </tr> <tr> <td>1 piece of M4 L-shape hexagon screw driver</td> <td></td> <td>✓</td> </tr> </table>				Items	183S/132S/101S	61	1 set of Roll Media Flange (2 pieces)	✓	✓	1 set of Roll Holder (2 pieces)	✓	✓	1 set of Roll Holder Guide Bushes (4 pieces)	✓	✓	1 set of Roll Holder Support (2 pieces)	✓	✓	1 piece of M6 L-shape hexagon screw driver	✓	✓	1 piece of Installation Guide for Roll Holder		✓	1 piece of M5 L-shape hexagon screw driver		✓	1 set of Desktop Support Brackets (2 pieces)		✓	4 pieces of Plastic Foot		✓	4 pieces of M4 screws		✓	12 pieces of M6 screws		✓	1 piece of M4 L-shape hexagon screw driver		✓	1
Items	183S/132S/101S	61																																									
1 set of Roll Media Flange (2 pieces)	✓	✓																																									
1 set of Roll Holder (2 pieces)	✓	✓																																									
1 set of Roll Holder Guide Bushes (4 pieces)	✓	✓																																									
1 set of Roll Holder Support (2 pieces)	✓	✓																																									
1 piece of M6 L-shape hexagon screw driver	✓	✓																																									
1 piece of Installation Guide for Roll Holder		✓																																									
1 piece of M5 L-shape hexagon screw driver		✓																																									
1 set of Desktop Support Brackets (2 pieces)		✓																																									
4 pieces of Plastic Foot		✓																																									
4 pieces of M4 screws		✓																																									
12 pieces of M6 screws		✓																																									
1 piece of M4 L-shape hexagon screw driver		✓																																									

4. Accessories

<ul style="list-style-type: none">● 1 piece of User's Compact Disk● 1 piece of AC power Cord● 1 piece of data cable (RS-232C)● 1 piece of data cable (Print cable)● 1 piece of data cable (USB cable)● 1 set of Blade Holder Assembly (Installed in tool carriage of the cutting plotter)● 1 piece of Blade (Installed in Blade Holder)● 1 piece of Safe Blade● 1 piece of Cutting Pad for Vinyl cutting● 1 piece of Tweezers● 1 piece of Promise Card	1
--	----------

1.3 Product Features

The following are the main features of the Jaguar IV series cutting plotters:

- Tri-port connectivity provides you with greater flexibility
- Up to 600-gram cutting force
- Up to 60-inch/per second cutting speed
- Guaranty 10-meter tracking
- User friendly, multi-language control panel
- Ingenious media basket (optional item)
- Enhanced Accu-Aligning System for automatic contour cutting

1.4 Appearance of Jaguar IV

1.4.1 The Front View (Figure 1-1)

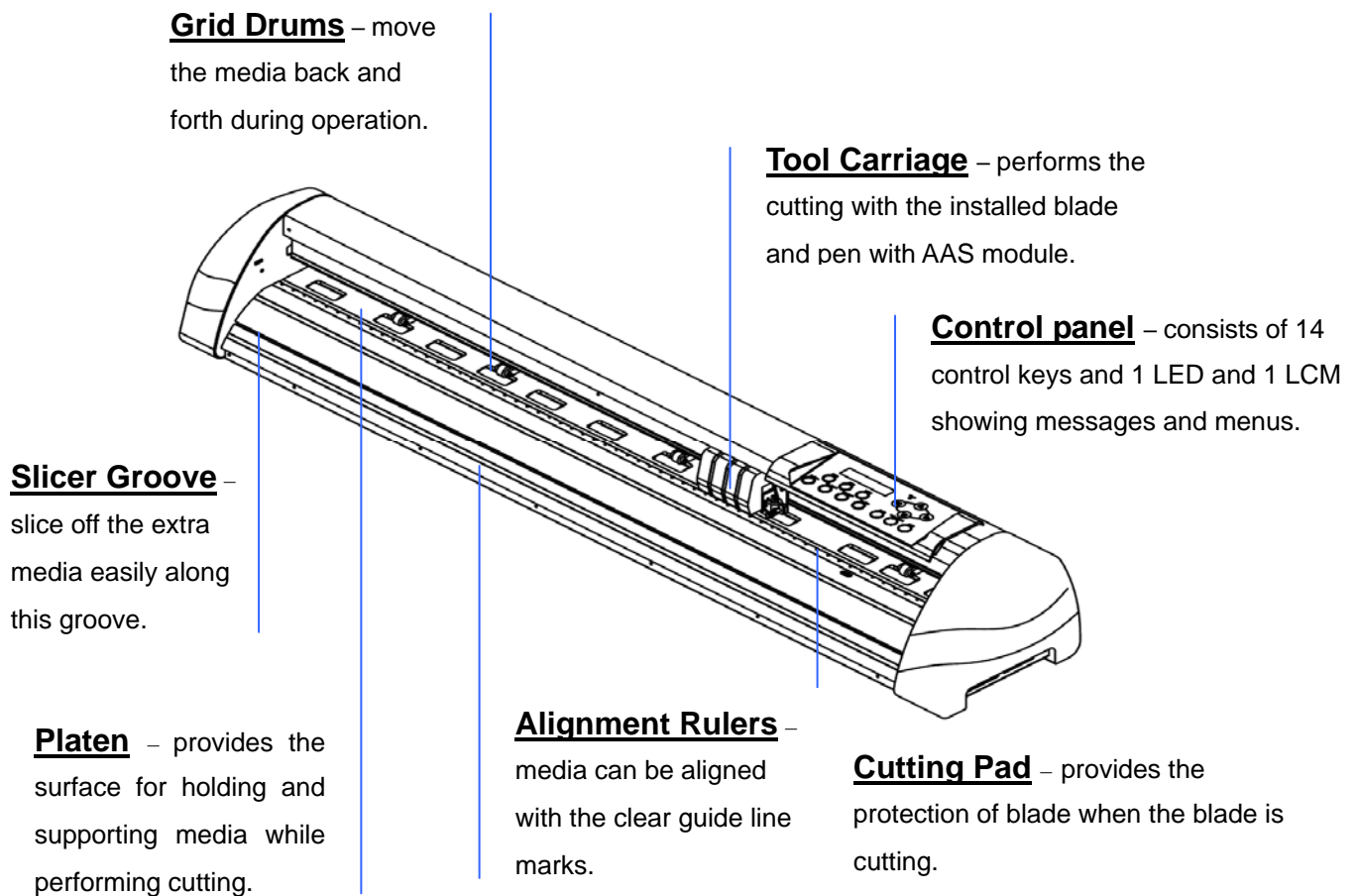


Figure 1-1

1.4.2 The Back View (Figure 1-2)

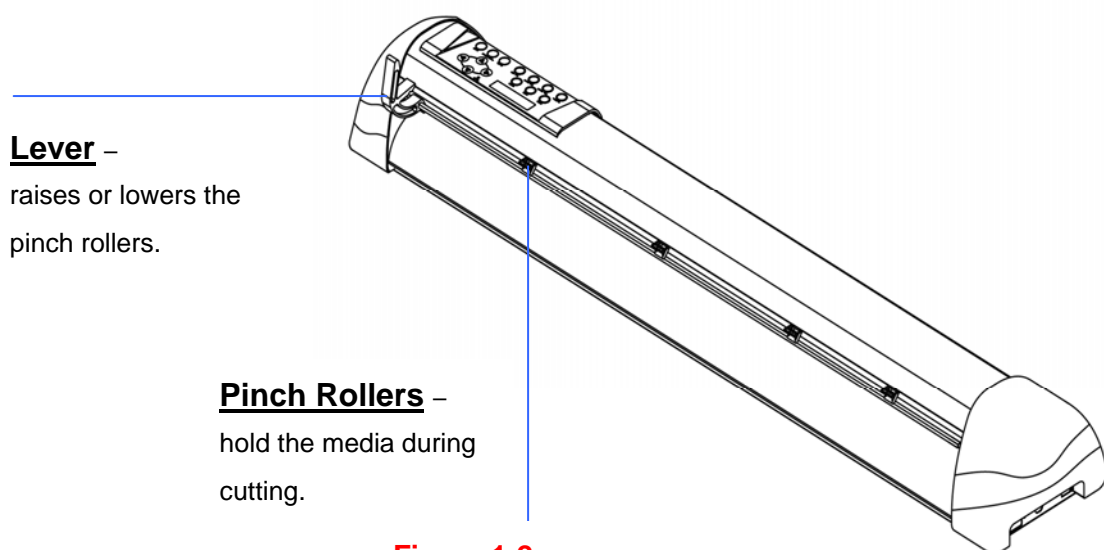
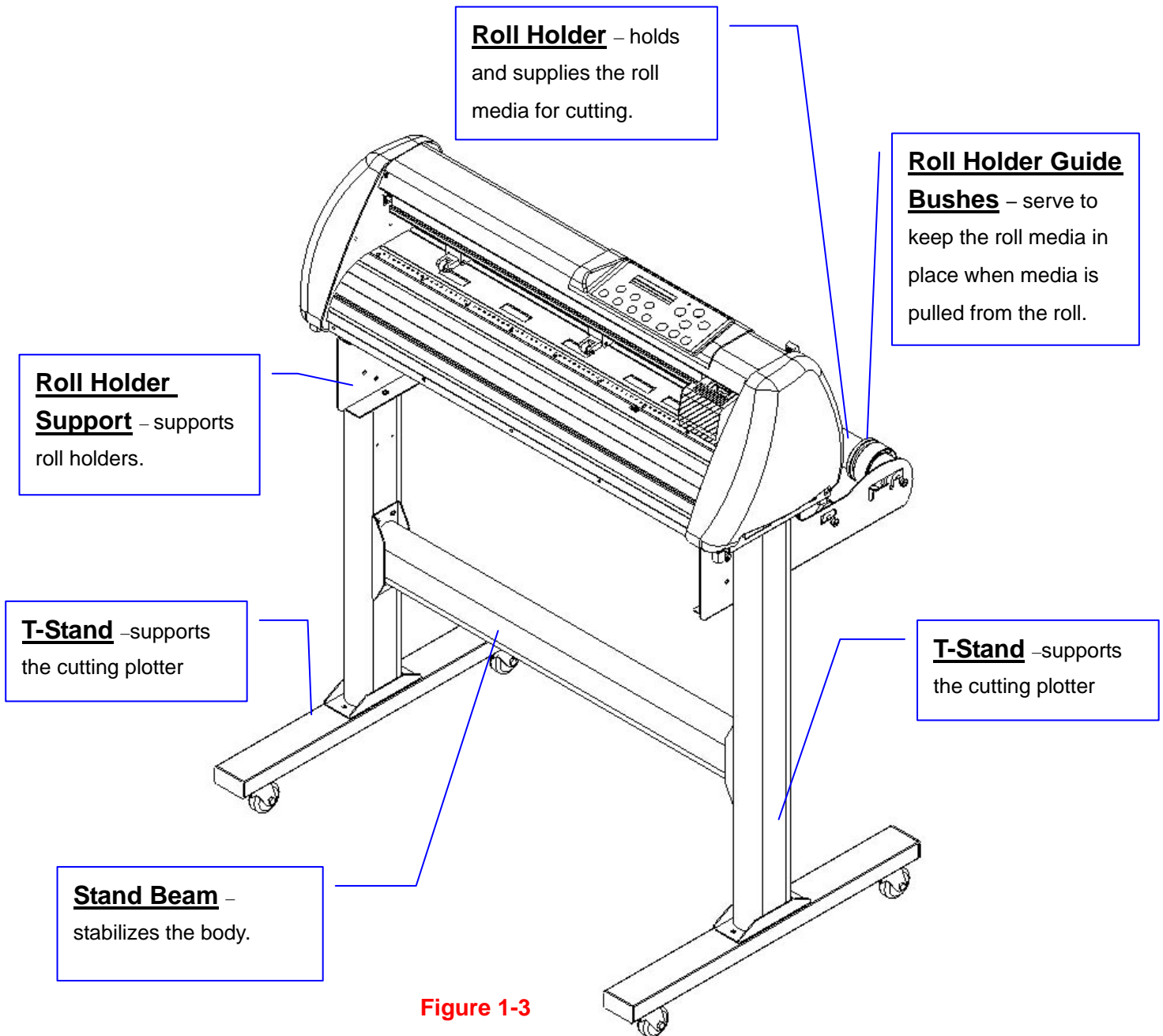
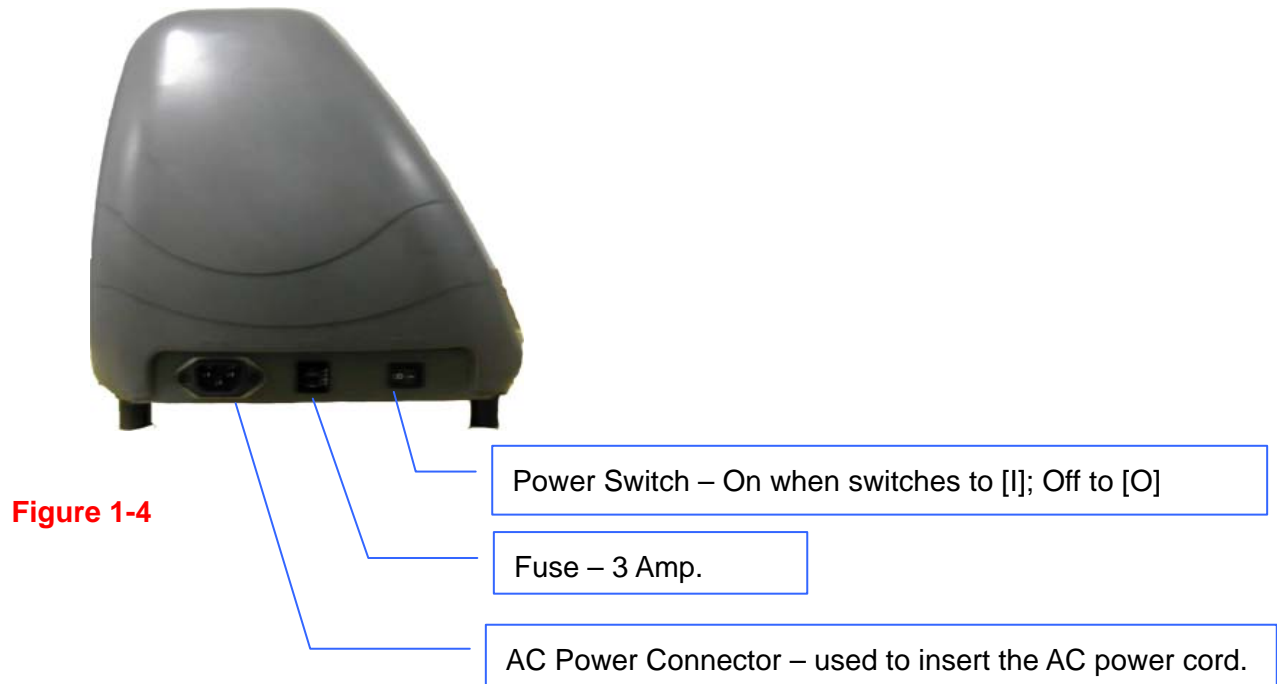


Figure 1-2

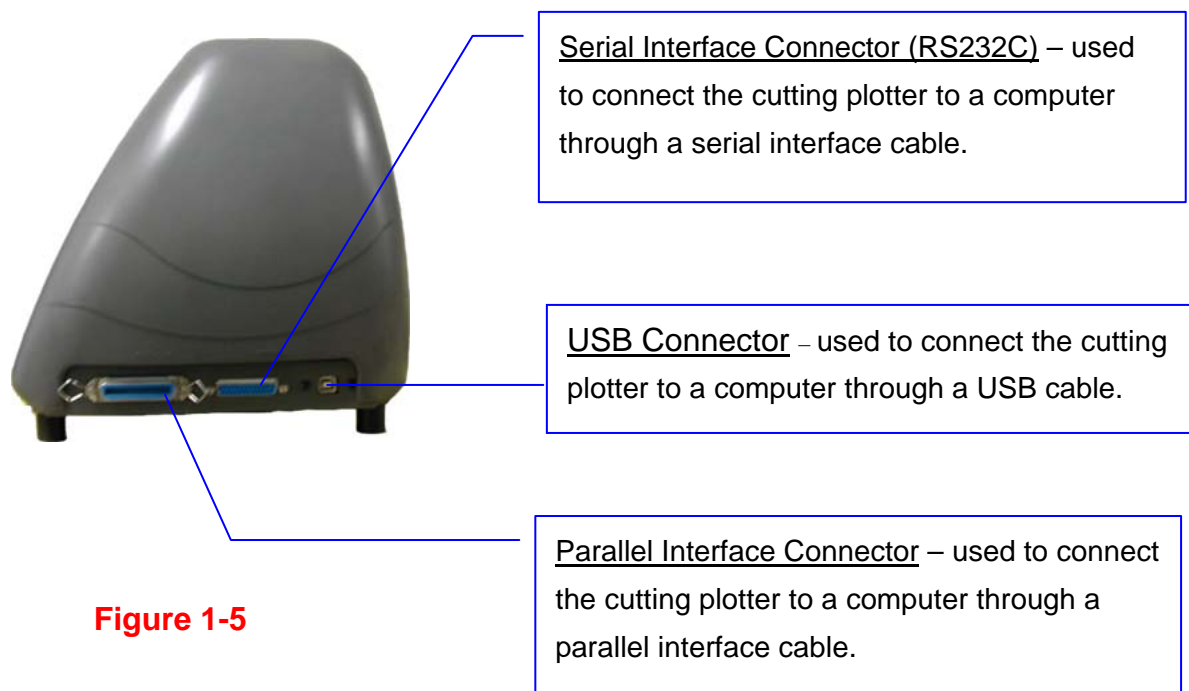
1.4.3 The Whole View of Jaguar IV (Figure 1-3)



1.4.4 The Left-hand Side (Figure 1-4)



1.4.5 The Right-hand Side (Figure 1-5)



2. Installation

2.1 Precaution

Please read below information carefully before you start installation.

Notice 1

- Make sure the power switch is off before installing the cutting plotter.
- Carefully handle the cutter to prevent any injuries.

Notice 2 Choosing a proper place before setting up the cutting plotter

Before installing your cutting plotter, select a suitable location, which meets the following conditions.

- The machine can be approached easily from any direction.
- Keep enough space for the machine, accessories and supplies.
- Keep the working area stable, avoiding sever vibration.
- Keep the temperature between **15 and 30 °C (60-86°F)** in the workshop.
- The relative humidity of the working environment should be between **25% to 75%**.
- Protecting the machine from dust and strong air current.
- Preventing the machine from direct sunlight or extremely bright lighting.

Notice 3 Connecting the Power Supply

Check the plug of the power cord to see if it matches with the wall outlet. If not, please contact your dealer.

- Insert the plug (male) into a grounded power outlet.
- Insert the other end (female) of power cord into the AC connector of cutting plotter.

2.2 Stand & Flexible Media Support System (for J4-101S/132S/183S)

Step 1

Please examine supplied items in the accessory box of stand carton:

- 2 piece of T-shape stand
- 1 piece of stand beam
- 18 pieces of M6 screws
- 1 piece of M5 L-shape hexagon screw driver
- 1 piece of Installation Guide for Stand Set

Step 2

- Remove the plotter body and the accessories from the shipped carton.
- Place the stand beam upright on the T-stand and follow the number ① ② to assemble.

(See Figure 2-1 & 2-2)

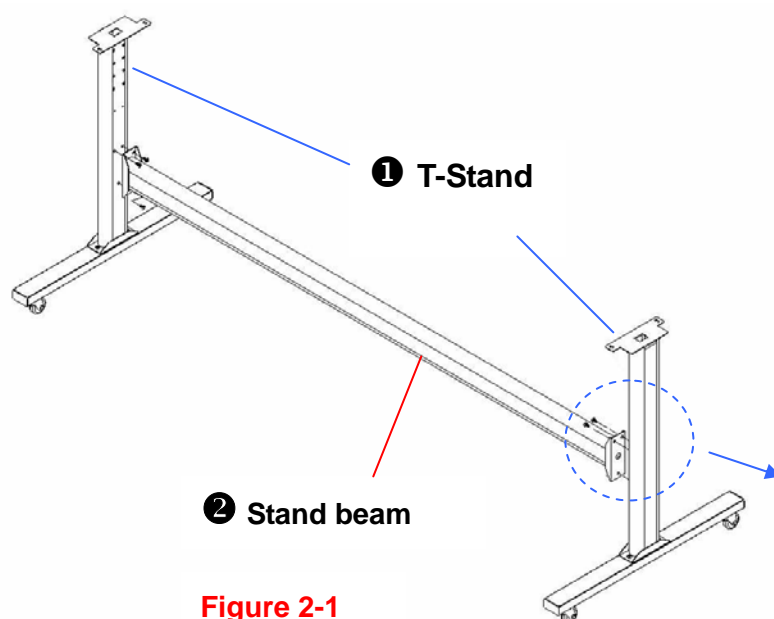


Figure 2-1



Figure 2-2

Step 3

Position the stand beam perpendicularly to part ❶ and put the screws into the holes and tighten them as Figure 2-2. Then the complete picture of stand will be like Figure 2-1.

Step 4

Remove the cutting plotter from the carton. Position your stand under the plotter, and then insert the screws into the holes on plotter's bottom and tighten them up as shown in Figure 2-3.

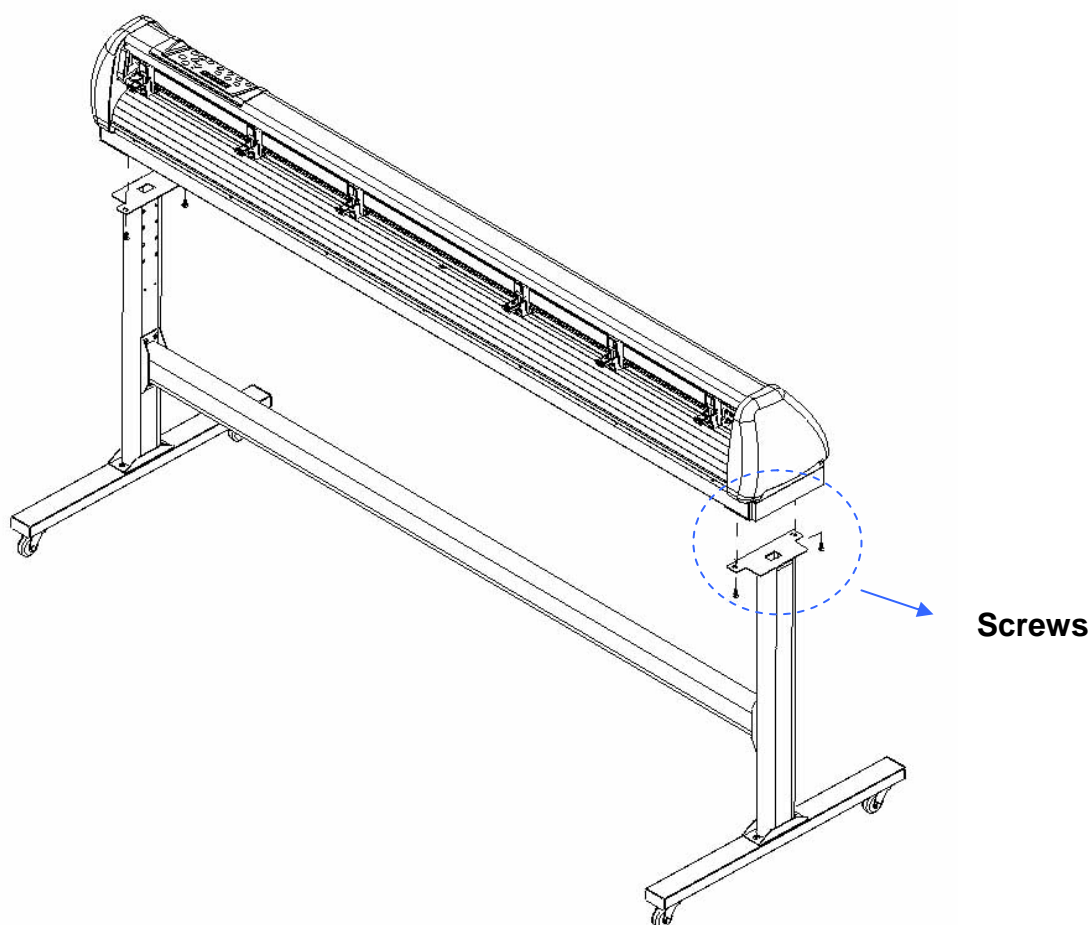


Figure 2-3

Step 5

Insert the roll holder support with the screws into the holes of the stand, and then tighten them up as shown in Figure 2-4. You could decide roll holder support's position by inserting into different holes.

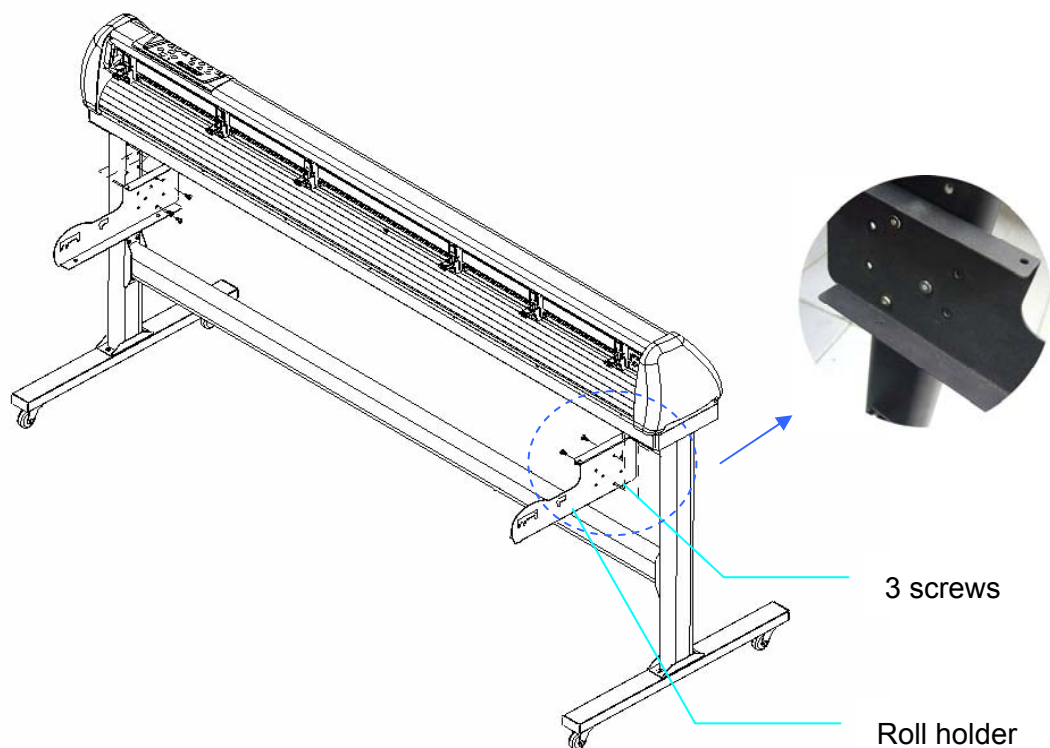


Figure 2-4

Step 6

Place two roll holders into the holes in the roll holder support. (Figure 2-5)

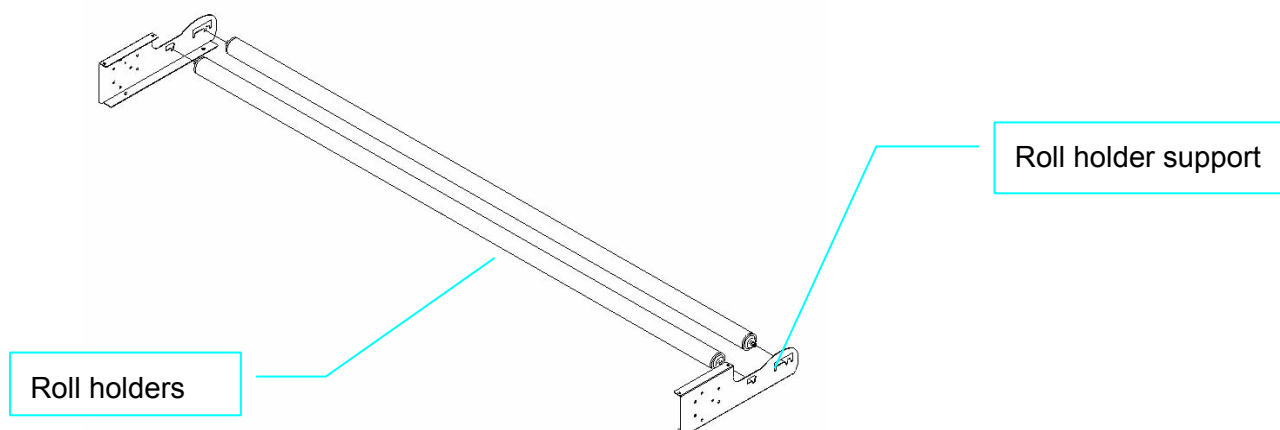


Figure 2-5

Step 7

Lastly, the complete picture will be shown like below. (Figure 2-6)

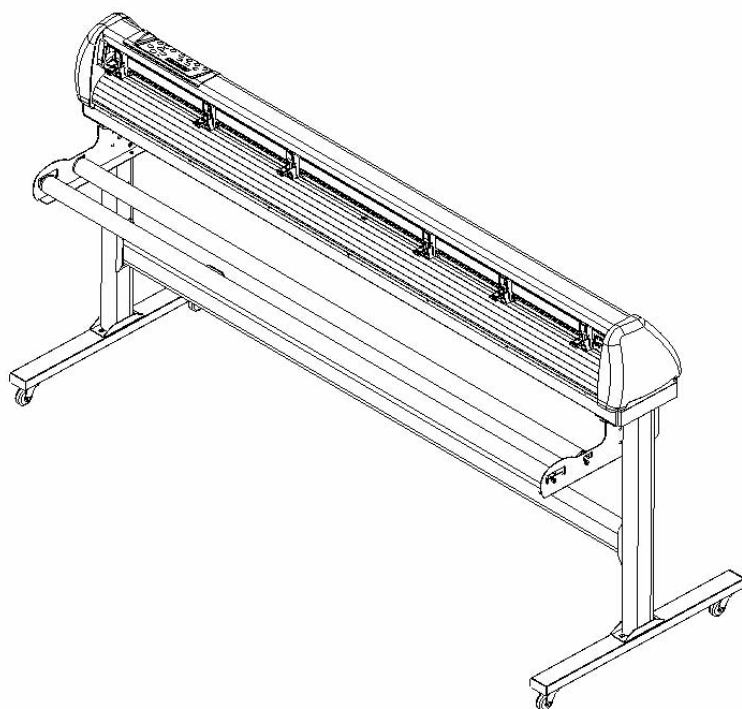


Figure 2-6

2.3 Desktop Flexible Media Support System (For J4-61 only)

Step 1

Please examine the following items in stand carton's accessory box:

- 1 set of Roll Media Flange (2 pieces)
- 1 set of Roll Holder (2 pieces)
- 1 set of Roll Holder Guide Bushes (4 pieces)
- 1 set of Roll Holder Support (2 pieces)
- 1 set of Desktop Support Bracket (2 pieces)
- 4 pieces of Plastic Foot
- 4 pieces of M4 screws
- 12 pieces of M6 screws
- 1 piece of M4 L-shape hexagon screw driver
- 1 piece of M5 L-shape hexagon screw driver
- 1 piece of M6 L-shape hexagon screw driver (for adjusting the screws of Roll Holders)
- 1 piece of Installation Guide for Roll Holder

Step 2

Put the 4 Plastic Foot under the Roll Holder Support and insert the M4 screw into the hole of Plastic Foot and tighten them with the M4 L-shape screw driver. (Figure 2-7)

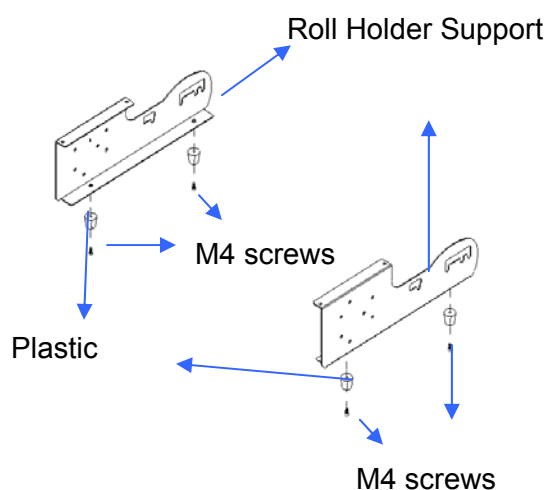


Figure 2-7

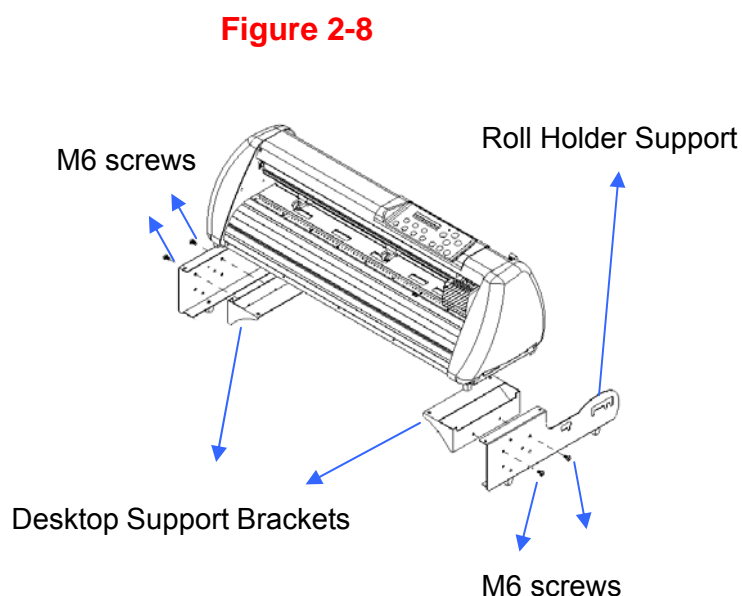


Figure 2-8

Step 3 Position the Desktop Support Brackets beside the Roll Holder Support and insert M6 screws into the Roll Holder Support and tighten them with M6 L-shape screw driver. (Refer to Figure 2-8 at the left).

Step 4

Put the bottom of machine in lateral, and position the Roll Holder Assembly beside the bottom of the machine. Then, insert the M6 screws into the holes of Roll Holder support assembly and tighten them with M6 L-shape screwdriver. Like Figure 2-9.

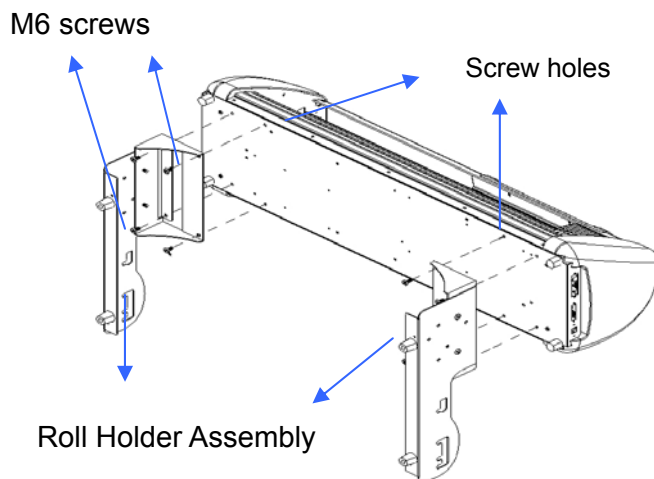


Figure 2-9

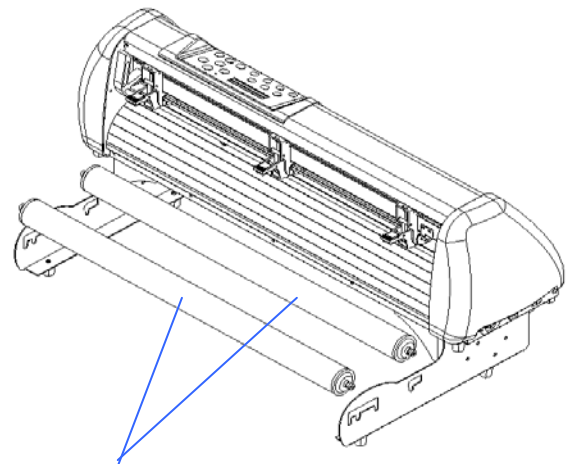


Figure 2-10

Step 5

Place the two roll holders into the holes of Roll Holder Support (Figure 2-10).

Step 6

The complete Desktop Media Support System will be shown as in Figure 2-11.

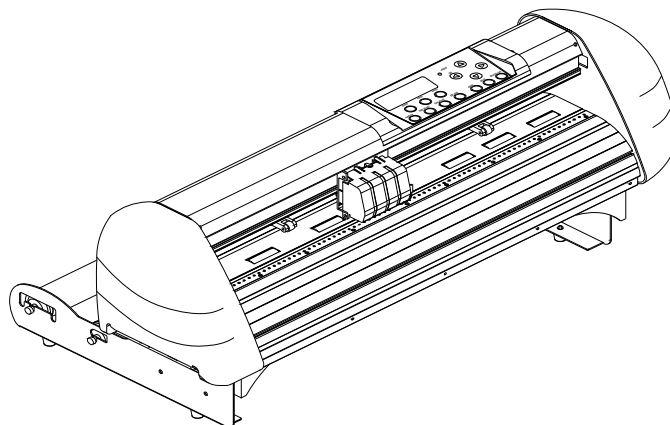
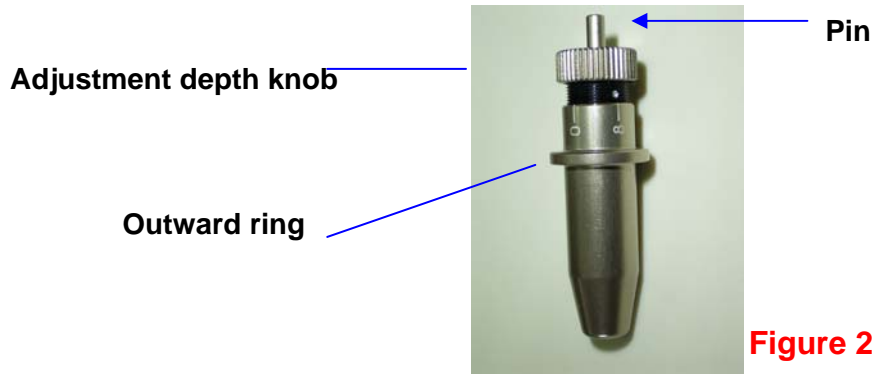


Figure 2-11

2.4 Blade Installation

Figure 2-12 is the illustration of the blade holder. Insert a blade into the bottom of the blade holder and remove the blade by pushing the pin. Make sure that your fingers are away from the blade tip.



Step 1

Install blade (Figure 2-13).



Figure 2-13



Figure 2-14

Step 2

Push the blade to the bottom of the blade holder. (Figure 2-14).

Step 3

Adjust the blade tip to suitable length by screwing "Blade tip adjustment screw" clockwise or count-clockwise. (Figure 2-15).



Figure 2-15

Tips:

"The proper length" means the blade's length is adjusted 0.1mm more than film's thickness. That is, if the thickness of film is 0.5mm, then blade's length is properly adjusted 0.6mm and it can completely cut through the film layer yet avoid penetrating the backing.

Step 4

Insert the blade holder into tool carriage. Please note the outward ring of the holder must put into the grooves of carriage firmly (see Figure 2-16), then fasten the case (Figure 2-17).



Figure 2-16

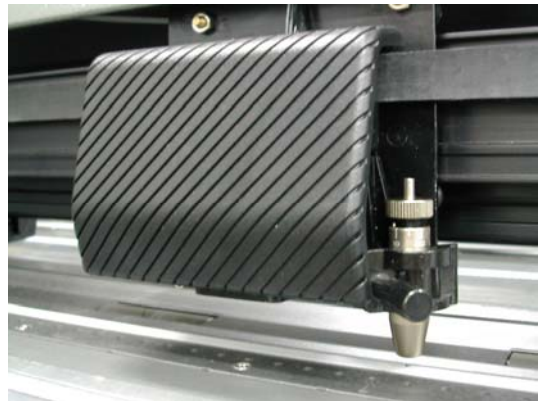


Figure 2-17

Step 5 Use the reversing steps to remove the blade holder.

Step 6 **Eject the blade.** Push “Blade eject pin” to eject blade when the blade needs to be replaced.

Caution

The blade will lose its sharpness after a period of usage, the cutting quality might be affected. By increasing the cutting force, it might do the trick. However, once the blade is worn out and no longer provides a reliable cutting, you should replace a new one. The blade is consumable and must be replaced as often as necessary to maintain the cutting quality. The quality of the blade deeply affects cutting quality. So be sure to use a high quality blade to ensure good cutting results.

2.5 Cable Connection

The cutting plotter communicates with a computer through a **USB (Universal Serial Bus)**, **Parallel port (Centronics)**, or a **Serial port (RS-232C)**. This chapter shows you how to connect the cutting plotter to a host computer and how to set up the computer/cutting plotter interconnection.

!! Notice: When USB connection is enabled, both parallel port and serial port will be disabled automatically.



Figure 2-18

2.5.1 USB Interface

Jaguar IV build-in USB interface are based on the Universal Serial Bus Specifications Revision 1.1. (Operation system of Windows 95, Windows NT don't support USB).

■ USB driver installation

Caution!!

- ✓ **If you are using Windows 2000 / XP / Vista / 7 as your operating system, make sure you log in using the “Administrator” account.**

Use the USB One-click Installation for quick driver installation. Follow the simple steps below for driver setup.

Step 1:

Connecting your GCC cutter

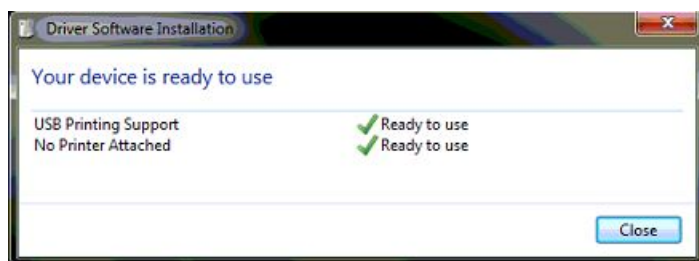
1. Connect the USB connector to the machine and then USB driver will installed automatically.

NOTE

Check that the USB mode option under [MISC] → [USB Printer Type] menu is set to Common USB Mode before running the installation.

Step 2: Installing the software

- (1) Put the installation CD into your CD-ROM. **Please make sure that the USB device is connected before you start the driver installation.**

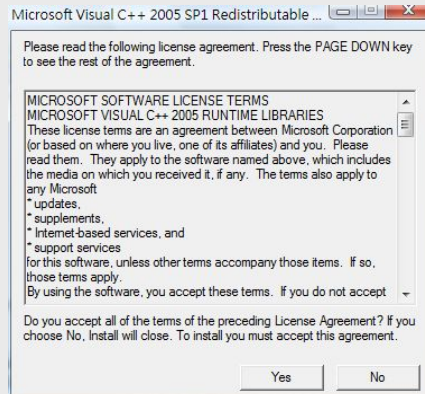


- (2) Choose the model you want to install from the driver list and click on either the 32 bit or 64 bit driver installation depending on the operating system installed on your computer to start the installation. (The Expert Pro model is used as an illustration in the following steps.)

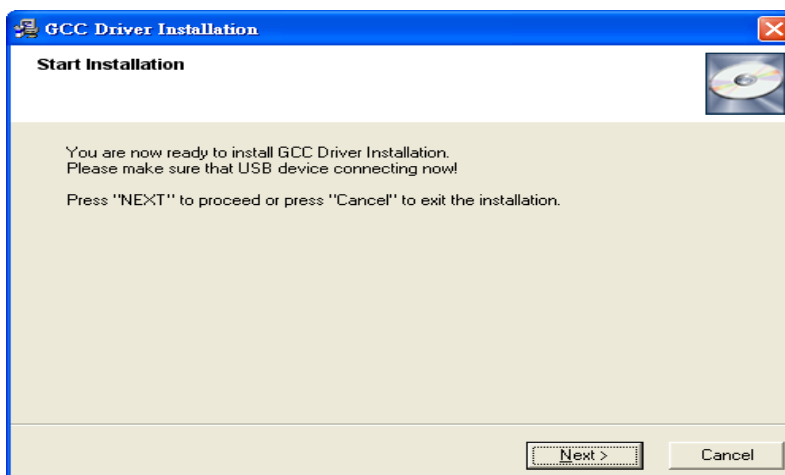


NOTE

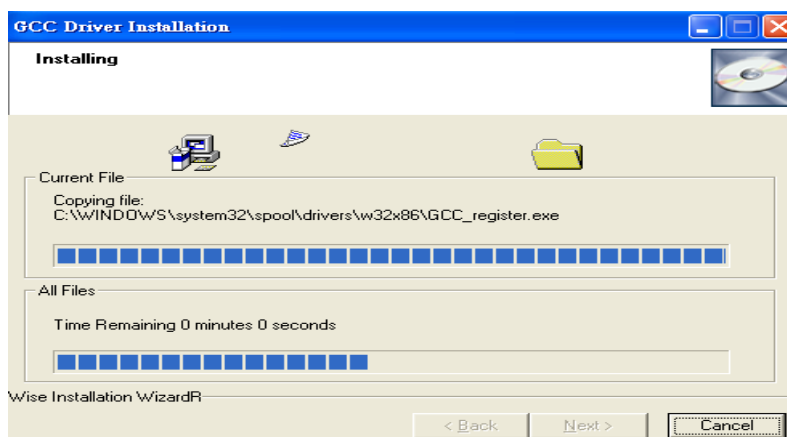
If you use the Windows 7 / Vista 64 bit program, please note that a pop-up window will be shown upon the initial installation as shown below:



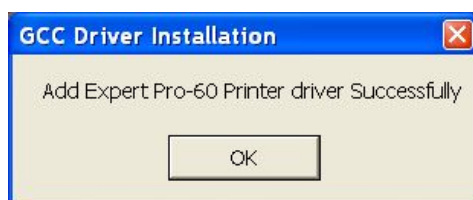
Click "Yes" to continue.



(3) Click "Next"



- (4) The installation will take a few minutes to complete and you will see a message below and click on “OK” upon completion. Enjoy your GCC cutter!

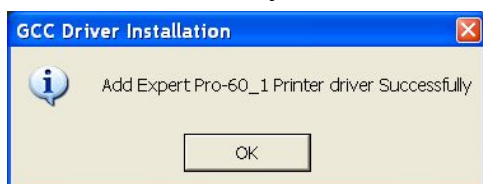


Note:

- (1) If the driver is being installed for a second time, the user will be prompted as to whether a second copy of the driver installation is required.



- (2) If the user selects yes, a second copy of the driver will be installed.



2.5.2 Parallel Interface

- Connecting to the Parallel (Centronics) Port
 1. Connect a parallel cable to the cutting plotter and the host computer
 2. Set up the output port **LPT1** or **LPT2** from your software package
 3. Send the data to your cutting plotter directly. Or, use DOS commands like **TYPE** or **PRINT** to output data.

Caution!! Please turn off the plotter before plugging the print cable.

2.5.3 RS-232 Interface

- Connecting to the RS-232 (Serial) Port
 1. For IBM PC, PS/2 users or compatibles, connect the RS-232C cable to the serial connector of the assigned serial port (COM1 or COM2) of your host computer.
 2. Set up the communication parameters (Baud Rate and Data Bits/Parity) to match the setting of software package, refer to chapter 3 – “Misc” key description.

Caution!! Please turn off the plotter before plugging the RS-232C cable.

2.5.4 Data Transmitting

There are two options to transmit the data from the computer to the cutting plotter:

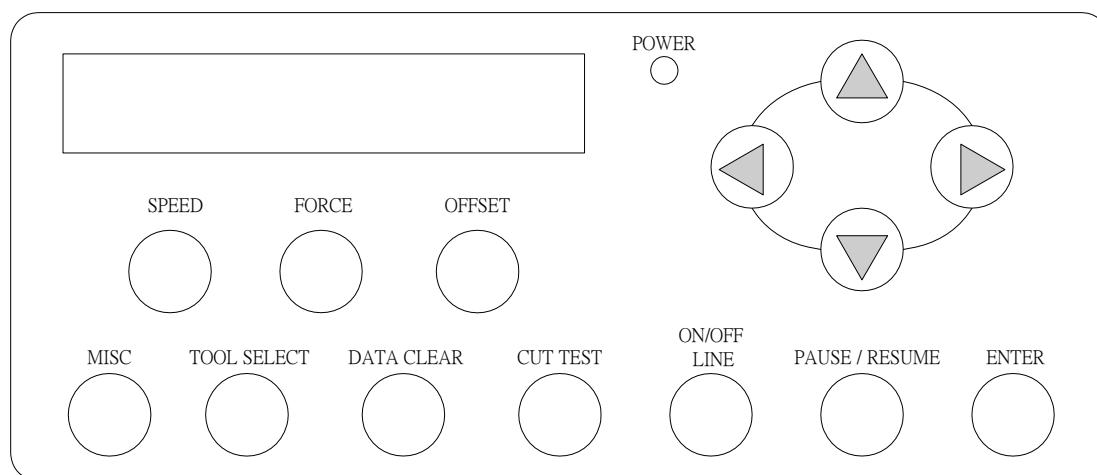
Option 1: With proper interface settings, the data can be transmitted from your application software package to the cutting plotters directly.

Option 2: Most cutting software packages are able to emulate **HP-GL** or **HP-GL/2** commands. As long as the file is **HP-GL** or **HP-GL/2** format, the cutting plotter can output the data precisely.

3. The Control Panel

This chapter describes the button operations with the LCM menu flowcharts of Jaguar IV. When the cutting plotter is ready for use as described in Chapter 1 & 2, all functions are under default parameters.

3.1 The LCD Panel



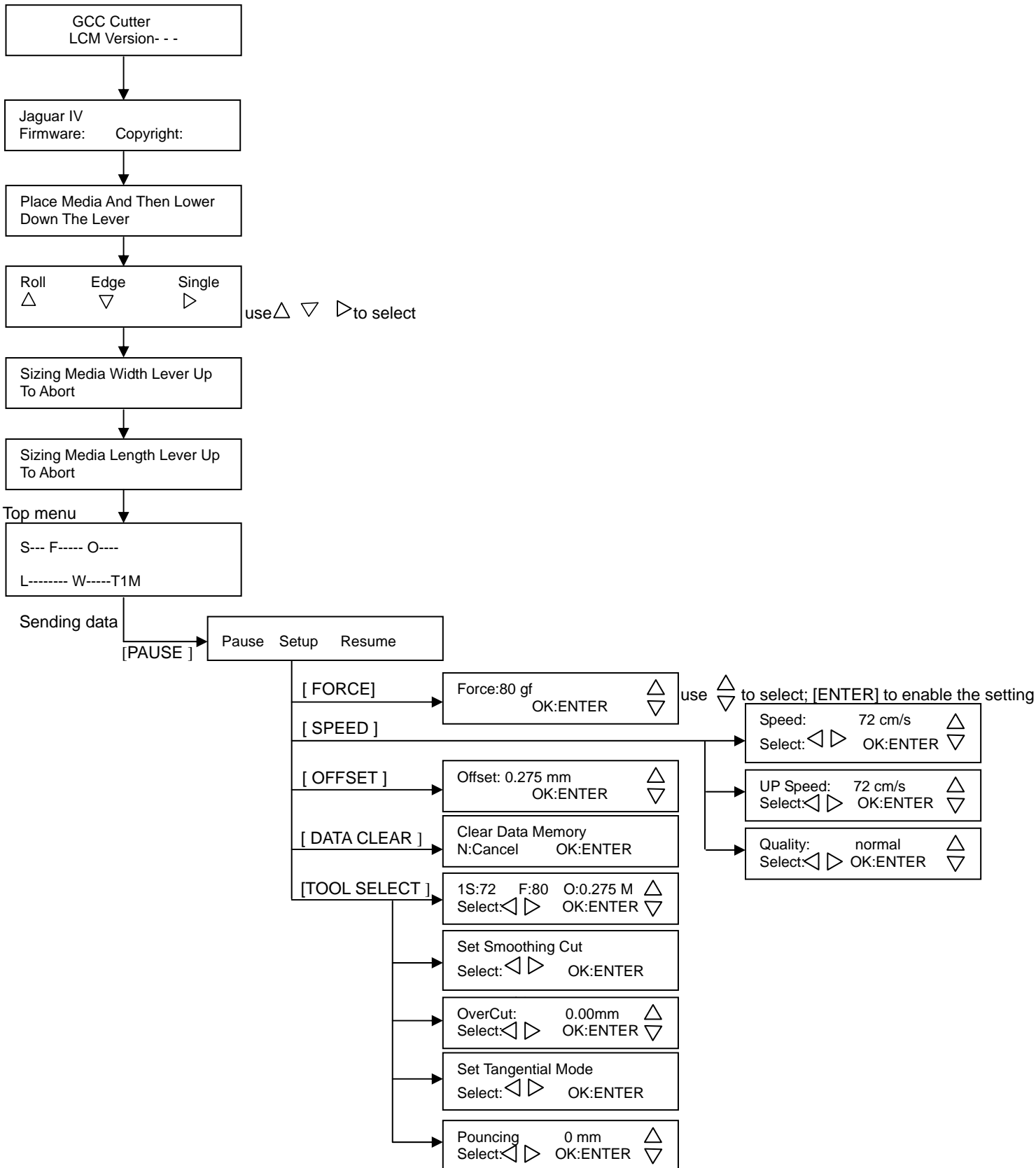
< LCD Control Panel on Jaguar IV series >

Key	Function
LCD Screen	To display functions and error messages.
Power LED	To indicate the power status (light up: power on; light off: power off)
4 Arrow Keys	To move position, select function, or change setting.
ENTER	To set item or register the immediately preceding input value.
PAUSE/RESUME	To temporarily halt cutting process or to continue
ON/OFF LINE	To switch modes, stop cutting job, or abort changes of settings.
OFFSET	To adjust the value of blade's offset.
FORCE	To adjust the value of cutting force.
SPEED	To adjust the value of cutting speed and quality.
CUT TEST	To perform cutting tests in different ways.
DATA CLEAR	To clear up buffer memory.
TOOL SELECT	To select tools.
MISC	To set up functions.

Please see details in "3.4 Menu Items"

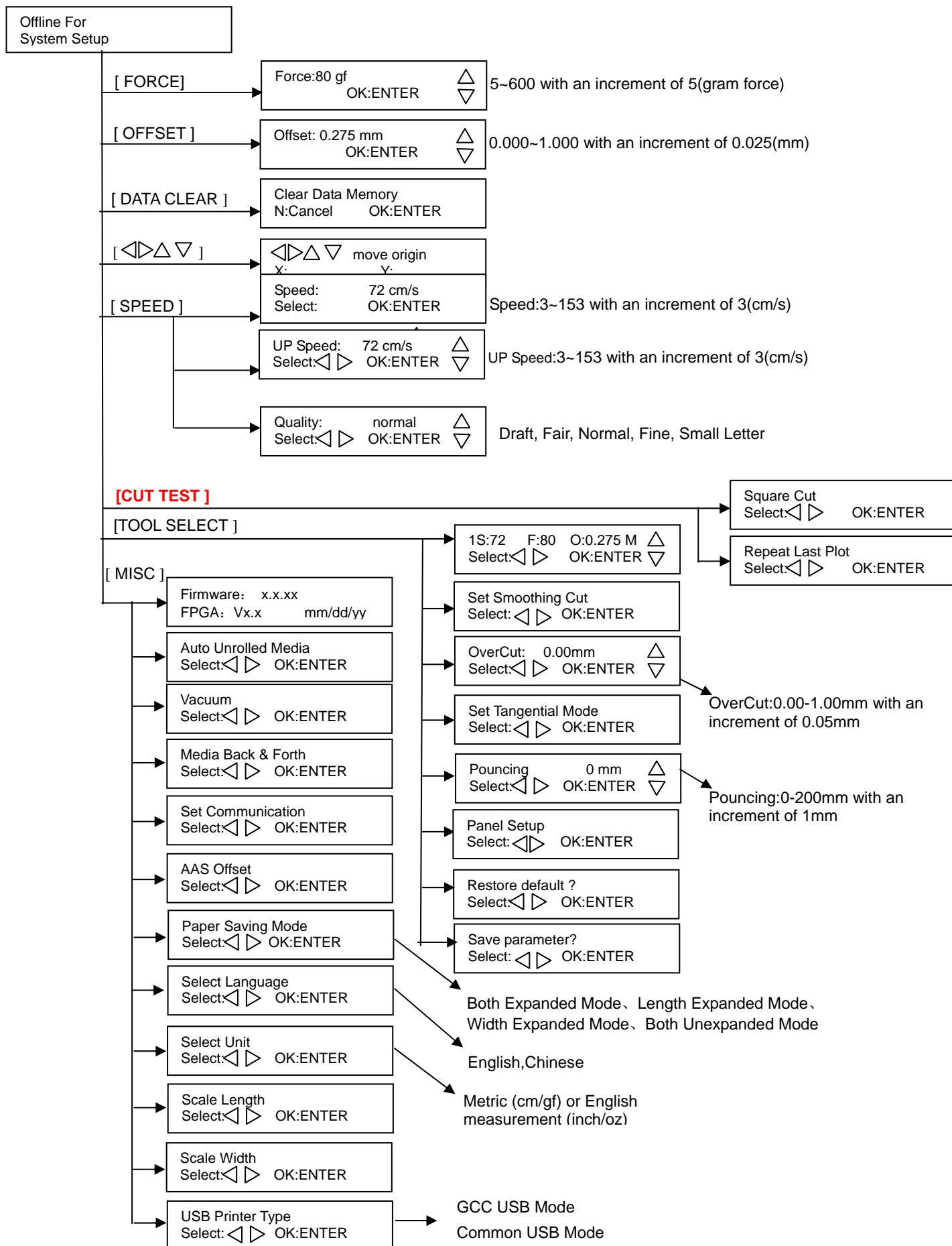
3.2 Menu in On-line Mode

Power On Jaguar IV in processing



3.3 Menu in Off-line Mode

Press [ON/OFF LINE] to switch to the offline mode



3.4 Menu Items

Below describes the functions of menu items

Menu or Key	Function	Setting	Default
--- Media sizing ---			
Roll	To measure media width.	Maximum Tracking 150 meters	
Edge	To measure media width and pull the media back till the front paper sensor open.	Maximum Tracking 150 meters	
Single	To measure media width and length.	Maximum Tracking 10 meters	
--- POWER ---			
	To indicate the power status.		
[Arrow Keys]			
	1. To move the tool carriage position on X or Y axis. 2. To select functions or change values of settings.		
[ENTER]			
	1. The displayed parameters will be saved automatically. 2. To set a new origin at the present tool carriage position. In "offline" mode, moving the tool carriage to desired position by [Arrow Keys], then press [ENTER] key to set a new origin. While moving with the parameters of XY-axes displayed, press [MISC] key will enable fine-tune movement; press [MISC] key again to disable the function.		
[PAUSE/RESUME]			
	To temporarily halt the cutting process. To resume the process by press [Pause/Resume] key again.		
[ONLINE/OFFLINE]			
	1. To switch between online mode and offline mode. 2. To stop the cutting job or abort the change of setting. Once press this key, the cutting job will be terminated immediately and cannot be resumed.		
[OFFSET]			
	To set or modify the distance between the blade tip and the center axis.	0.000~1.000mm	0.275mm
[FORCE]			
	To set or modify the value of tool force.	5~600gram; 5 gram/per step	80 gram
[SPEED]			
Speed	To set or modify tool speed at horizontal moving.	3~153cm/sec; 3cm/sec per step	72cm/sec
Up Speed	To set or modify tool speed at vertical moving.	3~153cm/sec; 3cm/sec per step	72cm/sec
Cutting Quality	To set or modify cutting quality. While cutting small letter, set as "Small letter". While cutting in high speed, set as "Draft". For normal operation, set as "Normal".	Draft, Fair, Normal, Fine, Small Letter	Normal
[CUT TEST]			
Square Cut	To perform a cutting test at present blade position. For more information, please refer to "4.3 Adjusting the Cutting Force and Offset" to adjust blade force and cutting speed.		

Repeat Last Plot	Recut: To repeat the last job without re-sending the data.	1~99; 1 per step	
	Copy: To copy the last job without re-sending the data. * 1mm gap will be auto-generated between 2 copies). * If the media length is not enough to continue, it will show below message on LCM: <div style="border: 1px solid black; padding: 5px; text-align: center;">O u t O f S p a c e ; # o f C o p i e s f i n i s h e d</div> * If both functions are enabled at the same time, the cutter will perform the last setting only.	1~99; 1 per step	
[DATA CLEAR]			
	To clear up buffer memory.		
[TOOL SELECT]			
Set Smoothing Cut	To enable smooth-cutting function.		Enable
Over Cut	To generate an overcut to facilitate weeding.	0.00mm-1.00mm 0.05mm/per step	0.00mm
Set Tangential Mode	To enable the emulated tangential-cutting mode for thicker media types and small letter cuts. Note: while the Offset value setting at 0.000 mm, "Set Tangential Mode" will automatically be disabled.		Enable
Pouncing	To make perforated patterns. * In order to use this function, Pouncing tool must be installed. * Before start pouncing, place pouncing strip on top of the cutting pad to protect the cutting pad. * Set the value as 0 mm to disable the pouncing mode. * Pouncing tool is an optional item.	0~200mm	0mm
Panel Setup	Accept setup command: To accept commands of the Force, Speed, Cutting Quality, and Offset only via software.		
	Control panel only: To accept commands of the Force, Speed, Cutting Quality, and Offset only via control panel of the cutter.		
Restore Default	To turn all parameters of the menu items to factory-default settings.		
Save Parameter	To save pattern(s) of cutting parameters for later use.	Patterns1~4	Pattern 1
[MISC]			
Auto Unrolled Media	To avoid paper jam and motor crash by automatically unroll media (50cm and up) before cutting while enabled. * Auto-unroll only effects on roll/edge media. * Using Single mode to size media will disable this function automatically. * If the length of the rolled media is less than 2 meters or the weight is light, it is recommended to set this mode disabled.		Enable
Vacuum	To help improve tracking and cutting accuracy by turning on the fans. If you turn off the vacuum system, the fans will remain inactive during cutting or plotting.		Enable
AAS Offset	To set or modify AAS offset value. You can refer to "5.3 Printer Test" for more details.		

Media Back & Forth	To enable to save time on repeated cutting jobs and better tracking. After cutting job has finished, the media will move back to the origin, then move to the end of the plot.		Disable
Paper Saving Mode	To save media by four different modes: 1. Length expanded mode 2. Width expanded mode 3. Both expanded mode 4. Both unexpanded mode		Both unexpanded mode
Set Communication	To build up the communication between host computer and cutter. <i>Baud Rate</i> is to determine the speed of data transmission. <i>Data Bits</i> refers to the size of one block of data. <i>Parity</i> is used to check if data was revived correctly or not. 9600, n, 7, 1, p 9600pbs, 7 Bits with NO Parity 9600, o, 7, 1, p 9600pbs, 7 Bits with ODD Parity 9600, e, 7, 1, p 9600pbs, 7 Bits with EVEN Parity 9600, n, 8, 1, p 9600pbs, 8 Bits with NO Parity 9600, o, 8, 1, p 9600pbs, 8 Bits with ODD Parity 9600, e, 8, 1, p 9600pbs, 8 Bits with EVEN Parity 19200, n, 7, 1, p 19200pbs, 7 Bits with NO Parity 19200, o, 7, 1, p 19200pbs, 7 Bits with ODD Parity 19200, e, 7, 1, p 19200pbs, 7 Bits with EVEN Parity 19200, n, 8, 1, p 19200pbs, 8 Bits with NO Parity 19200, o, 8, 1, p 19200pbs, 8 Bits with ODD Parity 19200, e, 8, 1, p 19200pbs, 8 Bits with EVEN Parity		
Firmware Version	To display the version number of Firmware and FPGA code.		
Select Language	To select displayed languages on LCM panel in English, Spanish, Italian, Deutsch, Japanese, Portuguese, Polish, Turkish or French.		English
Select Units	Provide two-unit systems for users convenient.	cm/gram; inch/oz	Metric
Scale Length	To adjust the scale of media length and width that may cause by the thickness of the media. The Denominator is the actual length, and the Numerator is the ideal length measured from the resultant. For example, cutting a line with 500.0 mm length. The procedure as follows:		
Scale Width	1. Press the [LEFT ARROW] to choose the Numerator and select 500.0 mm, 2. Cut the length by sending a graph file, 3. Measure the length then use the [RIGHT ARROW] key to choose the Denominator, then 4. Press [UP ARROW /DOWN ARROW] to change the values of the actual length.		
USB Printer Type	To select USB Mode from the LCM panel. Two USB modes are available: GCC USB Mode and Common USB Mode. GCC USB Mode: For 32 bit driver [Windows XP/2000/ 7 /Vista] Common USB Mode: For 64 bit driver [Windows 7 / Vista]		Common USB Mode

4. Operation

4.1 Media Loading

4.1.1 Loading the Sheet Media

To load the media properly, please follow the procedures listed below:

Step 1

Use the lever on the upper right side of the cutting plotter to raise or lower down pinch rollers. Pull the lever forward until it makes a clicking sound then the pinch rollers are raised (Figure 4-1).

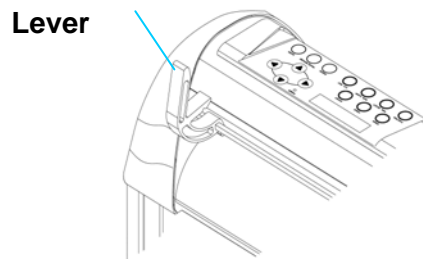


Figure 4-1

Step 2

Load your media on the platen and slide it under the pinch rollers from either the front side or the backside. The **alignment rulers** on the platen extension will help you to adjust the media precisely.

Note:

Be sure that the media must cover the paper sensors on the platen when loading the media. At least one of the two paper sensors (Figure 4-2) should be covered. Once the media covers the sensor, the cutting plotter will size the media width and length automatically.

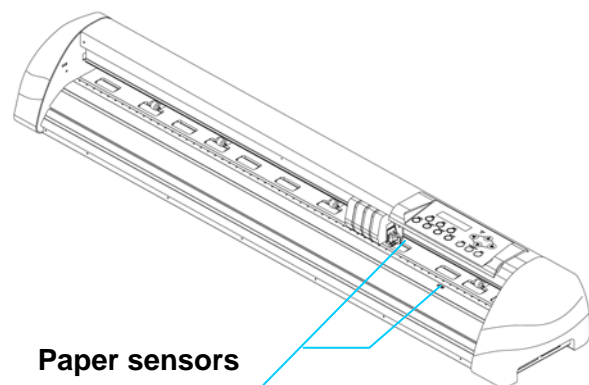


Figure 4-2

Step 3

Then move the pinch rollers manually to the proper position. Be sure the pinch rollers must be positioned above the grid drum. The **white marks** on the top trail will remind you where the grid drums are (Figure 4-3).

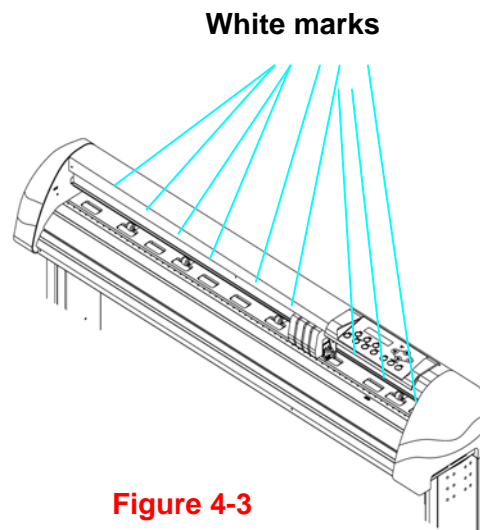


Figure 4-3

Step 4

Push the lever backward to lower down the pinch rollers.

Step 5

Turn on the power, the tool carriage will measure the size of the media automatically. And the plotting cutter begins to work.

Note:

1. Always adjust the position with the pinch roller raised.
2. Move the pinch roller by applying force at the rear portion of the pinch roller support.
3. Do not move it by holding its front rubber roller (Figure 4-4).



Figure 4-4

4.1.2 Loading the Roll Media

Step 1

Put the roll media guide bushes on two roll holders (Figure 4-5).

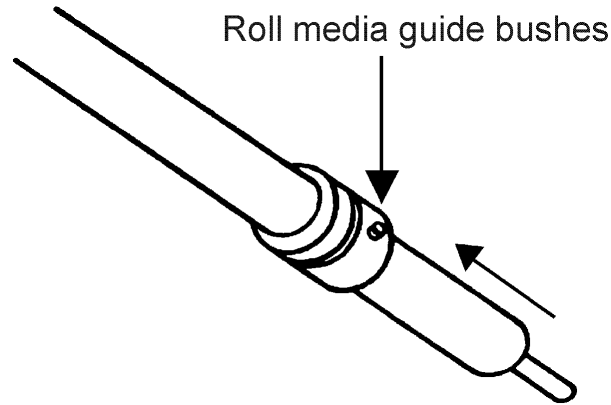


Figure 4-5

Step 2

-- Option A (Recommended)

Insert the two roll holders into the roll media support set then place the roll media directly between the two roll holders (Figure 4-6).

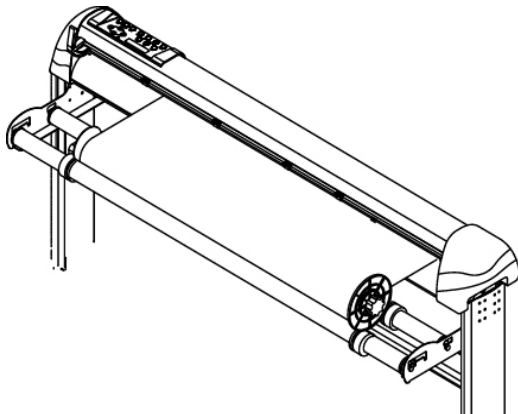


Figure 4-6

-- Option B (Use the media flanges)

Insert a roll media flange at the end of each roll media and tighten the thumbscrew until the roll media is firmly gripped (see Figure 4-7).

Then put the roll media on the roll holders. Adjust the position of the roll media ensure that media flanges are able to run in the grooves of media guide bushes. (Figure 4-8)

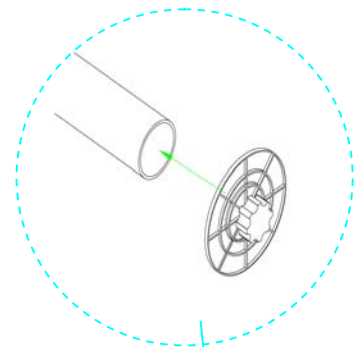


Figure 4-7

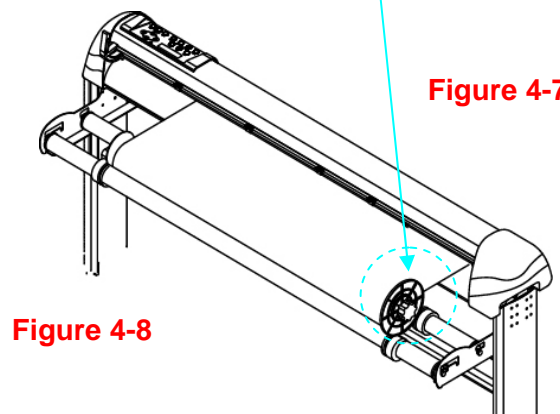


Figure 4-8

Step 3

Load the media on the platen. Please refer to “4.1.1 Loading the sheet media”. After loading the roll media, flatten the media on the platen and hold the front edge of the roll media firmly (Figure 4-9).

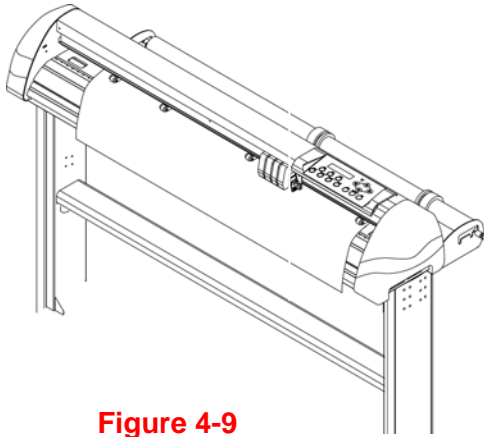


Figure 4-9

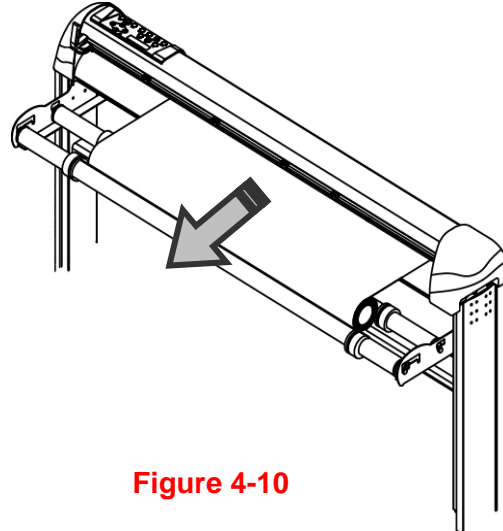


Figure 4-10

Step 4

Turn the roll downward to make an equal tension across the media (Figure 4-10)

Step 5

Move the pinch rollers to the appraise location and note that the pinch rollers must be positioned above the grid drums.

Note :

Make sure that the media tension is equally distributed from left to right. If the media were not tightened enough against the platen, it would cause tracking problems!

Step 6

Push the lever backward to lower down the pinch rollers.

Step 7

Fix roll media guide bushes on the roll holder to secure the roll media.

Step 8

Turn on the power switch, the tool carriage will sizing the media automatically. Then the cutting plotter is ready to work.

Step 9

Use the reverse steps to remove the media.

4.2 Tracking Performance

In order to achieve the best tracking performance for a long plot, we recommend some significant media loading procedures described as follows:

If the media length is less than 4 meters, leave the margin of 0.5mm—25mm in the left and right edges of the media (Figure 4-11).

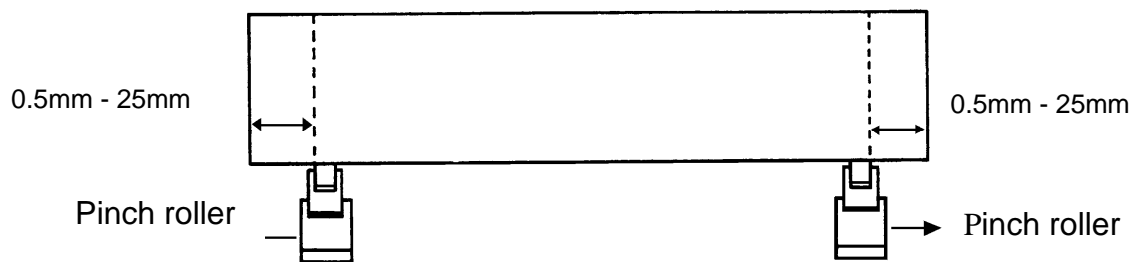


Figure 4-11

If the media length is greater than 4 meters, leave at least 25mm margin on the left and right edges of the media (Figure 4-12).

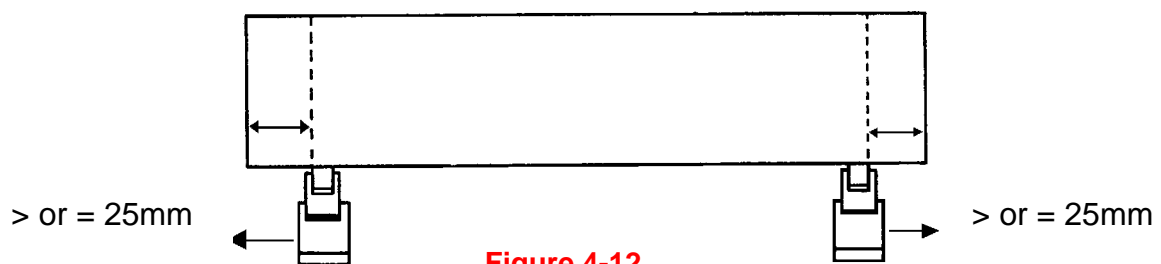


Figure 4-12

Please refer to the paragraph “4.5 How to Make A Long Plot” for more details.

4.3 Cutting Force and Offset Adjustment

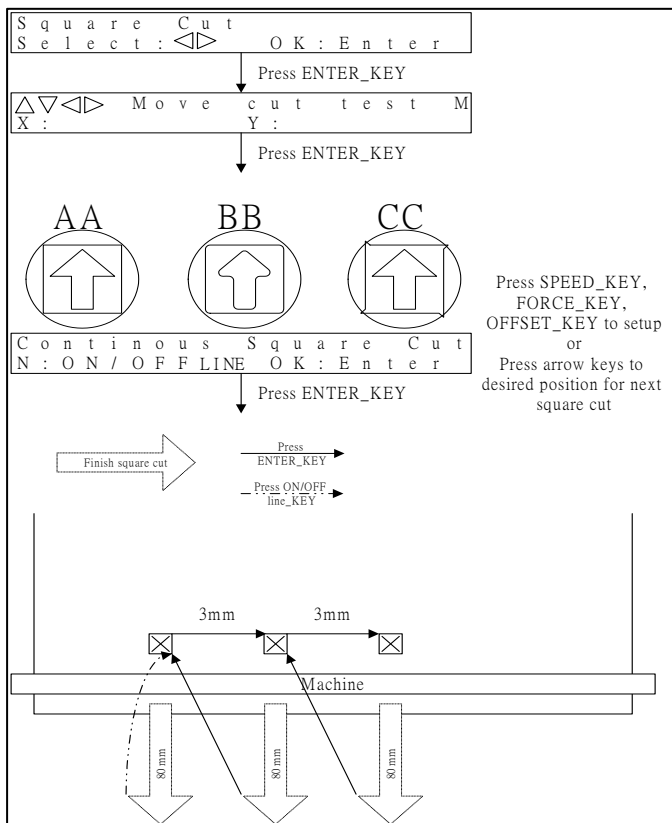
Before sending your designs for cutting, you may perform a “cut test” to generate satisfactory cutting results. The “Cut Test” should be repeated until the appropriate cutting conditions for the media are discovered.

After sizing the media, press [CUT TEST] button to select the “square cut”, and press [ENTER KEY] to confirm.

The default cutting force and offset value of the cutting test are 80gf and 0.275mm respectively. Press [ARROW KEY] to move the tool carriage to the position where you like. Then, press the [ENTER KEY] to perform Cut Test.

Note: At the same time, the new origin is also set at the cutting test position.

When the cutting test is completed, a pattern appears. Peel off the pattern to see if it can be easily separated from the media base. If yes, the setup tool force is appropriate. If not or cut through the back paper, press [FORCE KEY] to adjust the tool force until an optimum force is obtained (Figure 4-13).



If the pattern appears to be BB or CC layout, press [OFFSET KEY] to adjust the offset value until AA pattern discovered.

Figure 4-13

4.4 How to Cut 3mm Letters

To obtain good quality output, narrow media is recommended. However, if wide media is used, you should:

1. Position two pinch rollers as close as possible to both edges of the cutting area.
2. Make sure the loaded media is held flat with equal tension across the platen.
3. Suggested operation settings:
 - Tool force: 55 gf. (or depending on the material)
 - Cutting speed: 45-50 cm/sec
 - Tool up speed: 45-60 cm/sec
 - Smooth cut: Disable
 - Quality: Small Letter

4.5 How to Make A Long Plot

When you are making a long plot with a roll of heavy and wide vinyl, paper you need to use the "AUTO UNROLL MEDIA" function. The following parameter settings are to help users get the best cutting quality. The actual output quality may vary when using different kind of materials

1. If the length of graphic is between 3m and 5m, the cutting speed is better slower than 72cm/sec and the cutting quality is set as Normal.
2. If the length is longer than 5m or if the material type is difficult to cut, it is better to further slow down the cutting speed.
3. After loading the roll media all pinch rollers are raised at this stage, flatten the media on the platen and hold the front edge of the roll media firmly (Figure 4-14).

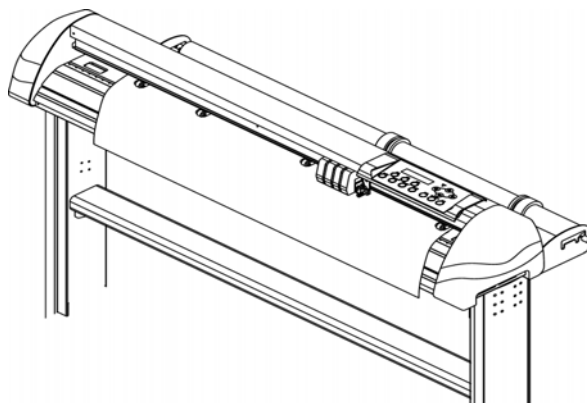


Figure 4-14

Then turn the roll downward to make an equal tension across the media
(See Figure 4-15)

Make sure that the media tension is equally distributed from left to right. If the media is not tight enough against the platen, it will cause tracking problems.

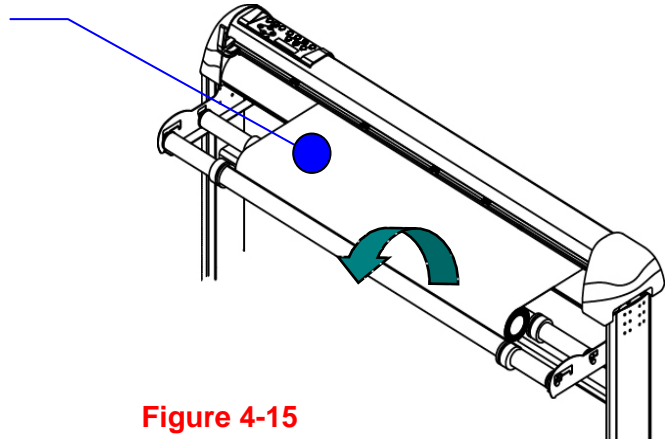


Figure 4-15

4. Engage pinch rollers.
5. Fixes roll media guide bushes on the roll holder to secure the roll media.
6. The protrusion length of the blade should be longer than the thickness of the vinyl.
(Please check the “Blade Specification: About the Tool” in Appendix.) After you notice all the above, you’ll enjoy your gigantic signs production!

4.6 When Completing the Cutting Job

After completing the cutting job, raise the sheet-loading lever, and then remove the material. You can also cut off the finished job by the Safe Blade (a standard accessory) along the knife guide. (Figure 4-16)



Figure 4-16

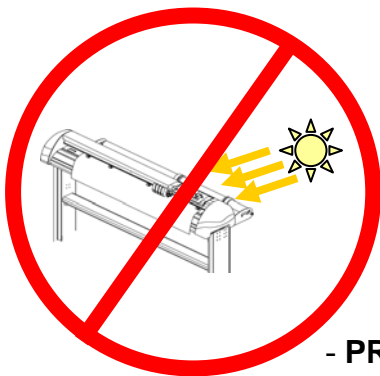
Chapter 5 Accu-Aligning System

5.1 Introduction

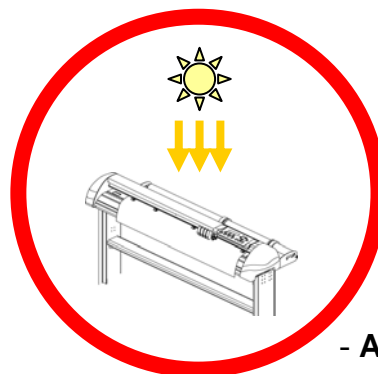
The Jaguar IV series cutting plotters feature a standard Accu-Aligning System (AAS II) to guarantee precise contour cutting quality by detecting the registration marks printed around the graphic.

Notice

- Avoid any kind of light source horizontally illuminating the AAS module.



- PROHIBITED



- ACCEPTABLE

- DO NOT take off the cover of AAS module while in operation.



- PROHIBITED

5.2 AAS Calibrating the System

The AAS system has one calibration procedures to ensure maximum accuracy of AAS operation. To operate the AAS you need to learn about the method of media feeding firstly. (Refer to 4.1 Media Loading.)

5.2.1 Media Calibration

Media Calibration is to ensure the sensor being able to recognize the registration marks. The factory default works on a wide range of materials. However, certain types of materials may not work properly. Performing a media calibration may become necessary while working with such materials to change the sensitivity of AAS for greater reliability. Media calibration adjusts the media feeding according to media type for better accuracy during cutting.

■ When to use

We suggest white media for best cutting result. It is not necessary to perform media calibration every time unless the registration marks on the printed media become undetectable in AAS sensing process.

5.2.2 AAS Calibration

The first registration mark is designed to be different in order to identify the origin for AAS auto-detection. The following precaution must be aware for registration marks to be read automatically.

- Type of media
- Registration mark pattern
- Reading range required for detection the registration marks
- Position for registration marks and medium

The registration marks have to be:

- Created by cutting software like SignPal or GCC CorelDRAW plug-in
- In black color
- "L" Mark Length: 10mm~50mm, suggested 25 mm
- "L" Mark Thickness: 1mm~2mm, suggested 1 mm
- Margin: 1mm~50mm, suggested 5 mm

The cutter can not detect the marks while:

- Cutter carriage is not located near the outside area of first mark before detecting (See the picture in page 5-7 for auto-detecting area of first mark.)
- Medium thickness is more than 0.8mm
- Transparent medium is used

- Non-monochrome drawing. The marks can't be read if is printed on colored medium
- Dirty or creased medium surface

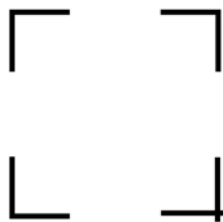
5.2.3 AAS II on Jaguar IV

There are three types of AAS II mark patterns: 4-Point Positioning, Segmental Positioning, and Multiple Copies. Note that before print out your designs by inkjet printers, the registration marks have to be created on your graphic designs by cutting software like SignPal, EasySign or GCC CorelDraw plug-in. Hand-made marks or drawings won't be reorganized by GCC cutting plotters. For more details about registration mark setting in cutting software, please refer to '**Appendix A-3** : CorelDraw Plug-In Instruction', '**Appendix A-4** : SignPal 8.5 Instruction', '**Appendix A-5** : EasySIGN Instruction' and '**Appendix A-6** : GreatCut Instruction'.

1. 4-Point Positioning

This is the basic mark pattern that AAS II will auto detect four registration marks and contour cut images inside those marks.

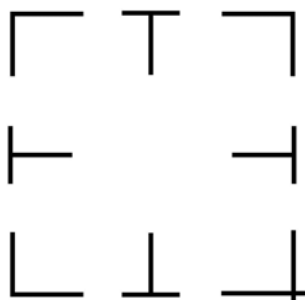
- Command: Esc.D1;(XDist);(YDist):
- Layout: 4 L-shaped marks at the 4 corners around the design



2. Segmental Positioning

In addition to 4 original points, the intermediate registration marks are added on both X axis and Y axis to help contour cut accurately, especially for cutting large images.

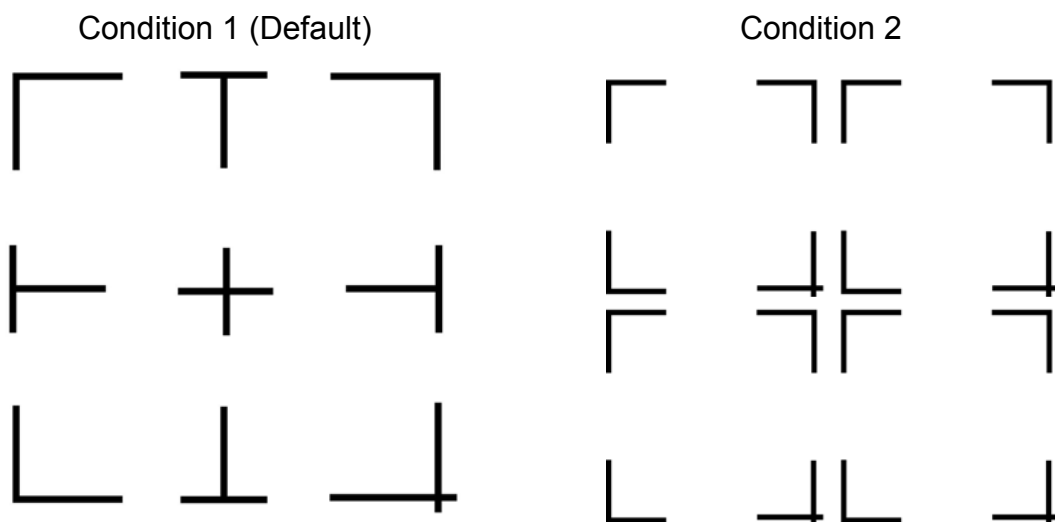
- **Command:** Esc.D2;(XDist);(YDist);(XStep);(YStep):
- **Layout:**
In-between distance on X: 200~600mm, default 300mm
In-between distance on Y: 200~600mm, default 300mm



3. Multiple Copies

The function is used to duplicate images to let you cut quantities of images at a time. The AAS II sensor will automatically scan registration marks for each individual image to ensure the contour cutting precision.

- **Command:** Esc.D3;(XCopies);(YCopies);(Space):
- **Layout:**



5.3 Printer Test

Before performing AAS contour cutting, it's recommended to print out a test file that you can find in the enclosed Installation CD to make sure the AAS II cutting accuracy of Jaguar IV.

There are two testing files for AASII:

1. AAS II_X_Y_Offset_Caberation_A4 .eps (A4 size)
2. AAS II_X_Y_Offset_Caberation_600_600 .eps (Default setting, it is recommended for testing)

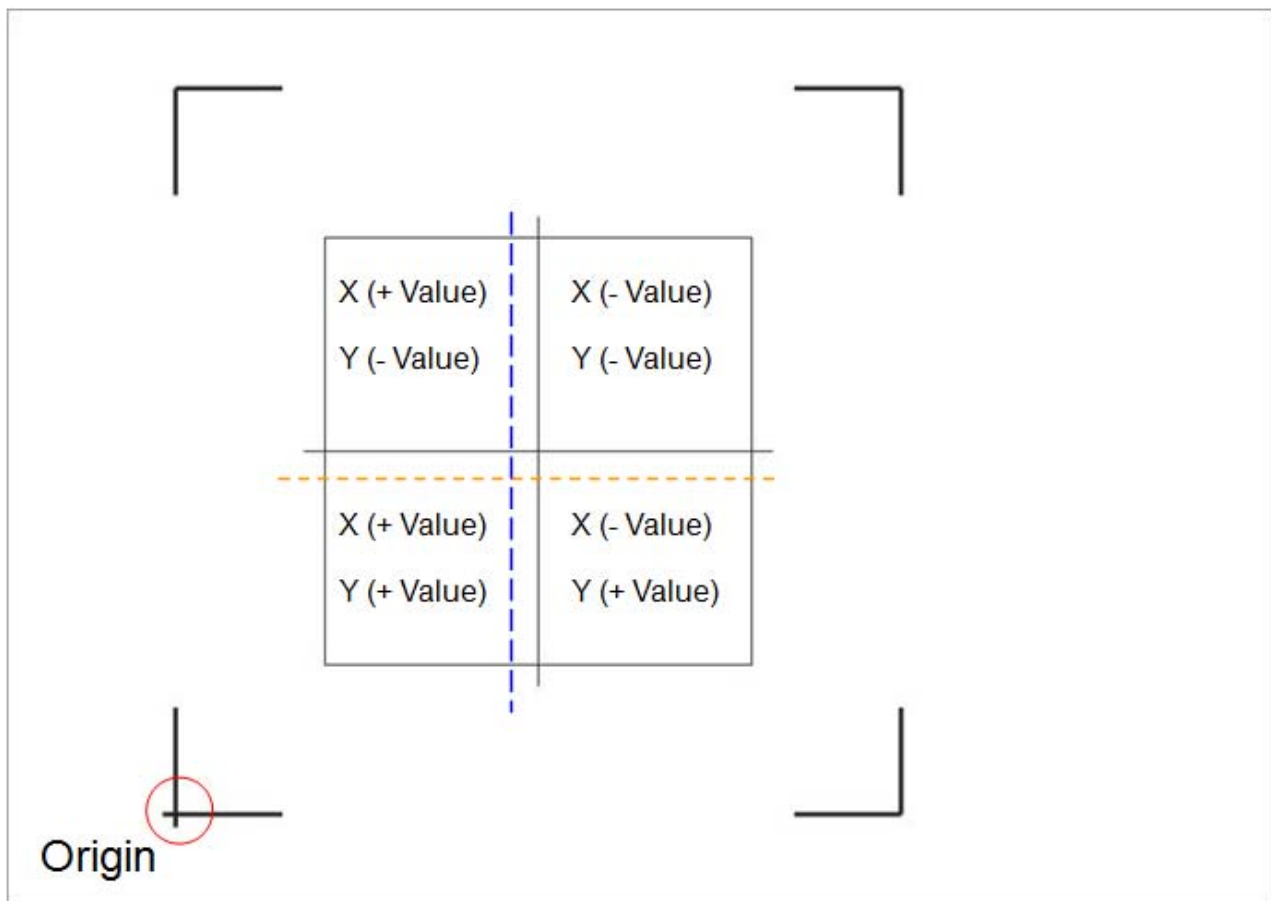
- Print out the testing graphic. (Please use high precision printer)
- Load the graphic to Jaguar IV and sent the file to test the cutting job
- If there is any adjustments had to be made, you can change the offset value by following the steps:
 - * Measure the offset values from the printed line and the actual cutting line.
 - * Enter the AAS Offset under MISC function for the values you just measured, then press Enter
 - * Test the cutting again

- * AAS II offset X and Y value is defined as following:
Horizontal line is defined as X and vertical is defined as Y
- * When the actual cutting line and the printed line need to be changed towards the direction of origin mark, then simply add the **negative** value of the offset. If the direction is from the opposite of the origin mark, then enter **positive** values for the offset. This method apply on both X and Y axle.

For example:

If the values set in cutter is X: 0.50 mm Y 0.50 mm and the measurement is X1:-0.25 mm Y 1:+0.25 mm. (In following figure, the Blue Line refers to the Y Value, and the Red Line refers toe the X value.)

We need to adjust AASII offset X new : $(X + X1)$ Y new : $(Y + Y1)$ which means X new : 0.25 mm Y new : 0.75, then save the set new value to cutter.



Note:

- Before adjusting the AAS II settings, please proceed scaling for width and length.
- The blade offset value isn't set for this test graphic, please set it according to the blade you use.
- If you have any question, please contact us or your local distributor for assistance.

5.4 Contour Cutting

For accurate contour cutting with AAS function, please proceed the following steps:

Step 1 Creating Graphics

- Create the graphic that you want to print and cut in your software.



- Create a contour for cutting around the graphic.



TIPS1: Leave some space between the graphic and contour line.

TIPS2: Create the contour in a separate layer and assign a different color for it.

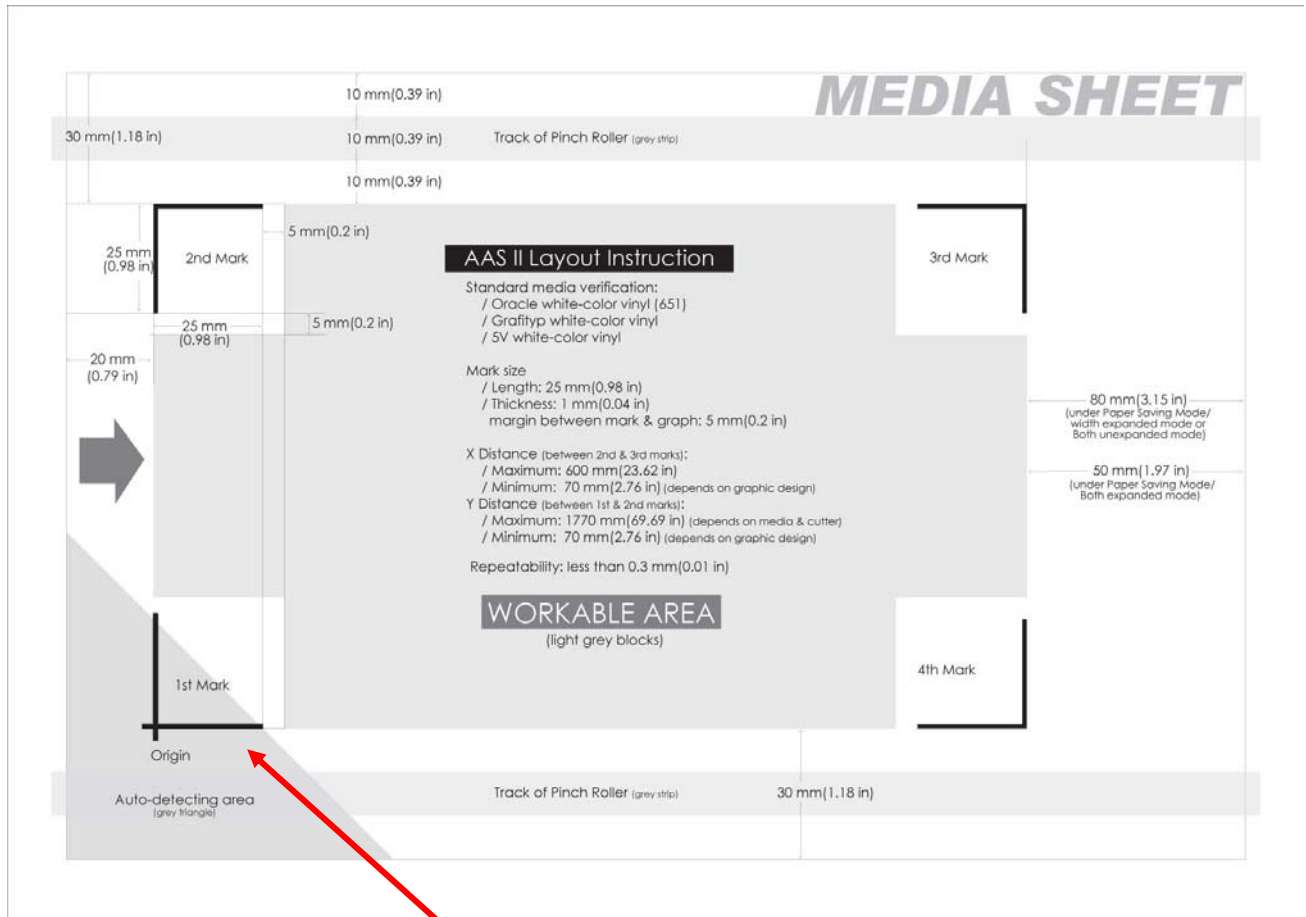
- Add registration marks around the graphic.

Note:

The Multiple Copies function is also available. It automatically copy the graphic and registration marks.

Step 2 Placing the Registration Marks

- The AAS Layout Instruction:

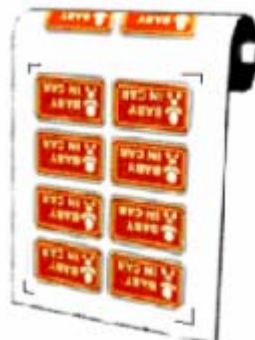


* Auto-detection function on the 1st mark covers the grey area

- Suggested 30mm margin on both left and right sides of media sheet.
- Suggested 20~30mm margin on top of media sheet, and at least 50mm margin on the bottom edge to prevent sheets dropping or any error occurred while media sizing.

Step 3 Print the Graphics

- Print the graphic and the marks with your printer

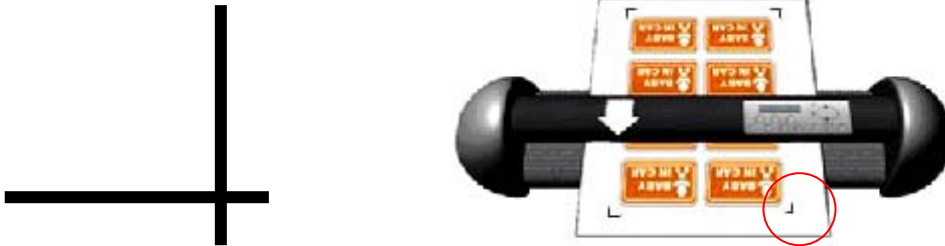


(Scaling = 100%).

- When printing on a roll media, make sure the orientation as following:

Step 4 Load the printout onto cutter

- The Origin Mark is is different from the rest registration marks. Please make sure the media is fed with correct direction.



Step 5 Cut the Contour

- Send out the command from software to perform the contour cutting job.

5.5 Tips for AAS

For getting better results of contour cutting, there are some tips below for your reference.

- Keep light sources simple and avoid illuminating from the sides of cutter.
- Before operating AAS, change the maximum paper size in Jaguar IV driver property.
 - STEP 1** Find the **Puma III model** in the “Printer & Fax” folder of your PC.
 - STEP 2** Open the Properties window and select the “Paper” tab.
 - STEP 3** Change the maximum Paper Size of X to **1200mm**.
- Adjust the cutting speed to between 300~600mm/sec.
- Avoid the registration marks locating on the tracks of pinch rollers.

6. Maintenance

This chapter explains the basic maintenance (i.e. cleaning the cutting plotter) required for the cutting plotter. Except for the procedures mentioned below, all other maintenance must be performed by a qualified service technician.

6.1 Cleaning the Cutting Plotter

Cleaning the machine properly and regularly will ensure optimal performance out of your machine.

Cleaning Precaution !



- Unplug the cutting plotter before cleaning it in order to prevent electrical shock.
- Never use solvents, abrasive cleaners or strong detergents for cleaning. They may damage the surface of the cutting plotter and the moving parts.

Recommended Methods:

- Gently wipe the cutting plotter surface with a lint-free cloth. If necessary, with a damp cloth immersed in water or alcohol. Dry and wipe any remaining residue off a soft, lint-free cloth.
- Wipe all dust and dirt from the tool carriage rails.
- Use a vacuum cleaner to empty any accumulated dirt and media residue beneath the pinch roller housing.
- Clean the platen, paper sensors and pinch rollers with a damp cloth immersed in water or alcohol, and dry with a soft, lint-free cloth.
- Wipe dust and dirt from the stand.

6.2 Cleaning the Grid Drum

1. Turn off the cutting plotter, and move the tool carriage away from the area needed to be cleaned.
2. Raise the pinch rollers and move them away from the grid drum for cleaning.
3. Use a bristle brush (a toothbrush is acceptable) to remove dust from the drum surface. Rotate the drum manually while cleaning. Refer to Figure 6-1.

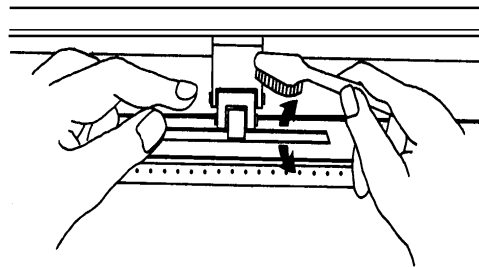


Figure 6-1

6.3 Cleaning the Pinch Rollers

1. If the pinch rollers require a thorough cleaning, use a lint-free cloth or cotton swab to wipe away the accumulated dust from the rubber portion of the pinch rollers. To prevent the pinch rollers from rotating while cleaning, use your finger to hold the pinch rollers to prevent them from rotation
2. To remove the deeply-embedded or persistent dust, use the lint-free cloth or cotton swab moistened with rubbing alcohol.

Note: The daily maintenance of your cutting plotter is very important. Be sure to clean up the grid drum and pinch rollers regularly for better cutting accuracy and output quality.

7. Trouble Shooting

This chapter is to help you correct some common problems you may come across. Prior to getting into the details of this chapter, please be sure that your application environment is compatible with the cutting plotter.

Note:

Before having your cutting plotter serviced, please make certain that the malfunction is in your cutting plotter, not the result of an interface problem or a malfunction in your computer or a software problem.



Why is the cutting plotter not functioning?

Possible Causes:

7.1 Non-Operational Problems

Check the following first:

- Does the AC power cord plug in properly?
- Does the AC power cord connected to the power connector properly?
- Does the power LED still illuminate?

Solutions:

If the LCM is able to display the message, the cutting plotter should be in a normal condition. Switch off the cutting plotter and turn it on again to see if the problem still existing.

If the LCM is not able to display any message, contact the technician from your dealer.

7.2 Operational Problems

Some mechanical problems or failure during operation will cause some problems. The error messages shown on the LCM present the problem first, and followed by recommended actions. If the problem still exists after the recommended actions have been done, have your cutting plotter serviced.

**Error, Check Media
Or Drum or X Motor**

This message indicates that there might be a problem on the **X axis**. Check if the drum is working well and if the media is well loaded. Correct the problem and re-power on to reboot system.

**Error, Check Media
Or Y Motor**

This message indicates that there might be an obstruction to carriage relating to a problem on the **Y axis**. Correct the problem and re-power on to reboot system.

**Error, Check Carriage
Sensor or VC Motor**

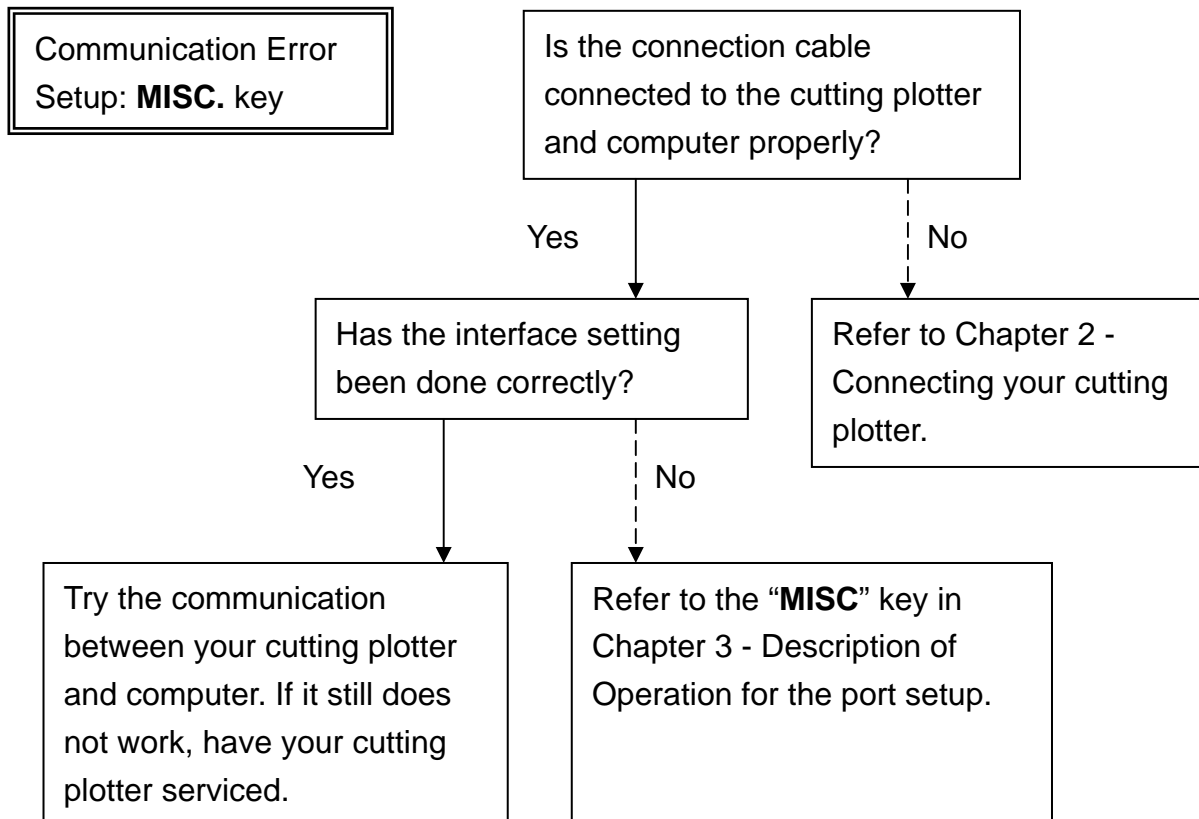
This message indicates that the blade up/down sensor malfunction. Re-power on to re-boot system. If the problem still exists, find a serviceman.

**Graph Was Clipped.
Data In Buffer**

This message indicates that the cutting exceeds the cutting limit. Reload larger media or re-scale the plot to a smaller size; then press the key followed by the display of LCM to continue.

7.3 Cutting Plotter/Computer Communication Problems

The messages showed below present problems in relation to cutting plotter/computer communication.

**Note:**

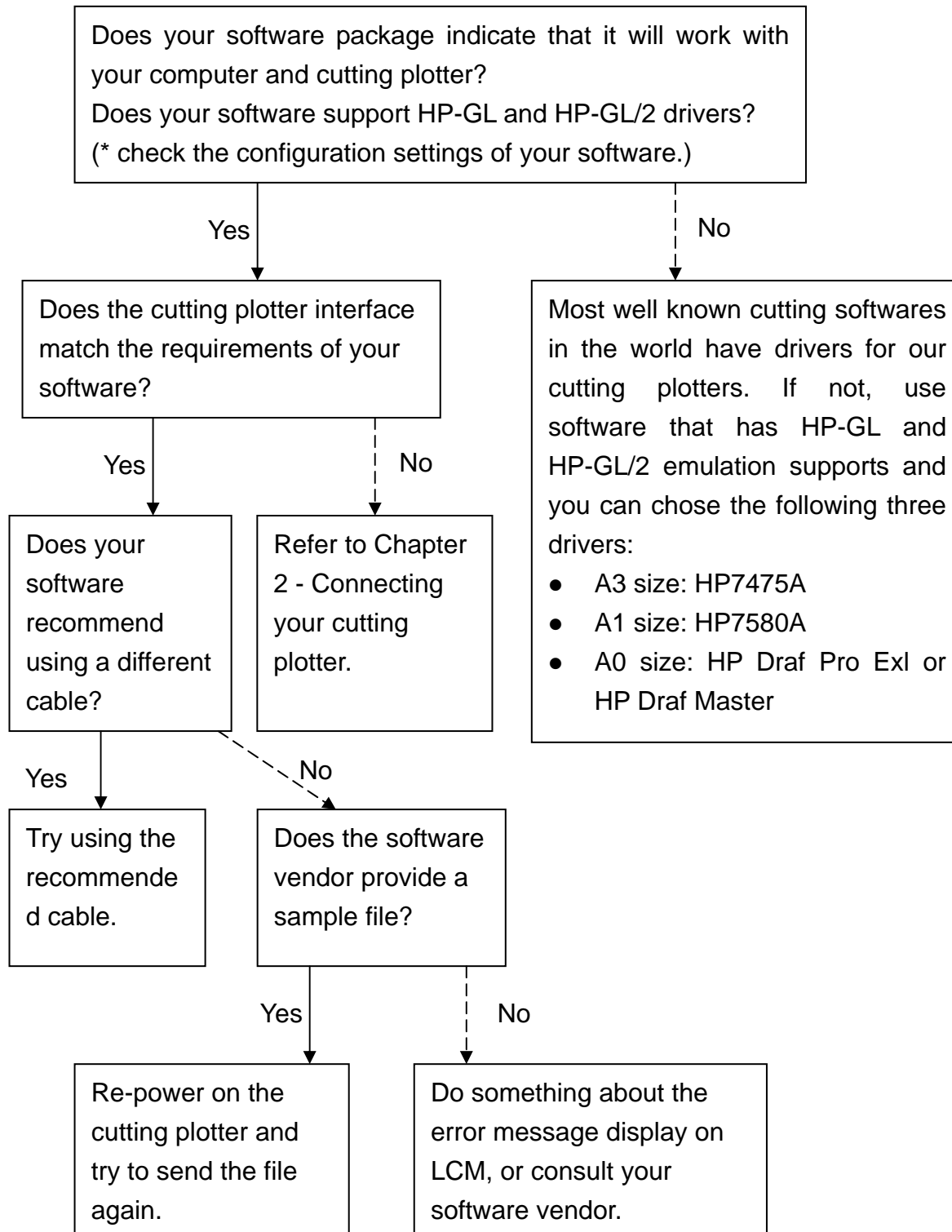
The computer also needs to set up compatible communication parameters to the cutting plotter set up.

HP-GL/2 Cmd. Error

If your cutting plotter can not recognize the HP-GL/2 or HP-GL commands, please check the HP-GL/2 or HP-GL commands applied to your cutting plotter are used properly.

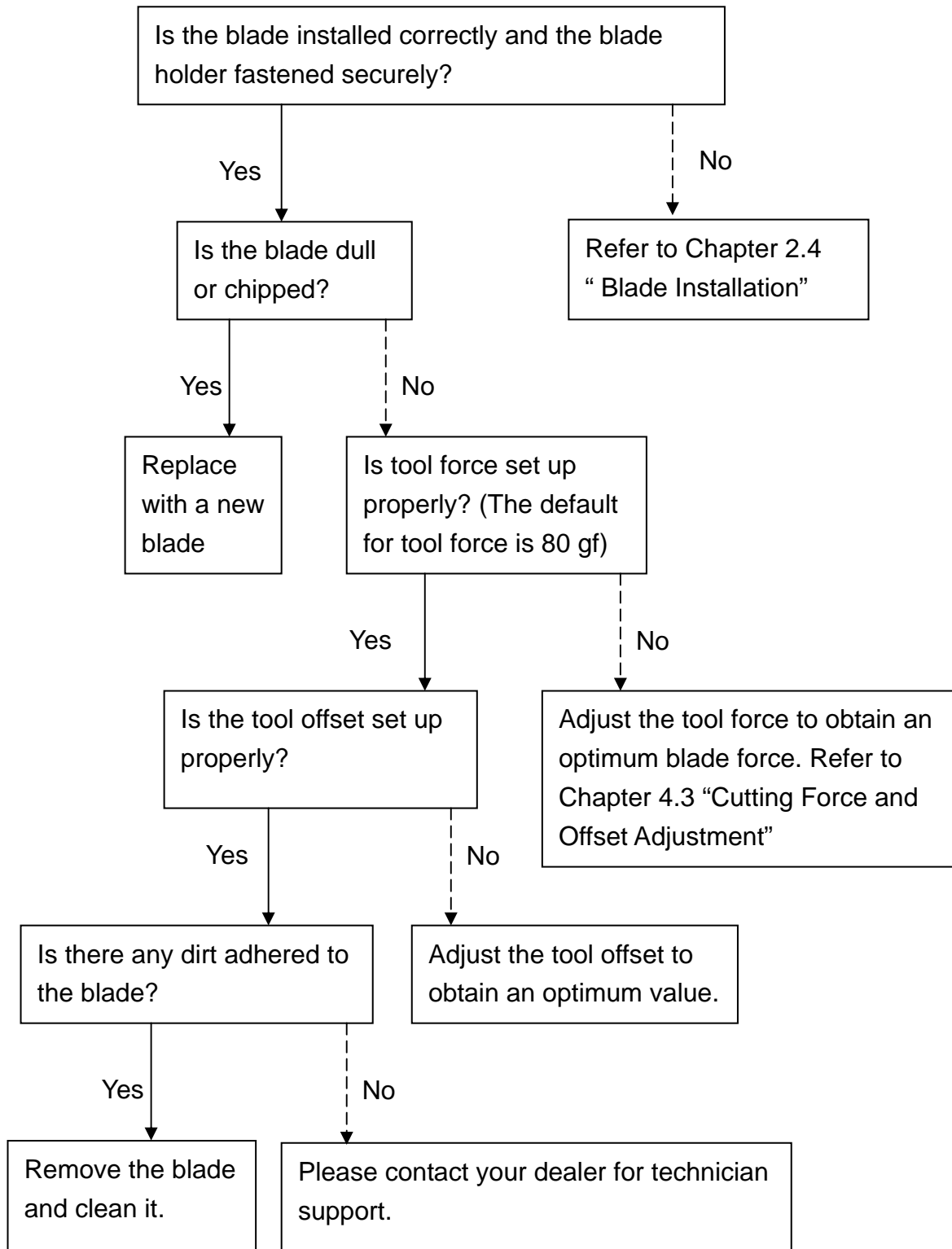
7.4 Software Problems

Check the following first:



7.5 Cutting Quality Problems

Note: The daily maintenance of your cutting plotter is very important. Be sure to clean up the grid drum and pinch rollers regularly for better cutting accuracy and output quality.







Jaguar IV Specification

Model Number	J4-61	J4-101S	J4-132S	J4-183S
Operational Method	Roller-Type			
Max. Cutting Width	610mm (24in)	1016mm (40in)	1320mm (52in)	1830mm(72in)
Max. Cutting Length	50m (164ft)			
Max. Media Loading Width	770mm (30.3in)	1270mm(50in)	1594mm(62.7in)	1900mm(74.8in)
Min. Media Loading Width	50mm (1.97in)			300mm (11.8in)
Number of Pinch Rollers	3	4	6	
Acceptable Material Thickness	0.8mm (0.03in)			
Drive Motor	DC Servo Control			
Cutting Force	0~600 g			
Max. Cutting Speed	1530 mm/sec (60ips / Diagonal)			
Acceleration	4.2 G (gravity)			
Offset	0~1.0 mm (with an increase of 0.025mm)			
Memory Buffer	4 MB			
Interfaces	USB1.1, Parallel and Serial (RS-232C)			
Type of Command	HP-GL, HP-GL/2			
Mechanical Resolution	0.00625mm			
Software Resolution	0.025 mm			
Repeatability	±0.1mm			
Curve & Arc Smoothing	Yes			
Configurable Origin	Yes			
Test Cut capability	Yes			
Tangential- emulation	Yes			
Repeat	Yes			
Copy	Yes			
Pouncing	Yes			
Control Panel	LCD (20 digits x 2 lines), 14 Keys, 1 Power LED			
Power Supply	AC 100-240V, 50~60 Hz (auto switching)			
Power Consumption	Max. 110watts			
Dimension (HxWxD) mm	414 * 930 * 490	1166 * 1430 * 667	1166 * 1754 * 667	750 * 2170 * 1160
(HxWxD) in	16.3 * 36.6 * 19.2	45.9 * 56.0 * 26.3	45.9 * 69.1 * 26.3	29.5 * 85.4 * 45.7
Net Weight	37.2 kg	53.3 kg	61 kg	105 kg
Stand	Optional	Standard		
Accu-Aligning System	Standard AAS II			
Media Basket	Optional			
Operation	Temperature	15°C~30°C / 60°F~86°F		
Environment	Humidity	25% ~ 75%		

- Compatible with Windows 2000/XP/7.
- The specification and data sheet may vary with different materials used. In order to obtain the best output quality, please maintain the machine regularly and properly.
- GCC reserves the right to change the specifications at any time without notice.

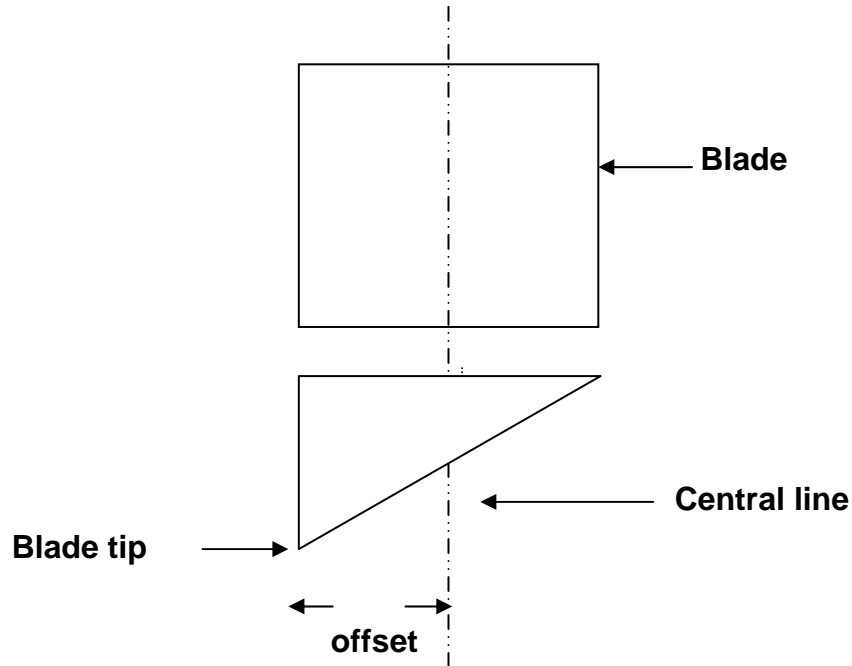
Blade Specification

20200159G	For cutting thick fluorescent and reflective vinyl. Also for cutting detailed work in standard vinyl.
	The blade is 45° with Red Cap (5-unit package), 0.25 mm offset
	
26500058G	For cutting reflective vinyl, cardboard, sandblast, flock, and stencil sharp edge.
	The blade is 60° with Green Cap , 0.50 mm blade offset
	
26500059G	For cutting thin sandblast mask and stencil with friction feed or sprocket feed machine.
	The blade is 60° with Blue Cap , 0.25 mm blade offset
	
26500060G	For Cutting small text and fine detail. Sharp blade with smallest offset.
	The blade is 0.175 mm blade offset with Black Cap
	

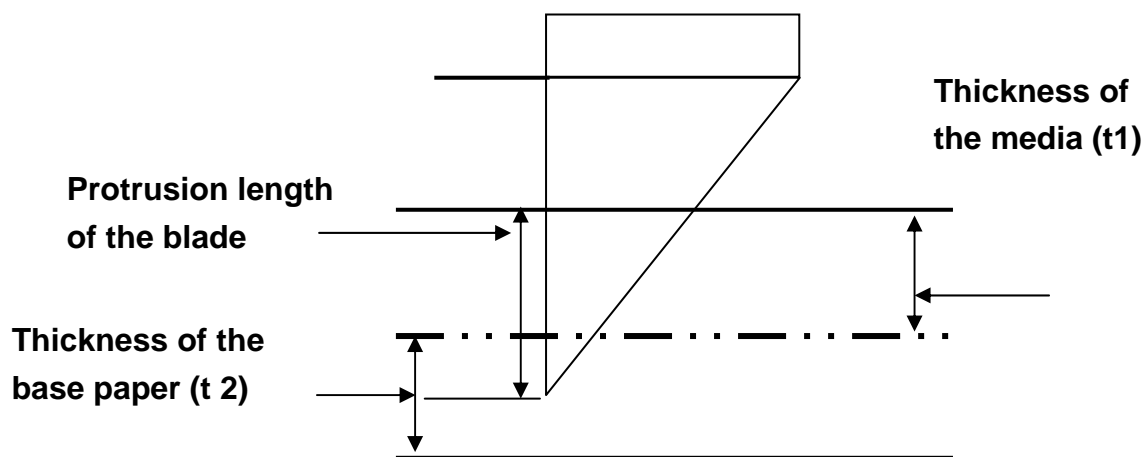
About the Tool

A generic term referring to the blade that cuts the sheet, the pen that does plotting, and the LED bombsight (option) used for pointing to the reference point.

OFFSET is the distance that the blade tip is displaced from the centerline of the blade.



Protrusion Length of the Blade



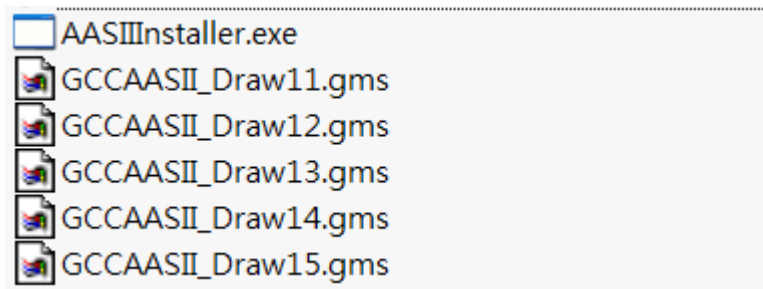
Length of protrusion = $t_1 + t_2 / 2$, but for your convenience you may just make it about 0.3mm ~ 0.5mm beyond the blade holder tip.

CorelDRAW Plug-In Instruction

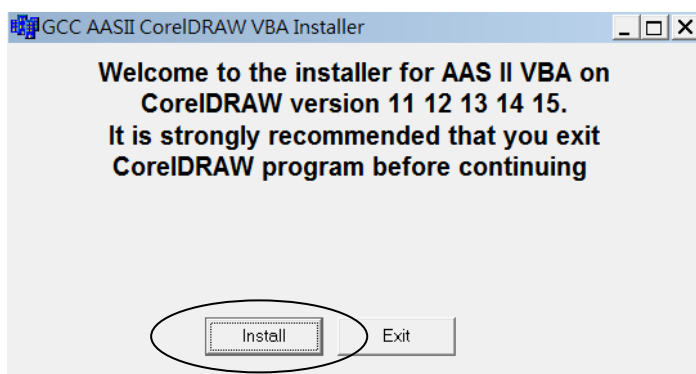
AASII VBA Installer is applicable for CorelDRAW Version 11, 12, 13, 14, 15

Installation

1. Check the “AAS CorelDraw Installer” folder in Jaguar IV Installation CD, and double click the “AASIIVBAInstaller.exe” file to run the installation program.

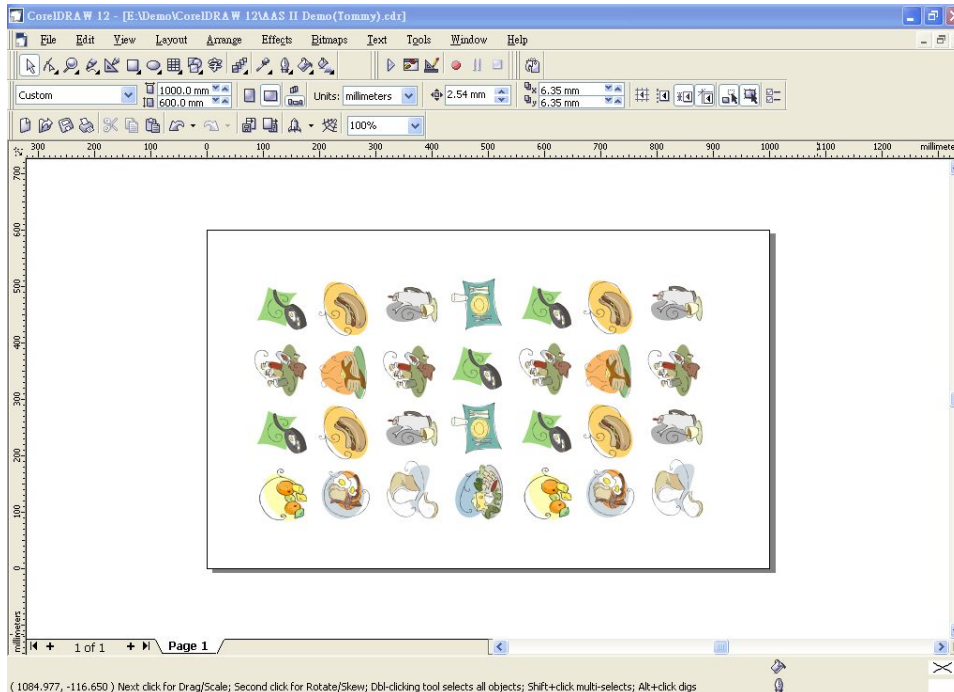


2. Press the “Install” button to begin installing GCC AASII CorelDRAW VBA.

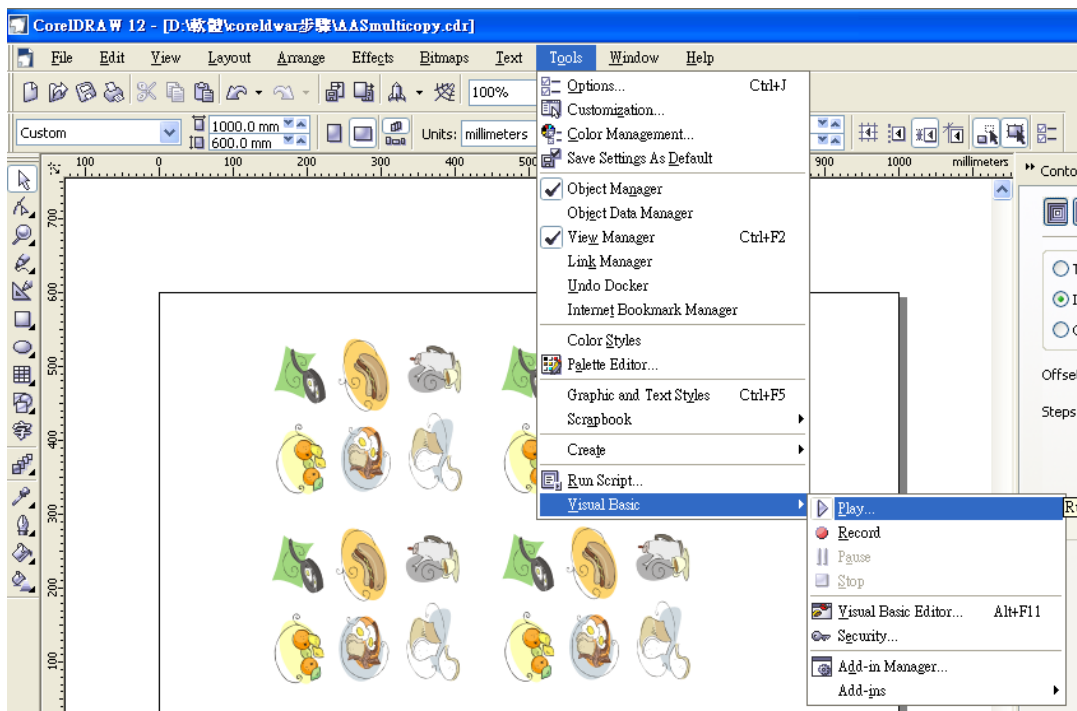


User Instructions

1. Run CorelDRAW to edit your graphics and select all images at once when you wish to plot.

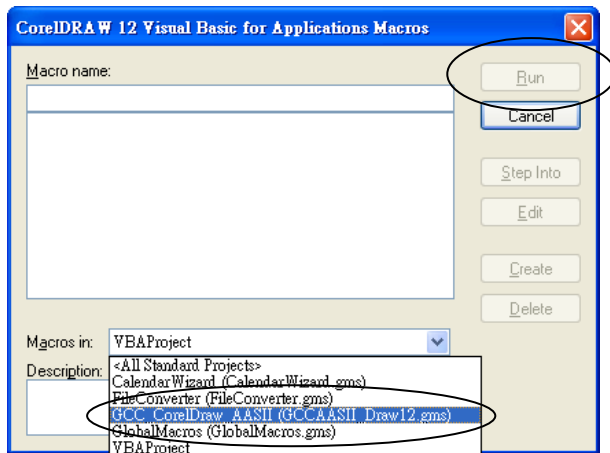


2. Select “Tools→Visual Basic→Play”.

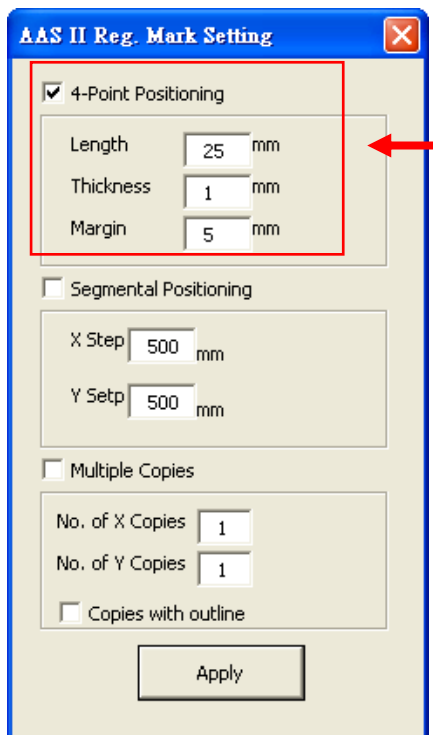


The **Visual Basic for Applications Marcos** window will pop up.

Select **GCC_CorelDraw_AASII (GCCAASII_Draw12.gms)** under the “Macros in” manual, and press “Run”.



3. Click on “Apply”.



4-Point Positioning

- Length: The length of marks
→ Range: 10mm~50mm
→ Optimized Setting: 25mm
- Thickness: The line thickness of marks
→ Range: 1mm~2mm
→ Optimized Setting: 1mm
- Margin: The distance between marks and images
→ Range: 1mm~50mm
→ Optimized Setting: 5mm

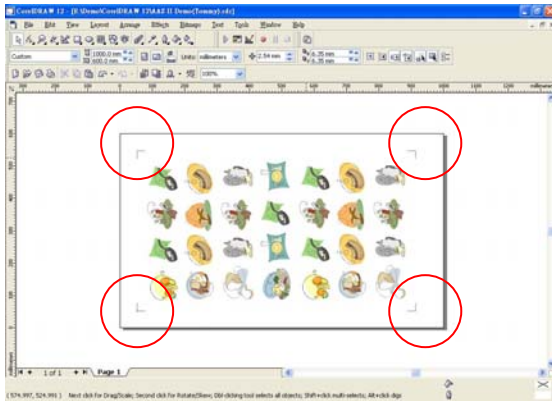
Segmental Positioning

- X Step: The distance of intermediate position on the X axis
- Y Step: The distance of intermediate position on the Y axis
→ Range: 200mm~600mm
→ Optimized Setting: Less than 500mm

Multiple Copies

- No. of X Copies: The numbers of copies on X axis
- No. of Y Copies: The numbers of copies on Y axis
→ Range: 1~50. (The more copies you make, the more time is needed for data transmission.)
→ Numbers of X Copies * Numbers of Y Copies = The total amount of image copies
- Copies with outline: To show outlines of image graphics

The system will create the 4 marks as shown in the picture below.

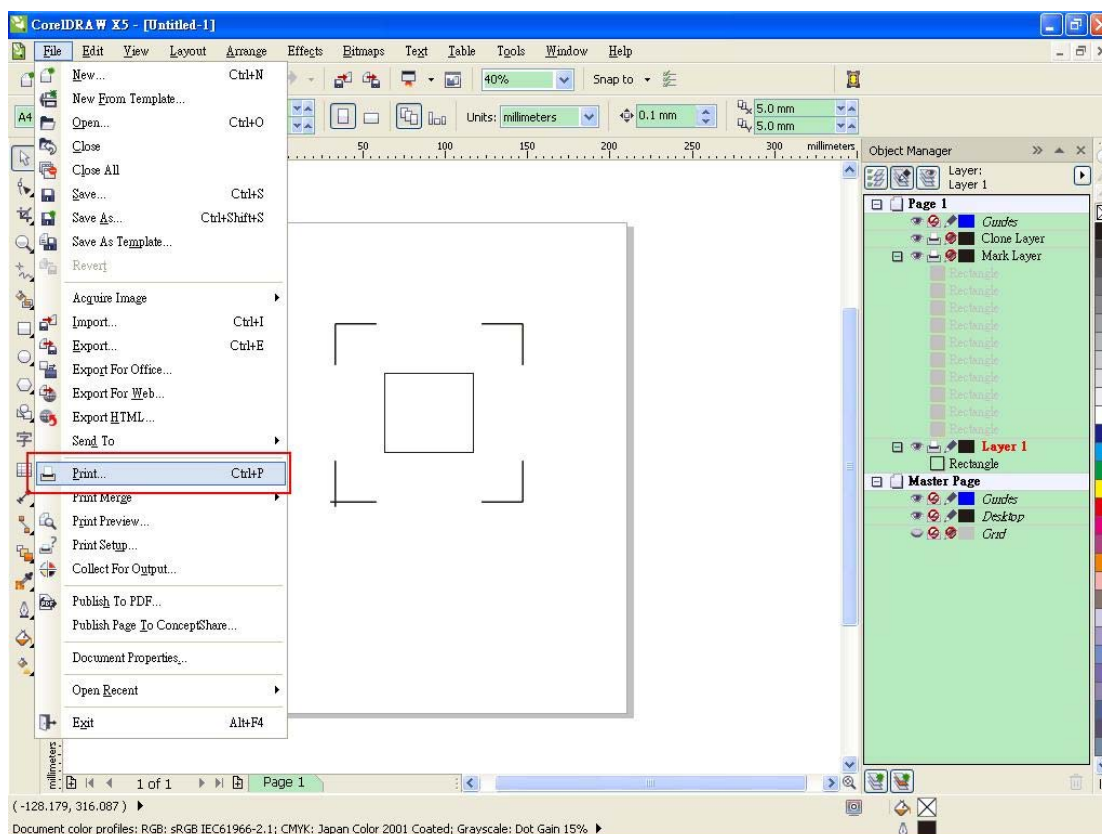


4. Now you can print out the image file with registration marks.

Contour cutting through CorelDraw

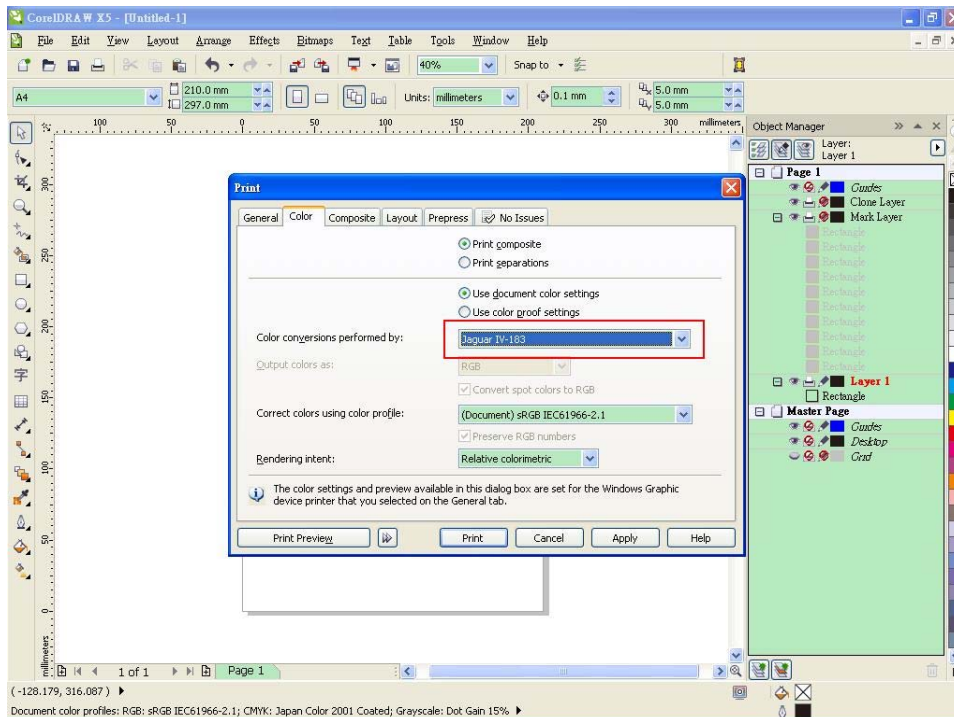
Step 1: Position the paper with registration marks printed by your printer on the GCC cutter.

Step 2: Select “Files→Print”.

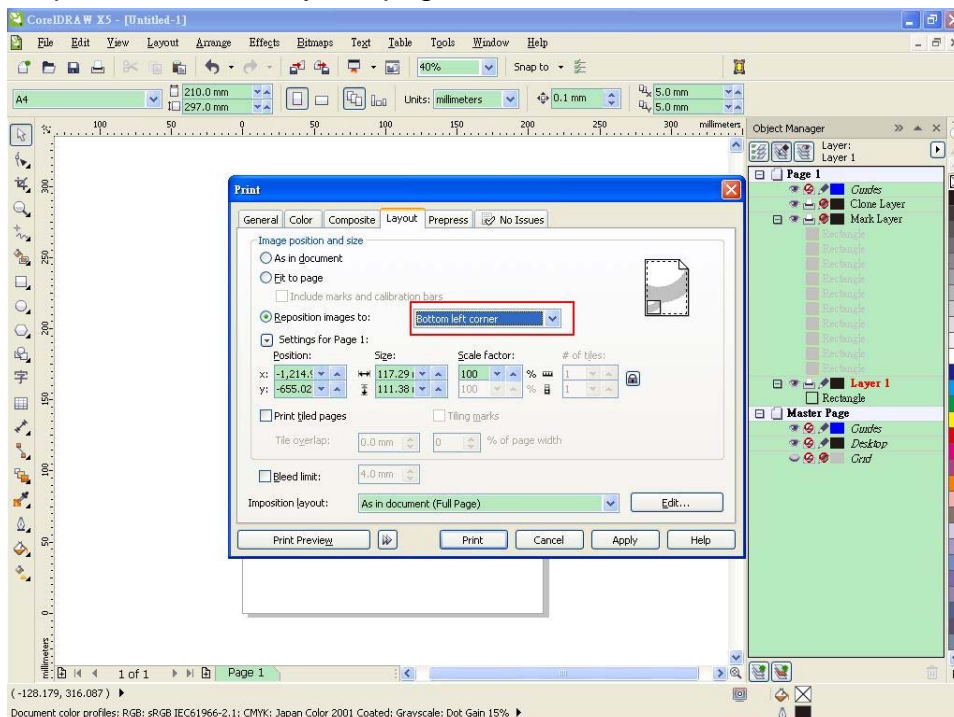


Please note that if you use CorelDRAW X5, you must follow the steps below.

Click the “color” page and go to the “Color conversions performed by:” and then select the model name of you cutter.



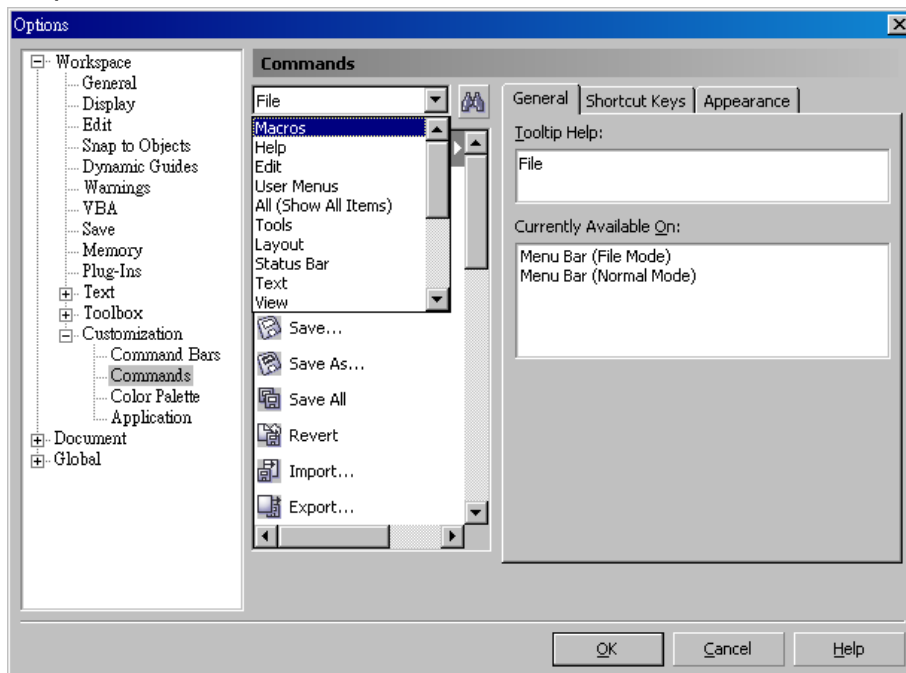
Step 2: Go to the “Layout” page and select Bottom left corner at “Reposition images to”.



Step 3: Click “Print”.

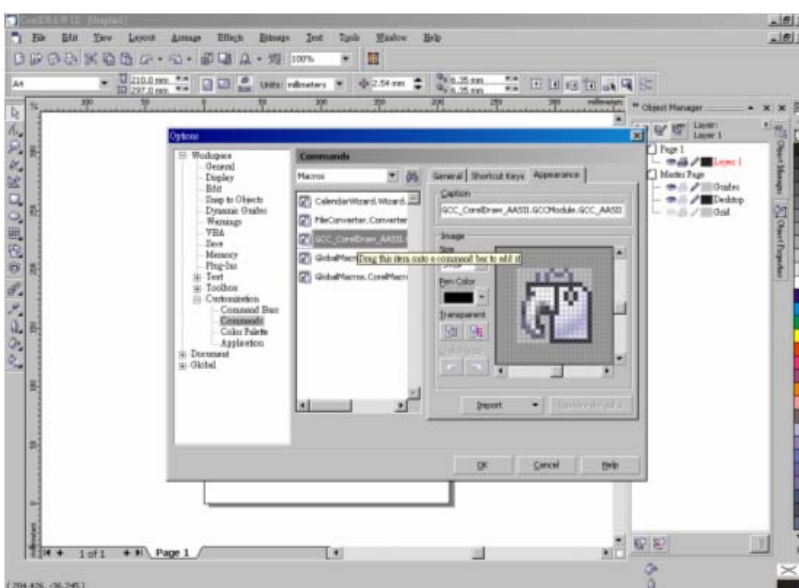
You can also add a Hot Icon for the AAS II Plug-in

Step 1: Select “Tools→Customization→Commands→Macros”.



Step 2: Choose **【GCC_CoreIDraw_AASII.GCCModule.GCC_AASII】** and drag it to the “commands” bar.

Step 3: If you want to have a different icon, select “Tools→Customization→Commands→Appearance” to import a graphics for use as the icon. Choose an icon and press OK to complete this setting.



SignPal 8.5 Instruction

The new SignPal 8.5 Software is Windows Vista compatible and the SignPal Expert above versions support the AAS II contour cutting function of Jaguar IV and Puma III cutting plotters.

Different to the previous SignPal 7.6 version, the SignPal 8.5 doesn't come with a keypro dongle, which is replaced by a softkey to simplify the installation procedure. However, please note that the system must be connected to the Internet when launching the SignPal 8.5 software for the first time with softkey. Internet access is required for online validation during the initial installation and for future online validations every 30 days. If the softkey is unable to connect to the Internet within a 30 day period, you will receive a message alerting you that you can only continue working with the software for another 10 days without connecting to the Internet.

For users without Internet or broadband connection, please contact your local distributor to purchase hard keys (keypro dongle) and provide them your softkey ID & password for replacement. Your original softkey ID & password will be invalid after replacement, and the new hard key ID & password can work only with the dongle inserted to your computer. Please note that the softkey and hard key has different user ID number as following:

Soft key IDs are 9xxxxx

Hard key IDs are 5xxxxx

SignPal 8.5 Instruction Index:

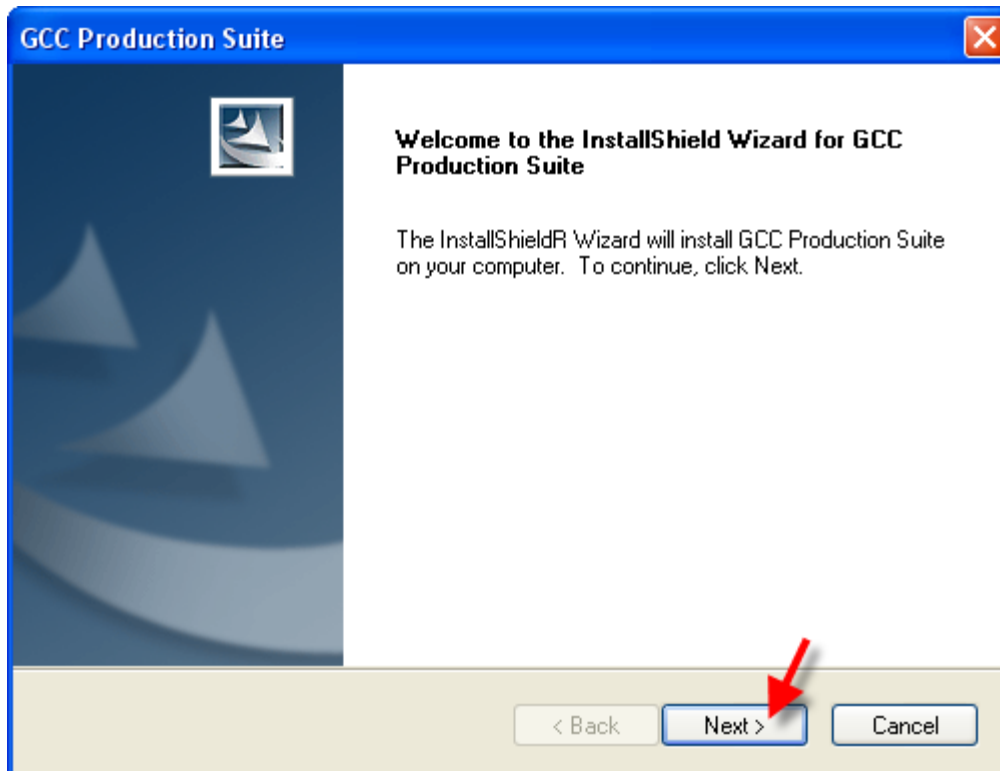
[1] Installing the SignPal 8.5 software.....	P.01
[2] Set up your GCC Cutter on Production Manager.....	P.10
-- SignPal AAS II Quick Start.....	P.13
[3] Transferring a Software License Using Softkey.....	P.18
[4] SignPal 8.5 Feature Lists.....	P.20

[1] Installing the SignPal 8.5 software

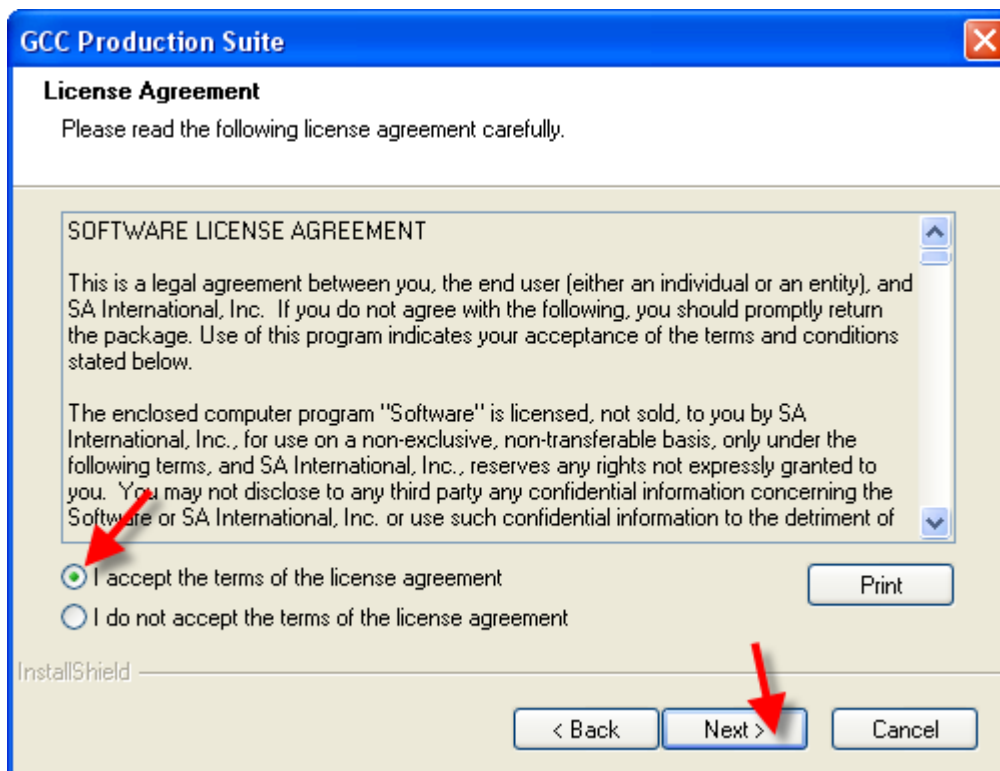
To install the software, you must have Administrator privileges. To use the software, you must have Administrator or Power User privileges. See your Windows user guide for more information.

1. Uninstall any previous version of the software.
2. Insert the Installation DVD.
3. Select a language and click **OK**.

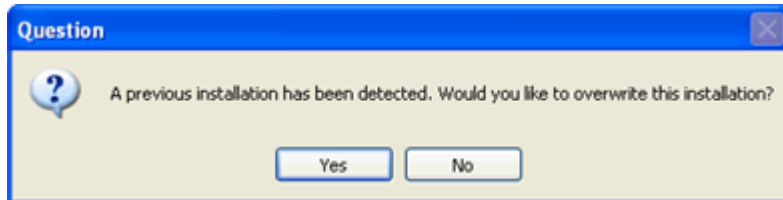
4. Click **Next**.



5. Read the Software License Agreement and select **I accept the terms of the license agreement** and click **Next** to accept.

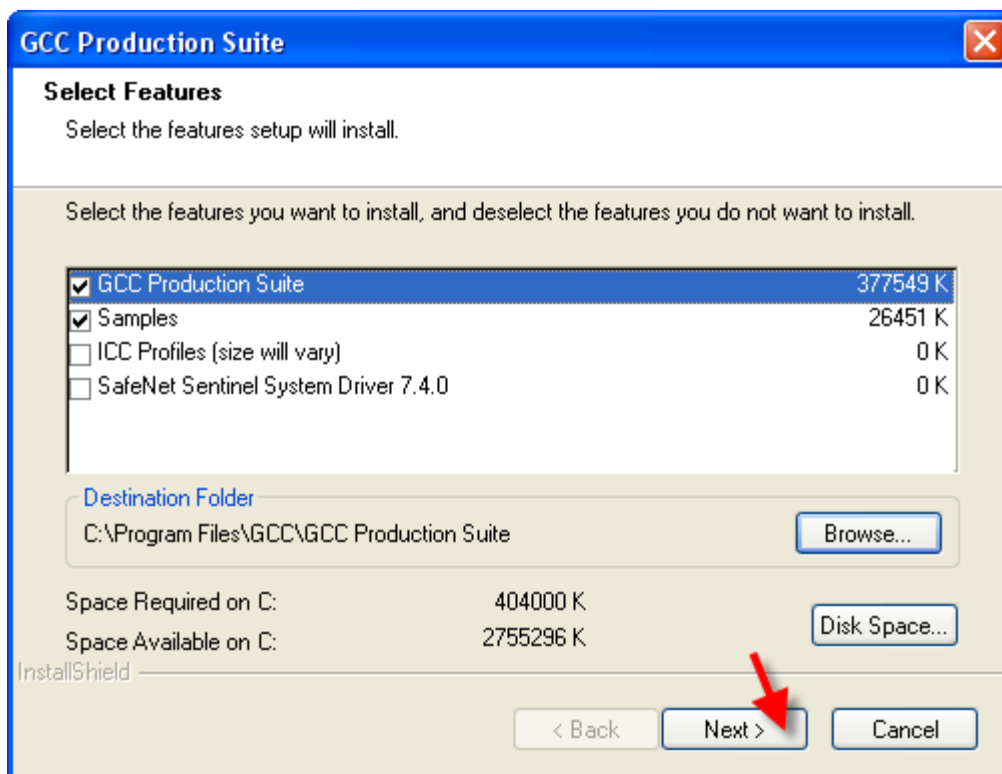


6. If you did not have any previous versions of the software installed, skip to the next step. If you still have a previous version of the software installed, you will be prompted to overwrite the existing installation. Click **Yes** to overwrite any previous installation of the software.



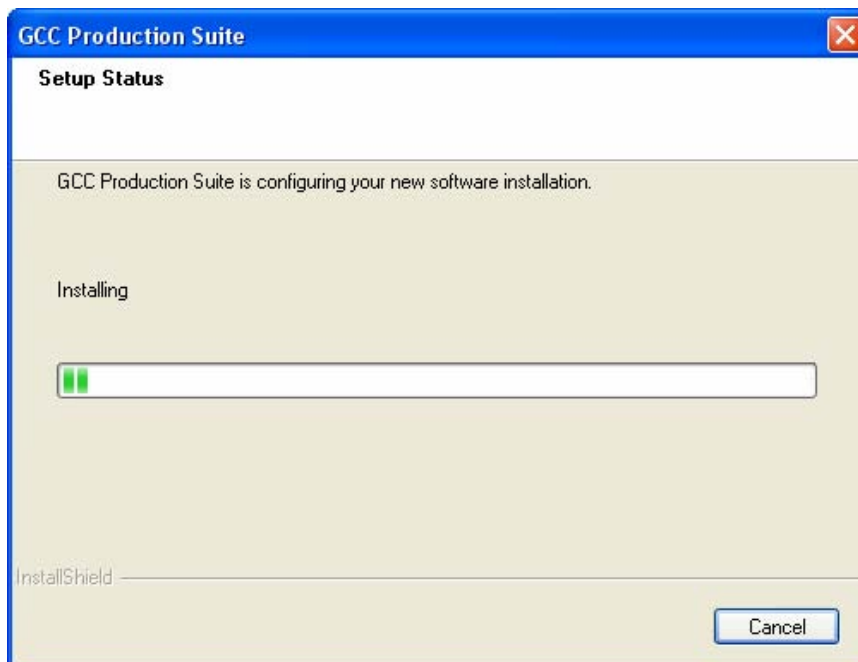
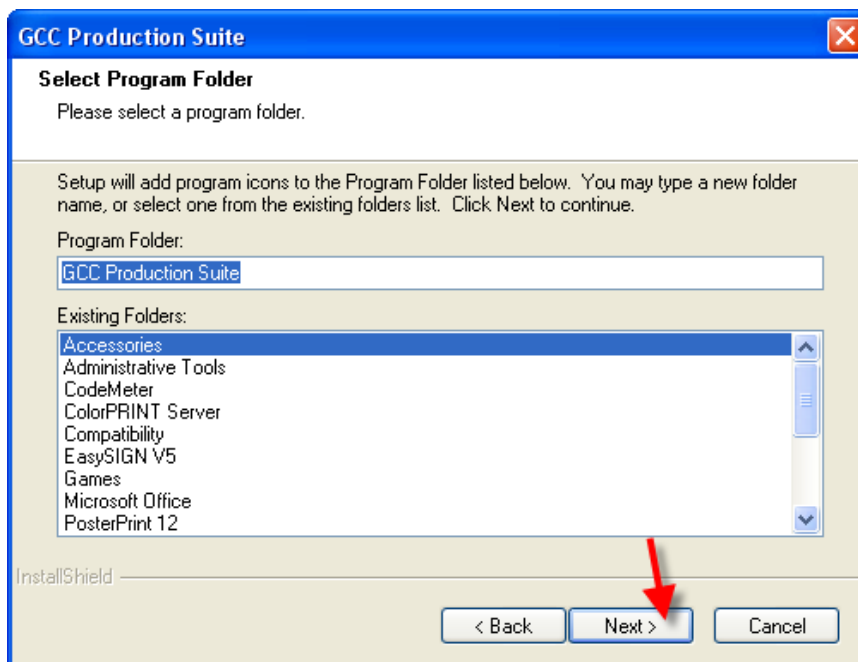
7. Select the features of the software that you want to install and click **Next**:

- Check **GCC Production Suite** to install the software.
- Check **Samples** to install sample files.
- Check **SafeNet Sentinel System Driver** to install the software driver for this key. If you do not use this type of key, you do not need to install this driver.



- A. To change the default destination folder, click **Browse** and choose a new destination folder.
- B. To check that the drive you are installing to has enough space for the installation:
- a. Click **Disk Space**.

- b. From the drop-down menu, select the drive you want to install to, and verify that it has enough space for the installation.
 - c. Click **OK**. The installation drive changes to the selected drive when you click **OK**.
8. Select the Program folder where the shortcut for the software will appear. A new folder is automatically created for the product.
9. Click **Next** to install the software.



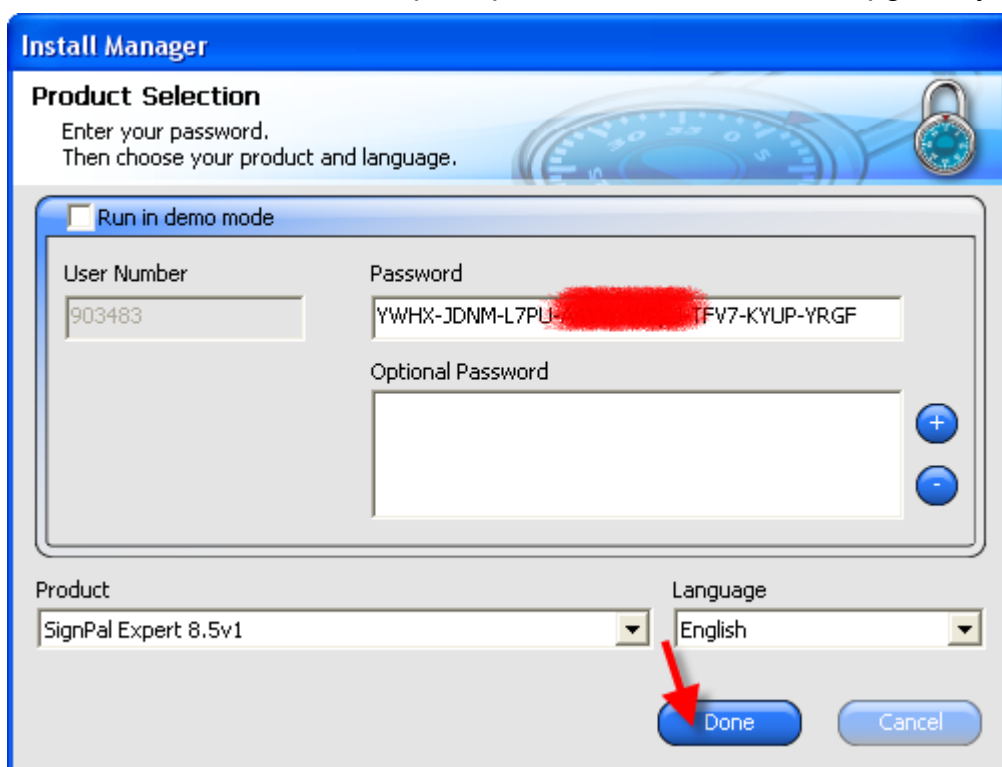
10. Once the installer is finished installing, the **Install Manager** opens. The Install Manager allows you to run a demo version of any available products, or to enter a password to access the software and any optional features.

11. Do one of the following:

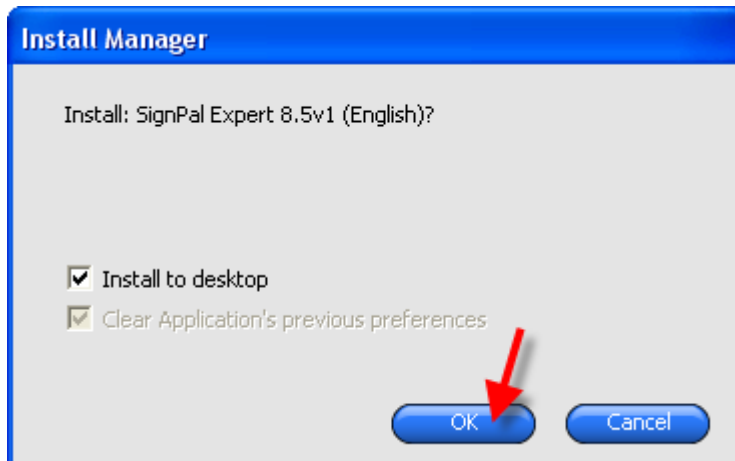
- Check **Run in demo mode** to run a demo version of any available products in any available language.
- Enter a Password, and then select a product from the **Product** list and a language from the **Language** list. Use the **Add** button to enter any additional passwords in the Optional Password section to unlock optional features.

Password This is your main application password for the software.

Optional Password If you purchased additional options, you may enter the option passwords in this field to upgrade your software.

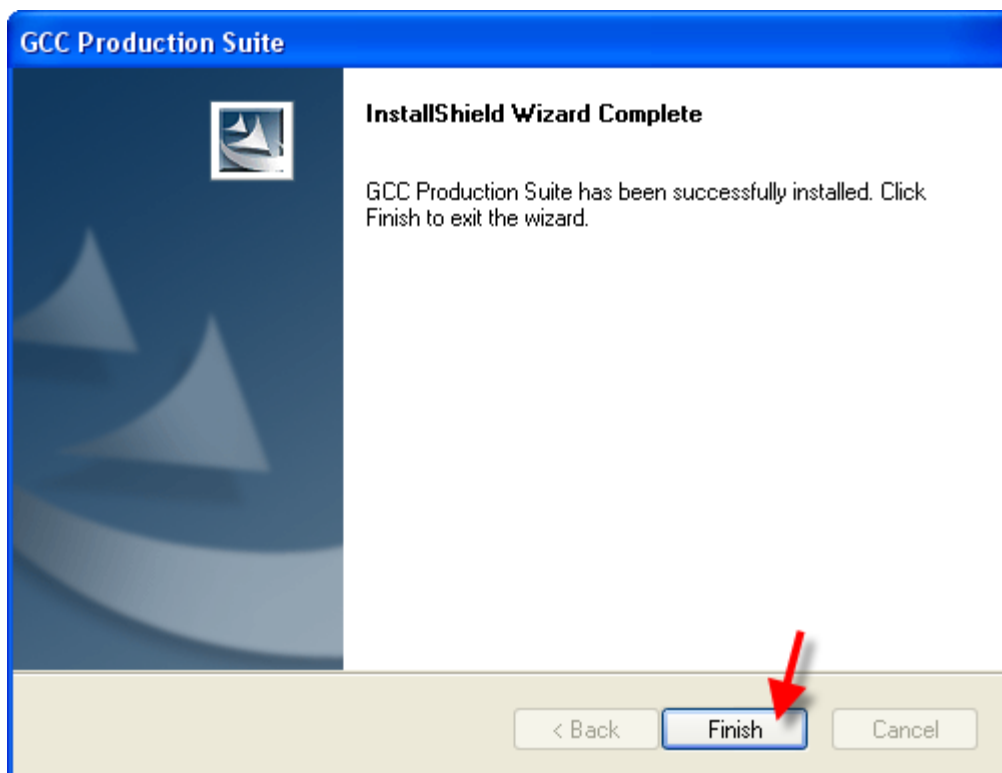


12. Click **Done**.

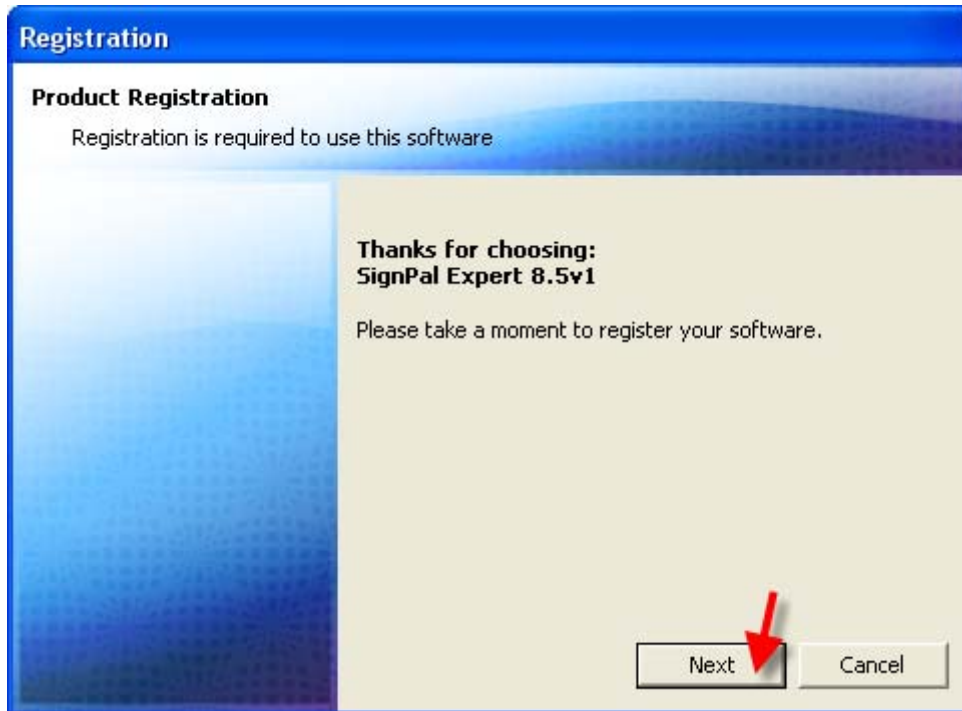


13. Check which icons and preferences you want to install:

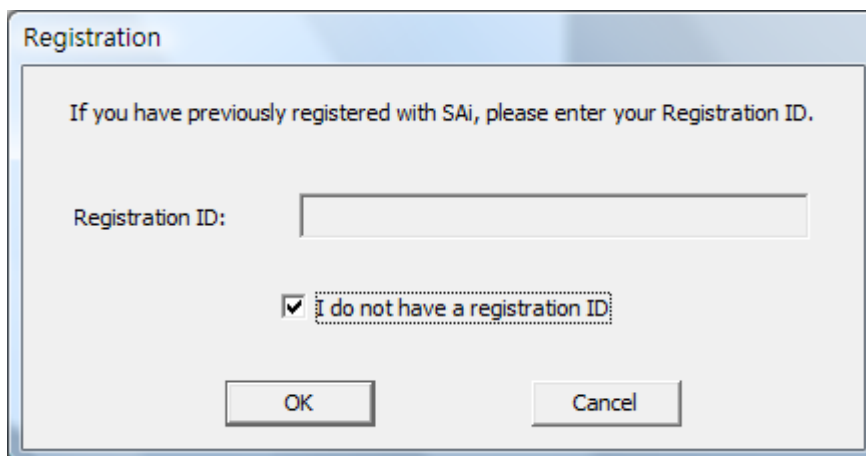
- Check **Install to desktop** to install a shortcut for the software on the desktop.
- Check **Install to startup items** to install a shortcut for the software in the Startup folder of the Start menu. If this is done, each time the computer starts up, the software will automatically start up and minimize itself, displaying an icon in the system tray of the Windows system tray.
- Check **Clear Application's previous preferences** to clear the preferences or clear the check box to retain old preferences.
- Click **OK**.



14. Open SignPal 8.5v1



15. As you have not registered before, please check on the box at bottom to register a new account.



16. Input your personal information to complete the online registration.

Registration

Registration Information

*Indicates required fields

*Country/Territory:

*Last Name: *First Name:

Title: *Company:

*Address Line 1:

Address Line 2: *City:

State/Province/Region: *Zip/Postal Code:

*Phone: Fax:

*Email:

Output Devices:

OK Cancel

17. If you have registered before, please enter your Registration code as below to open SignPal 8.5v1 software.

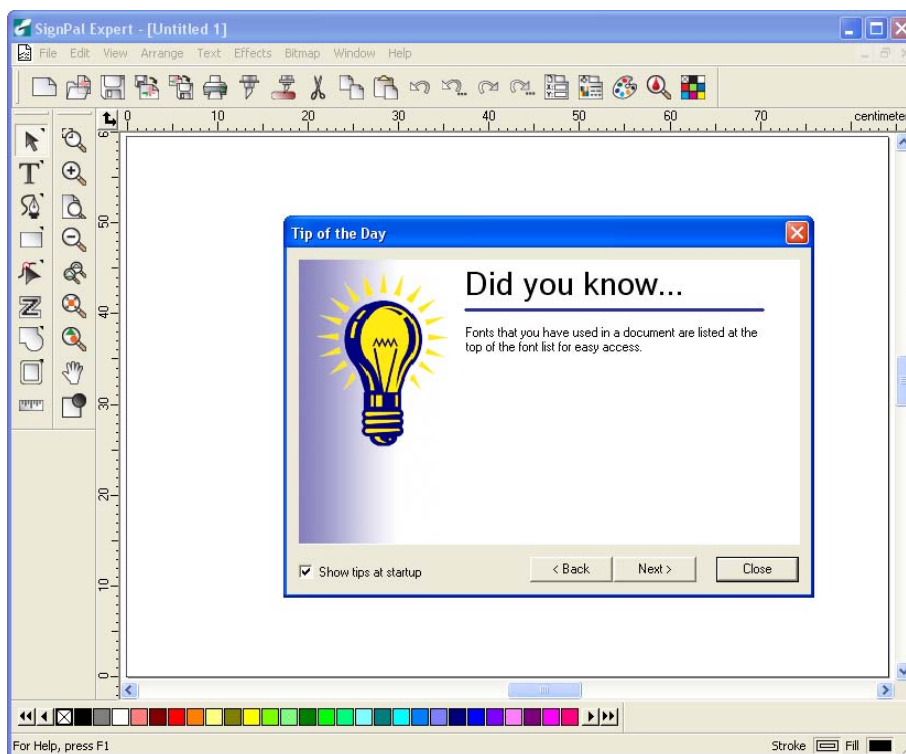
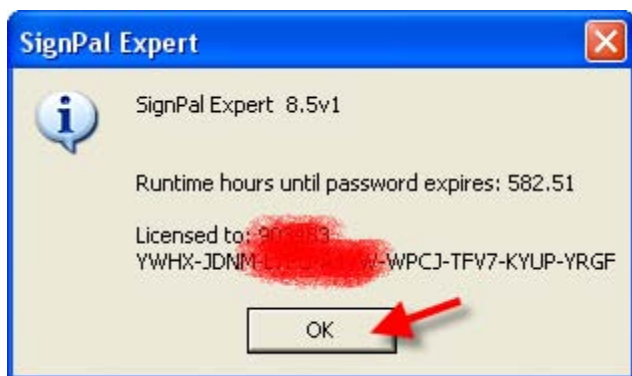
Registration

If you have previously registered with SAI, please enter your Registration ID.

Registration ID:

☐ I do not have a registration ID

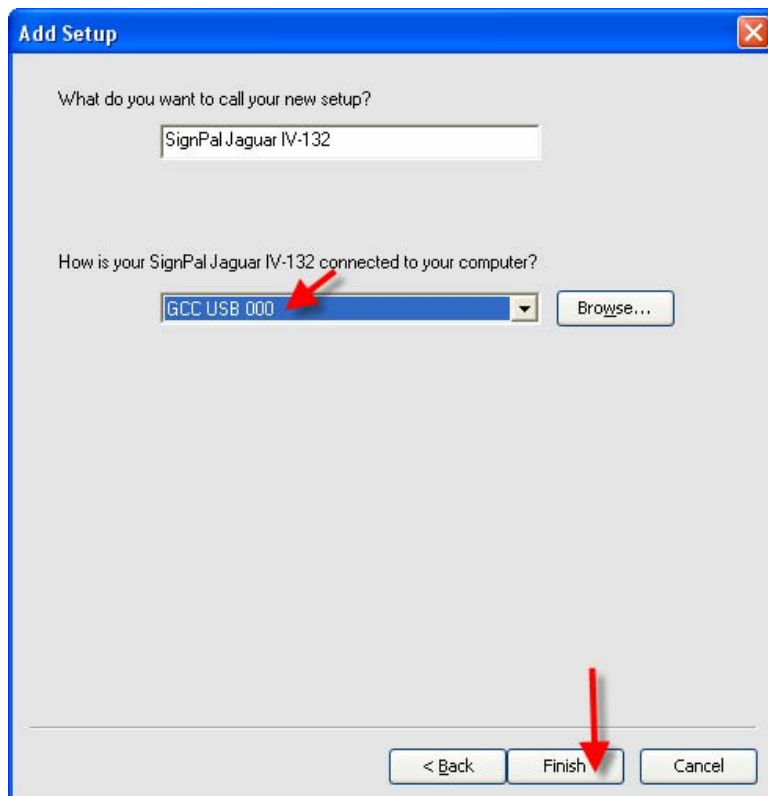
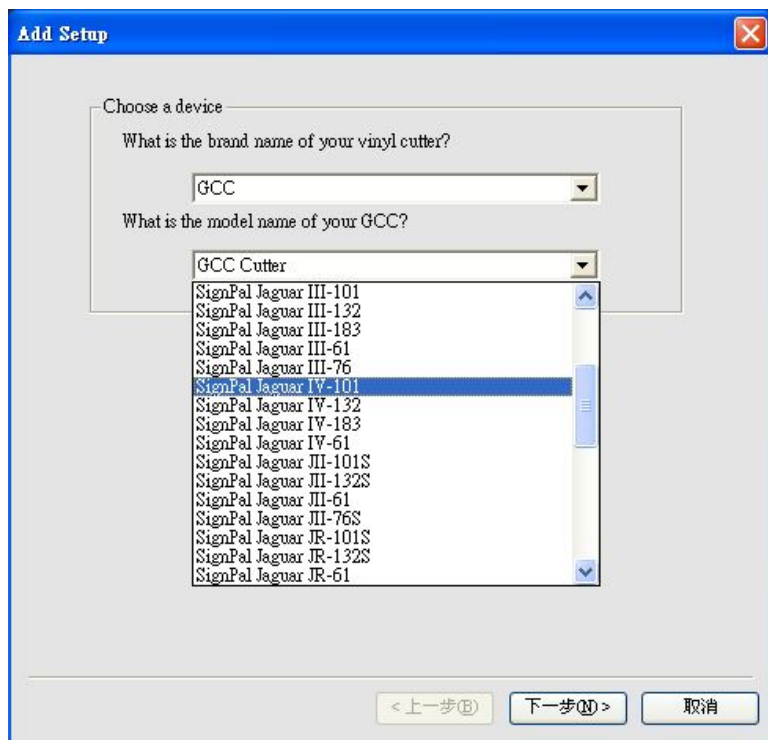
OK Cancel

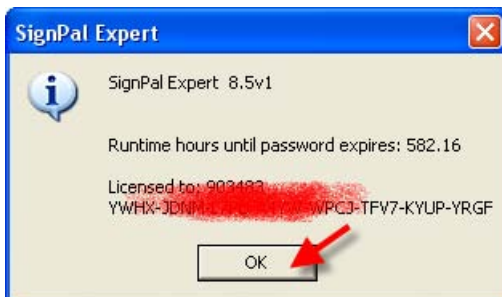
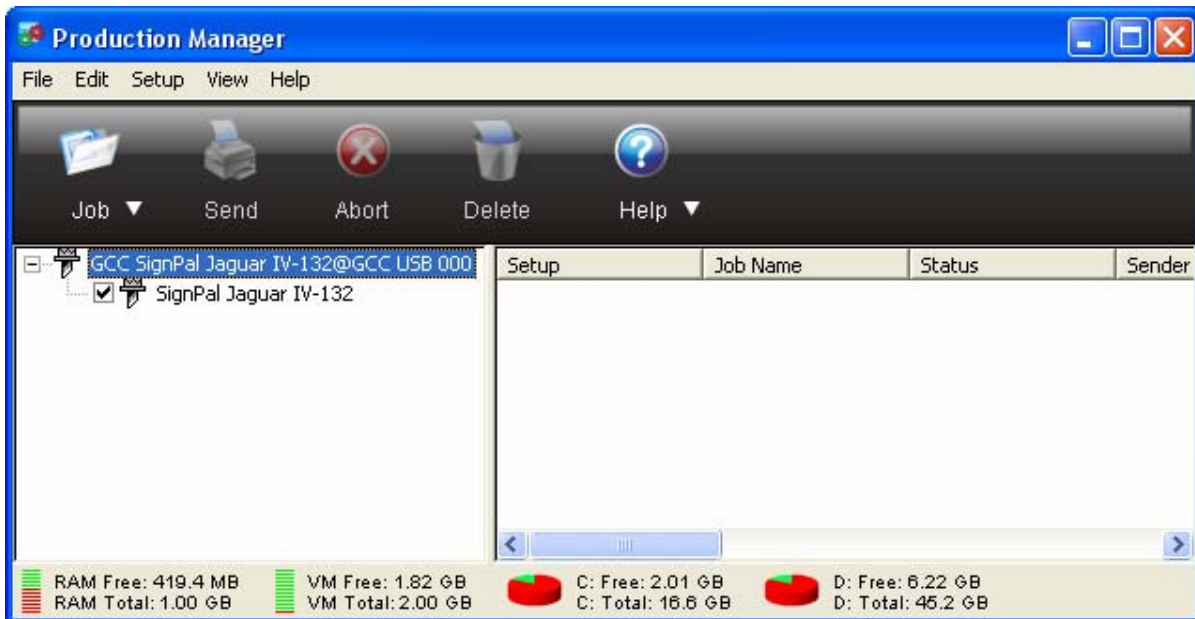


[2] Set up your GCC Cutter on Production Manager

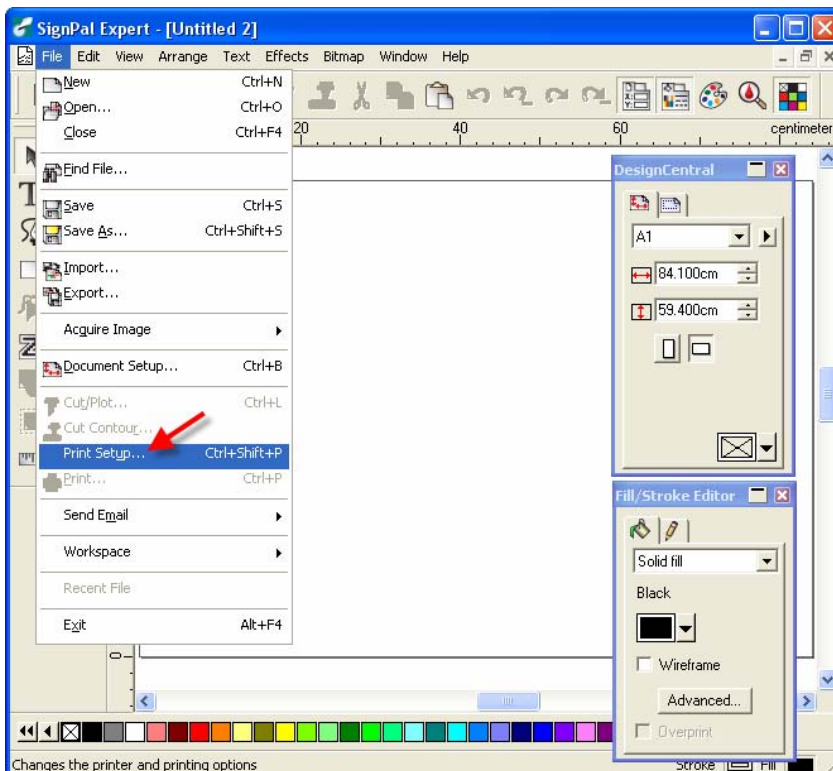
1. Open Production Manager 8.5v1
2. Choose and set up your GCC cutter.

(Note that AAS II System only works on Jaguar IV and Puma III.)

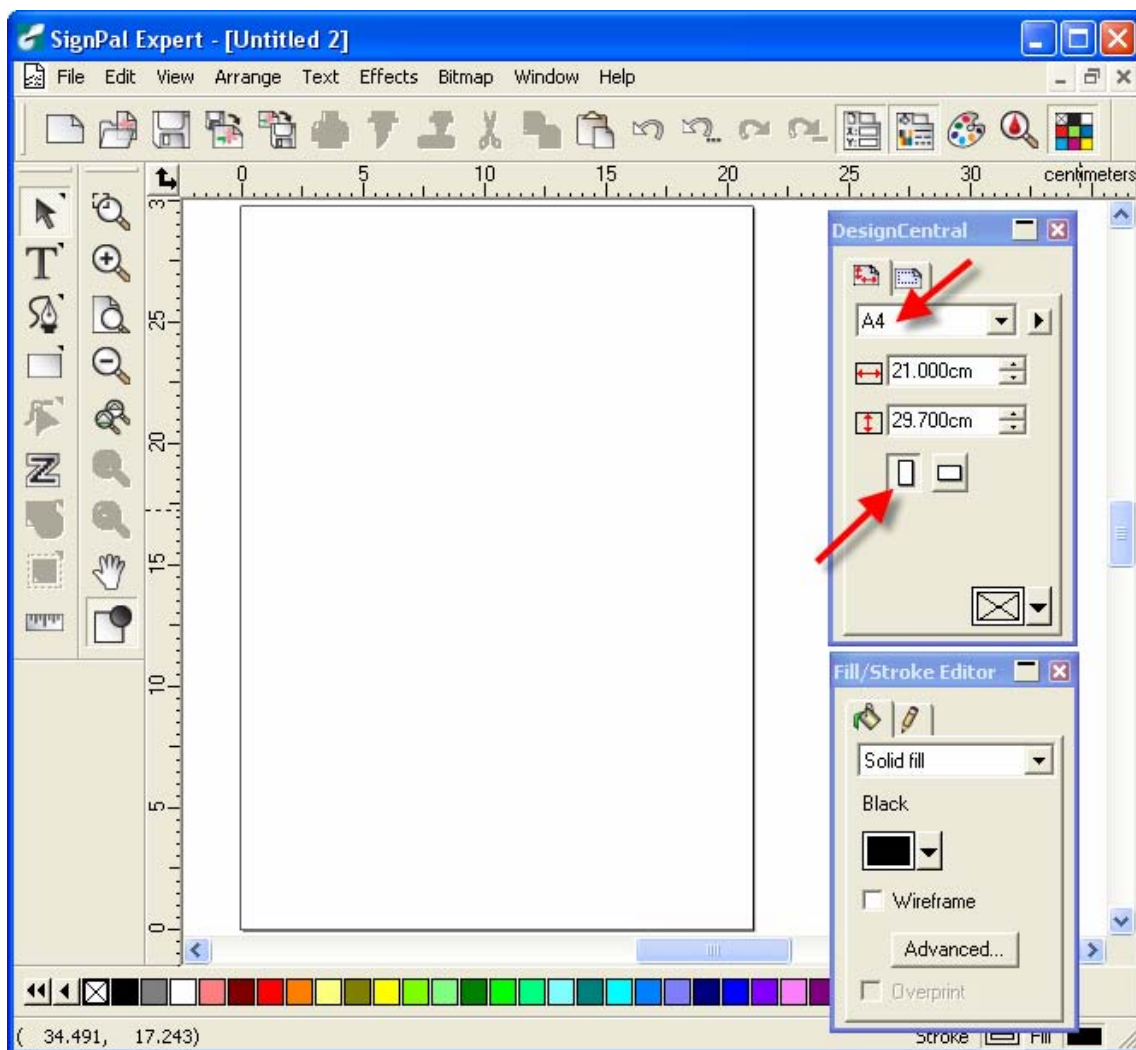
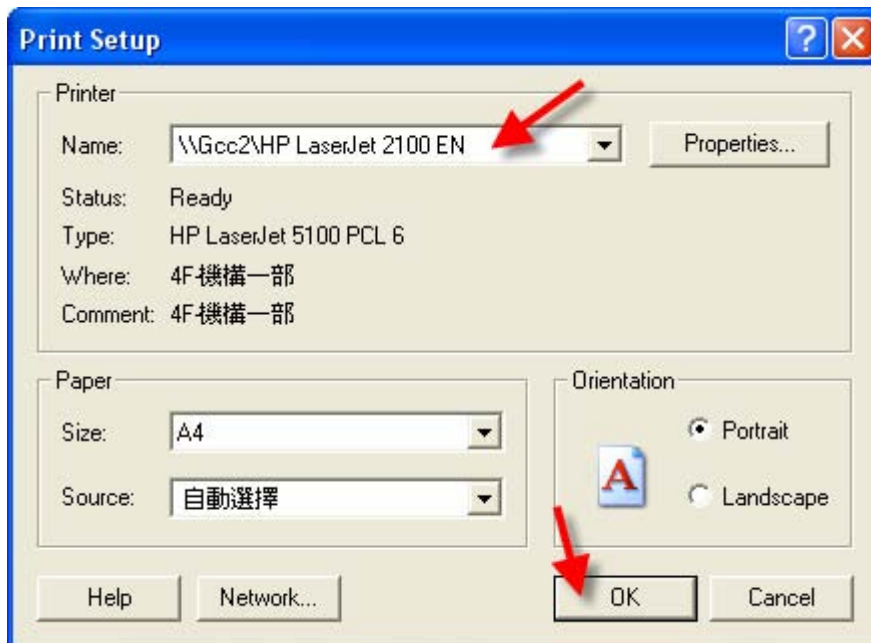




3. Select **File > Print Setup** in SignPal Software.

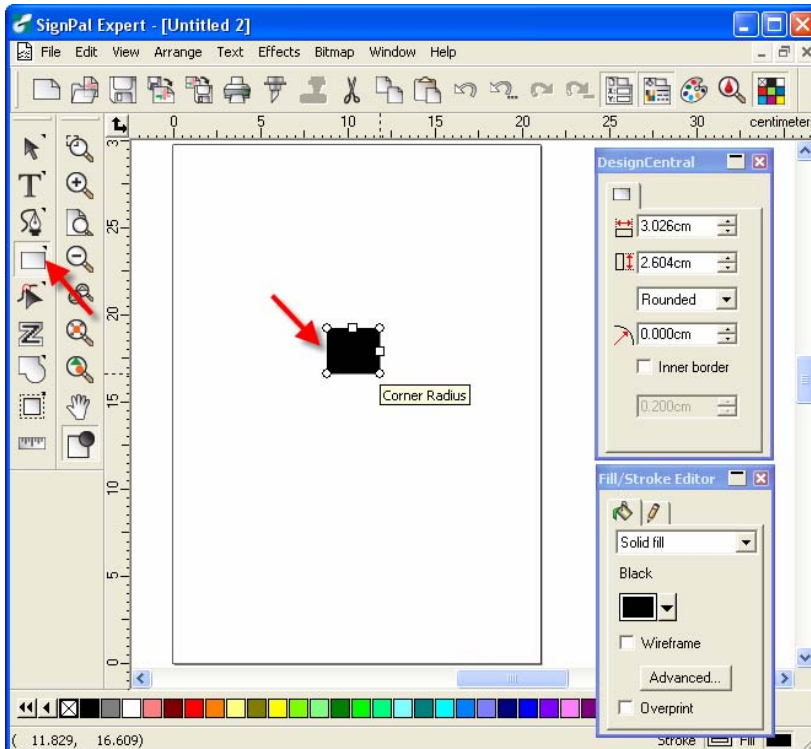


4. Select the printer and paper size.

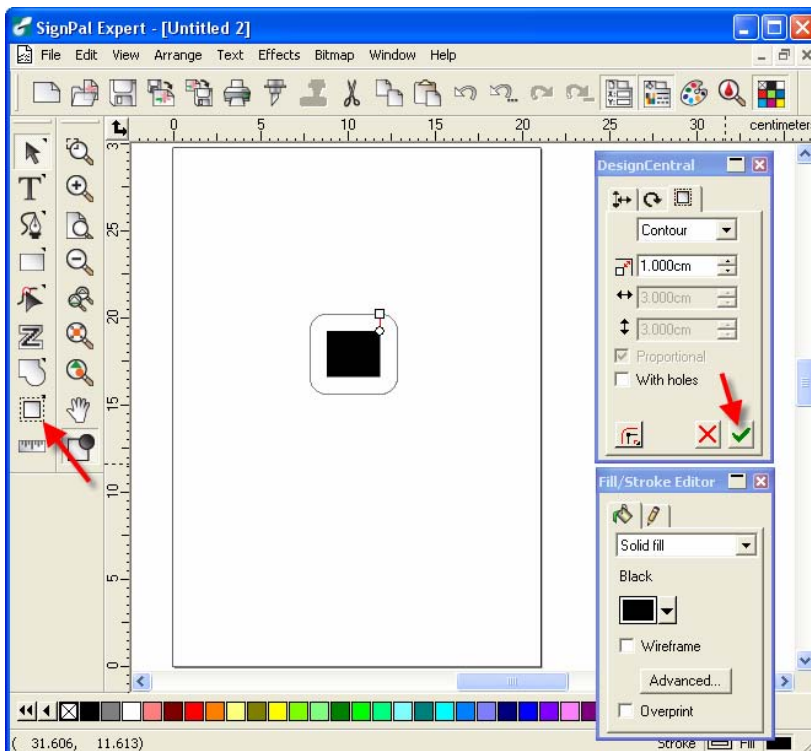


-- SignPal AASII Quick Start

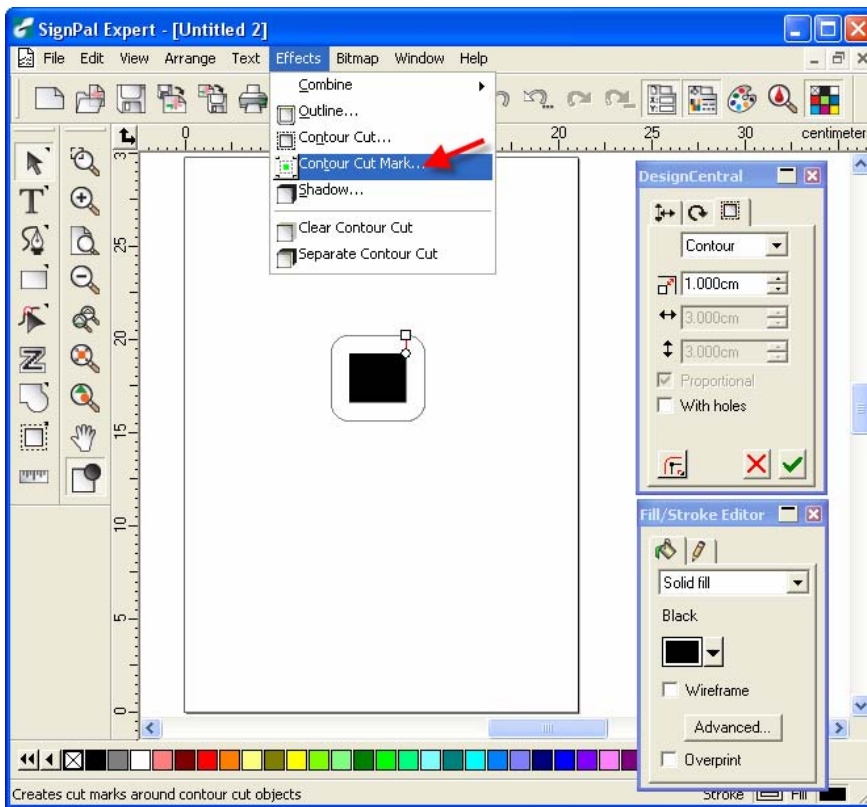
5. Use the **Rectangle Tool** to create a rectangle.



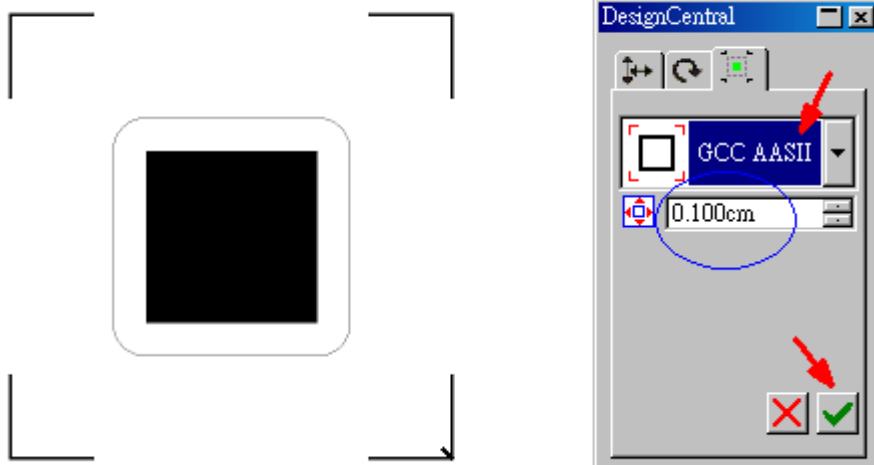
6. Select **Effect > Contour Cut**. Then click 'Apply' in DesignCentral window.



7. Apply the contour cut mark of GCC AASII by selecting **Effect > Contour Cut Mark**.



8. Select “**GCC AASII**” in SignPal DesignCentral window to create the AAS II registration marks (4-Point Positioning). Set the values as 0.1cm or above and click ‘**Apply**’ in DesignCentral window. The value is to define the distance between registration marks and image area. If the value is less than 0.1cm, it is likely that the image will overlap the marks and result in bad cutting quality.



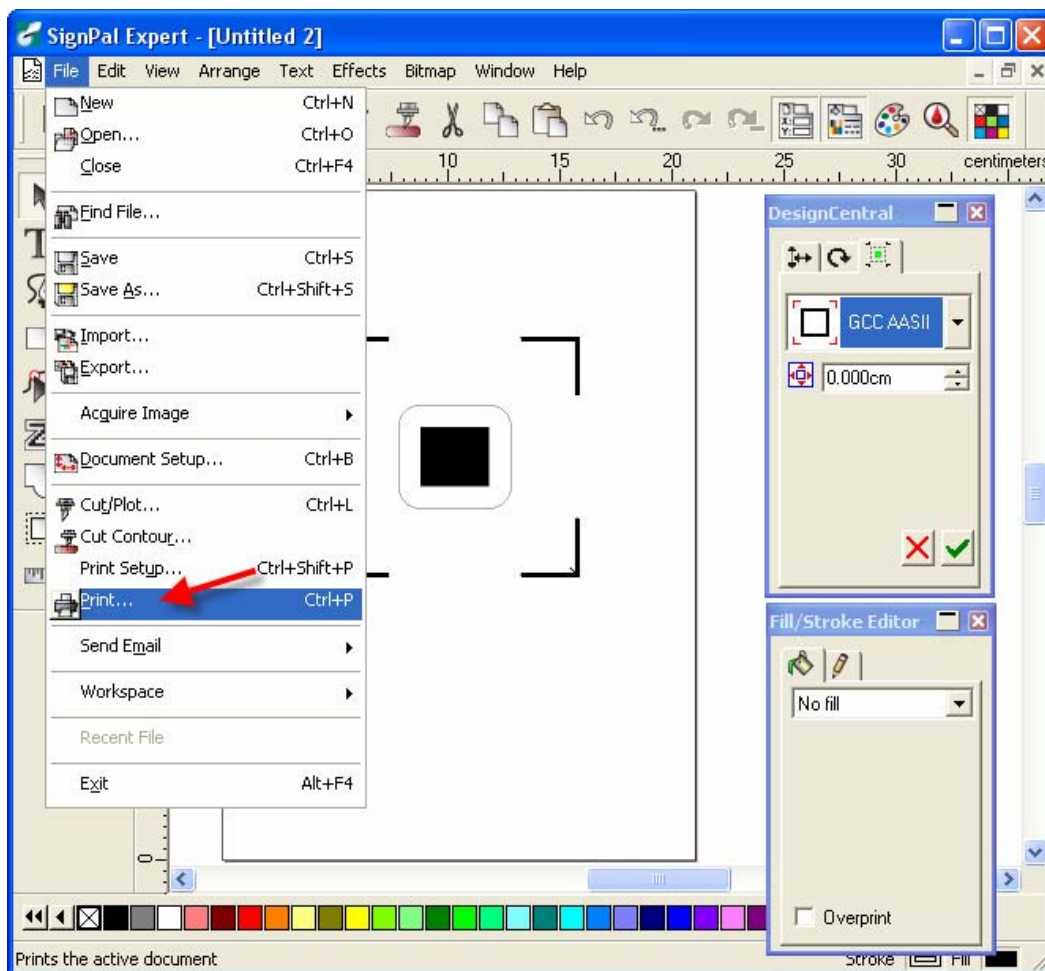
9. There are three types of GCC AASII registration marks: 4-Point Positioning, Segmental Positioning, and Multiple Copies. To make ‘Segmental Positioning’ marks, please select “**GCC**

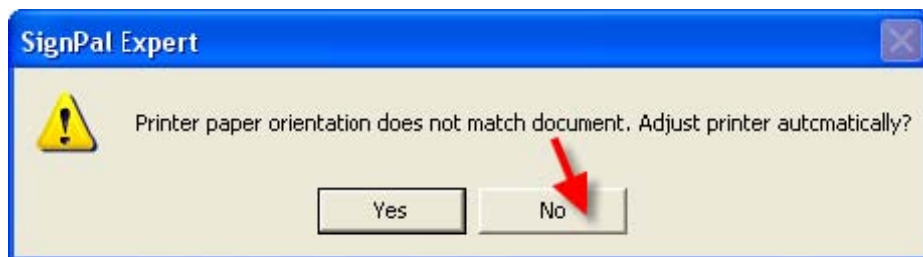
Segmentation” in DesignCentral window and then click **‘Apply’**.



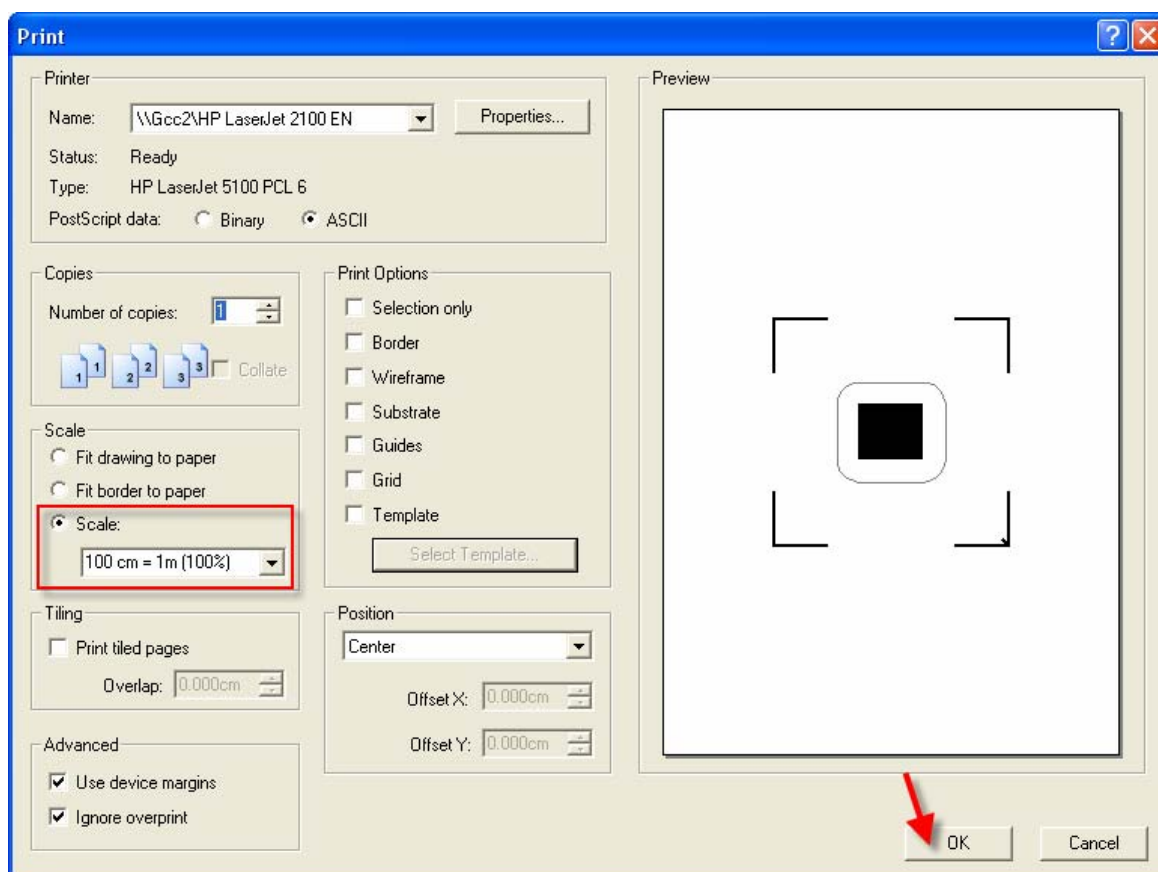
10. For ‘Multiple Copies’, this function is not available in SignPal. Currently the ‘Multiple Copies’ function is only available under CoreIDRAW plug-in.

11. Select **File > Print** to print out the image.

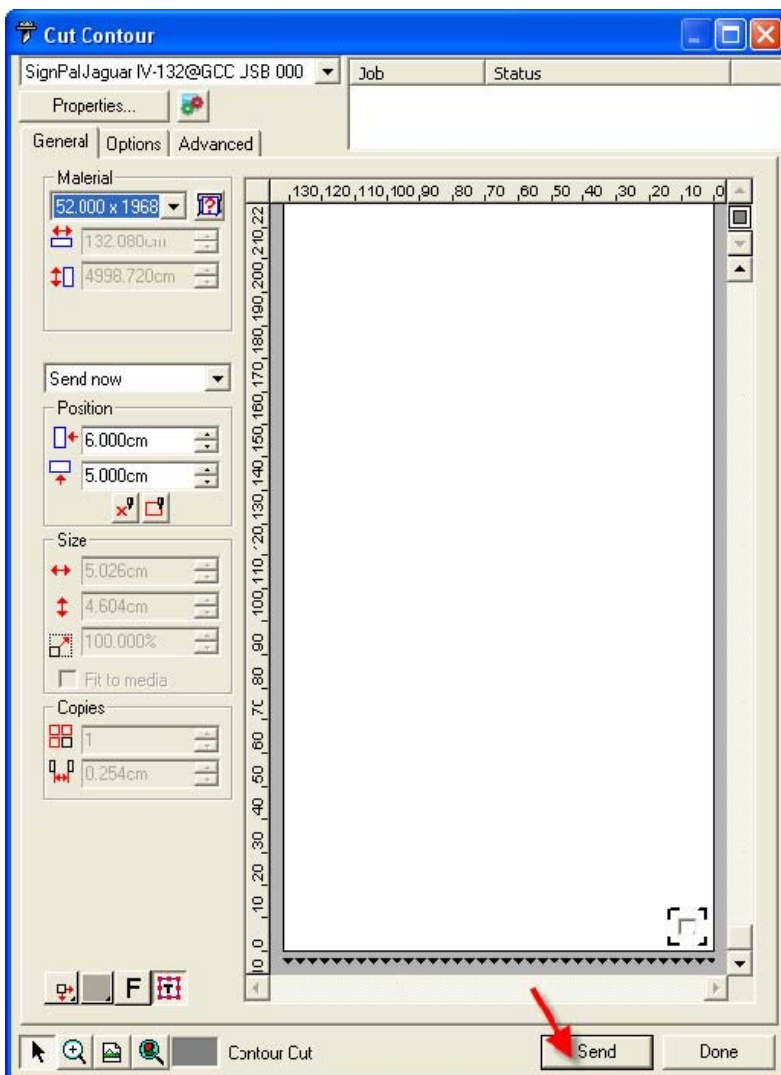
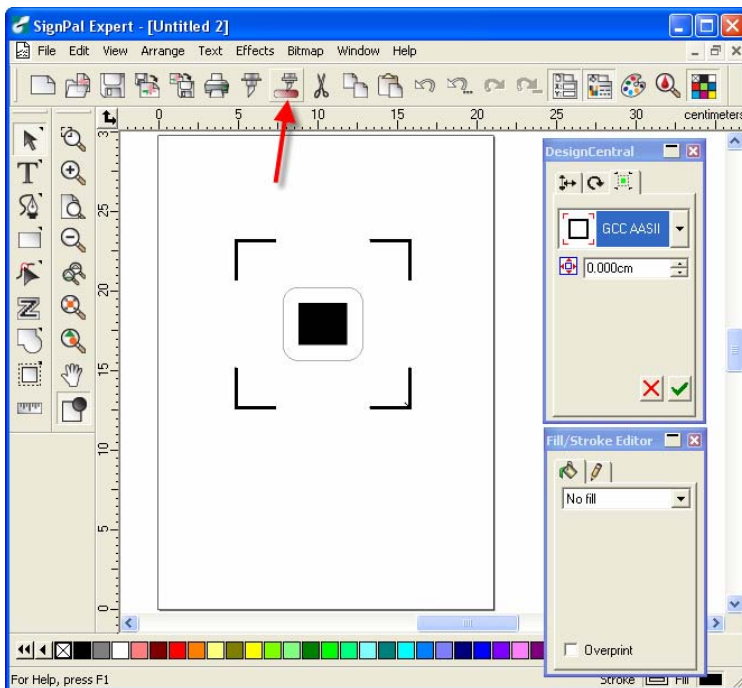




12. Set the Scale as 100cm =1m (100%) in Print page.



13. Load the printout vinyl on the plotter and select **File > Cut Contour** to send data. You can preview the job and change cutter's parameter settings in 'Properties' tab of Cut Contour window. The Production Manager will be automatic activated to complete the job.

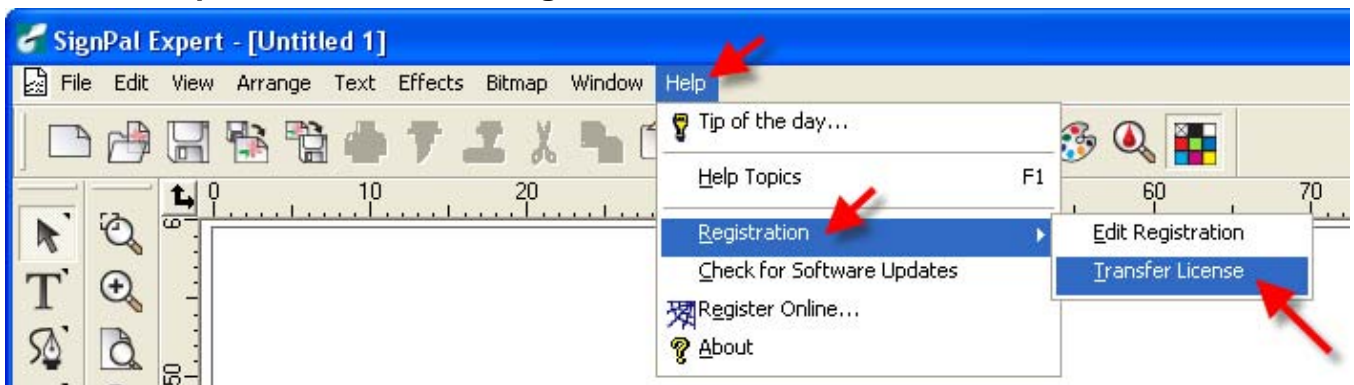


[3] Transferring a Software License Using Softkey

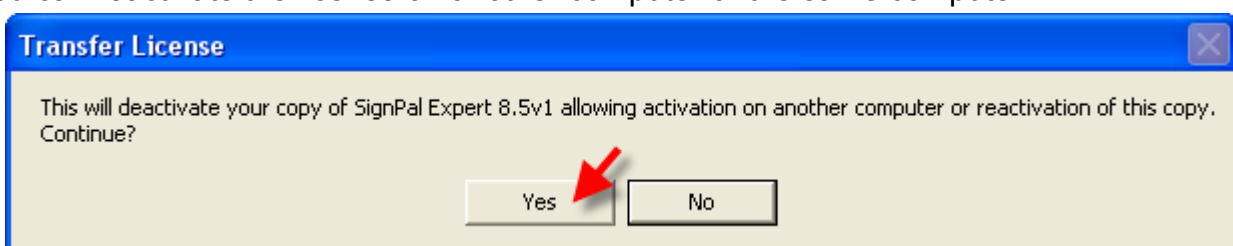
Softkey allows you to transfer the software license to another computer by disabling the software license on one computer, and enabling it on another.

Remarks: If you would like to upgrade or reinstall the Windows OS, please transfer your license before reinstallation. If your hard drive has been formatted and you forget to transfer license in advance, please provide your SignPal ID and password to your local distributor, they will contact GCC to reset your data, and you will be able to register again afterward.

1. From the **Help** menu, mouse over **Registration** and select **Transfer License**.



2. Click **Yes** to deactivate the software license on the computer currently running the software. You can reactivate the license on another computer or the same computer.



3. Make note of your Registration ID and click **OK**.



4. Install the software on the computer you wish to transfer the license to.



[4] SignPal 8.5 Feature Lists

	Pro	Master	Expert	Apprentice
Working with Files				
Job Info	•	•	•	
Templates	•			
Using DesignEditor				
DesignEditor	•	•		
Arranging Objects				
Distribute	•			
Working with Color				
Eyedropper	•			
Using Fill/Stroke Editor				
Overprint	•	•	•	•
Working with Shapes				
Fan	•			
Arrow	•			
Working with Text				
Text Block Size	•			
URW Font Support	Optional			
Working with Bitmaps				
Scanning	•	•	•	
Rasterize	•			
Colormode	•			
Marquee	•	•		
Move	•	•		
Eraser	•	•		
Pencil	•	•		
Fill	•	•		
Crop	•	•		
AutoTrace	•	•	•	
ColorTrace	•			
Working with Effects				
Color Trapping	•			
Graphic Styles				
Contour	•	•	•	
Working with Measurements and Labels				
Dimensions / Labels	•	•		
Automatic Dimension	•	•		
Dimension to Page	•	•		
Cutting your Design				
Cut/Plot	•	•	•	•

EasySIGN Instruction

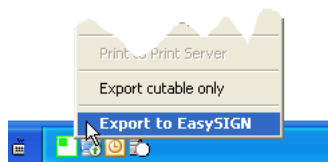
The user manual of EasySIGN software is available on the EasySIGN program CD, or you can refer to the getting started manual available on the EasySIGN webpage at

<http://www.easysign.com/mainwebv1/DownGT.aspx>.

GCC AASII Corpmark System

This application note will show you how to use the GCC AASII corpmark system. It assumes that you have installed your GCC plotter correctly, and that you are able to cut simple jobs on it. If not, please refer to the "Getting started" manual available through the menu "Help, Various, GettingStarted.pdf".

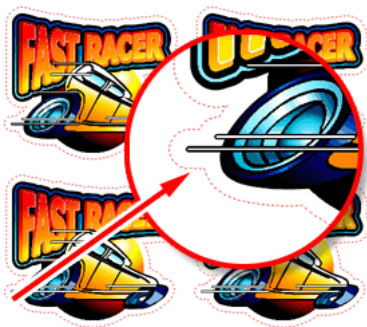
1. Make or import a design



You can either make the design in EasySIGN or import an existing design from another application. For making the design in EasySIGN refer to the "Getting Started" manual. To import a design (for example an Adobe illustrator file) into EasySIGN, use either the compatibility option, or use direct import (menu : "File, Import"). The easiest way is to use compatibility. To do this, start EasySIGN, then use the menu "File, Compatibility", and click the software of your choice.

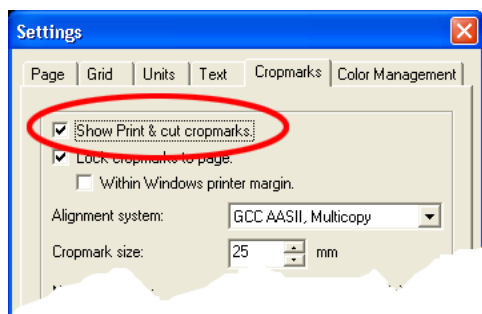
This software will now start, and can be used to design or open the required job. Click the icon in the system tray to easily send the file into EasySIGN.

2. Create print & cut lines.

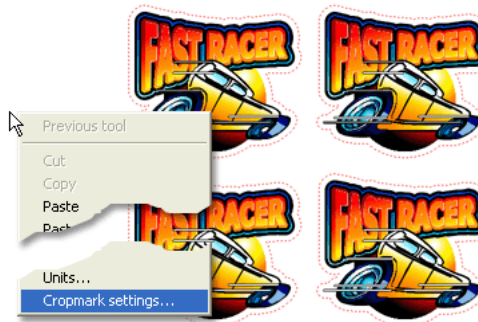


When your design is successfully imported into EasySIGN, you should then select the line or lines that you want to cut on your plotter. After selecting them, use the command "Edit, Convert to, Line type, Print&cut line". The lines that will be cut are now shown in a dotted red line. Copy the design as you like.

3. Enable the cropmarks.



Right-click on an empty part of the worksheet, and choose the command “Cropmark settings”.



This will show a dialog.

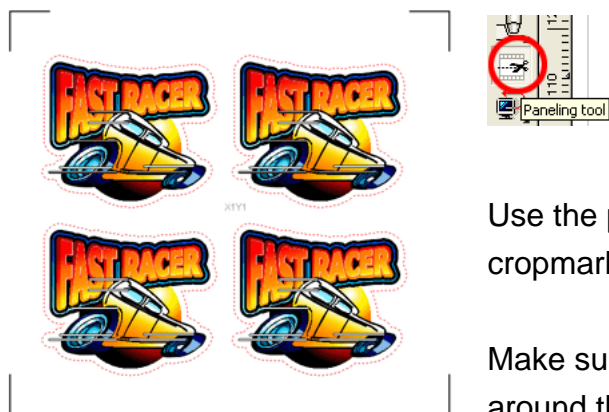
Please tick the box called “Show Print & cut cropmarks”.

Next, you need to make a choice which system that you want to use, there are three different systems:

GCC AASII	This system uses four cropmarks, and one copy. It is meant for jobs that are not very large (like 60 cm or smaller) and that are going to be printed on single sheets.
GCC AASII, Multicopy	Use this system when you want to cut multiple copies of a small job. This will give you very high accuracy, but the plotter will scan every copy of the job separately, which is of course slower than one big job.
GCC AASII, Multisegment	Use this system when the job is large. We recommend it for jobs bigger than 60 centimeter. It will place extra markers on the sheet, which will enhance the accuracy but will take extra time to scan.

The size of the cropmarks is fixed at 25 mm. Just click “OK” to close the dialog. If you have chosen the “Multicopy” cropmarks, there will be extra settings for horizontal copies, vertical copies etc, please ignore these for now, we will get back to them later.

4. Position the cropmark



Use the panelling tool from the left toolbox to drag the cropmarks around your job.

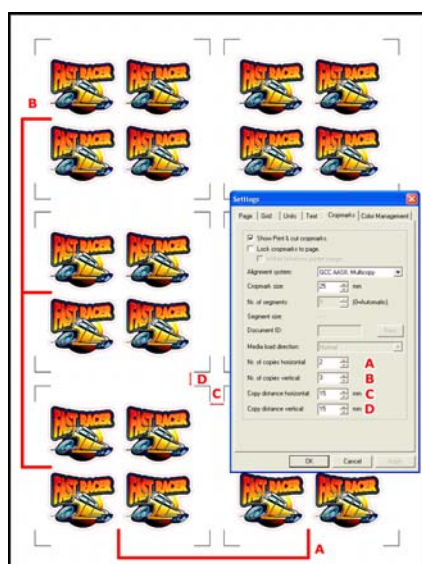
Make sure that the cropmarks have some white space around them, there should not be any objects inside them, to make sure they can be scanned accurately.

5. Export the job for printing

Your design is now ready for production. Click “File, Export”, and a dialog will come up that enables you to create a file. We advise you to use “EPS Encapsulated Postscript (*.EPS)” as the output format, this can be read by any RIP or other print software. Print the resulting EPS file with the software of your choice.

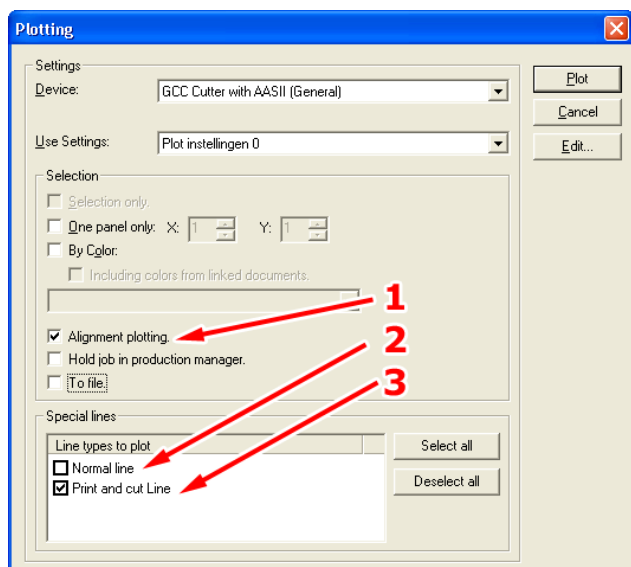
6. Cut the result

Place the resulting print in your plotter. Set the plotter to “offline” and use the arrow keys to position the laser within the lower right cropmark, then set the plotter to “online”.



If you have chosen the cropmarks “Multicopy”, there is one extra step: right-click the page and go to the “Cropmark settings” dialog again. In the dialog, enter the correct values for “nr. Of copies horizontal”, “Nr of copies vertical” and “Copy distance horizontal”, “copy distance vertical”, then click “OK”.

In the EasySIGN software, choose “File, Plotting”. A dialog will come up that allows you to change the plotter settings.



Just make sure that the following settings are made:

Alignment plotting (1)	Switched on
Normal line (2)	Switched off
Print and cut line (3)	Switched on

Then click “OK”. Your plotter will then start scanning the cropmarks, and after that the job will be cut.

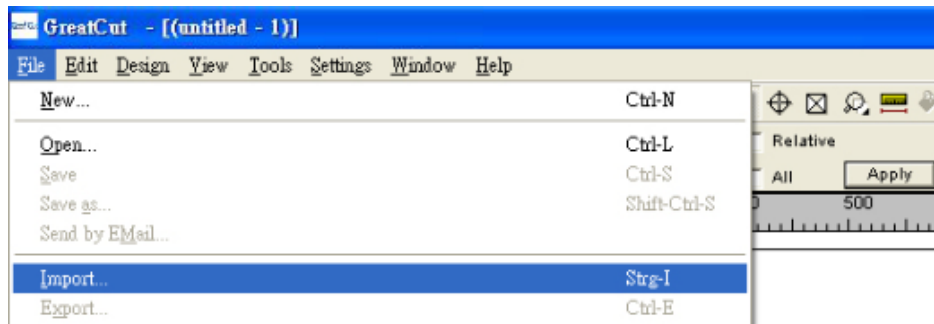
GreatCut Instruction

The user manual of GreatCut software is available on the GCC installation CD.

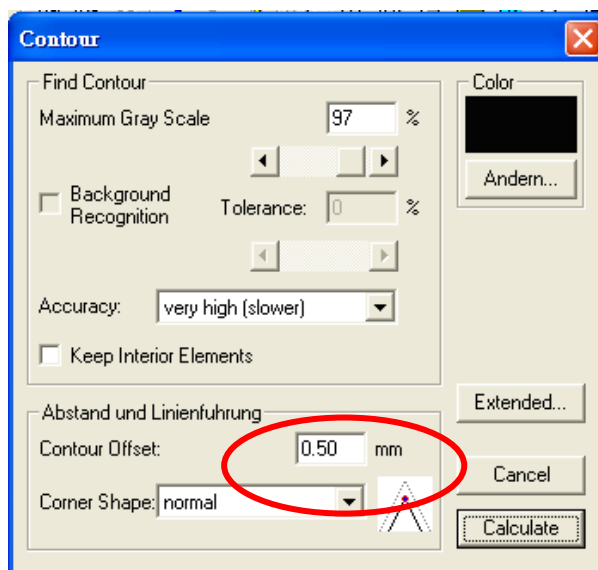
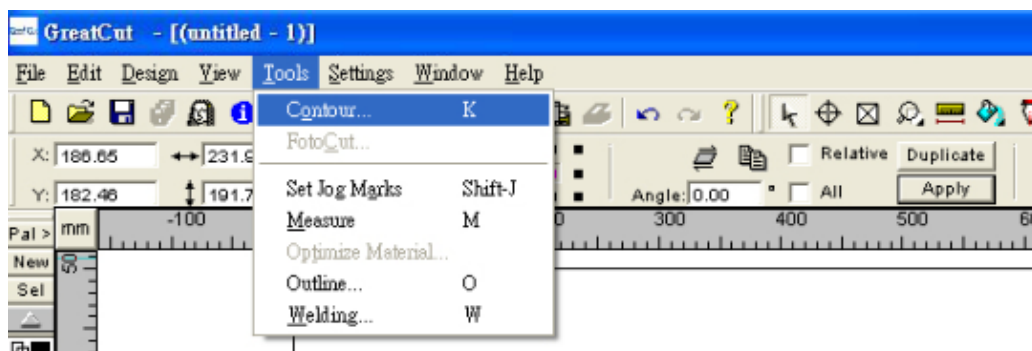
GCC AASII System

Below are step-by-step instructions when using the AAS function of GreatCut software.

Step 1 Import the image you want to print and cut.



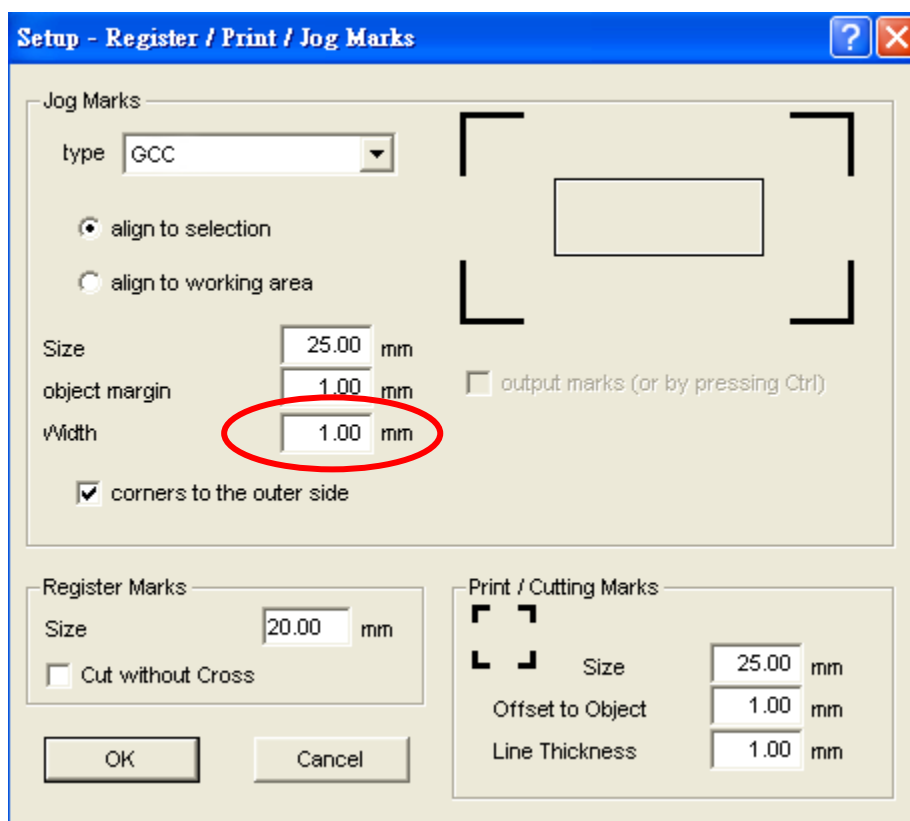
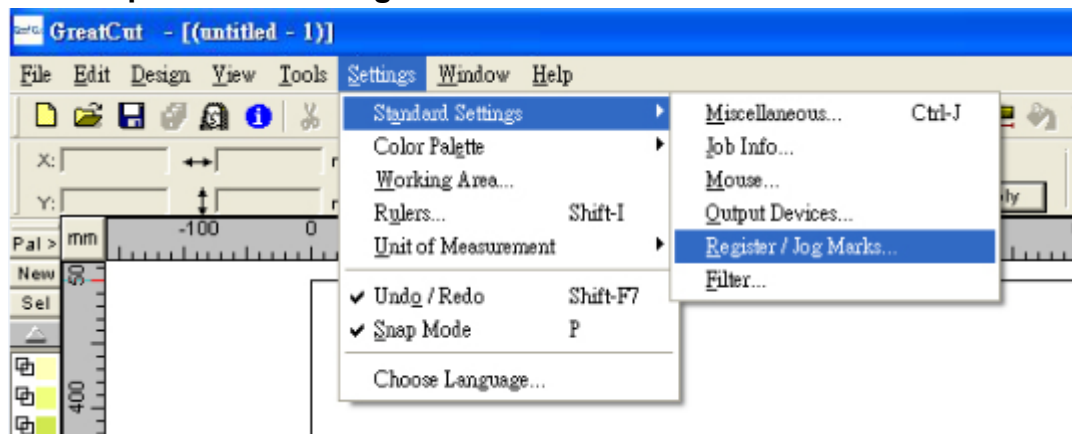
Step 2 Add the contour line.



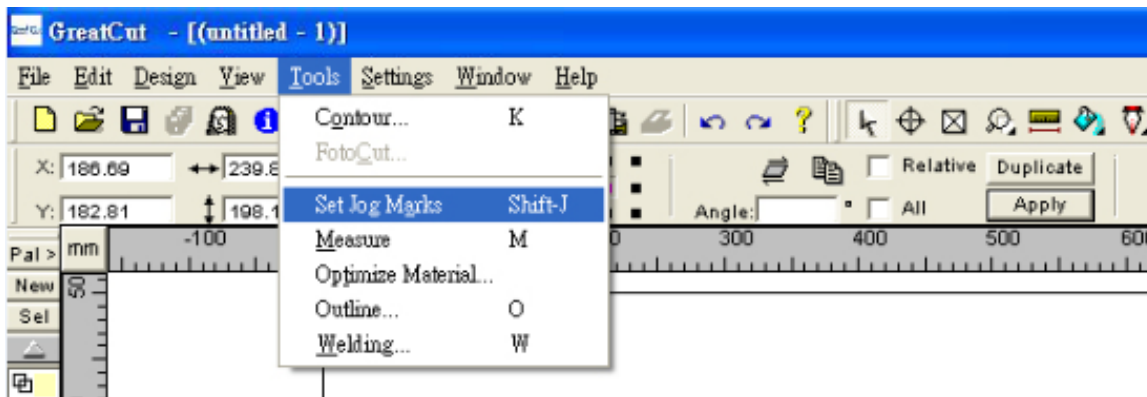
The value of Contour Offset should be $\geq 0.5\text{mm}$.

Step 3 Add the registration marks

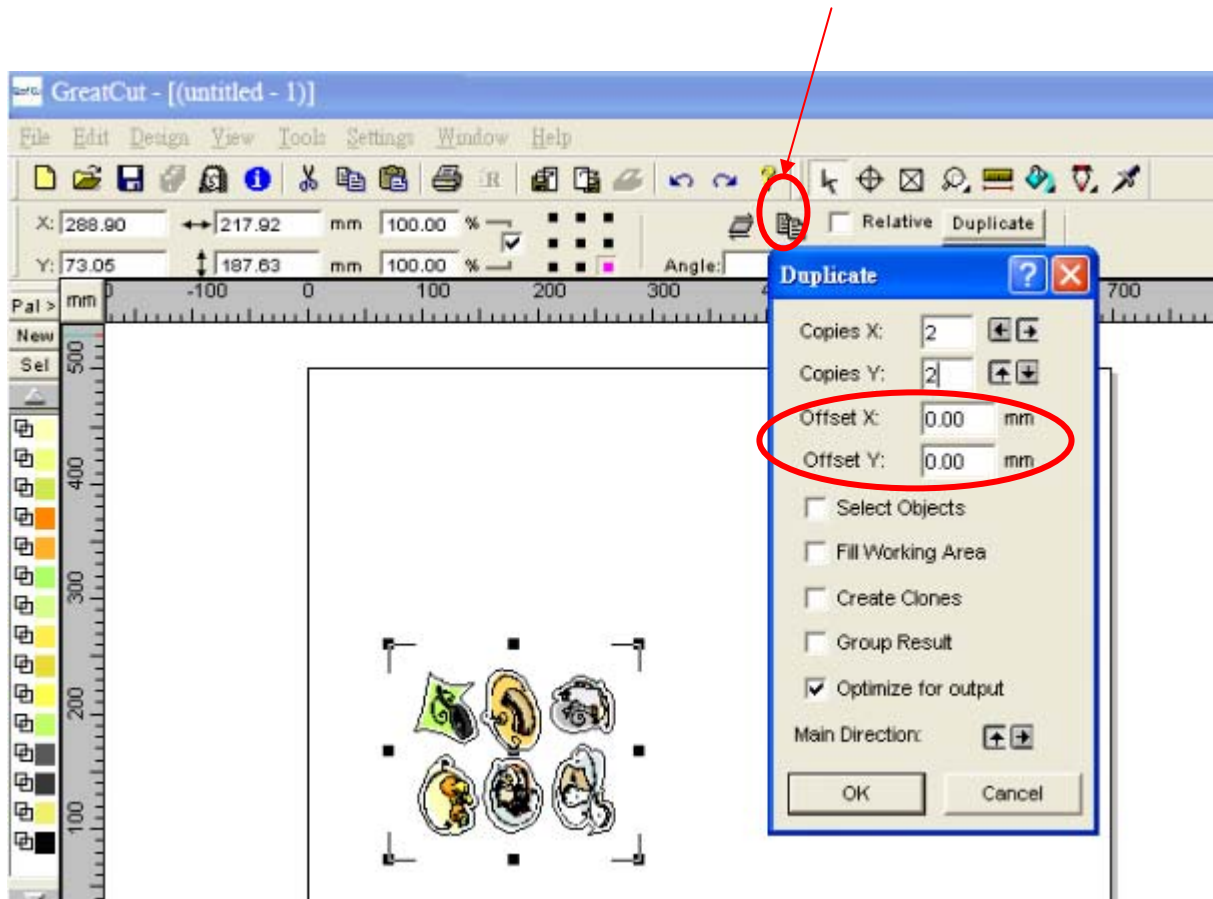
A. Set up the value of registration marks.



The value of width should be $\geq 1.0\text{mm}$.

B. Set the registration marks.

Step 4 Select the whole image including registration marks and click the multiple copies button.



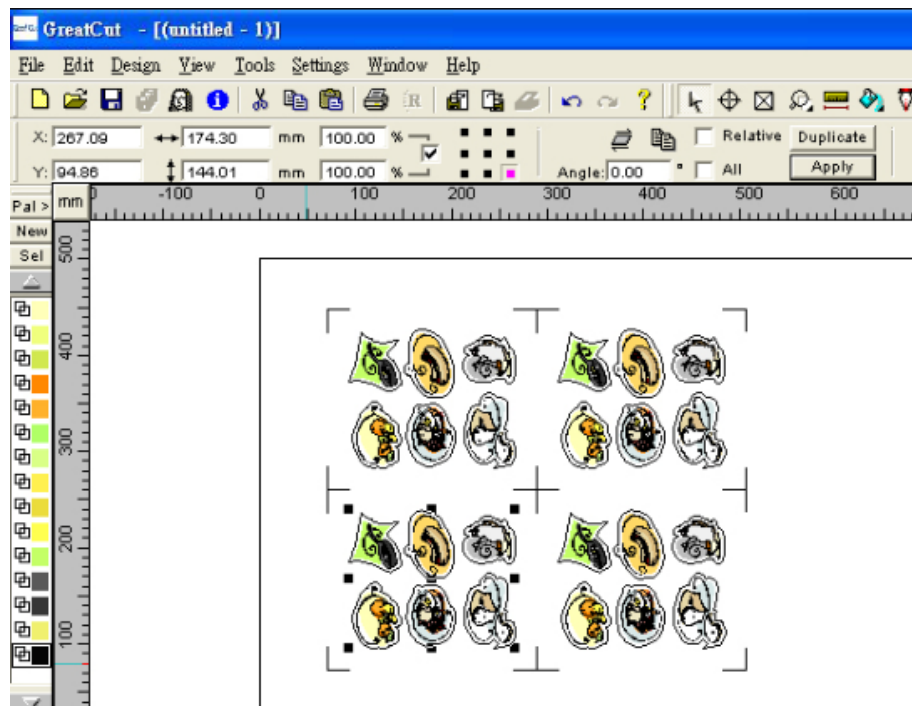
Note: The spacing of vertical & horizontal (Offset X & Y) should be $\geq 20\text{mm}$ or $= 0\text{mm}$.

Step 5 Print out the image.

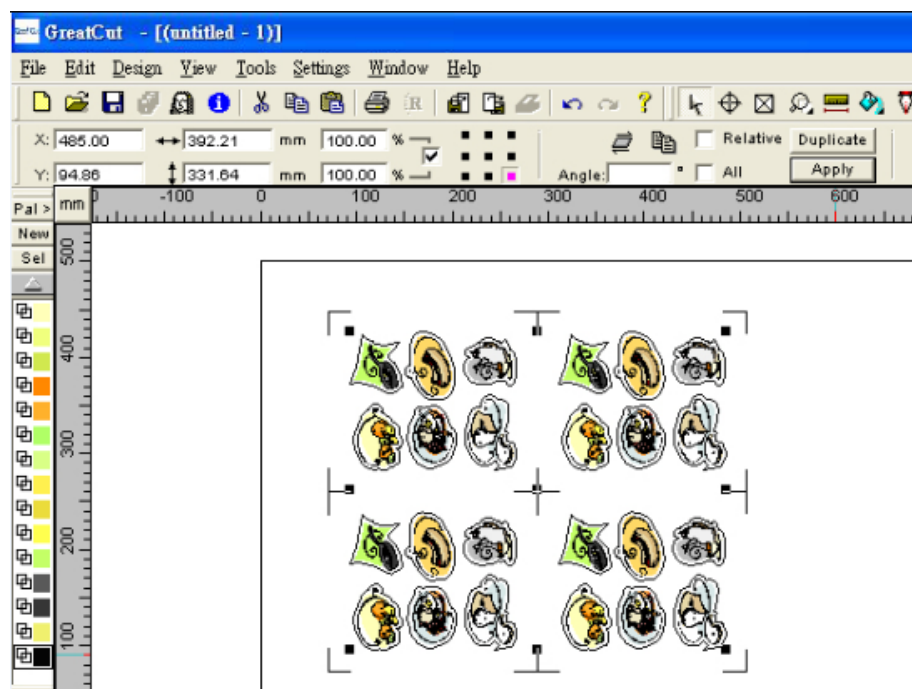
Step 6 Set up the multiple copies function with GCC cutting plotter.

*Please note that you cannot select the whole images when output the multiple copies of images. You only need to select the contour line of original one and set up the value with Cocut Pro 4X4 and then you can send it to GCC cutting plotter. See the example as below.

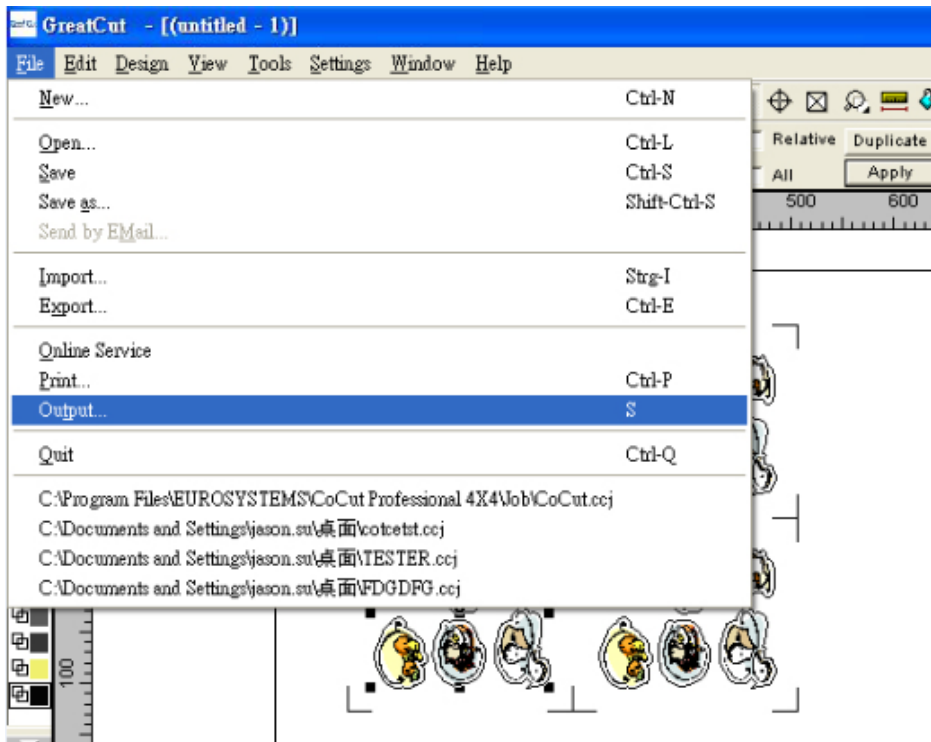
Right: (You should select the contour line but not the image.)



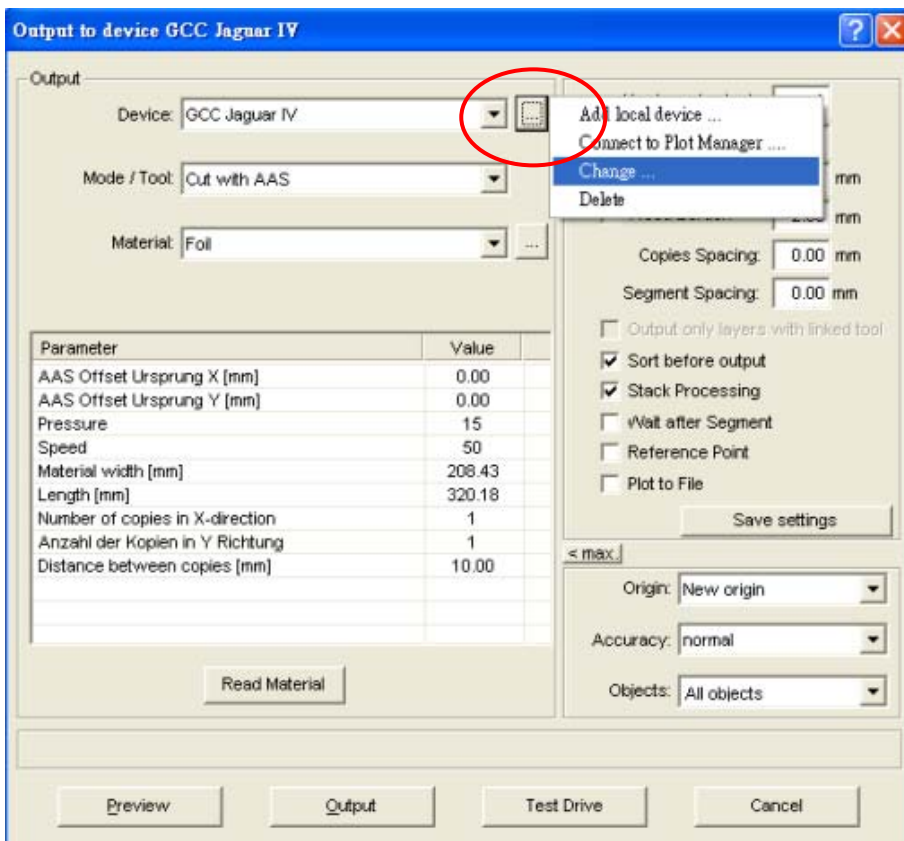
Wrong: (You cannot select the whole images.)



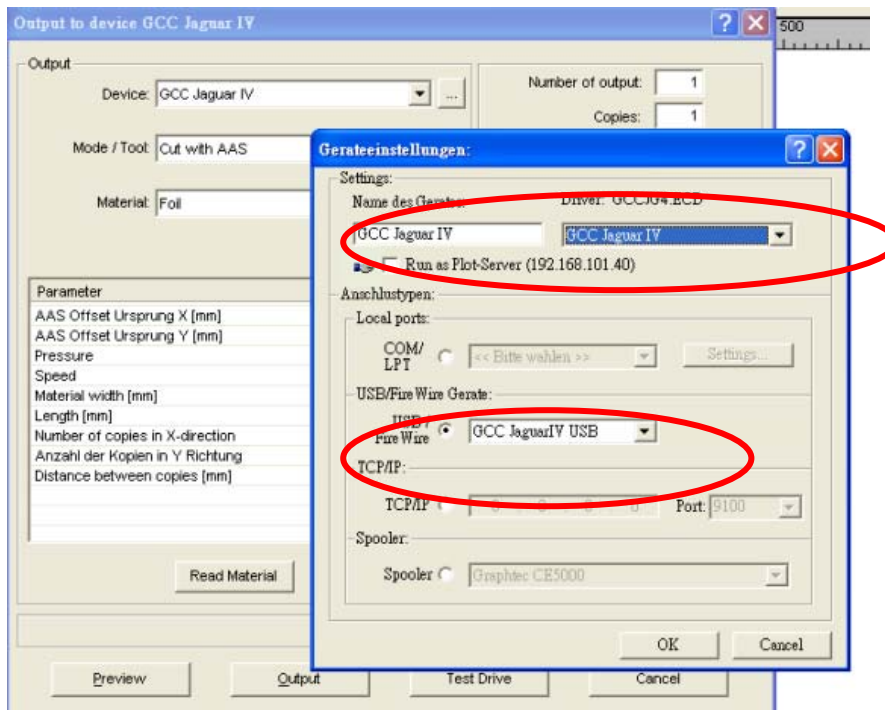
Now you can output the image.



A. Before output, you need to set up your cutter.



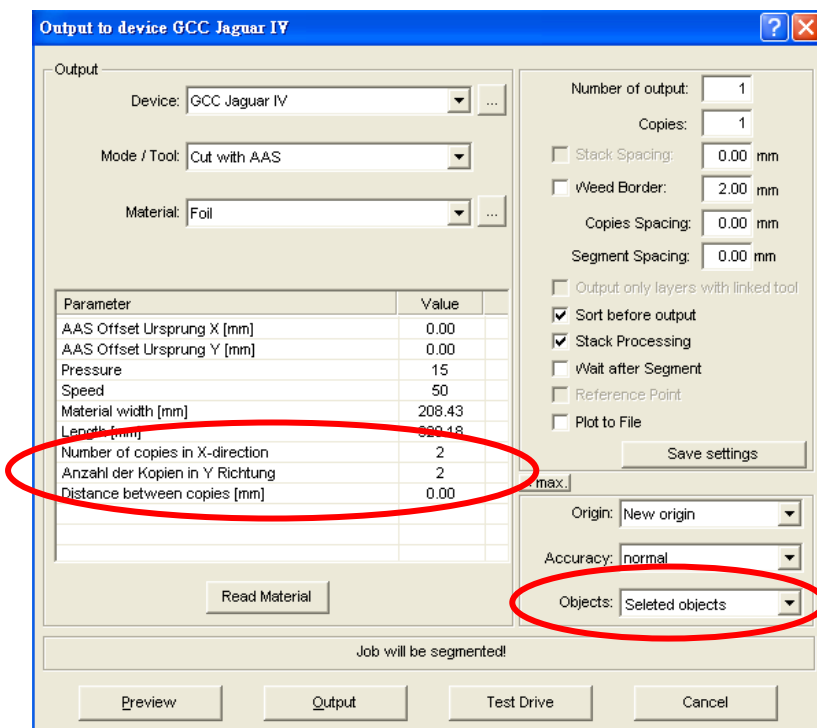
B. Select the series of cutter and the USB port.



C. Set up the number of copies you need to cut here.

Note:

1. The number of copies and distance between copies should be the same as you made before (Step 4).
2. You should confirm that the option of objects must show "Selected objects".



Step 6 You now have a perfectly cut image.

Enjoy!