



QUICK START GUIDE

RCP-3301

MINI CUTTING PLOTTER



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DEFINITION OF SYMBOLS

	Warning. Any improper operation may result in a hazard of life or damage to equipment.
	A warning symbol for the possibility of electrical shock.
	The symbol in the circle represents actions that are not allowed.
	Do not use the power source that does not meet the voltage rating; otherwise, fire or electric shock may occur.
	If smoke or a strange odor is coming out of the machine, or it makes a loud sound, this means the machine is not functioning properly and you should discontinue use. If you continue using it, it may result in fire or an electric shock.
	Do not take out the plug when the power is on to avoid damage to the machine.
	Make sure your machine is grounded, otherwise you may experience an electric shock or a mechanical failure.
	Do not detach, repair or reconstruct the machine; otherwise, fire, electric shock, or other life hazards may result.
	Do not leak any liquid or drop metal into the machine, such things may result in fire.
	Do not touch the top of the knife with your finger to prevent injury or dulling of knife head.
	Do not damage or replace the supplied power cable on your own. Do not excessively bend, pull, bundle or place weight on the power cable. Otherwise, the power source may be damaged and electrical shock or fire may occur.
	If you are not going to use the machine for a long time, please unplug the power cable from the receptacle to avoid fires or electrical shortages from occurring.

	<p>When operating the machine, do not place either of your hands on capstan to avoid injury.</p>
	<p>Place the machine on a stable surface; otherwise, the machine may fall and get damaged.</p>
	<p>To unplug the power cable from the outlet, please grab the plug instead of the cable. Pulling the cable with too much force may result in an electrical shock or fire.</p>
	<p>Any operation is forbidden in case of storms or lightning to prevent damage of the machine.</p>
	<p>Do not pull the cartridge by hand to avoid damage to the mainboard when the plotter is powered on.</p>

STANDARD ACCESSORIES

Item	Part	Quantity
1	Power cord	1
2	USB Cable	1
3	Blade holder <i>* In machine</i>	1
4	Blade <i>* 1pc in machine</i>	3
5	Pen and pen holder	1
6	Dongle/or Signmaster <i>*Optional</i>	1
7	Manual	1

QUICK START

1

Step 1

Install Signmaster (in the kit-box). Refer to Video software to install and connect.

2

Step 2

Connect the cutter and computer with the Original Black Cable (Option 1) Recommended
2. Use Your U-Disc (USB Flash disk) and insert it into the cutter port (Option 2)
Recommended

3

Step 3

Basic cut: Design your work and send it to cut in Signmaster (Refer to basic cut video).
Contour cut: Design your work and send it to contour cut in Signmaster (Refer to contour cut video).

Note:

1. Signmaster online download address:

http://fcws6.com/downloads/signmaster/craft/SignMaster_UniverCraft.exe

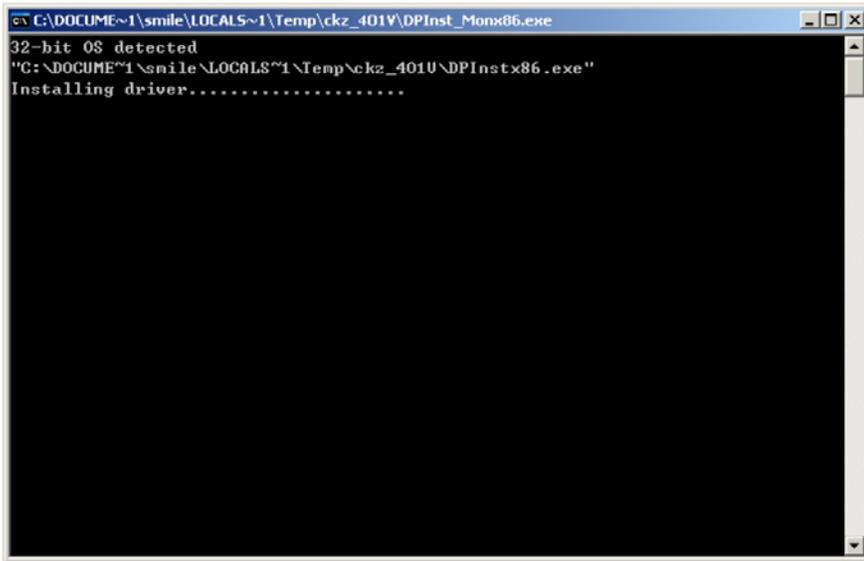
2. Please DO NOT lose the Signmaster PSN code. If you need to change computers to install Signmaster, please deactivate it before installing it in another computer.

3. Signmaster is supported by all windows systems.

4. If you encounter any problems, please refer to the troubleshooting section (refer to file 1.5).

USB DRIVER INSTALLATION

To connect the cutter to the computer by USB cable, turn on the cutting plotter. Go to CD-ROM drive on your computer, locate the folder drive, open the folder and double-click "USB Driver Setup." After that, your computer should display the following window:



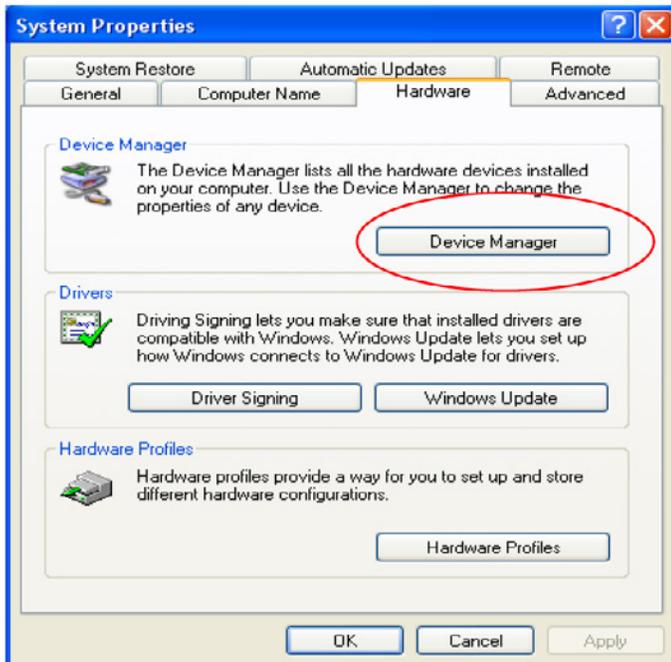
After driver installation, windows will close automatically and the computer will display the following window. Click "Next".

Click "Finish".

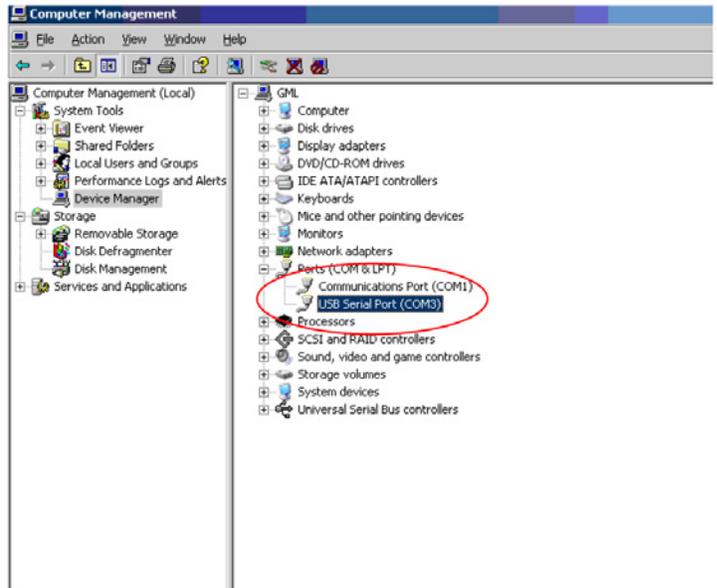


Set up steps:

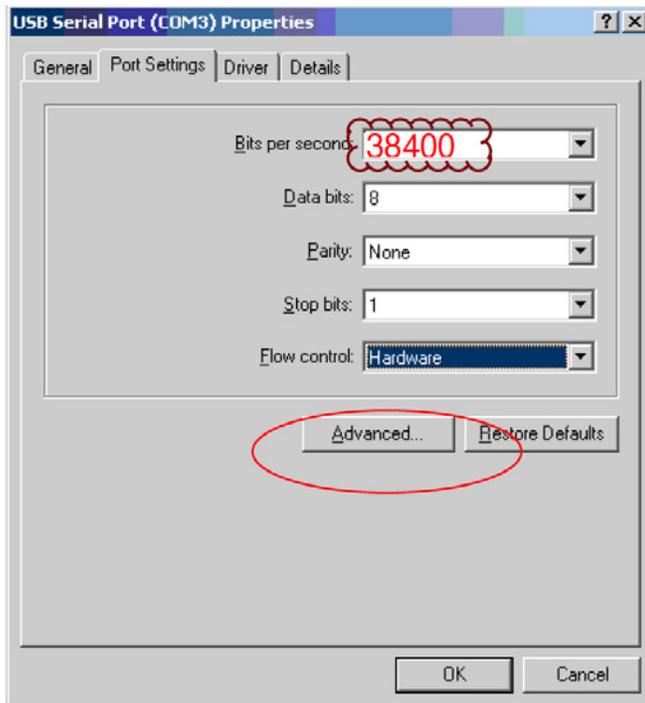
Click “My Computer” in the pop-up shortcut menu, then click “Properties”. The dialog box pop-up should be as follows:



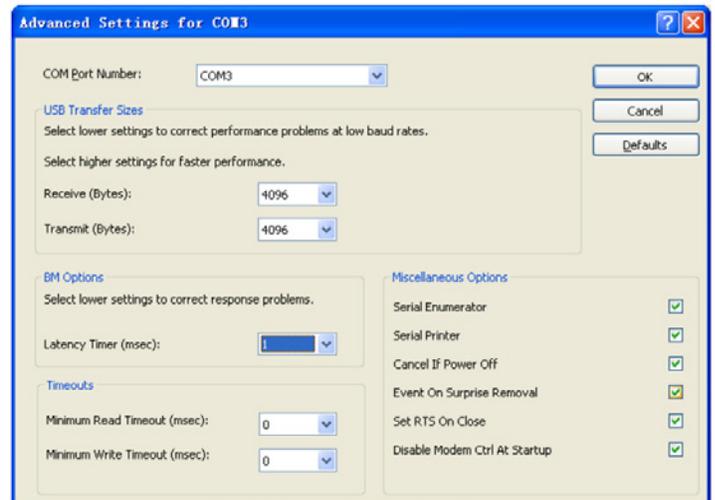
Click the “Device Manager” pop-up dialog box as follows:



Select COM:3, then click “Advanced”.



To log USB “serial port (COM3)”, click the right mouse button.



To change the port number, click on the “COM Port Number” drop down box to select the correct port number.

INSTALLATION

3.1 Machine Installation and connections

	WARNING
	Make sure the machine is grounded, otherwise, electric shock or mechanical failure may occur.
	Do not use a power source that does not meet the recommended voltage requirement. Using the wrong power source may result in fire or electrocution.
	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 and get damaged.

3.1.1 Place the cutter on a flat and spacious area.

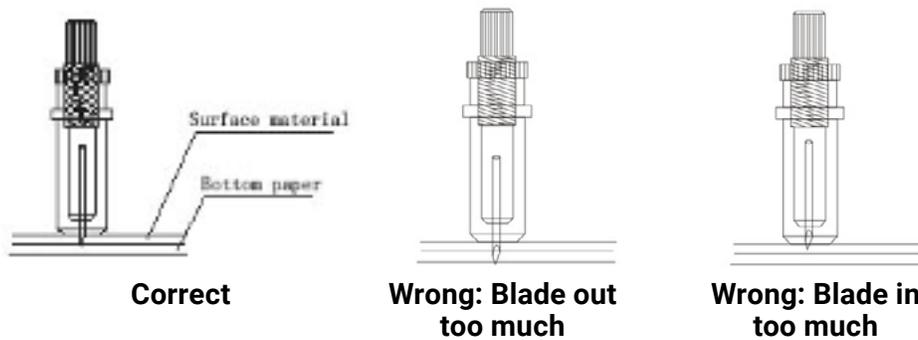
3.1.2 Connect the cutting plotter to the computer by USB cable, or put a U-Disc directly into the cutter.

3.1.3 DO NOT connect to power until you ensure the connection is grounded and is the proper voltage.

3.2 Installing cutting tool

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

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



3.2.2

- (1) Loosen the screw of the blade holder.
- (2) Place the blade into the blade holder attached to the carriage.
- (3) When the blade is in the appropriate position, tighten the screw.



Loosen



**Correct position
for blade holder**

Note: There are two options to install cutting software. One is Signmaster and the other is the CorelDRAW plugin (or dongle).

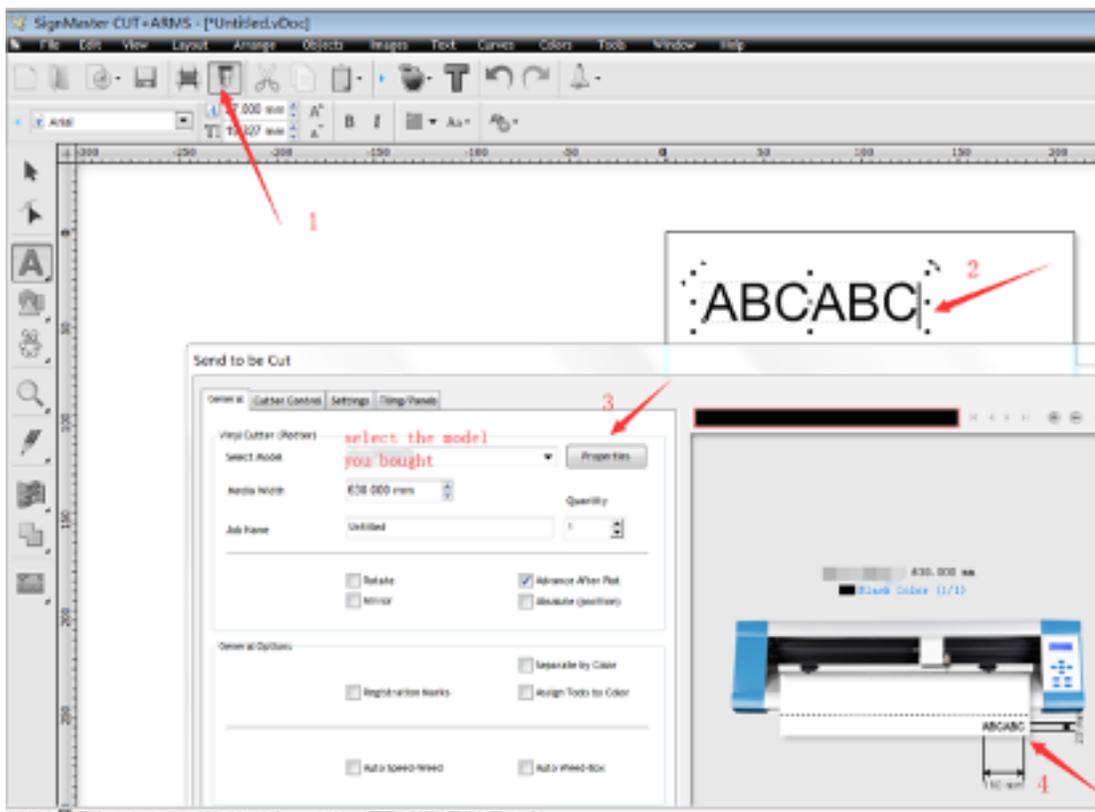
3.3A Signmaster Software installation (Recommended)

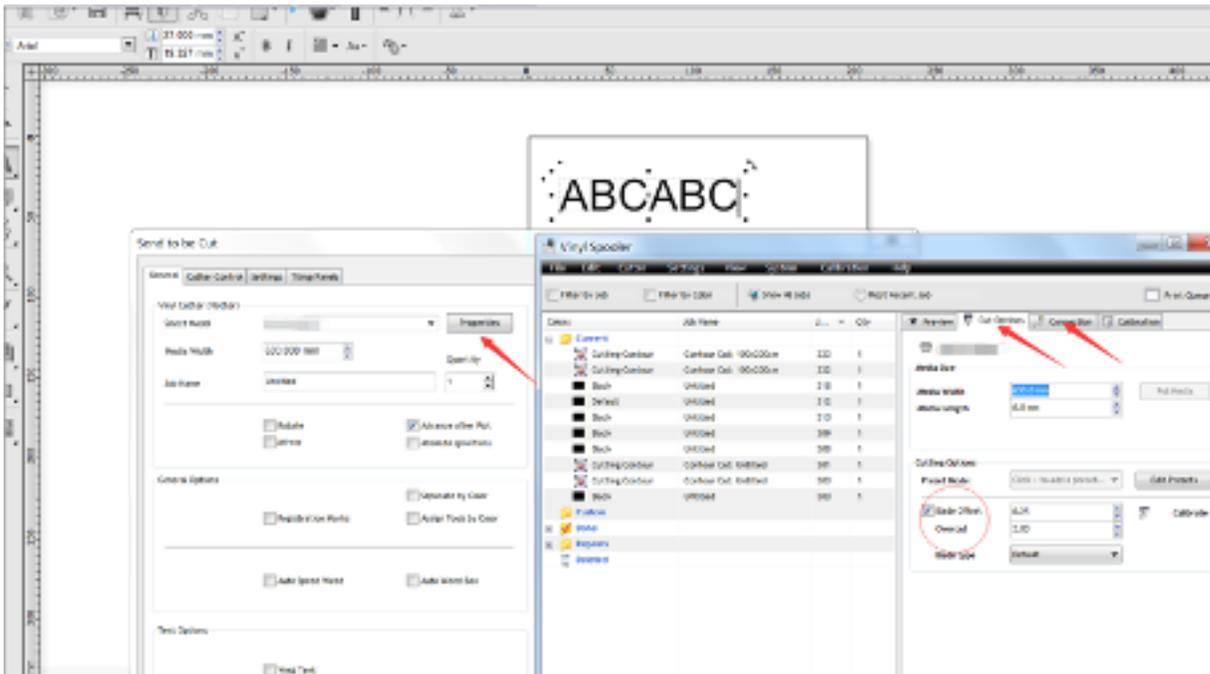
1. Open the Signmaster package and put the CD into your computer. Install the software and fill in the PSN code to activate.
2. Change language if needed and then choose the cutting plotter model that corresponds to your cutter in the Signmaster Software.
3. Follow the Signmaster Operation manual for more details and watch the informational video to learn what a Basic cut and Contour cut are.

Contour cut: Please refer to your Signmaster Software Manual.



Basic Cut: Import your vector file, or write the letters of your choosing, then click the Blade Tool and start cutting. You can set the offset and overcut setting under the Properties-Cut option or through your connection. (Establishing a connection can be done through a Windows port-file/Direct COM when linked with any computer with a Windows system.)





Note: If your plotter is cutting poorly, you can check the blade offset/overcut setting to solve the Knife offsetting problem by following the graphic above. For help with the Camera Contour Cut, please check the operation video guide.

More Signmaster User guide videos:

1. How to use Signmaster to design

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

3. How to Contour Cut

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

4. Contour Cutting with Ultra Marks

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

5. Working with Templates

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

3.3B Computer installation (If working with CoreIDRAW):

Note: Due to customers using different Versions of CoreIDRAW (some even using the Cracked version), the dongle sometimes does not match with the plotter, so using Signmaster is preferred.

CUTTING PLOTTER INSTRUCTIONS

4.2 Basic operation

	CAUTION
	When switching on the power, make sure your hands and other objects are not in the way of the main shaft or slider to prevent injury.

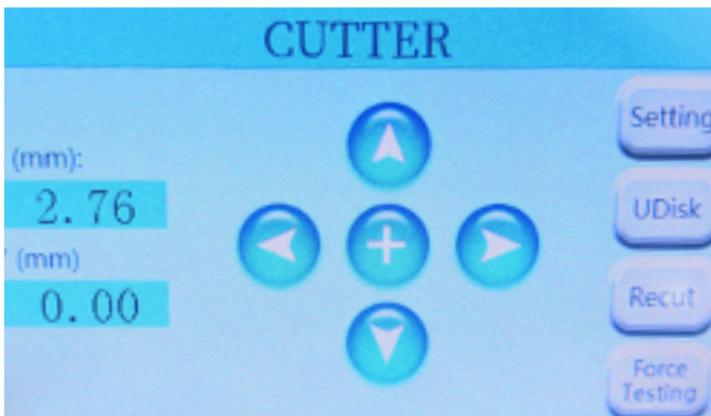
4.2.1 Turn on the machine.

4.2.1.1 Check whether the power is in the OFF position.

4.2.1.2 Plug the cable into the power source and press the power switch.

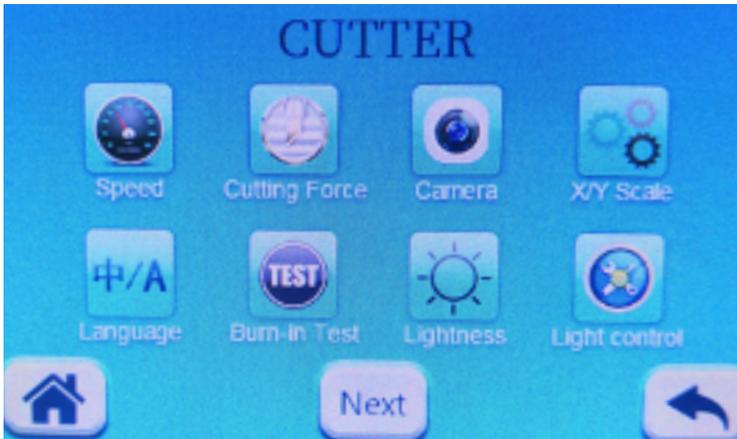
4.3 Cutter operation instruction and parameter setting:

When the cutter is turned on, it will be in its original setting, which you can see in the display below:

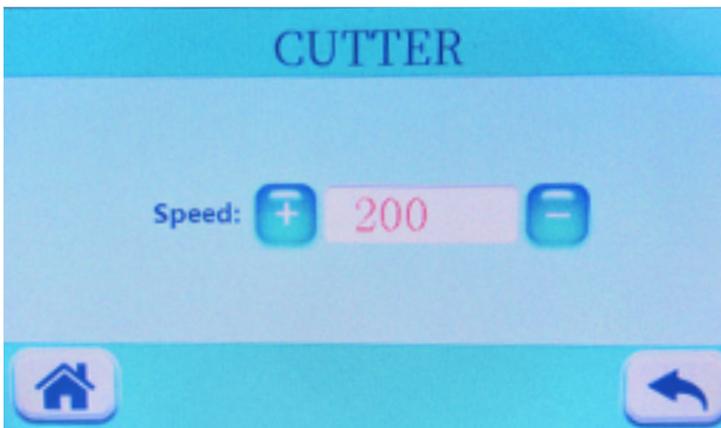


1. You can press the arrows to move the carriage head.
2. You can click the "U-Disk" button to choose your U-disk file for cutting.
3. You can recut the same project again by pressing "Recut".
4. Use the "Force Testing" button to test the force of your cutter by cutting a small square. If you are able to get a perfect square, it means the cutting force and blade length are correct.

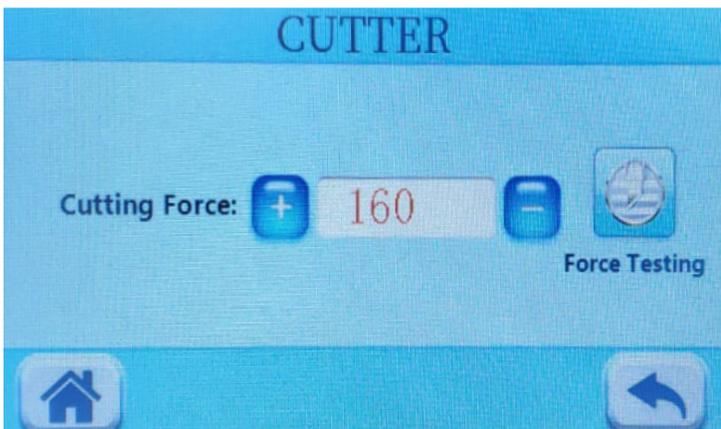
4.3.1 Press "Setting" and you should see the screen below:



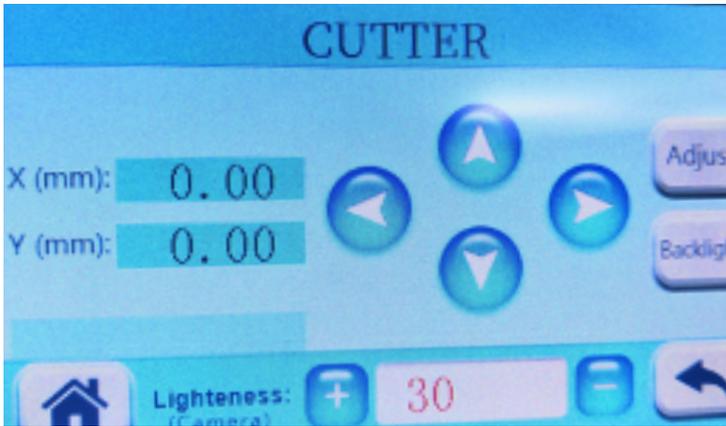
4.3.2 Press "Speed" to set the speed of the cutter and you will see the screen below:



4.3.3 Press "Cutting Force" to set the cutting force and you will see the screen below:



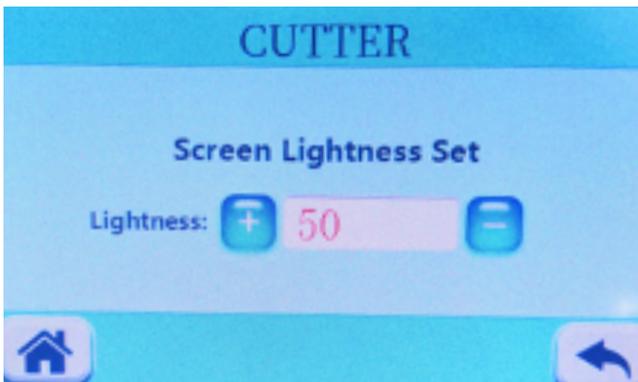
4.3.4 Press “Camera” to adjust the camera view and change the backlight. When you press “Camera”, you will see the screen below:



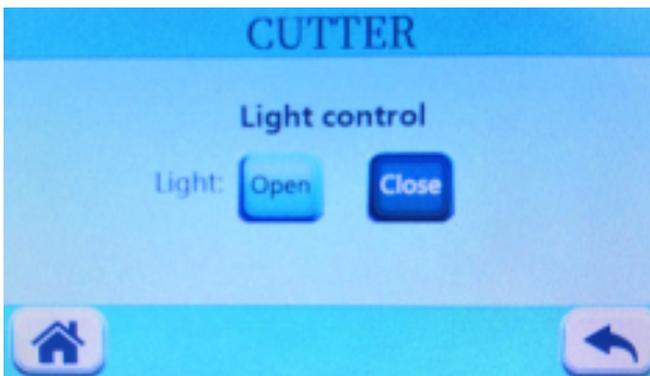
If the contour line shifts, change out the blade for a pen and move the carriage head into a blank space. Then, click “Backlight” first, then click “Adjust” and the cutter will automatically readjust itself.

4.3.5 Please DO NOT adjust the “XY scale”, “Language” or “Burn In Test” on your cutter.

4.3.6 Press the “Lightness” button to adjust the brightness of the touch screen and you will see the screen below:

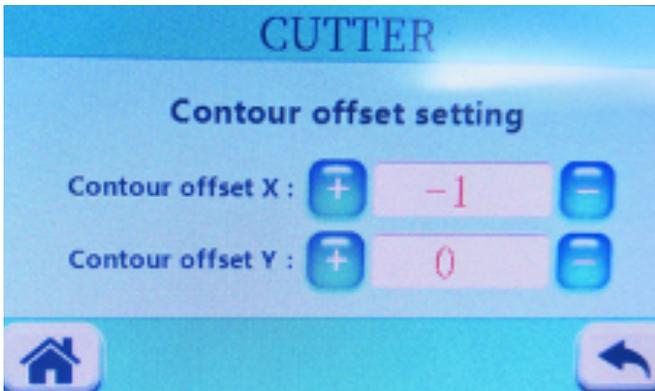


4.3.7 Press the “Light control” to control the LED light of the cutter. You will see the screen below when you press it:



Notice: When doing a Contour cut, we do not recommend opening the light.

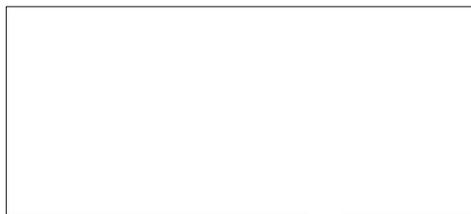
4.3.8 Press the “Contour offset” button to adjust the contour line. You will see the screen below:



The cutter offset should be at 1 for 1mm.

4.4 Knife off-setting

4.5.1 If your knife is not close enough during cutting, you need to reset the offset in your cutting software, which should look like the figure below (please follow the manual provided by your software).



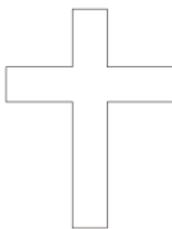
No offset



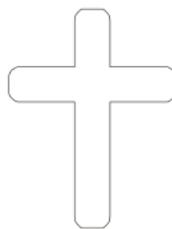
With offset

4.5.2 During cutting, if the right angles are not at right angles, please set the Sharp-angled compensation in the cutting software.

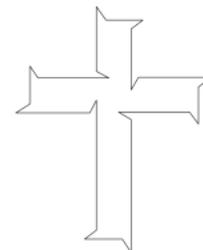
(ATTENTION: the offset value can be over or under, so follow the image below to properly set the compensation in your software according to your issue.)



Correct



Not enough



Over

When you are using cutting software, we recommend you select the high precision output. For example, to cut vinyl, set offset to 0.25 with an overcut of 1-2. To cut 3M reflective film, set offset to 0.65 with an overcut of 0.65 and so on. Basically, you need to adjust the data and test before cutting your main design.

■ FOR BASIC CUT FROM SIGNMASTER

1. Import the designed image into Signmaster. Follow the Basic cut guide video for the mycut mini.
2. Feed the material into the plotter and make sure the material is aligned and flat.
3. There are two ways to connect the plotter, either by USB or with a U-Disc. Choose the way you prefer to connect and do the following steps:

Cutting through USB cable

1. Connect the plotter and computer with a USB cable.
2. In Signmaster, click "Vinyl Spooler". Then, choose "Direct COM port" in connection and click "Auto Detect" to recognize the plotter.

Cutting through U-disc:

1. In Signmaster, click "Vinyl Spooler". Then, choose "Windows Port" in connection and click "File" in port.
2. Save the plt. file and put the plt. file into the U-Disc.
3. Insert the U-Disc into the plotter and press "U-Disc". Then, choose the right plt. file to cut.

CONTOUR CUT FROM SIGNMASTER

1. Import the designed image into Signmaster and follow the contour cut mini guide video.
2. When printing the TIF picture, print it out as its original size (1:1). Feed the material into the plotter and make sure the material is aligned and flat.
3. There are two ways to connect the plotter, either through USB or U-Disc. Choose the way you want to connect and do the following steps:

Cutting through USB cable:

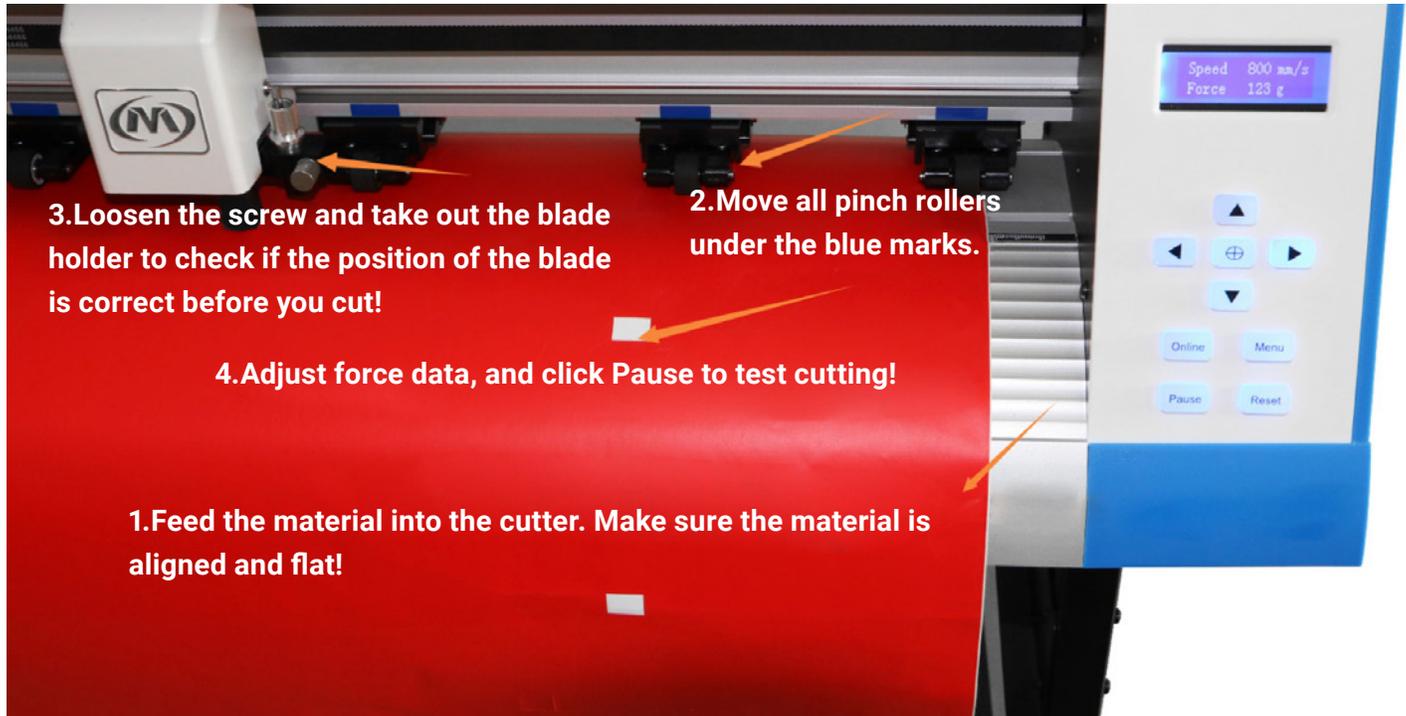
1. Connect the plotter and computer with a USB cable.
2. In Signmaster, click "Vinyl Spooler". Then, choose "Direct COM port" in connection and click "Auto Detect" to recognize the plotter.

Cutting through U-disc:

1. In Signmaster, click "Vinyl Spooler". Then, choose "Windows Port" in connection and choose "File" in port.
2. Save the plt. file and then put the plt. file into the U-Disc.
3. Insert the U-Disc into the plotter and press "Menu" where you will see the "U-Disc" button. Choose the correct plt. file and set it on repeat. The camera will scan the marks and start cutting.

TROUBLESHOOTING

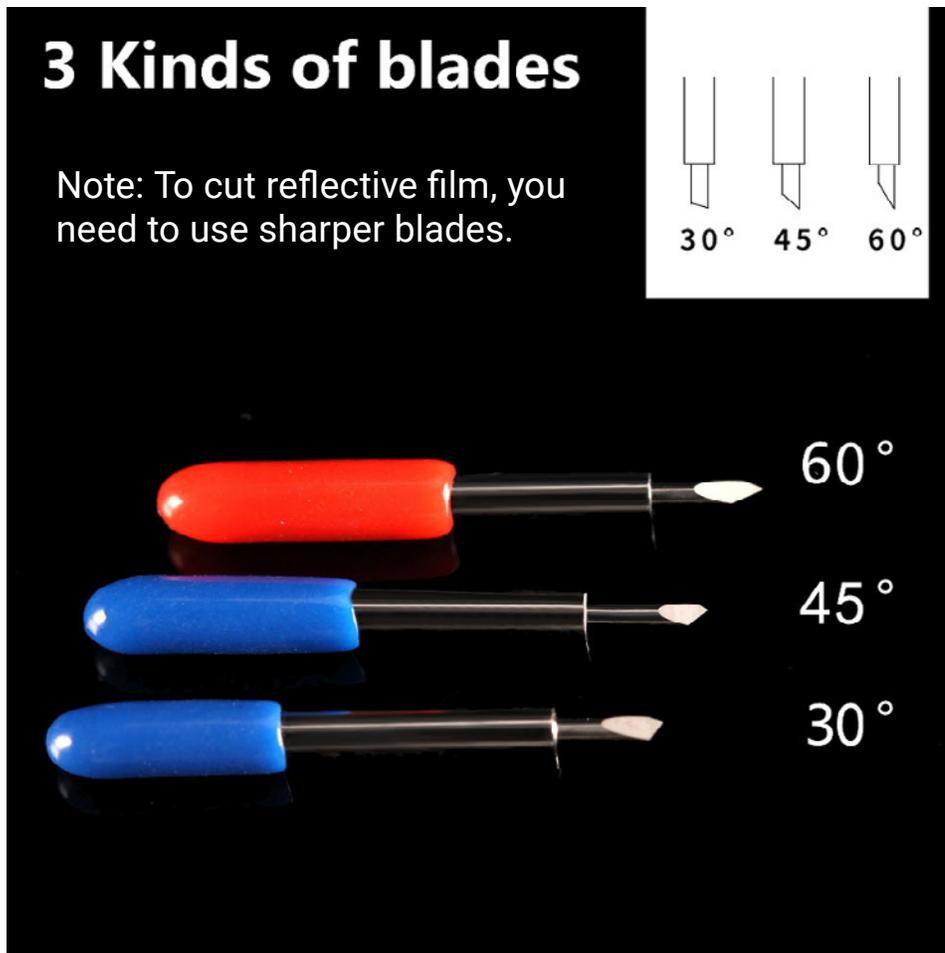
1. A cutting test is needed when you start to cut your design. You can find the instructions on how to run a cutting test in the image below:



2. To check the position of the blade, follow the images below:



3. For information about the three blade types available, view the image below:

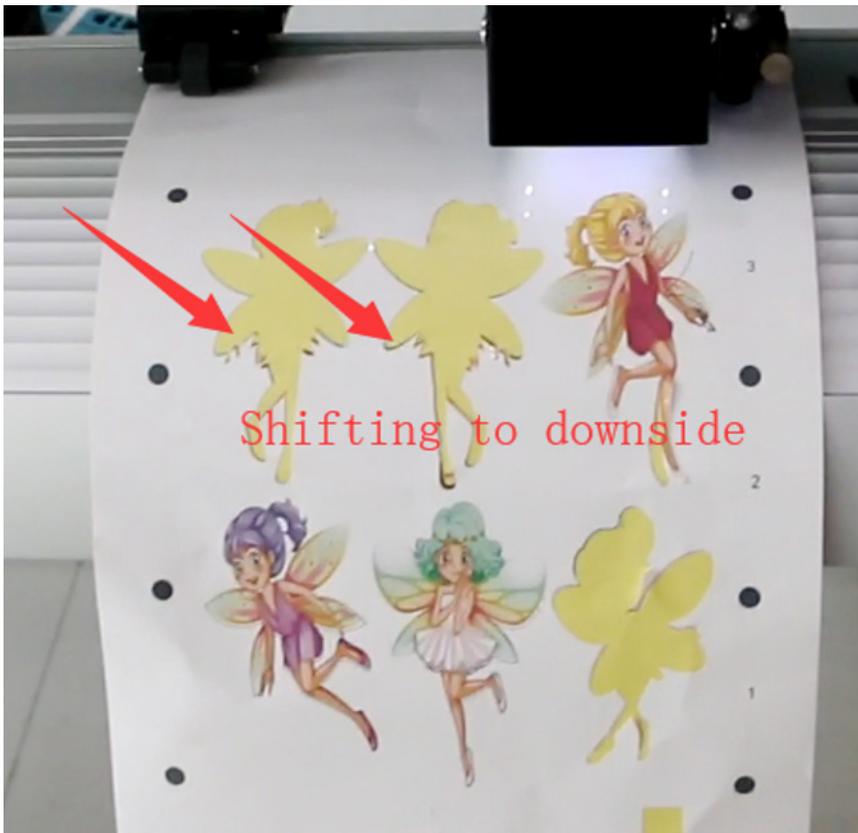


4. If the material is shifting when you contour cut (like in the picture below), please check the instructions on the next page to recalibrate your design.



- 4.1 Make sure the printing size is the same as the original size of your design in the cutting software.
- 4.2 You can see the size of your design when you save it as an image. Printing size should be the same on all computers.
- 4.3 If the printing size does not fit within the second marks on the plotter, it will not always scan properly.
- 4.4 If the contour still shifts after you have gone through the steps above, check “How to calibrate camera contour” in example 5 below.
-

5. How to calibrate camera contour if it is shifting like the example below:



5.1 Please exchange the blade for a pen. Make the cutting force about 200 and move the blade into a blank space.

Go to settings. Click “Camera”, then “Backlight” and finally, click “adjust” last. The cutter should calibrate itself after that.

5.2 Cut again to see if the contour line is now exactly where it needs to be. If there is still some shifting, go to settings and select “Contour Offset”. You can adjust by 1 for every 1mm until your contour line is aligned properly.

6. Frequently Asked Questions (FAQ)

6.1 Question: Why did the mark scan fail?

Answer 1: Your printing file is not the same size (1:1) as your design file.

Answer 2: Your printing material was not placed into the cutter properly.

If the plotter still fails the mark scan, please click “settings”, then “camera” and then “backlight” to try again.

6.2 Question: Will characters below 1CM be legible?

Answer: When cutting small characters, please adjust the offset in your software. For example, in "Artcut" sign software:

- (1). Click "plotting output" once and a plotting output picture will pop up.
- (2). Click "set" once and a picture of your plotter's settings will pop up.
- (3). Click "compensation setting" and a dialog box will pop up.
- (4). Select "sharp-angle compensation" and adjust the value to the proper level.

The compensation ranges from 0.1 to 0.7. We usually set recommend to set your compensation to 0.25 for small letter. In addition, the plotting speed of the cutter should be set below 10.

6.3 Question: Why is there an additional stroke after the plotter is finished cutting?

Answer:

- (1). Check if the tip of the cutter is flexible when it is up and down. If you can wiggle it easily, it may be too loose.
- (2). Change the Master software if there are some stray or unwanted letters.
- (3). Check if there are any problems on the files you are ready to output.

6.4 Question: Why does unwanted zigzagging happen?

As the cutter motor features high power and speed, the cutting speed should be adjusted according to the size of the character you are trying to cut. Generally, to cut small glossy characters with high precision, the speed should not exceed 65. In most cases, a speed of 65 is favorable. To cut big characters in large quantities within the shortest amount of time, the speed can be up to 350. However, since the step distance of the motor is so long, noticeable zigzagging may occur. Therefore, you should set the speed to the specific size of the characters in order to prevent zigzagging. To see the relationship between speed and character size, please refer to the 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

6.5 Question: Why does the paper deviate when it runs by a large margin?

Answer: The paper feeder containing the paper roll will be completely parallel to the paperweight wheel. For a big roll of material, loosen the paperweight wheel prior to cutting to prevent obstruction when plotting or graving. For machines with four paperweight wheels, when plotting big images or characters back and forth, use the two paperweight wheels at the sides instead of tightening the four wheels simultaneously. However, uneven pressure of the two wheels may also result in the paper deviating. If the problem persists, contact your local maintenance center as you may need to replace your paperweight wheels.

6.6 Question: Why does my plotter lock up?

Answer: (1). The exterior 220V input voltage may be too low. If the voltage is at or below 150V, the plotter will restart and lock up will occur.

(2). If the exterior 220V input voltage is too high, your machine will lock up. To resolve lock up issues, you should use a more regulated power source.

6.7 Question: Why does the machine feel electrically charged?

Answer: The machine might be improperly grounded. Make sure the central line of the power source is grounded before attempting to use the plotter again.

6.8 Question: Why do the cuts feel uneven and raised when plotting?

Answer: (1). The protruding length of the knife tip may be too long. Adjust the length and continue cutting.

(2). The knife may be dull. If it can no longer cut smoothly, please replace it.

6.9 Question: Why does the plotter scratch a line on the material before plotting?

Answer: The machine may not have properly finished the previous cutting job and there may still be knife-dropping instructions existing in the memory of the plotter. To resolve this issue, power off the machine and turn it back on.

6.10 Question: Why is there no LCD display or why is there a black row of blocks displayed?

Answer: (1). If there is no LCD display, check if your power is working.

(2). If there are black blocks displayed on your screen, check whether the voltage is at the proper level.

If the issue persists after you have checked the power and voltage, please contact a maintenance center.

6.11 Question: Why can't letters be close in strokes when the machines is plotting?

Answer: Because the knife may be at the wrong angle. To resolve this, adjust the "closing compensation" in the plotter's software. For example: in the "Artcut" software:

(1). Click "plotting output" once and a plotting output picture will pop up.

(2). Click "set" once and the plotter's settings will pop up.

(3). Click "compensation setting" and a dialog box will pop up.

(4). Select "closing compensation" and adjust the value. Generally, the value should be set to 0.5.

6.12 Question: Why is the machine not paving some letters when cutting?

Answer:

(1). Check if the machine is applying enough pressure.

(2). Reinstall the software.

- (3). Check the head of the knife.
- (4). If the problem persists, contact the repair center.

6.13 Question: Why is the machine in a low-speed state after starting up?

Answer: Because the paper sensor may have failed to detect the end of the paper. When feeding the end of the paper into the cutter, make sure the end of the paper covers the hole of the paper sensor.

6.14 Question: Why are some cuts deep, while others are shallow?

Answer: The plotter uses a soft PVC cover as a knife strip to protect the cutting blade. Over time, constant use may wear down the cushion and make it uneven, resulting in some deep cuts and shallow cuts.

To resolve this, replace the knife strip cushion.

If the strip is not worn down completely, adjust the knife as described in section 3.2.1, or increase the knife press to 350.

6.15 Question: Why can't the plotter run when it is outputting?

Answer: (1). Check whether the plotter is properly connected to your computer. The cutter is connected by COM1 or COM2 ports of your computer. Check whether the set ports are properly connected.

(2). Check whether the plotter is in online mode. You can check this by seeing if the LCD displays "ON LINE".

(3). Check whether the encryption card of the software is properly installed. If not, please turn off the power and reinstall it.

6.16 Question: Why can't the instant-glue be taken off?

Answer: (1). Perform a trial run prior to selecting the output and adjust the force to the appropriate level for the material you are using.

(2). Check whether the knife is dull, or whether the top of the knife is broken. For new knives, the cut is thin in the instant-glue, while for old ones the cut is thick. If the cut is thick, you may need to replace your knife.

6.17 Question: What should I do when cutting big letters?

Answer: (1). When cutting big characters, the system can automatically be set to use several pages, but the width setting will conform to the width of the instant-glue. In addition, when cutting big characters and setting the output, you should widen the pages or set the seaming distance.

(2). When you use the special wide machine to cut the big characters, especially the long and big characters, look at the paper first before setting the cutting input to ensure the big characters won't deviate the paper you are using and waste paper.

6.18 Question: How do we maintain the plotter?

Answer: The Mini plotter is self-lubricating, so no oil is needed even if it used constantly for a long time.

After operation everyday, clean the dust off your plotter with a soft brush. The glue remaining in the engine base can be cleaned with alcohol. If your plotter is frequently operated in a dusty environment for more than 2 years, please have maintenance technicians clean the dust in the machine. If the plotting starts losing precision, take the machine for a maintenance check to replace any worn out parts.

6.19 Question: Why does the plotter seem out of control sometimes?

Answer: Maybe while transporting or using it, the signal line was disconnected. To fix this, open the

machine and properly plug in all signal lines. If the problem persists, please contact a local agent or maintenance center.

6.20 Question: Why does the plotter come to a halt?

Answer: The plotter knife may have been vibrating for too long, or it may have constantly been used for a long period and you should let the machine rest. If it seems the plotter is overheating, please unplug it immediately and contact a local agent or maintenance center as a servo displacement may have occurred.

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