

Manual for CY Series Cutting Plotter

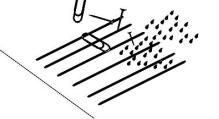
(CCD Camera Type)

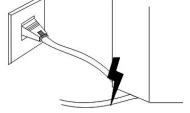
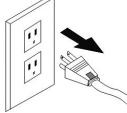
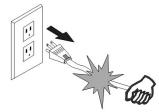
1. Safety precautions

	WARNING	Any improper operation may result in hazard of life or damage of equipment..
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Definition of sign symbols

	The symbol is prepared to arouse operator's highly attention. The symbols in triangles specify the cases to be attentive. The symbol in the left warns you of electric shock.
	The symbol specifies the activities to be forbidden. The symbol in the circle specifies the acts to be forbidden. The symbol in the left tells you no detachment.
	WARNING
	Do not use the power source which does not meet the rating voltage, otherwise fire or electric shock may be resulted in.
	If the machine gives out smoke or unpleasing smell, or big noise, please do not use it. in such cases, continuing using may result in fire or electric shock.
	Do not take out the plug when the power is on to avoid damage to the machine.
	Make sure the machine grounded otherwise electric shock or mechanic default may be resulted in.
	Do not detach, repair or reconstruct the machine, otherwise fire, electric shock, hazard of life may be resulted in
	CAUTION

	Do not leak any liquid or drop metal into the machine, such things may result in fire.	
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	Do not touch the knife top with your finger to prevent injury or perspiration of knife head.	
	Do not damage or random replace the supplied power cable. Do not excessively bend, pull, bundle the power cable or place weight on it, otherwise the power source may be damaged even fire or electric shock is thus incurred.	
	If you are not going to use the machine for a long time, please unplug the power cable from the receptacle, otherwise fire possibly happens.	
	When operating the machine, do not place either of your hands on capstan to avoid injury.	
	Place the machine on a stable surface, otherwise the machine may fall therefore get damaged.	
	To unplug the power cable from receptacle, please hold the plug instead of the cable, strongly pulling of the cable possibly results in electric shock or fire.	
	Any operation is forbidden in case of storm or lightning to prevent damage of the machine.	
	Do not pull the cartridge by hand to avoid damage to the mainboard when the plotter is power on.	

2. Standard accessories

Item:	Parts	Quantit y	NOTE
1	Power cord	1	
2	USB Cable	1	
3	Blade holder	1	In machine
4	Blade	3	1pc in machine
5	Pen and pen holder	1	
6	Signmaster	1	
7	User Manual	1	

3. Installation

3.1 Machine Installation and connections

	WARNING	
	Make sure machine is grounded, otherwise electric shock or mechanic default is possibly resulted in.	
	Don't use the power source not meeting rating voltage using the wrong power source may result in fire or electric shock.	
	Don't pull out the plug when the power is on to avoid damage to the machine.	
	Place the machine on a stable surface, otherwise the machine may fall therefore get damaged.	

3.1.1 Place the cutter in a plane and roomy place

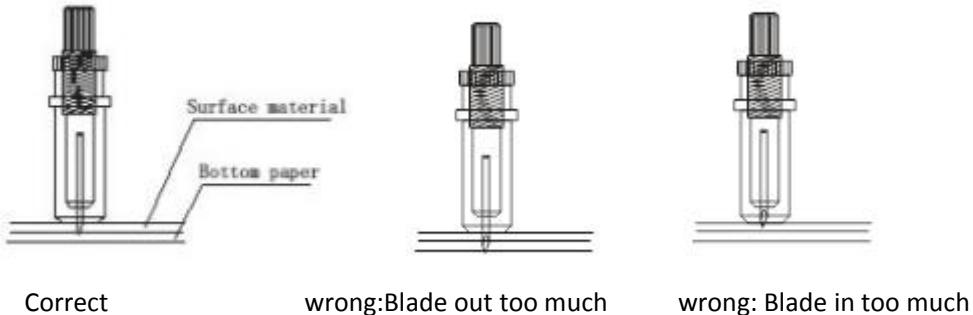
3.1.2 Connect the cutting plotter to computer by USB cable or network cable , or Put a U disc directly to the cutter:.

3.1.3 Check power and voltage, whether it is grounded, do not connect to power until all are in good condition .

3.2 Installation cutting tool

	CAUTION	
	Don't touch the blade top with your finger prevent injury.	

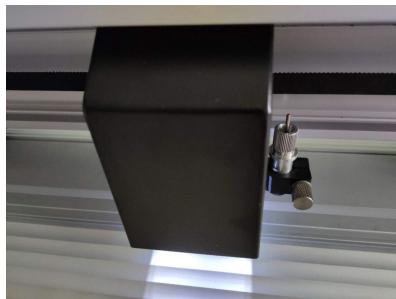
3.2.1: Adjustment the protruding length of the blade top as required for specific cutting media.



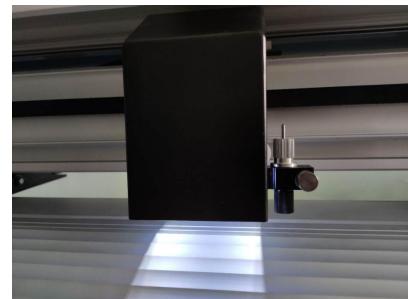
3.2.2 (1)Loosen the screw off the carriage

(2)Assembly the blade holder with blade into the carriage

(3)When the blade holder is in appropriate position, screw it and fix the screw



Loosen



Correct position for blade holder

NOTE: There are two options to install cutting software, one is Signmaster, one is coreldraw plugin(or dongle)

3.3A Signmaster Software installation (Recommended)

1. Open the Signmaster package ,and put the CD in computer ,installed and fill in the PSN code to activate.

2. choose the corresponding cutting plotter model to match in Signmaster, Language can be chosen as below:

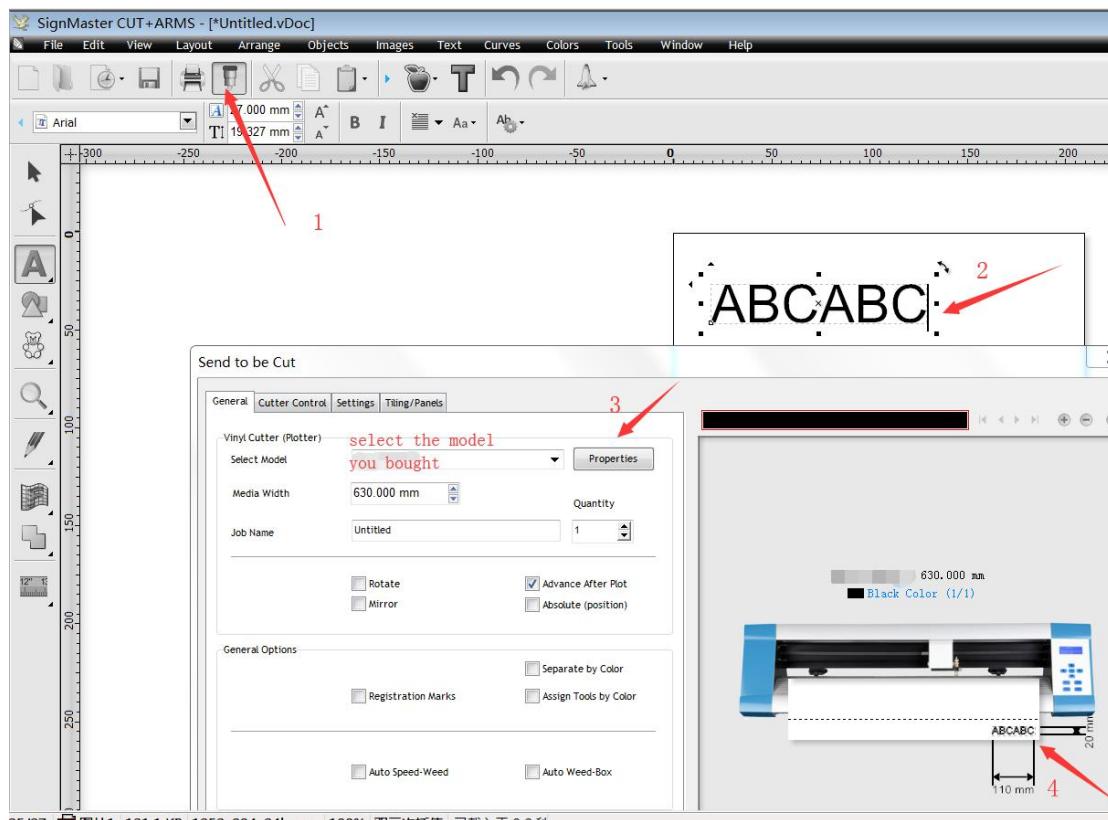


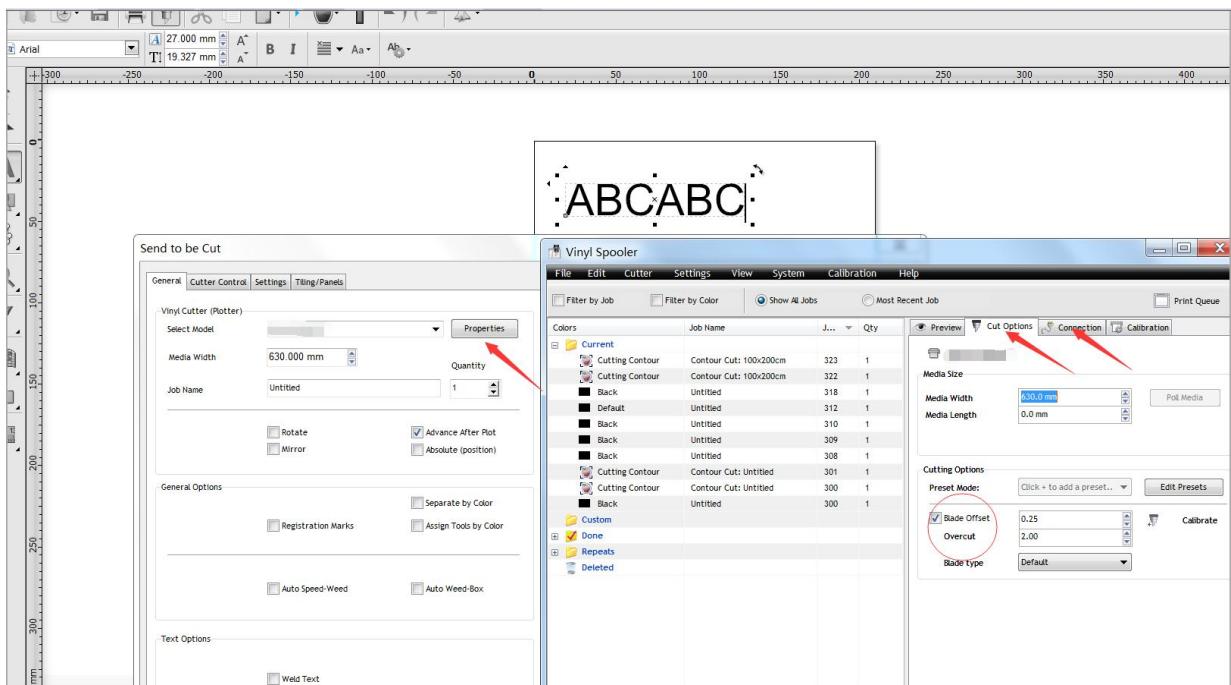
3. follow the manual of Signmaster operation for more details and check the video to learn Basic cut and contour cut.

Contour cut: Please learn the another file of Manual For Signmaster Software.



Basic Cut: import vector file, or write any letters, click Blade Tool, start cutting, you can set offset/overcut in Properties-Cut options or connection way(Windows port-file/Direct COM port when link any Windows system computer with the cutting plotter)





Note: Blade offset/overcut set to solve the Knife off-setting problem, if it cuts in bad performance.

Camera Contour Cut: Please check the operation video guide.

More signmaster User guide video to learn:

1. how to use Signmaster to design

http://iifuture.org/vmtuts/getVMTut.php?key=smc_full_ht_use&r=0

2. How to Contour Cut

http://iifuture.org/vmtuts/getVMTut.php?key=smc_full_ht_contour_cut&r=0

3. Contour Cutting with Ultra Marks

http://iifuture.org/vmtuts/getVMTut.php?key=smc_full_ultramarks&r=0

4. Working with Templates

http://iifuture.org/vmtuts/getVMTut.php?key=smc_full_templates&r=0

3.3B Computer installation(If working with Coreldraw):

NOTE: due to customers' using different Version of Coreldraw(some even use Cracked version), the dongle sometimes cannot match, so it's better to use Signmaster.

4. Instruction of the cutting plotter:

4.1 Name and function of parts

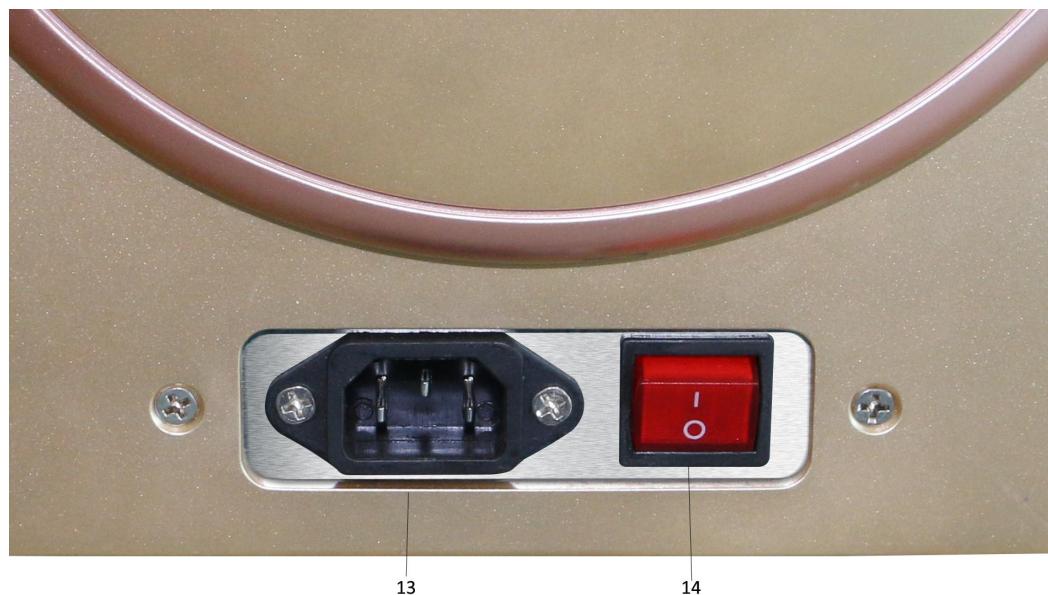
4.1.1 Front view



Side 1

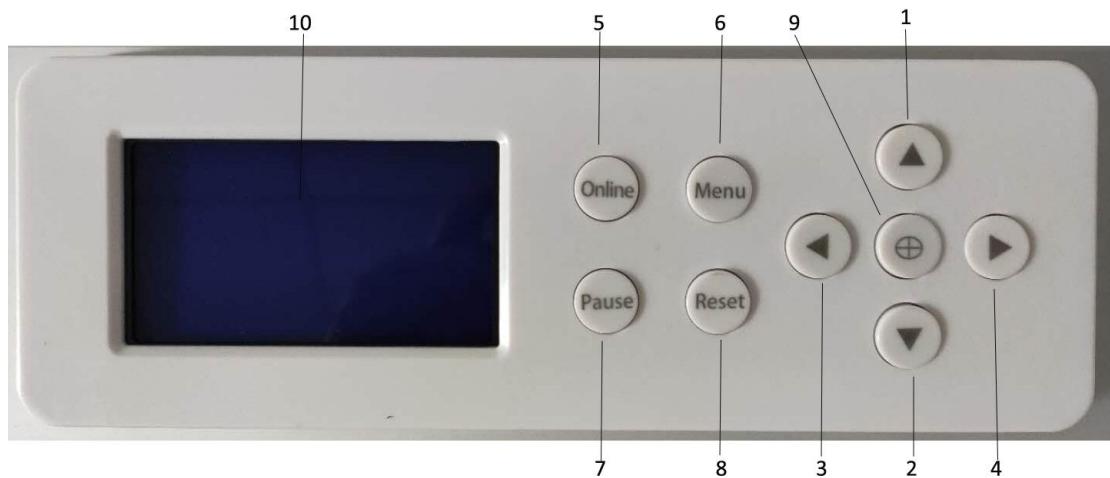


Side 2



1. Left cover	8. LCD display
2. Pinch roller wheels	9. Keypad
3. Carriage belt	10. Network port
4. Upper cover	11. USB port
5. Grit roller	12. U disc port
6. Carriage	13. Power supply port
7. Blade holder	14. Switch

4.1.2 keypad and display:



1: Go back 2: Forward 3: GO LEFT 4: GO RIGHT 5: ONLINE
 6: MENU 7: PAUSE 8: RESET 9: Original 10: LCD

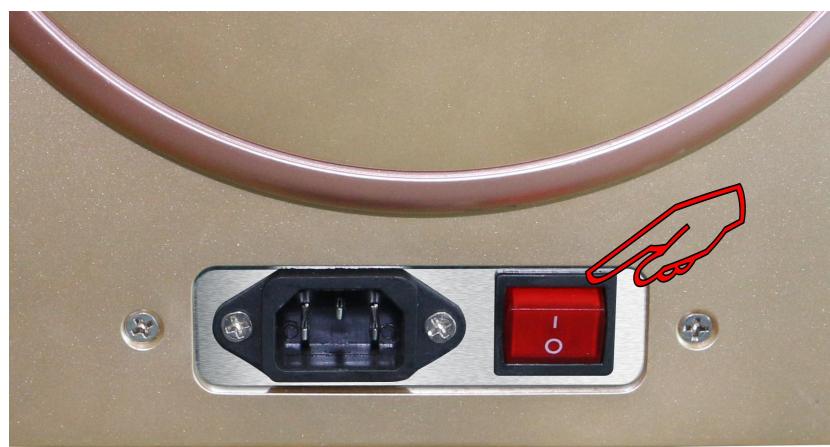
4.2 Basic operation

	CAUTION
	When switching on the power, make sure your hands and other articles are out of reach of such running main shaft and slider to prevent injury.

4.2.1 Turn on machine

4.2.1.1 Check whether the power is in OFF position.

4.2.1.2 Plug the cable into the receptacle of the host power source, press the power on/off on the left.



4.2.2 Installation of cutting media

This machine is suitable not only for single-sheet media, but also a roll of media.

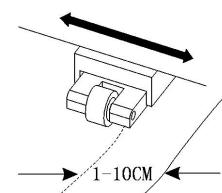
4.2.2.1 Press down the handle of pinch roller behind the machine to raise the handle



4.2.2.2 Insert the media into the space between the pinch roller and grit roller, and pull out the media to appropriate length from the front of the host.

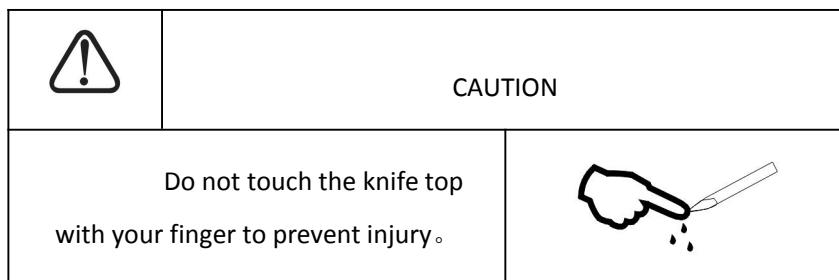
4.2.2.3 Adjust horizontal position of paper weight

wheel according to width of paper. a distance of minimum 1-10CM is set between paper-weight wheel and paper edge to ensure good running of paper.



4.2.2.4 Raise the pinch roller to make paperweight wheel down to press paper.

4.2.3 Testing cutting blade (adjust knife press and tool)



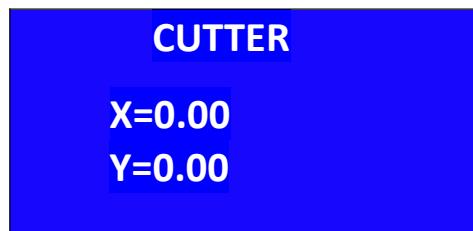
Quality of knife immediately relates to cutting precision and life of machine. To better your work, please use the standard knives we confirm, but not those with poor quality.

4.3 Cutter Operation instruction and parameter setting:

When the cutter is open, the cutter will go to Original. And you will see as below on the display of cutter:



4.3.1 Press 'Online', you will see as below:



Press Left and Right to change the value of X to make the carriage head move.

Press Up and down to change the value of Y to make the cutting material move.

4.3.2 Press "Menu" you will see as below:



The cutter can read the U-disc directly. You can copy the design which you want to cut from the U-disc, then put it to the cutter's U-disc port, the cutter will show the files inside the

U-disc. Press button firstly to scan the files, then press Up or Down to review the file. Find the right plt format file. Then press to confirm. Then set the

number of repeat and distance between cutting pieces. Press  again, the camera will scan the marks and start to cut.

2) Press “Menu” again you will see as below:



In this condition, press Up  to increase the speed, Press Down  to decrease the speed.

Press Left  to increase the force. Press Right  to reduce the force

3) Press “Menu” again you will see as below:



The cutter will remember the last job which is sent from computer to cutter, and you

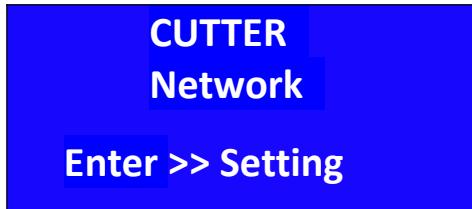
press  to execute the previous cutting.

3) Press “Menu” again you will see as below:

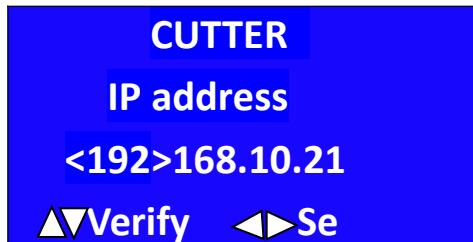


Under this interface, you can press Up or Down to change the language. Now we provide two languages: English and Chinese. The default language is English.

4) Press “Menu” again you will see as below:



4.1) Press  for setting, and you will see as below:

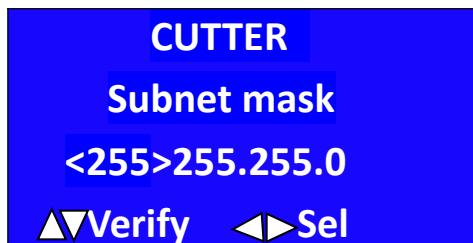


Press Left  and Right  to select the numbers.

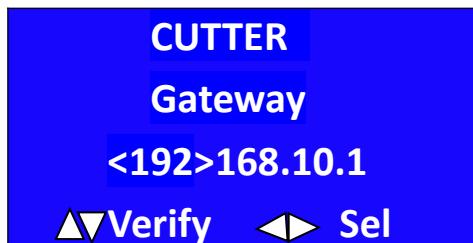
Press Up  and down  to change the numbers.

Check the computer's IP address firstly, and then make sure the plotter's IP address is different, if same, then change the last number of the IP address. Signmaster's IP address should be the same as plotter.

4.2) Press "Menu" again, you will see as below:

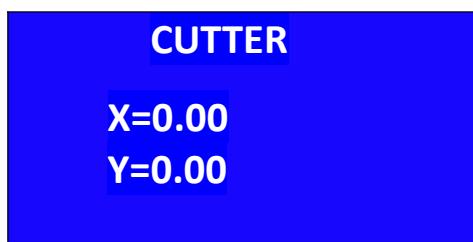


4.3) press "Menu" again, you will see as below:



You don't necessary to change anything. They are only authorized to be set by technician.

4.3.3 Press  you will see as below:



4.3.4 Press **Reset** button, the cutter will go back to original position, and we will see below:

CUTTER
Online
Menu >> Setting
Pause >> Test

4.3.5: Press “Pause” the cutter will cut a small square. We can judge the cutting blade’s length by this test.

Press “Pause” during cutting, the plotter will stop to cut. Press “Pause” again, the plotter will continue to cut.

4.4 Knife off-setting

4.4.1 If it is not close during cutting, it needs to set offset in cutting software

(details please follow the software manual) as below:



No offset



with offset

4.4.2 During cutting, if the right angles is not at right angles, please set the Sharp-angledcompensation in the cutting software

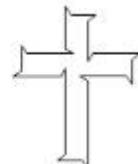
(Attention please off set value need to follow the actual situation) as below:



Correct



not enough



over

* When you are using cutting software, we are recommend to select high precision output

5. FAQ

5.1 Question: will the characters below 1CM be deformed?

Answer: When cutting small characters, please set offset in the software, for example, in “Artcut” sign software:

- (1). Click“plotting output”once, a plotting output picture will pop up.
- (2). Click“set”once, a picture of setting plotter will pop up.
- (3). Click“compensation setting”, a dialog box will pop up.
- (4). Select“sharp-angle compensation”, adjust the value to required level.

The compensation ranges within 0.1-0.7, more often we set it to be 0.25. in addition, the plotting speed of the cutter shall be set below 10

5.2 Question: Why there is an additional stroke after finishing cutting

Answer: (1). Check if the tip of cutter is flexible when it is up and down.

(2). Change the Master software if there are some deviant letters.
 (3). Check if there are some problems on the files you are ready to output.

5.3 Question: why does zigzag happen to the cutter?

Answer: As cutter motor features high power and speed, so the cutting speed shall be adjusted according to size of character. Generally, to cut small glossy characters with high requirement for precision, the speed shall not exceed 65. In most cases, the speed at the shift 65 is favorable. To cut big characters of large quantity within shortest time, the speed can be 350, , but since step distance of motor is so long that evident zigzag occur. Therefore, you should set the speed to specific size of characters, and the relationship between speed and size of characters please refer to following table:

Size of font (mm)	SPEED (mm)
2-10	5
10-30	80-200
30-50	200-350
50-500	350-500
>500	500

5.4 Question: why do the paper deviate when it runs by a large margin?

Answer: The paper feed containing paper roll shall be completely parallel to paperweight wheel, for big roll of materials, loosen it prior graving to prevent excessive obstruction when plotting or graving. For the machines with four paperweight wheels, when plotting big image or characters back and forth, use the two paperweight wheels at sides instead of press the four down simultaneously. Unequal abrasion of the two wheels also may result in deviation of the paper; in worse case replacing wheels is needed.

5.5 Question: why does lock up happen in plotting output?

Answer: (1). Exterior 220 V input voltage is too low (150V), the plotter will restart thus lock up happen.
 (2). When disturbance of exterior 220 V input voltage is too high, lock up may happen, to resolve it you can use purified regulated power source.

5.6 Question: Why does the machine feel tingle?

Answer: the machine might be improperly grounded, make sure central line of the power source grounded.

5.7 Question: why does the job feel not smooth with sharp-angle raised when plotting?

Answer: (1). The protruding length of knife top is too long, please adjust it as required.
 (2). The knife is abraded, replace it.

5.8 Question: why does the plotter first scratch a line before plotting?

Answer: because the machine illegally escape last time, there is still knife-dropping instruction existing in the memory of plotter. To resolve it power off the machine and turn it on again.

5.9 Question: No LCD display or a black row of blocks are displayed?

Answer: (1). In case of no display, check whether the power work well.
 (2). If black blocks are displayed, check whether voltage is at required level. If troubles remain after the above operation, please contact maintenance center

5.10 Question: why can not some characters close in strokes when it is plotting?

Answer: Because the knife of the plotter is eccentric knife with a eccentric value, to resolve it, set “closing compensation” in the software. For example: in “Artcut” software:
 (1). Click “plotting output” once, a plotting output picture will pop up.
 (2). Click “set” once, a picture of setting plotter will pop up.
 (3). Click “compensation setting” a dialog box will pop up.
 (4). Select closing compensation, adjust the value to required level, generally the value is set to be 0.5.

5.11 Question: Why the machines have missed some pave of letter when cutting?

Answer: (1). Check the machine if it presses enough.
 (2). Reinstall the software.
 (3). Chook the head of the knife.
 (4). If the problem is still in existence, please contact with repair center.

5.12 Question: why is the machine in low-speed state after start-up?

Answer: Because paper sensor fails to detect the fore end of paper. When feeding paper make fore end of paper cover hole of paper sensor, then perform another automatic paper testing.

5.13 Question: why do some nicks deep, while some shallow when cutting?

Answer: As CT employs upscale soft PVC materials as knife strip cushion to protect knife. But long period using it may produce a trace therefore roughing the stripe cushion, so some nicks become deep, while some become shallow. To resolve it replace a stripe cushion. If is not so worse, adjust knife as described in section 3.2.B, increase knife press (some 350).

5.14 Question: why can not the plotter run when it is outputting?

Answer: (1). Check whether the plotter is properly connected with computer. The cutter is connected with COM1 or COM2 of computer; check whether the set ports are conformed to those connected.
 (2). Check whether the plotter is in online state, namely whether the LCD displays “ON LINE”.
 (3). Check whether the encryption card of software is properly. If not please turn off the power and reinstall it. Check driving program of the plotter is for MK series.

5.15 Question: why can not the instant-glue be taken off?

Answer: (1). Perform trial run prior output, adjust press to appropriate level.
 (2). Check whether the knife is used too long, or whether the knife top is broken.
 For new ones the nick is thin in the instant-glue, while for old ones the nick is thick

and impressive. To resolve it replace it with a new knife.

5.16 Question: what is attentive when cutting big characters?

Answer: (1). When cutting big characters, the system can automatically How to setup page, you can cut a big character in several pages, but it is notable that the setting of output width shall be conformed to the width of instant-glue in addition, when cutting big characters and output it, you should widen pages or set seaming distance.

(2). When you use the special wide machine to cut the big characters, especially the long big characters Before cutting input, you shall instead the paper first look careful the paper if the paper deviates then deviate the big characters into some pouts to input, it can make sure it won't deviate and waste paper.

5.17 Question: how do we maintain the plotter?

Answer: MK series plotter all employ upscale oil bearing, no oil is needed even it works for a long time. After operation everyday, clean the dust with soft brush. The glue remaining in engine base can be cleaned with alcohol. If frequently operated in dusty environment above two years, please have maintenance technicians clean the dust in machine. If plotting precision degrades, the maintenance of running parts are desirable (firming and replacing the abraded parts).

5.18 Question: Why does the plotter is out of our control sometimes?

Answer: Maybe while transporting or using it, the signal line is improperly connected, open the machine properly plug all lines. If the problem still fails to be solved after the above operation, please contact local agent or maintenance center.

5.19 Question: Why does the plotter come to halt?

Answer: Because it encounters vibrate for a long period, or has been used for a long period, or is affected by temperature, so dielectric displacement happen to the servo driving board, therefore resulting in halt, please contact local agent or customer maintenance center.