The Electro-Optical Automation Company

JAGUAR II

JII - 61
JII - 76S
JII - 101S
JII - 132S

User Manual

V2 2003/7/3

Important Information

Thank you for purchasing the ***SignPal Series – Jaguar Ⅱ*** .
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** when 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, blade tip can fly out.
- During operation, do not touch any of the moving parts of this machine (such as the carriage). Also be careful that clothing and hair do not become caught.
- Always connect the power cable to a grounded outlet.
- Always use the accessory power cable that 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.

HOW TO CUT 3mm LETTERS ?

- To obtain good quality output, narrow width media is suggested. 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: DisableCutting

     Quality: Small Letter

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 **AUTO UNROLL MEDIA** function (see page 41) :
  1. If the length of graphic is between 3m and 5m, the cutting speed is better slower than 45cm/sec and the cutting quality is set as **Normal**.
  2. If the length is longer than 5 m, the **CUTTING SPEED** is better slower than 30 cm/sec.
  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. (See Figure 0-1)

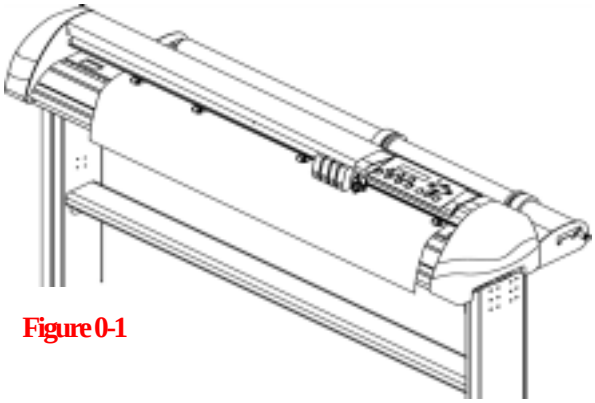


Figure 0-1

Then turn the roll downward to make an equal tension across the media (See **Figure 0-2**)

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

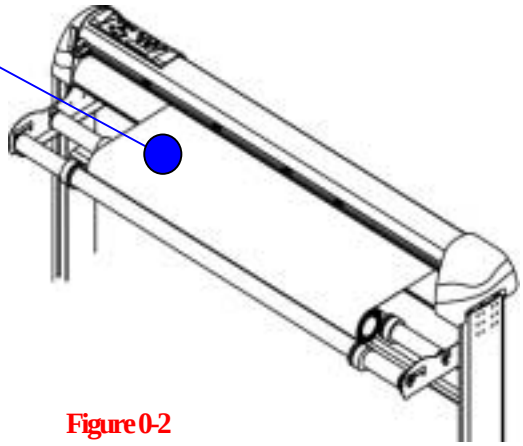


Figure 0-2

4. Engage pinch rollers.

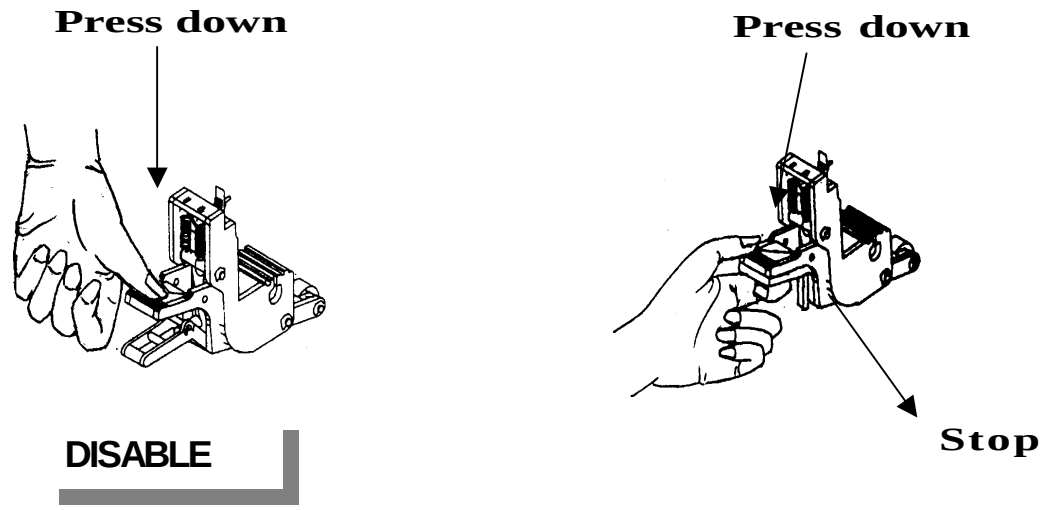
5. Fixes roll media guide bushes on the roll holder to secure the roll media.

6. The protrusion length of the blade should be longer than the thickness of the vinyl. (Please see in the section of "ABOUT THE TOOL".) After you notice all above then you'll enjoy your gigantic signs production!

Warning

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

○ **(CORRECT)** ✕ **(INCORRECT)**

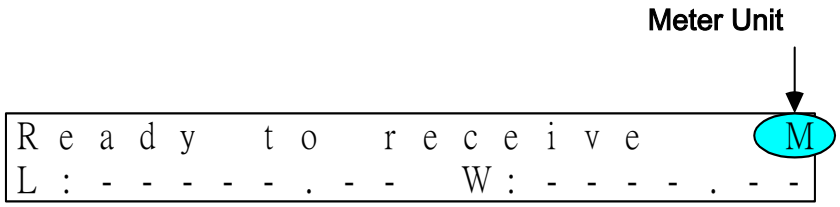


Note:

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

Figure 0-3

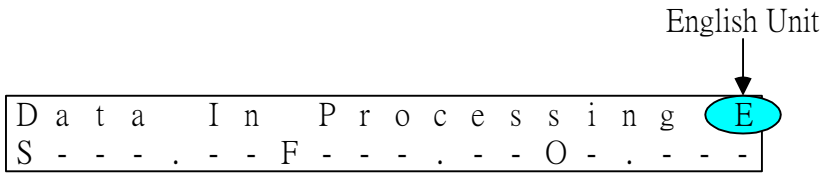
1. **Power** ON**. (LED lights on)**
2. **Place the media and lower down the pinch rollers (must position above the grid drums).**
3. Sizing **- Press the related** Arrow Keys **for** roll **(cut from the current position),** edge **(cut from the edge) or** single**.**
4. **Setup computer and connect with cutting plotter properly.**
5. On-line condition **- Plotter is ready to receive data from computer.**
   LCM shows:



Only under the "Ready to Receive" can press setup keys, such as CUT_TEST, SPEED_KEY, FORCE_KEY, OFFSET_KEY, MISC.KEY, TOOL_SELECT_KEY, and also the ARROW_KEYs.

- Cutting test **- Press** CUT TEST**, position carriage by** arrow keys**,** ENTER**.**
- Speed/Force/Offset **- Press related key to adjust then repeat the step of** Cutting Test **for best cutting result.**
- Function **– Recut, Copy, Quality, Setup and Communication Setup follow the instruction shown on LCM.**

6. **As the cutting plotter receive data from host, LCM displays as follow:**



When you are at this state, the only key you can press is Pause_Key.

7. **Change the setting value during cutting - Press** PAUSE**, for continue cutting press** RESUME**.**
8. Data Clear **- Will terminate the cutting and clear the data in the buffer. Press** DATA CLEAR **then** ENTER**.**

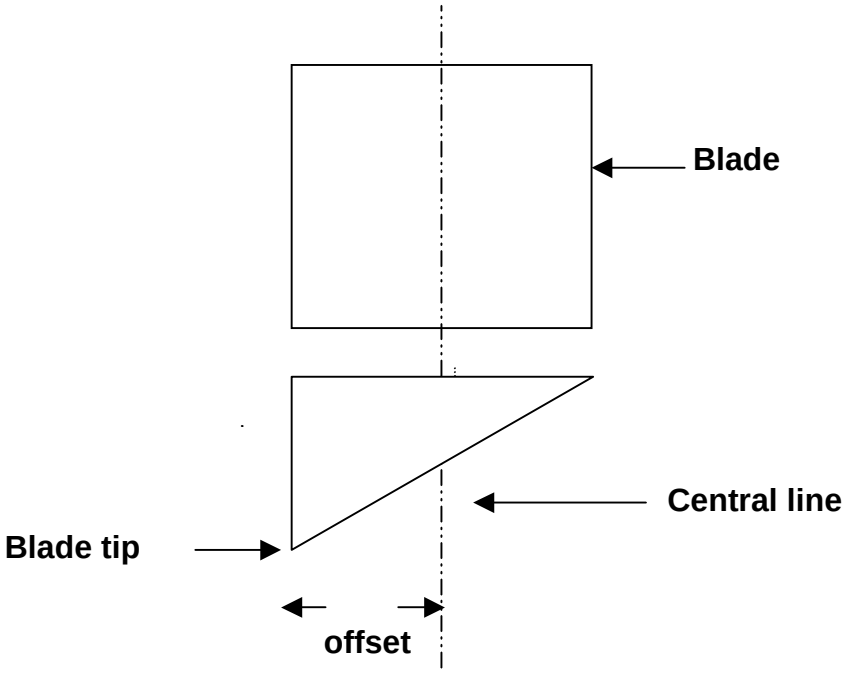
The Specification for GCC Blade

BK07026A **GCB-145S**	For cutting general signage vinyl. Blade with largest angle. The blade is 45° with **Yellow Cap**, 0.25 mm blade offset and 5 miles life. 
BK07027A **GCB-245R**	For cutting thick fluorescent and reflective vinyl. Also for cutting detailed work in standard vinyl. The blade is 45° with **Red Cap**, 0.25 mm offset and 5 miles life. 
BK07028A **GCB-360SB**	For cutting reflective vinyl, cardboard, sandblast, and stencil sharp edge. The blade is 60° with **Green Cap**, 0.50 mm blade offset and 5 miles life. 
BK07029A **GCB-460SO**	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 and 5 miles life. 
BK07030A **GCB-500**	For Cutting small text and fine detail. Sharp blade with smallest offset. The blade is 0.175 mm blade offset with **Black Cap** and 5 miles life. 

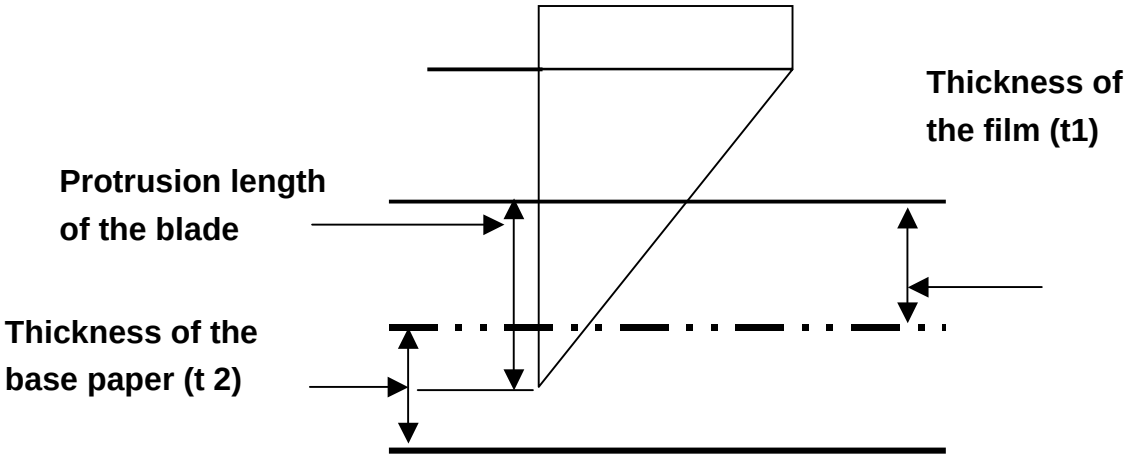
About the Tool

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 = t1 + t 2/ 2, but for your convenience you may just make it about 0.3~ 0.5 mm beyond the blade holder tip.

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Appendix – Specification

1. Setting Up Your Sign Cutting Plotter

1.1 Checking supplied items

Please check carefully whether you have received all the items listed below. If you found any item missing, please consult your local dealer.

Standard Item	Quantity
Cutting Plotter	**1**
Stand Set (Only for Jaguar JII-132S/101S/76S) ● 1 piece of H-shape stand ● 2 pieces of stands ● 1 piece of stand beam	**1**
Flexible Media Support System & Accessory Box	**1**

items	132S/101S/76S	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)	☐	☐
24 pieces of M6 screws	☐	
1 piece of M5 L-shape hexagon screw driver	☐	☐
1 piece of M6 L-shape hexagon screw driver	☐	☐
4 pieces of Hold Plugs	☐	
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		☐

Accessory Bag	1

- 1 piece of **User's Compact Disk**
- 1 piece of **AC power Cord**
- 1 piece of **data cable** (RS-232C or print cable)
- 1 set of **Blade Holder Assembly**
- 1 piece of **Blade**
- 1 piece of **Paper Sliter**
- 1 piece of **Cutting Pad for Vinyl cutting**
- 1 Coil of **Cutting Pad for paper cutting**
- 1 piece of **Tweezers**
- 1 piece of **Water-based Fiber-tip Pen**

1.2 Front View of Jaguar (Figure 1-1)

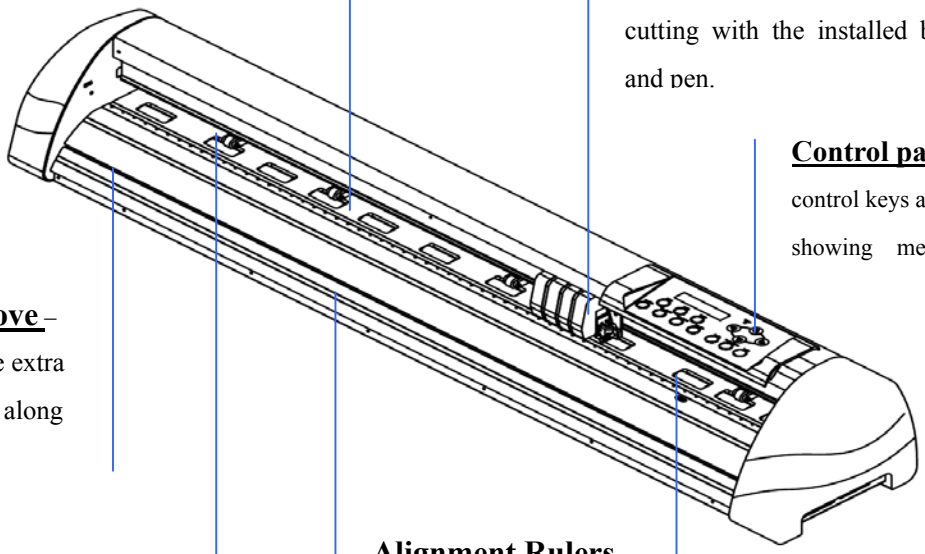


Figure 1-1

1.3 Back View of Jaguar (Figure 1-2)

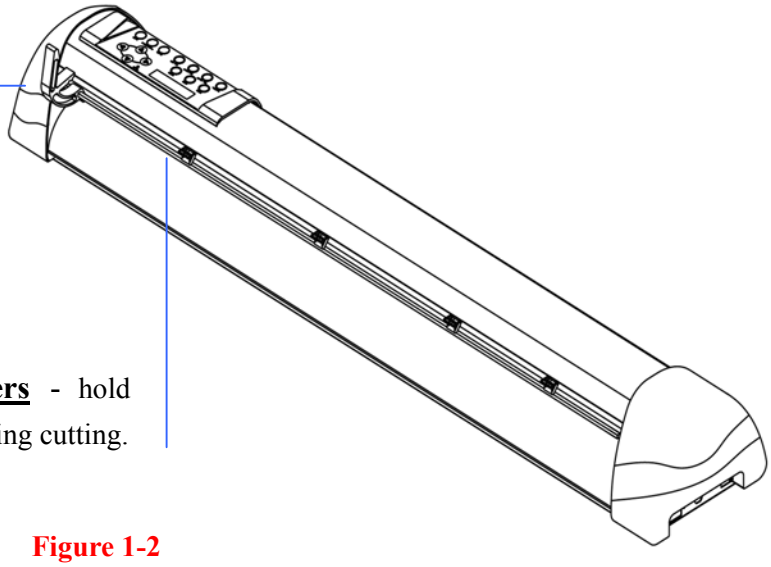


Figure 1-2

1.4 Whole View of Jaguar (Figure 1-3)

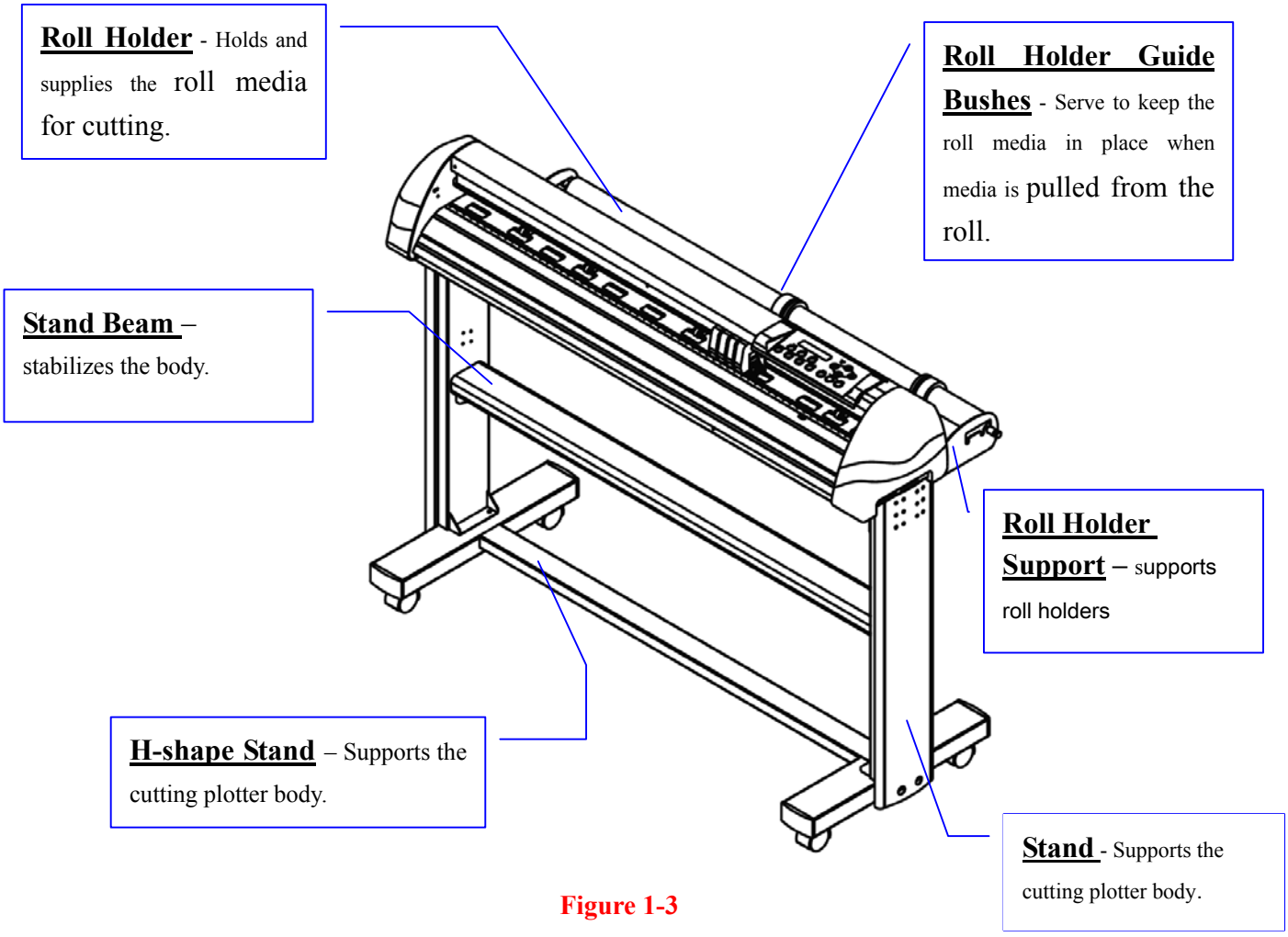


Figure 1-3

1.5 Left Hand Side of Jaguar (Figure 1-4)

Power Switch – On when switches to [I]; Off to [O]

Fuse – 3 Amp.

AC Power Connector – used to insert the AC power cord.

Figure 1-4

1.6 Right Hand Side of Jaguar (Figure 1-5)

Serial Interface Connector (RS232C) – used to connect the cutting plotter to a computer through a serial interface cable.

USB Connector- used to connect the cutting plotter to a computer through a USB cable.

Parallel Interface Connector – used to connect the cutting plotter to a computer through a parallel interface cable

Figure 1-5

1.7 Control Panel (Figure 1-6)

Please refer to the Chapter3 – the description of operation for detailed explanation.

Figure 1-6

LCD Display Screen: various functional and error message are displayed here.

Power LED: it lights up when the power is on.

4 Arrow Keys: used to move the carriage or sheet or changing setting.

Enter Key: used to set item, registers the immediately preceding input value.

Pause/Resume Key: temporarily halts cutting in process or continues.

ON/OFF LINE Key: used to stop the cutting job or aborting the change of the setting.

Cut Test Key: executes a cutting test for verifying the blade force and offset are correct.

Data Clear Key: used to aborting the data being received.

Tool Select Key: used to selecting tools and setting the conditions.

Misc. Key: used to selecting items mentioned in Chapter 3.

Speed Key: used to selecting the cutting speed, up-speed, and cutting quality.

Force Key: used to select the cutting force.

Offset Key: used to adjust the setting value of the blade offset.

2. Installation and Operation Procedures

2.1 Installation

Caution 1

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

Caution 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 ***5 and 40 ℃(41-104°F)*** in the workshop.
- Keep the relative humidity between ***30% and 70%*** in the workshop.
- Protecting the machine from dust and strong air current.
- Preventing the machine from direct sunlight or extremely bright lighting.

Caution 3 **Connecting the Power Supply**

Check the plug of the power cord to see if it mates 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 the cutting plotter.

2.2 Stand & Flexible Media Support System Installation

Step 1

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

- 1 piece of M6 L-shape hexagon screw driver
- 1 piece of M5 L-shape hexagon screw driver
- 24 pieces of M6 screws
- 4 pieces of hold plugs

Step 2

- Remove the plotter body and the accessories from the shipped carton.
- Place the stands upright on the H-stand and follow the number ❶❷❸ to assemble. (See Figure 2-1 & 2-2)

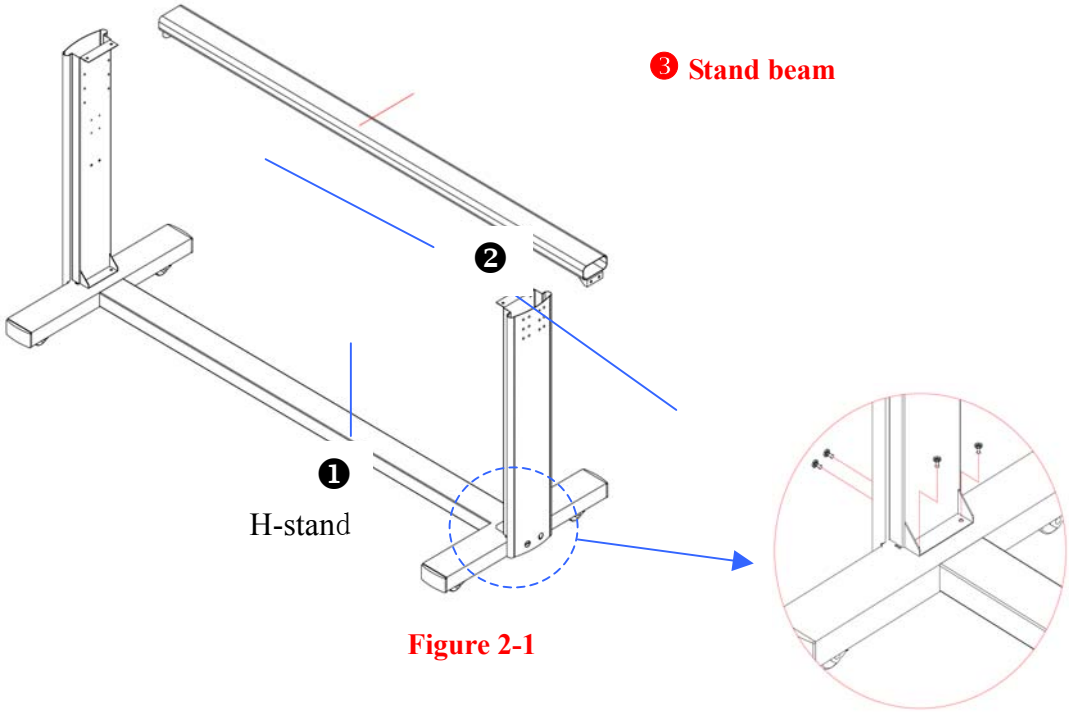


Figure 2-1

Figure 2-2

Step 3

Then, connect Part❷ and ❶. Insert 4 screws into the holes on H-stand and fasten them as shown in Figure 2-2.

Step 4

Position the stand beam perpendicularly to part ❷ and put the screws into the holes and tighten them as Figure 2-3. Then the complete picture of stand will be like ***Figure 2-4***.

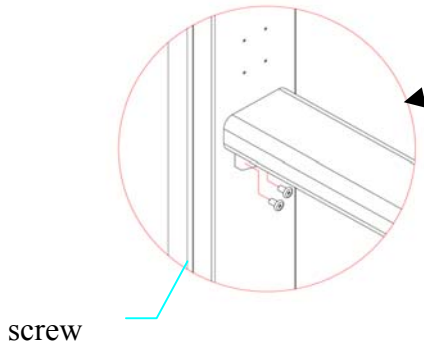


Figure 2-3

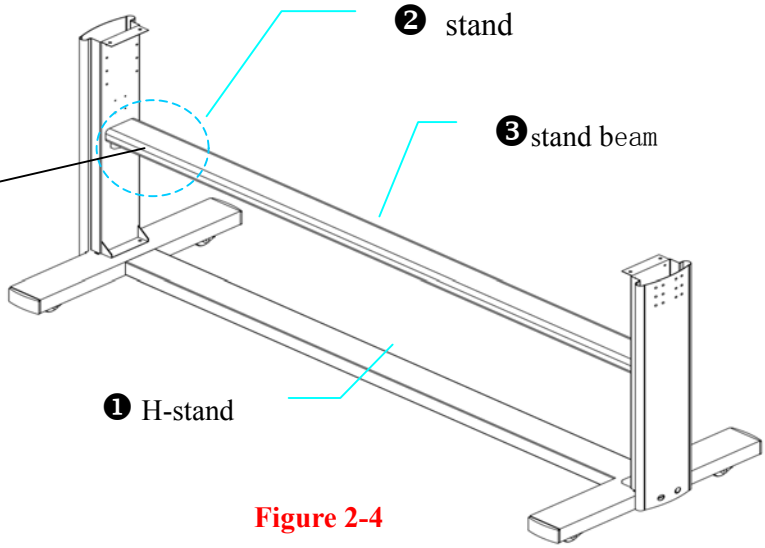


Figure 2-4

Step 5

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 2-5**.

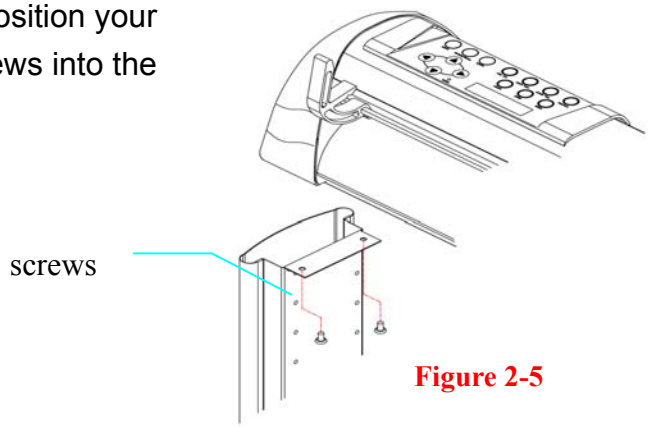


Figure 2-5

Step 6

Insert the roll holder support with the screws into the holes of the stand, then tighten them up as shown in **Figure 2-6**. You could decide roll holder support's position by inserting into different holes.

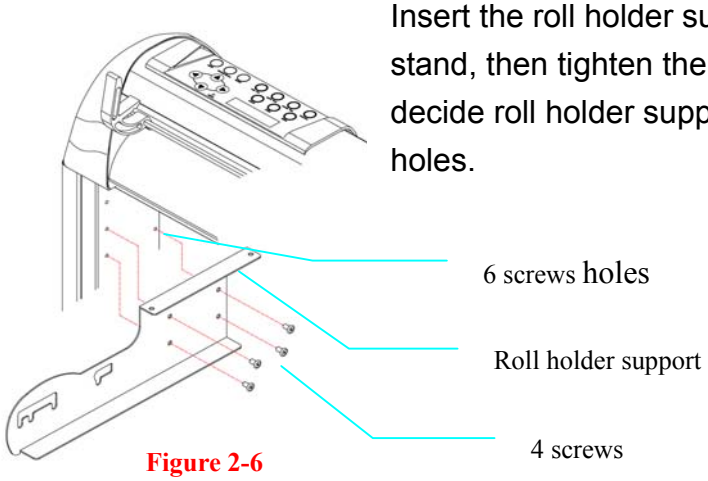
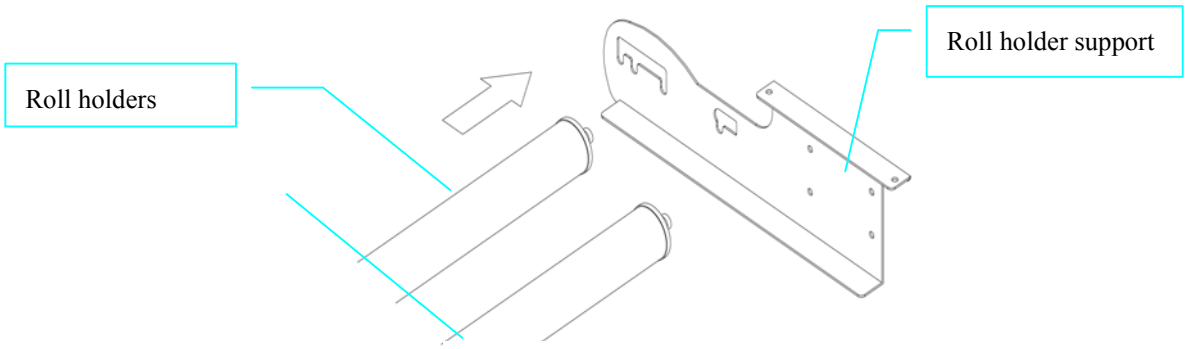


Figure 2-6

Step 7

Place two roll holders into the holes in the roll holder support (**Figure 2-7**)



Figure

Step 8

Lastly, the complete picture will be shown like below. (see **Figure 2-8**)

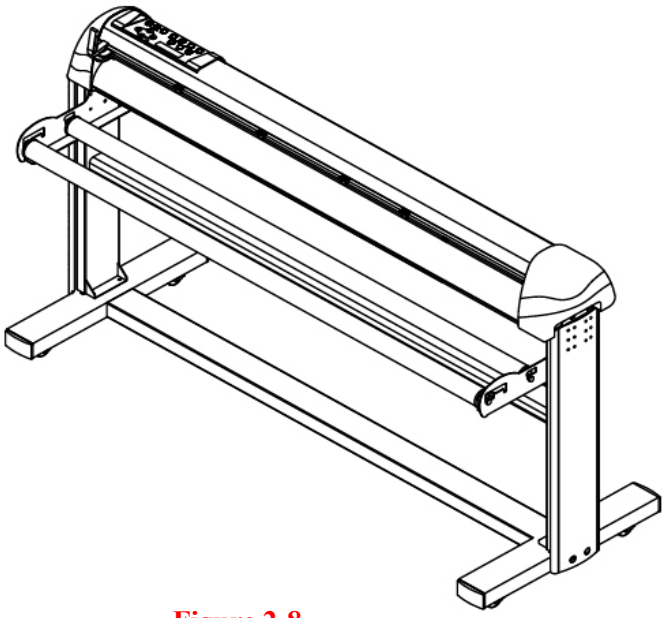


Figure 2-8

2.2 Desktop Flexible Media Support System Installation (Jaguar61)

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)

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 2-3-1**)

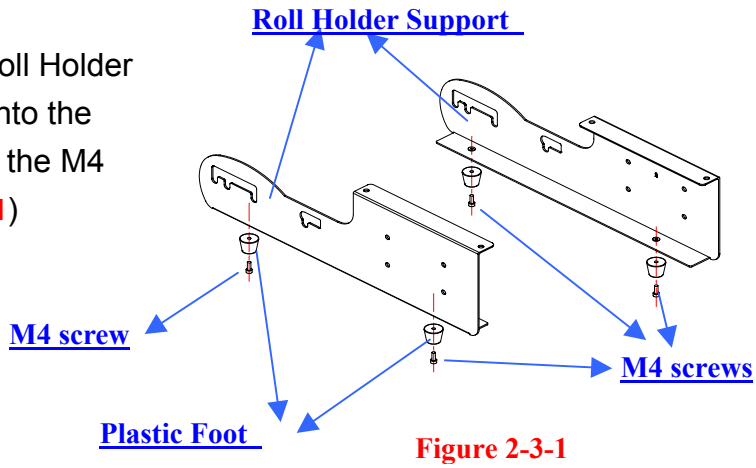


Figure 2-3-1

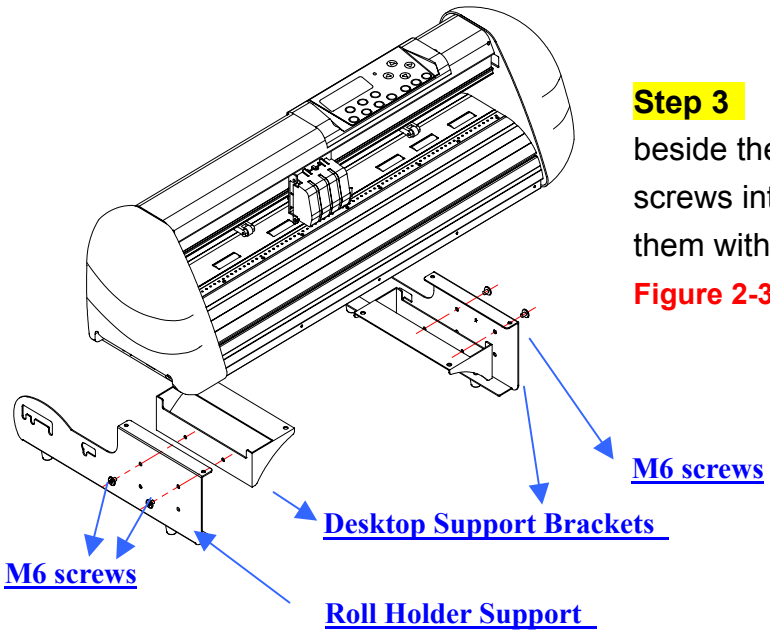


Figure 2-3-2

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 M5 L-shape screw driver. (Refer to **Figure 2-3-2** at the left).

Step 4

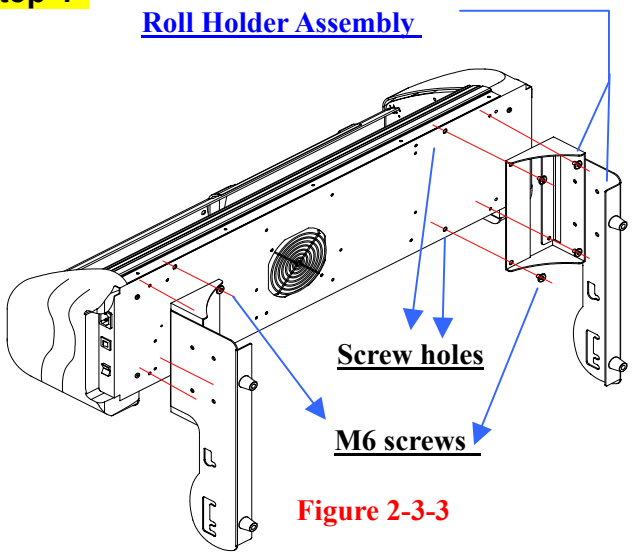


Figure 2-3-3

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 M5 L-shape screwdriver. Like Figure 2-3-3.

Step 5

Place the 2 roll holders into the holes of Roll Holder Support (See **Figure 2-3-4**).

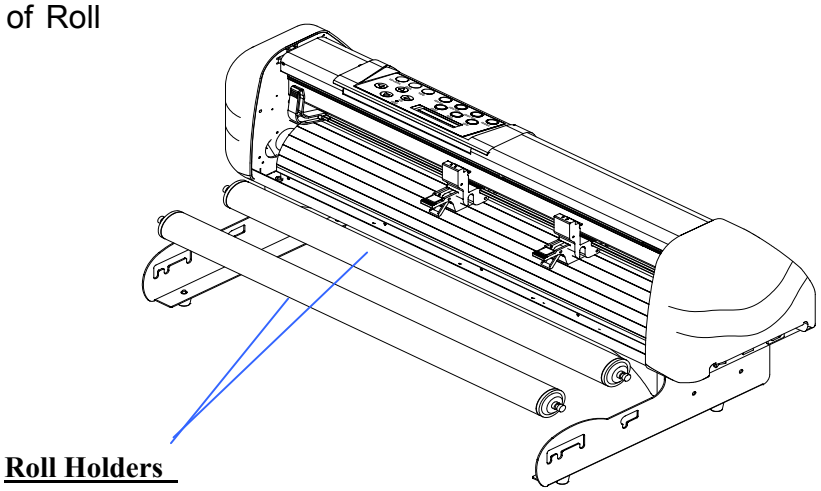


Figure 2-3-4

Step 6

The complete Desktop Media Support System will be shown as in **Figure 2-3-5**.

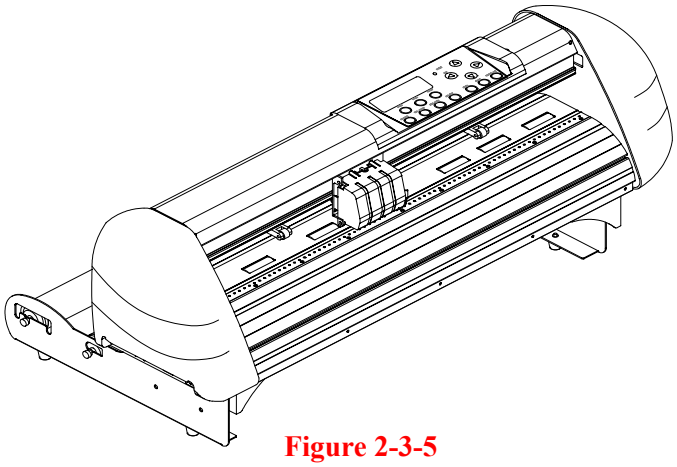


Figure 2-3-5

2.3 Blade Installation

Figure 2-10 is the illustrator 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.

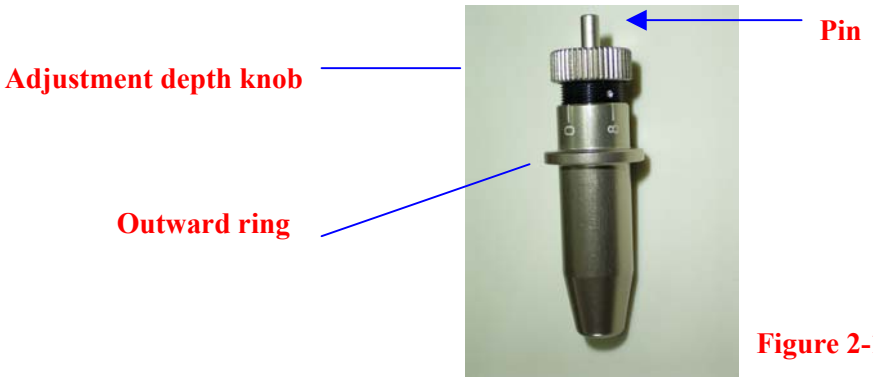


Figure 2-10

Step 1

Install blade (**Figure 2-11**).

Figure 2-11

Step 2

Push the blade to the bottom of the blade holder. (**Figure 2-12**).

Figure 2-12

Step 3

Adjust the blade tip to suitable length by screwing "Blade tip adjustment screw" clockwise or count-clockwise. **(Figure 2-13)**.

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.

Figure 2-13

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 2-14**), then fasten the case (**Figure 2-15**)

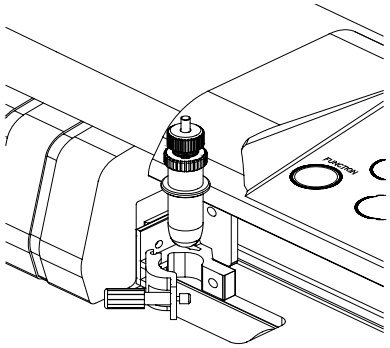


Figure 2-14

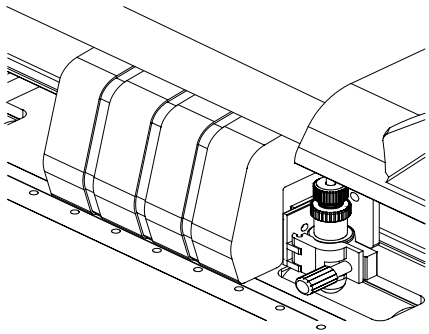


Figure 2-14

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.

2.4 Media Loading

2.5.1 Loading the Sheet Media

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

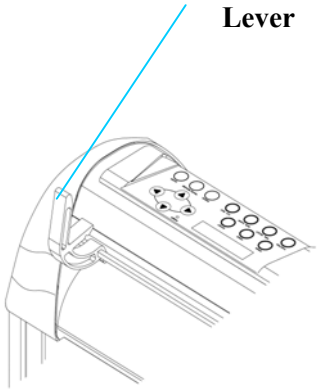


Figure 2-17

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 2-17**).

Step 2

Load your media on the platen and slide it under the pinch rollers from either the front side or the backside. The **color 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 (**Figure2-18**) should be covered. Once the media covers the sensor, the cutting plotter will size the media's width and length automatically.

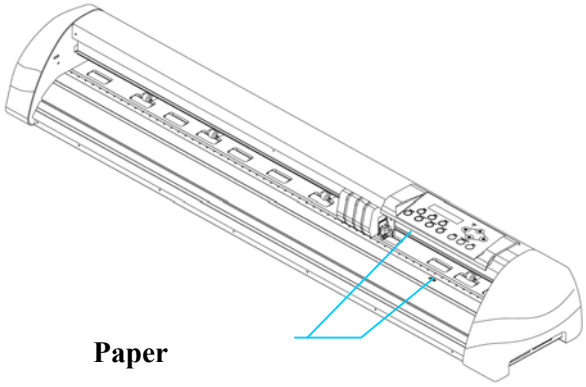
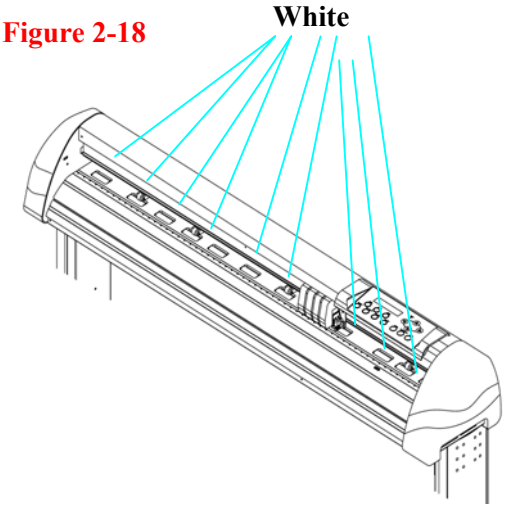


Figure 2-18

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 main beam will remind you where the grid drums are (**Figure 2-19**).



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 2-20**).

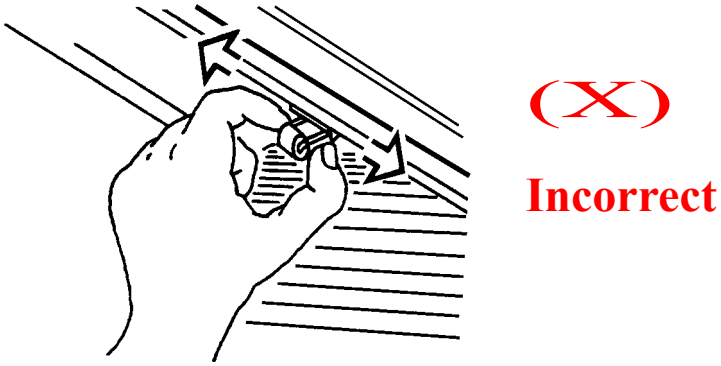


Figure 2-20

2.5.2 Loading the Roll Media

1. Put the roll media guide bushes on two roll holders (**Figure 2-21**).

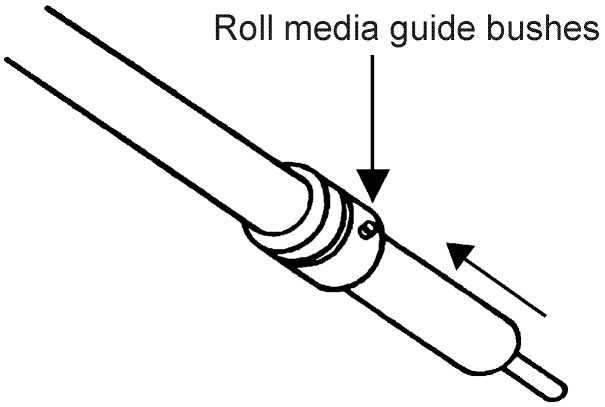


Figure 2-21

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 2-22**).

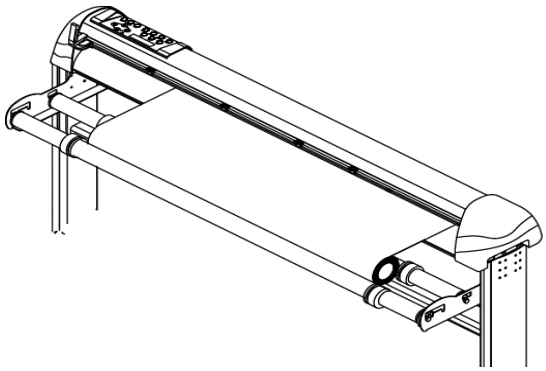


Figure 2-22

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 2-23**).

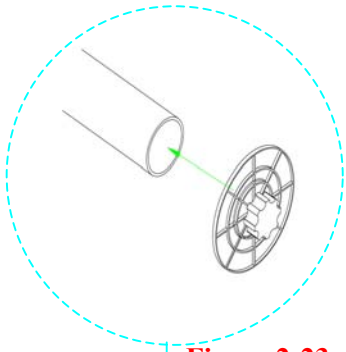


Figure 2-23

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 2-24**)

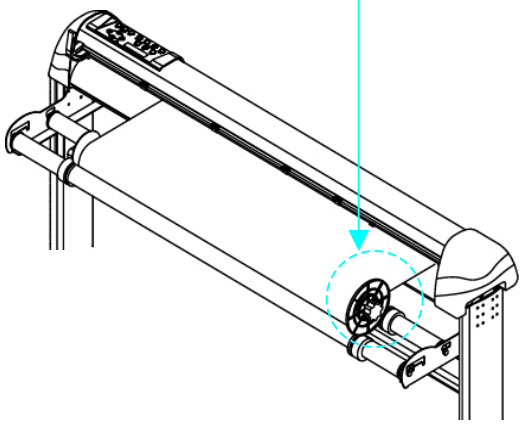


Figure 2-24

3.

Load the media on the platen. Please refer to “2.4.1. 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 2-25**).

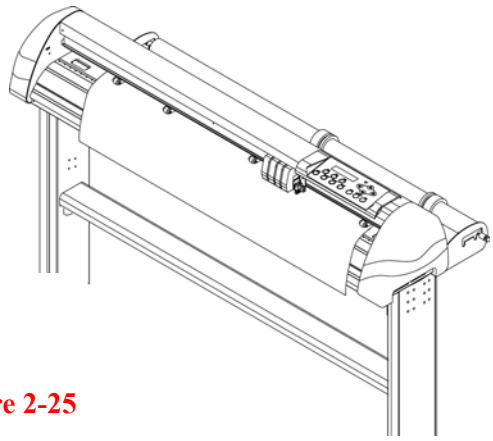


Figure 2-25

4. Then turn the roll downward to make an equal tension across the media (**Figure 2-26**)

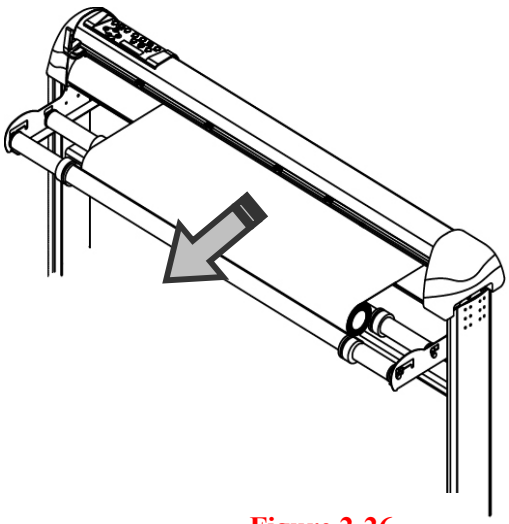


Figure 2-26

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

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

6. Push the lever backward to lower down the pinch rollers.

7. Fixes roll media guide bushes on the roll holder to secure the roll media

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

9. Use the reverse steps to remove the media.

2.6 Tracking Performance

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

1. If the media length is less than 4 m, leave the margin of 0.5mm—25mm in the left and right edges of the media (see **Figure 2-27**).

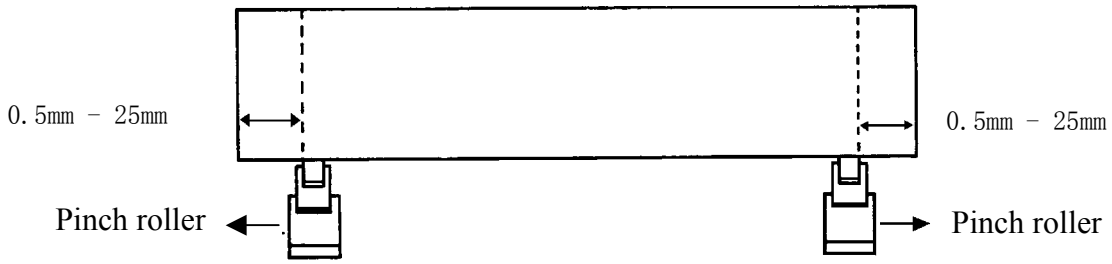


Figure 2-27

2. If the media length is greater than 4m, leave at least 25mm margin on the left and right edges of the media (see **Figure 2-28**).

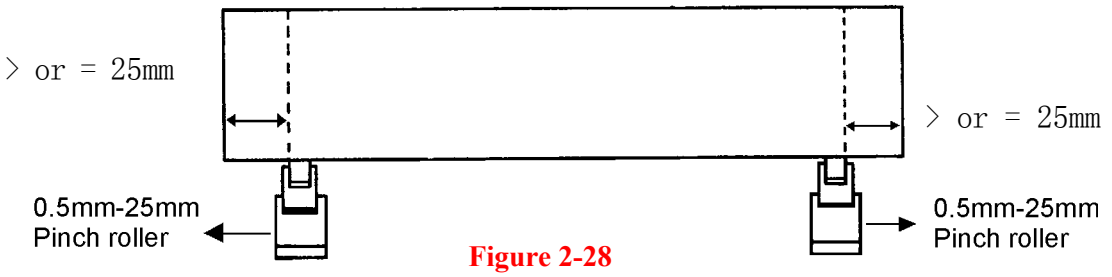


Figure 2-28

Please refer to the paragraph **"Important Information"** at the beginning of the book.

2.7 Adjusting the Cutting Force and Offset

Before sending your designs for cutting, you may perform a “cut test” to generate satisfactory cutting results.

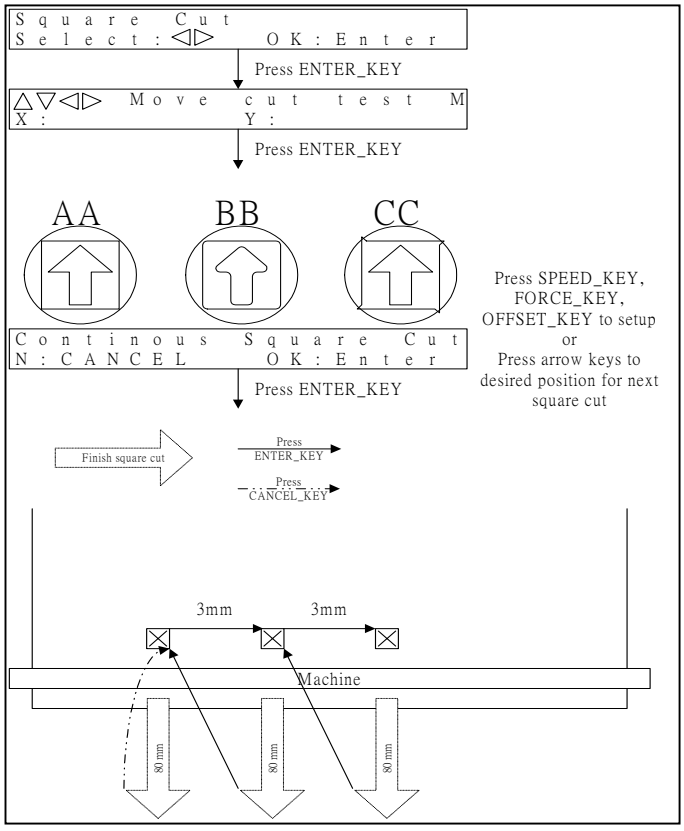
“Cut Test” should be repeated until the appropriate cutting conditions for the media are discovered.

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.

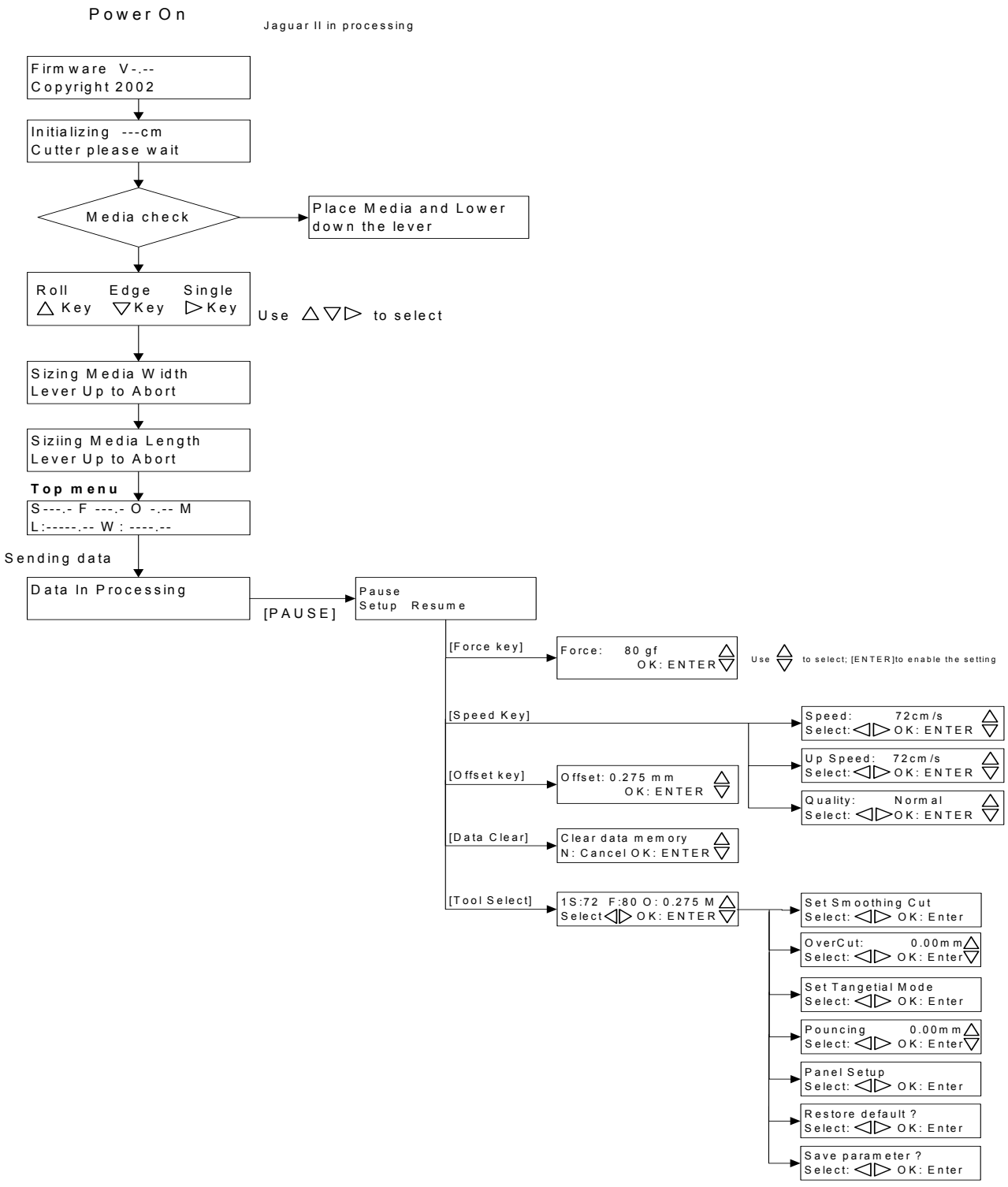


If the pattern appears to be BB or CC layout, press [OFFSET KEY] to adjust the offset value until AA pattern discovered.

3. Descriptions of Features

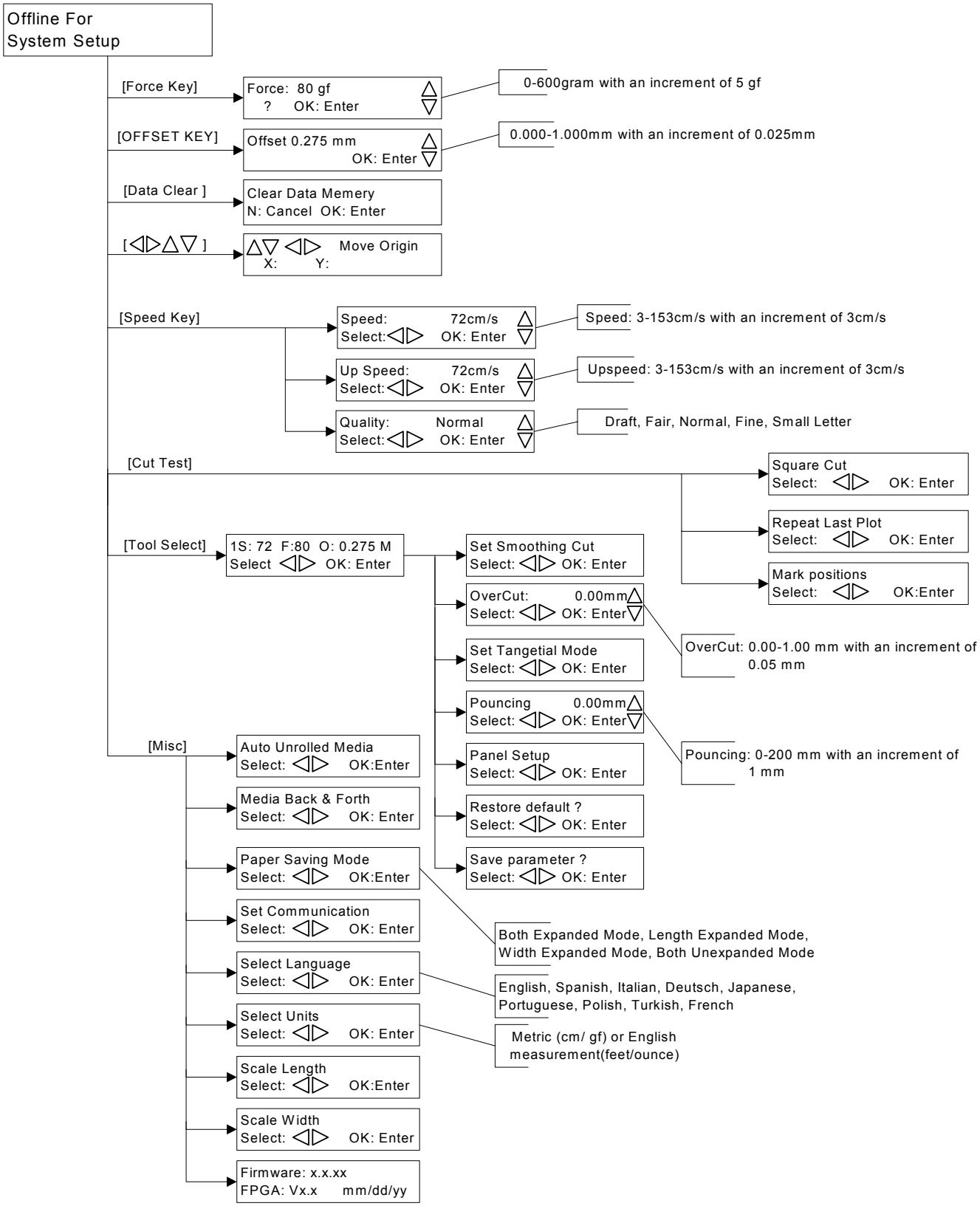
This chapter describes the button operation with the LCM menu flowcharts of Jaguar II. When the cutting plotter is ready for use as described in Chapter 1 & 2, all functions are under default parameters.

3.1 Setting up Menu—Jaguar II in on line mode



3.2 Setting up Menu—Jaguar II in off line mode

Press[ON/OFF LINE] switch to offline mode



3.3 Description of Menu Items

This describes the items and functions available when you press

Menu or Key		Function	Setting	Default
Media sizing	Roll:	Sizing media width.		Tracking 25 meters
	Edge	Sizing media width and pull the media back until the front paper sensor open		Tracking 25 meters
	Single	Sizing media width and length		Tracking 10 meters
[Speed Key]	Speed	This sets the speed when the blade is down and moves for cutting.	3-153cm/s Step (3cm/s)	72cm/s
	Up Speed	This sets the speed when the blade is raised and moves to the next position for cutting during a cutting operation	3-153cm/s Step (3cm/s)	72cm/s
	Cutting Quality	This sets the cutting quality. When cutting small letter, set it to Small letter. When cutting at very fast speed, please set it to "Draft". For normal operation please set it to "Normal".	Draft Fair Normal Fine Small Letter	Normal
[Force Key]		This set the force for the blade during cutting.	600gram 5 gram/step	80 gram
[Offset Key]		This set the offset value for the blade during cutting.	0.000-1.000mm	0.275mm
[Arrow Key]		1. Move the carriage position on x-axis and y-axis 2. Choose the functions and change the value of the setting.		
[Enter]		1. Press it to effect the displayed parameters. The displayed parameters will be saved automatically. 2. To set a new origin at the present tool carriage position.		
[Enter]	**Set New Origin**	In "offline" mode, Press [ARROW KEY] to move the tool carriage to the desired location. Then, press [ENTER KEY] to set new origin. While moving, the x-axis and y-axis are displayed.		

		Press [MISC. KEY] will enable fine-tune movement while moving tool carriage. Press [MISC KEY] again can disable fine-tune movement.		
[Pause/Resume]		[PAUSE/RESUME] is to temporarily terminate the operation of the machine. Press [Pause/Resume] again will resume the cutting job.		
[ONLINE/OFFLINE]		[ONLINE/OFF LINE KEY] is to stop the cutting job or aborts the change of the setting. Once you pressed this key, the cutting job will be abort immediately and can't resume this job.		
[Data Clear]		Clear the buffer memory.		
[Misc.]	Auto Unrolled Media	Auto unrolled will unroll the media at least 50cm when the next point of movement is located beyond the unrolled position. *If the length of the rolled media is less than 2 meters, or the rolled media is light, it is recommend to set this as Disabled. *Auto unroll is only effect on the roll/edge media. *Using Single mode to size paper will disabled this function		
	Media Back & Forth	Enable this function can merge continues pen up movement in order to prevent the movement of media backward and forward. Especially, for the SignPal Cutting Software (6.5v2 and 6.5v3) user, you may notice that when you enable the option "Advance After Plot", after cutting job finished, the media will move back to the origin first, and then move to the end of the plot. Enable this "Media Back & Forth" function will directly advance the plot.		
	Set Width Mode	There are two width modes – "expanded mode" and "unexpanded mode". The cutting area of expanded mode will increase about 20mm than unexpanded mode.		

	Set Communication	These setting are used to connect the communication between host computer and cutter. Baud Rate is to determine the speed of data transmission. Data Bits refers to the size of one block of data and Parity 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		
[Misc]	Firmware Version	Display version number of Firmware and FPGA code.		
	Paper Saving Mode	Enable this function will save media. There are four alternatives in this function. 1. Length expanded mode 2. Width expanded mode 3. Both expanded mode 4. Both unexpanded mode		Both unexpanded mode
	Select Language	Provides LCM message display in different languages. Jaguar II supports English, Spanish, Italian, Deutsch, Japanese, Portuguese, Polish, Turkish and French for LCM display.		English
	Select Units	Provides two unit systems for users convenient.	Metric (cm/gram) and English (inch/oz)	Metric

	Scale Length & Width	This “Scaling” feature is used to adjust the error on the length and width, which 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: 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 and, 4. Press [UP ARROW /DOWN ARROW] changes the values to the actual length.		
[Tool Select]	Set Smoothing Cut	Enable this feature to make curves smoother.		
	Set Tangential Mode	Provide the emulation tangential-cutting technique with thicker media types and small letter cuts. Note: When the Offset value is setting at 0.000 mm Set Tangential Mode will automatically setting at disable.		Disable
	Pouncing	It makes perforated paper patterns that used together with a charcoal or chalk pounce bag. The patterns will allow you to transfer an image to surfaces for hand painting or cutting. Place pouncing strip on the top of the cutting pad to protect the cutting pad during. Setting Range: 0 mm – 200 mm, for 0 mm is used to disable the pouncing mode. * Pouncing tool is an optional item.		

	Set Panel Setup	Setting to “Accept setup command”, the cutter receives changes of set up commands from the software when the machine is disabled. Setting to “Control panel only”, the cutter will not accept any set up command from the software, the Force, Speed, Cutting Quality, and Offset must directly changed from the Control Panel of the cutter.		
	Save Parameter	It can save 4 patterns of cutting parameters for later use.	Save 1 to 4	Pattern 1
	Over Cut	It will cut an excess margin from the first and last line segments.	0.00mm-1.00mm 0.05mm/step	0.00mm
	Restore default	It returns the settings values of the menu items to factory-default values.		-
[Cut Test]	Square Cut	This performs a cutting test at the present blade position. For more information, please refer to 2-7 adjusting the blade force and cutting speed.		
	Recut / Copy	Allows user to repeat the last job without sending the file again. Setting Range: For Recut: 1-99 with an increment of 1. For Copy: 1-99 with an increment of 1. It will leave 1mm between each copy. Note: If the media is not large enough to continuous copy, it will shows as following. `Out Of Space; # of Copies finished` If both functions are selected at the same time, the cutter only executes the last setting.		
	Mark Positions (for contour cutting)	This feature is making contour cutting on the images that were generated by printers. The registration marks should be printed along the border of the image. Jaguar II provides two alternatives. 1. 2-points registration contour cutting 2. 3-points registration contour cutting		

4. Making Connections

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 3-1

4.1 Universal serial bus

Puma II 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.

4.1.1 USB driver installation

Caution!! Don't plug USB cable into Jaguar II before you install USB driver.

a. Put USB cable aside (don't plug it into Jaguar II).

b. Insert "Installation CD", and then click on "USB driver" to install USB driver. When it shows "USB Driver installed".

4.1.2 Connection

Plug the USB cable into the Jaguar II USB interface connector. Plug the other end of the cable into the PC's USB interface connector.

4.1.3 Cutting driver or sign cutting software installation

Insert "Installation CD", and then click on "Driver" to install driver working with CorelDraw.

4.2 PARALLEL TRANSMISSION

4.2.1 Connecting to the Parallel Port (Centronics)

1. Connect a parallel cable to the cutting plotter and the host computer (Figure 4-1)
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.

4.3 SERIAL TRANSMISSION

4.3.1 Connecting to the Serial Port (RS-232C)

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.

4.3.2 Transmitting the Data to Plotter

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, therefore, Use DOS commands like **TYPE** or **PRINT** to output your file. As long as the file is **HP-GL** or **HP-GL/2** format, the cutting plotter can output the data precisely.

For example, a file with **PLT** extension generated by **SignPal** can be transmitted directly to the plotter at the DOS prompt, and then be cut out. Before outputting at the DOS prompt, set up a transmission protocol between your cutting plotter and computer by a DOS command, MODE. Make sure that your PC has the same communication protocol as the cutter. For example:

MODE COM2: 9600, N, 8, 1, P

Then, use **TYPE** command to output via **COM2** if **COM2** is the assigned output port.

TYPE ***filename*** **> COM2**

> ***Tip:***
> Add the **MODE** command line to your system's **AUTOEXEC.BAT** to automatically execute **MODE** command every time you want to output your data at the DOS prompt via serial connection. However, values in a **MODE** command should comply with the related requirements of your software. Refer to DOS manual for further information.

4.4 Interface of Macintosh Computer

In order to operate the cutting plotter with a Macintosh computer (e.g. Power Mac), you need a MAC modem cable (DIN 8 to DB25) to connect the RS-232C cable, please refer to *Fig 4-2*.

The cable is an optional item, which could be ordered through your dealer.

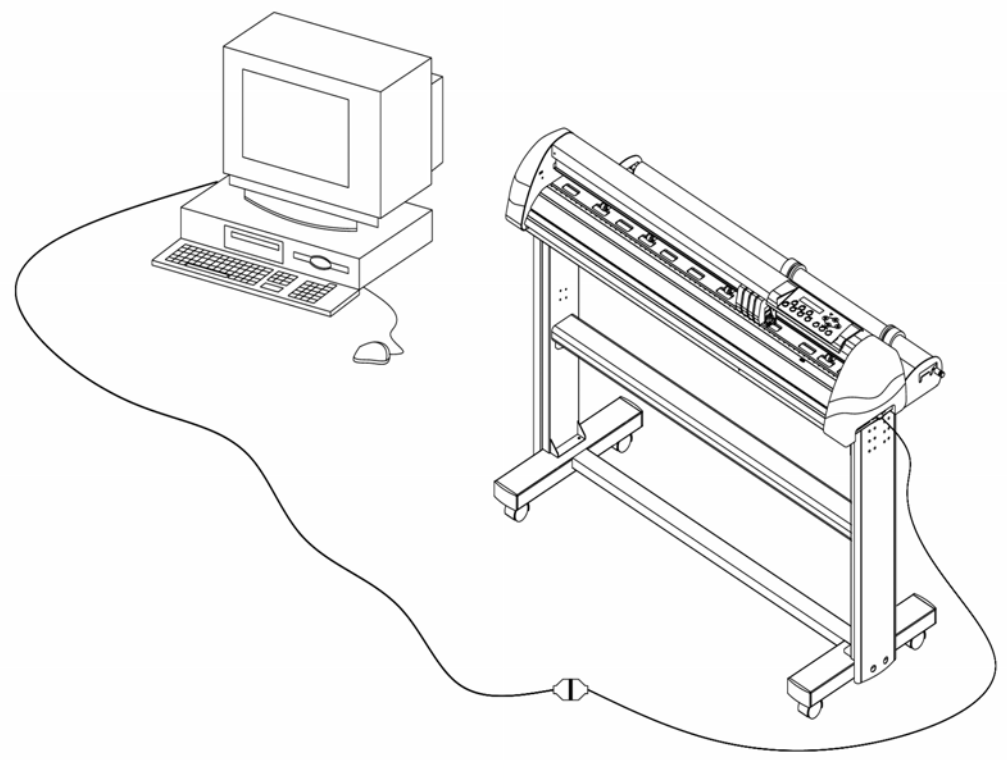


Figure 4-2

5. Maintenance

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

5.1 Cleaning the Cutting Plotter

In order to keep the cutting plotter under good condition and best performance, you need to clean the machine properly and regularly.

Cleaning Precaution !

- Unplug the cutting plotter before cleaning 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, clean with a damp cloth or an alcohol-immersed cloth. Wipe with water to rinse off any residue and dry with 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 or an alcohol-immersed cloth, and dry with a soft, lint-free cloth.
- Wipe dust and dirt from the stand.

5.2 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 5-1**

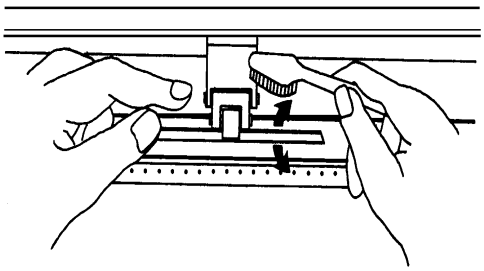


Figure 5-1

5.3 Cleaning the Pinch Rollers

1. If the pinch rollers need 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 finger to hold the pinch rollers not to rotate.

2. If needed to remove the embedded or persistent dust, use the lint-free cloth or cotton swab moistened with rubbing alcohol.

6. Trouble Shooting

This chapter helps you to correct some common problem 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:

6.1 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 is the problem still existing.

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

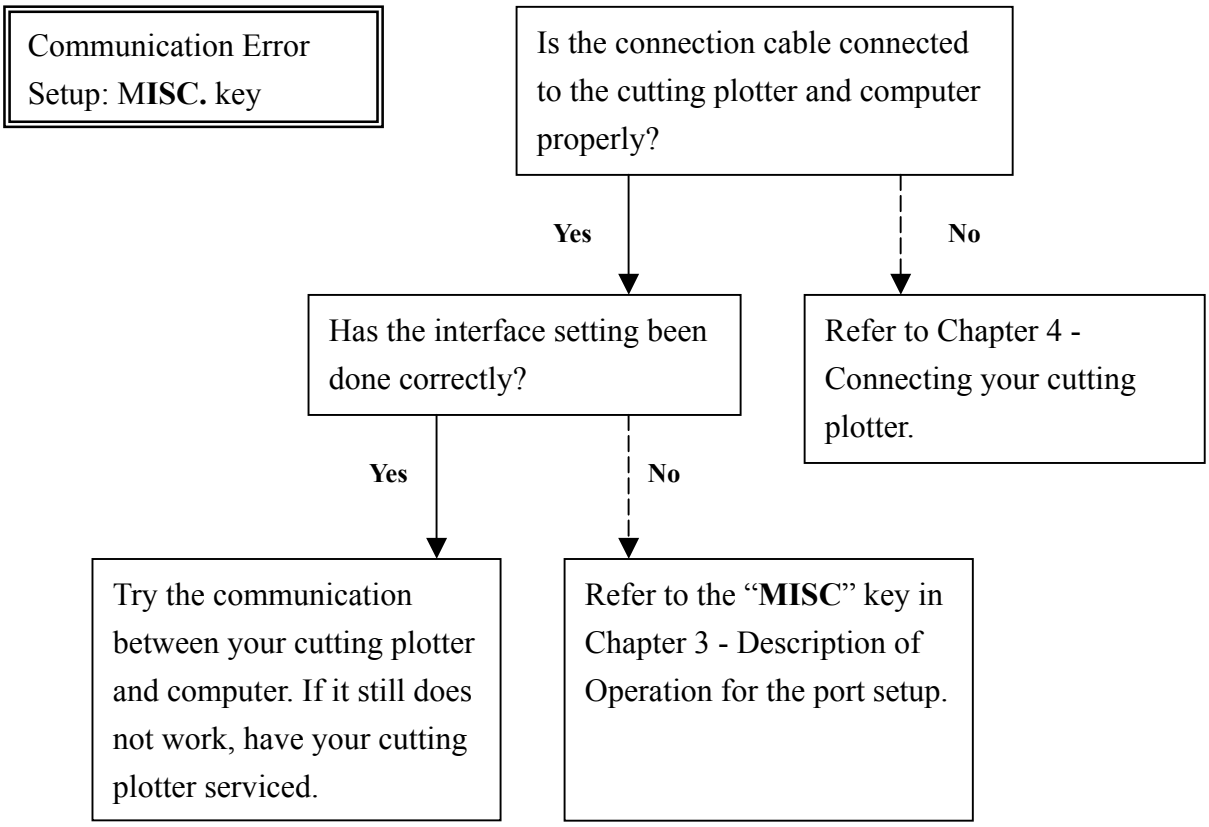
6.2 Operational Problems

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.

6.3 Cutting Plotter/Computer Communication Problems

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



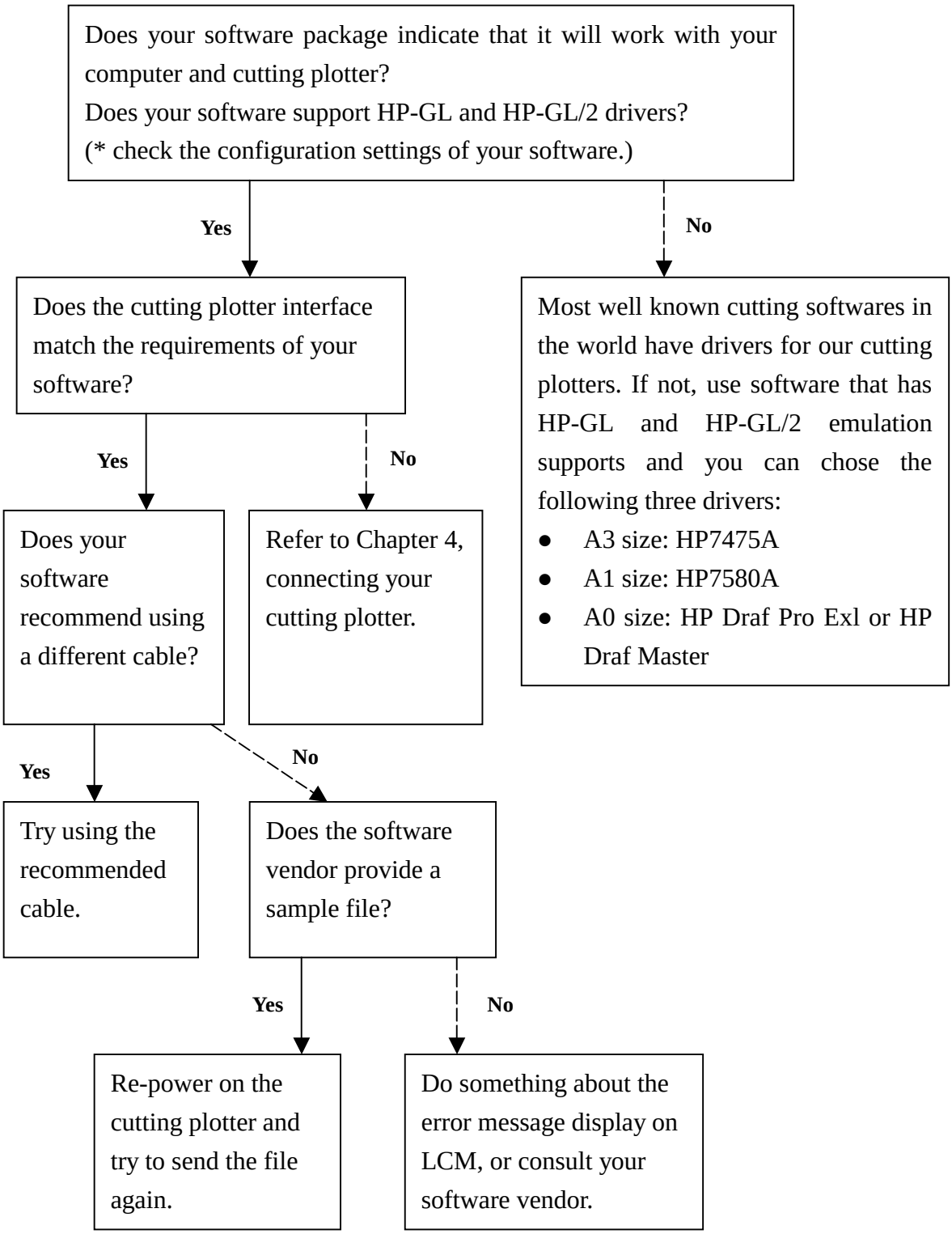
Note:
The computer also needs to set up compatible communication parameters to the cutting plotter set up.

HP-GL/2 Cmd. Error

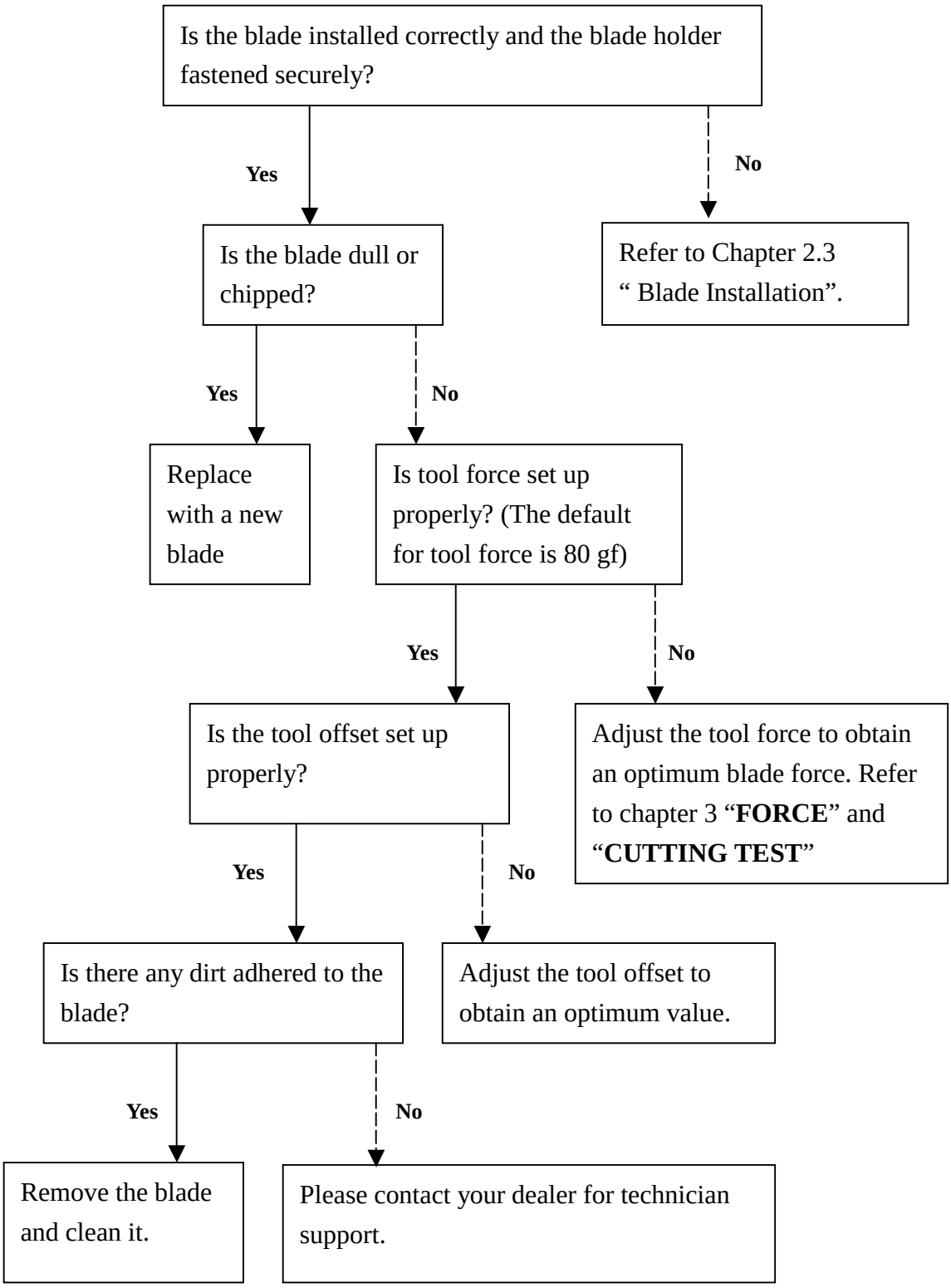
If your cutting plotter can not recognize the HP-GL/2 or HP-GL commands, please check the HP-GL/2 or HP-GL commands applied to your cutting plotter are used properly.

6.4 Software Problems

Check the following first:



6.5 Cutting Quality Problems



Jaguar II Specifications

Model : Jaguar	JII-61	JII-76S	JII-101S	JII-132S
Operational Method	Roller-Type			
Max. Cutting Width	610mm (24.0in)	760mm (29.9in)	1016mm (40in)	1320mm (52in)
Max. Media Loading Width	770mm (30.3in)	920mm (36.2in)	1270mm(50in)	1594mm(62.8in)
Number of Pinch Rollers	3		4	
Min. Media Loading Width	50mm			
Acceptable Material Thickness	0.8mm (0.04in)			
Drive	DC Servo Control			
Cutting Force	0~600 g			
Max. Cutting Speed	1530 mm/sec (60ips, Diagonal)			
Tangential- emulation	Yes			
Paper Cutting Ability	Yes			
Sliter Groove & Tool	Yes			
Media Basket	Optional			
Acceleration	4.2 G (gravity)			
Offset	0~1.0 mm (with an increase of 0.025mm)			
Mechanical Resolution	0.00625mm			
Software Resolution	0.025 mm			
Repeatability	0.1mm			
Buffer Size	4 MB			
Interfaces	USB, Parallel and Serial (RS-232C)			
Commands	HP-GL, HP-GL/2			
Configurable Origin	Yes			
Curve & Arc Smoothing	Yes			
Test Cut capability	Yes			
Replot Function	Yes			
Copy Function	Yes			
Pouncing Function	Yes			
Control Panel	LCM (20 digits x 2 lines), 14 Keys, 1 Power LED			
Dimension (HxWxD) mm (HxWxD) in	414 x 930 x 490 16.3 x 36.6 x19.2	1166 x 1080 x 667 45.9 x 42.5 x 26.3	1166 x 1430 x 667 45.9 x 56.0 x 26.3	1166 x 1754 x 667 45.9 x 69.1 x 26.3
Net Weight (kg)	37.2kg	40.5kg	53.3kg	61.0kg
Power Supply	AC 100~240V (auto switch)			
Power Consumption	Max. 110watts			
Environment Humidity	30% ~ 70% relative humidity (operating)			
Environment Temperature	0°C~55°C / 32°F~131°F(operating) -40°C~75°C / -40°F~167°F(storage)			

- The above specification is subject to change without prior notice.
- Stand for Jaguar JII-61 is optional.