CALCA® BRAND Auto Fed Flatbed Digital Cutter

USER'S MANUAL

DTFC-609G

Please read this manual carefully before operation

Welcome Congratulations on Your Purchase of the New G Series flatbed cutter

Work Smarter, Not Harder!

Thank you very much for choosing our CALCA brand G series cutter.

Smarter and people-oriented innovation in the design concept and details will give you simple and relax Cutting experience.

Flatbed Cutter gives your materials a finished, professional look of quality that can really drive business. By giving your materials a higher quality cutting, roll and sheet/piece series of cutting methods, Reduce media waste / processing time, Flatbed Cutter will improve your business image and help bring in more sales leads.

Please read the manual carefully, including the installation, operation and maintenance to ensure the best output and the lifetime of the machine.

The specifications and other information in this manual are subject to change without notice.

This manual is a reference guide for installing and operating the G Series flatbed cutter.

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CONTENTS

1. SAFETY

1.1 Operating Environment

Environmental conditions can significantly affect the machine's performance. The environmental conditions of the machine (without media) are as follows:

Operating Temperature	15 - 35° C (59 - 95° F)
Storage Temperature	-30 - 70° C (-22 - 158° F)
Relative humidity	35 - 75 %, non-condensing

It is possible that the environmental conditions of the used media are stricter than those of the machine itself. Please refer to the documentation about the used media.

Also make sure that the media has had enough time to acclimatize.

1.2 General

The purpose of the user's manual is not only to explain the operating procedures in order to operate this machine. It also provides the owner, users and operators with precaution procedures for safe and proper machine operation for its intended purpose.

All information in this manual must be read and understood before any attempt is made to operate the machine.

The manufacturer has no direct control over the machine operation and application. Proper safety practice is the sole responsibility of the owner, user and operator.

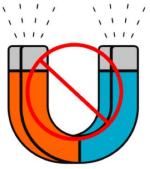
All instructions and safety warnings in this manual are based upon the use of this machine under proper operating conditions without alterations from the original design.

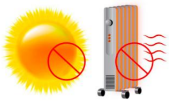
The proper use and the limits of the application of the cutting table depend on the module and tool, used in combination with the material.

Any use of the flatbed that is beyond the capabilities of the combination tool/material is considered as improper use and may result in injury and/or serious damage to the machine and will lead to loss of warranty.
The installation of the machine, accessories and spare parts must not be done by untrained or unauthorized persons. Also the described maintenance procedures need to be followed and performed by trained personnel.

1.3 Safety precautions

Some safety labels are used on parts of the machine. They are explained below.

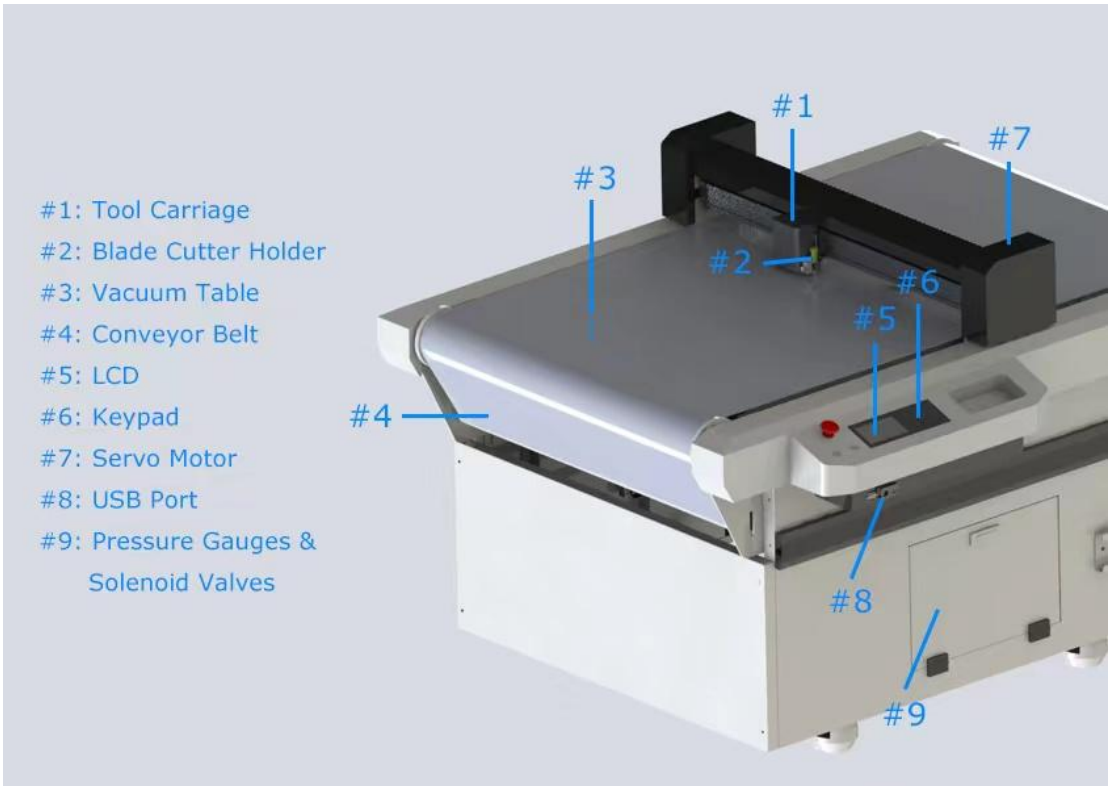
	Be careful when handling the cutter blade.		Do not touch the moving parts such as the carriage and belt while
	Do not put sundries on tabletop or gantry top.		Do not use the power cord if it is damaged.
	Do not use the cutter in an excessively dusty or humid location.		Do not attempt to lubricate the cutter mechanisms.
	Do not clean the cutter using volatile solvents such as thinner or benzene.		Do not place magnetic cards, diskettes in the vicinity of the tool carriage.
	Do not disassemble, repair, or remodel the cutter.		Be sure to ground the earth terminal.

	When using indoor lighting such as fluorescent or other electrical lamps, provide a distance of at least one meter between the cutter and the light source.
	If the cutter generates smoke, overheats, emits a strange odor, or otherwise functions abnormally, do not continue using it. Turn off the power and unplug the power cord from the electrical socket.
	Do not use the cutter in a location subject to excessive mechanical vibration or electrical noise.
	Do not use the cutter in a location exposed to direct sunlight or the direct draft of an air conditioner.
	Provide sufficient space around the cutter so that it does not strike any objects in its vicinity during cutting.

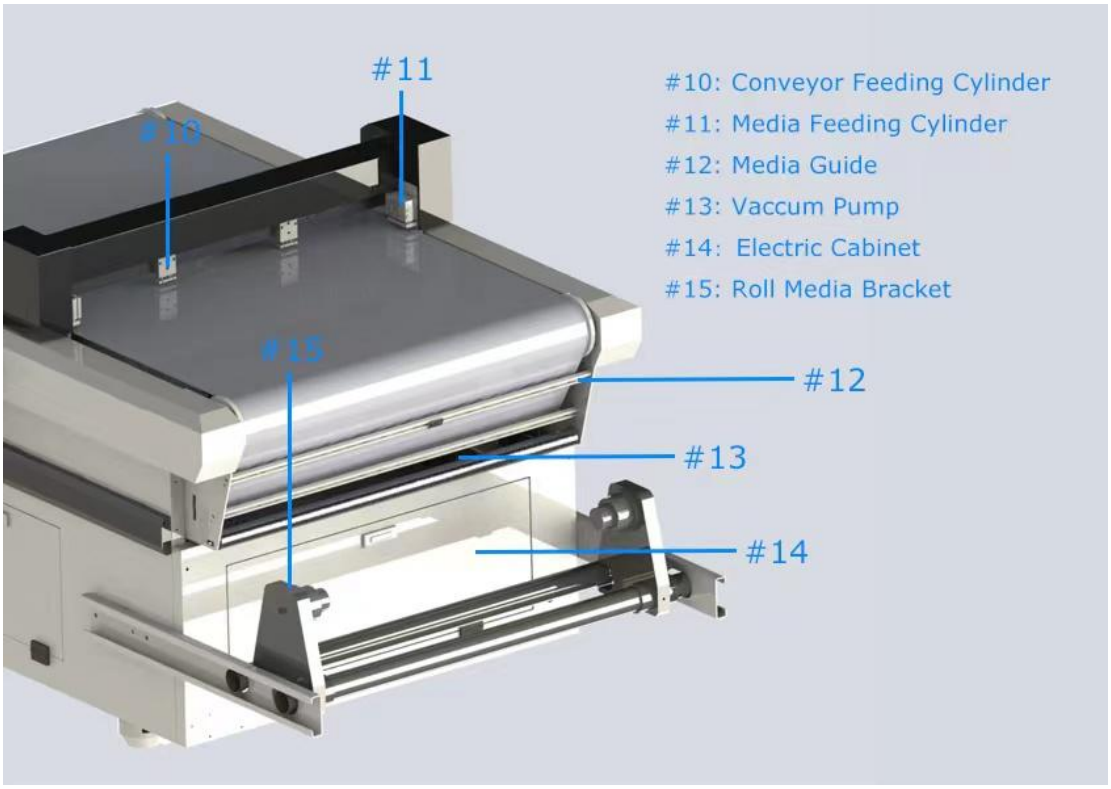
2. MACHINE COMPONENTS

2.1 Flatbed Components

2.1.1 Front view



2.1.2 Rear view



2.1.3 Control panel

1 PUSH STOP:

Only use this in case of emergency or check before use.

Pressing the switch will cause the switch to become depressed. In this state, turning the power switch to the ON position (" I " side) will not turn the power on.

When the power switch is in the Off position, you can turn it On by turning the emergency stop switch clockwise until you hear the click and the switch pops up. After confirming safety, turn the unit's power switch to the ON (" I " side) position.

When turning the power on for the first time after implementing the emergency stop switch, push the switch to the ON position strongly

2 VACUUM:

Turn on the vacuum pump's power supply

3 PNEUMATIC PRESSURE BAR:

Turn on the air compressor's power supply

4 SCREEN (LCD):

Information reflecting the status will be displayed in the screen of the control panel.

5 RUN/STOP:

Start or temporarily suspend a cutting or plotting operation. When a USB flash drive is connected to the machine, pressing this key will give priority to retrieve the processing file from the USB drive. After the processing file is selected, the machine will enter the online state and start the cut process.

6 SET:

Switches to the MENU mode, different functions are set in the MENU mode.

7 TEST:

Runs a cutting test to check whether the currently selected cutting conditions are compatible with the medium loaded.

8 ENTER:

After setting a function or condition at the control panel, press the [ENTER] key to register your setting.

9 POSITION:

Adjusts various settings, selects numerical value changes, moves the cursor, and changes the positions in the menu screen.

2.1.4 Accessories

#1: Carton box x1
#2: M8 hexagon socket screws
with flat spring and gasket x4
#3: M6 allen wrench x1
M4 allen wrench x1
#4: Guide plate x2
#5: Cutter holder x1
#6: Pen holder x1
#7: Cutter blade x3 (1 kit)
#8: Mini gender changer x1
#9: USB 2.0 to DB9 adapter cord x1
#10: USB cord x1
#11: USB flash driver x1

2.2 Specifications

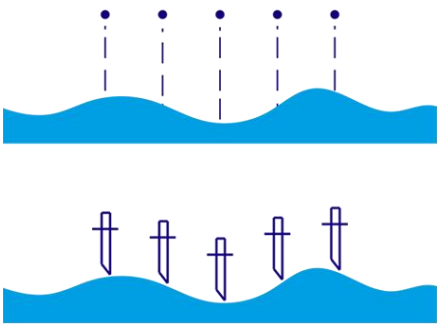
Model	LPC-DTFC-6090G
Power Input	AC 110V, 60Hz
Power Consumption	2.2kw, 20A
Working mat size	600 x 900mm(24" x 35")
Media Thickness	0.05-1.5mm (0.001" x 0.06")
Max Cutting Speed	600mm/s (24"/s)
Cutting pressure	600g(21oz)
Software resolution	0.025mm (0.001")
Mechanical resolution	0.0125mm (0.0005")
Cutting pressure setting	Adjustable per 1 gram
Minimum character size	1mm-2mm(0.04" x 0.08")
Interfaces	USB2.0 U Disk
Method to Fix Media	Vacuum Table

Cutting Force Setup	Adjustable in Every 1G
Cutter Blade Diameters	Φ2.0mm (0.08")
Cutter Blade Angles	30˚, 45˚, 60˚
Dotted Lines Cutting	Yes
Drive	AC Servo
IOS	Win10 / 8 / 7 / XP
Memory Buffer	2MB
CAD/CAM Software	Windows Driver, SignWorkPro, CADtoPlotpro
File Format	DXF
Port in Standard	USB, RS-232
Registration marks detection	CCD Camera
Cutter Holder	1
Roll Media Bracket	Yes

2.3 Features

Grating Ruler

Inevitably material surface is not level from point to point, the grating ruler is applied to measure the distance between blade tip and material surface, and the cutting depth is adjusted in every 0.01mm by the controller accordingly. Then the blade travels up and down as material surface goes to keep the same cutting depth at any position of the tool paths across the entire table. Grating Ruler is of key importance for consistent cutting depth.

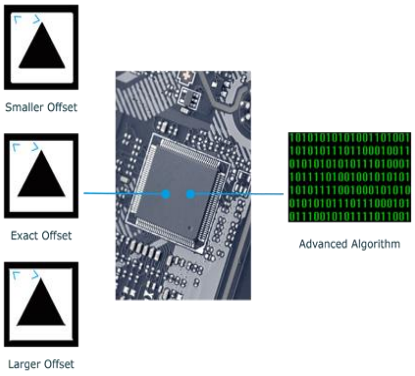


Advanced Tool Carriage

The tool carriage adopts the structure of sports car, using of silent voice coil motor makes it outstrip its rivals. The tool carriage is featured as fast, agile and no overheats for long-time non-stop operation.

Making Blade-tip Compensation with Chip

Makes blade-tip compensation with Chip instead of software, the digital cutter works with constant high precision no matter what kind of CAD / CAM software is applied.

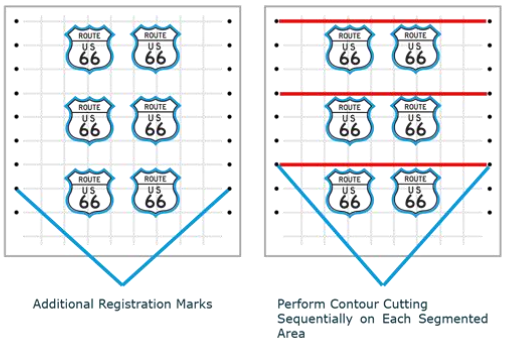


Half Cut / Perforation Cut

Half cut / Perforation cut are available, every time you may carry out either one or both.

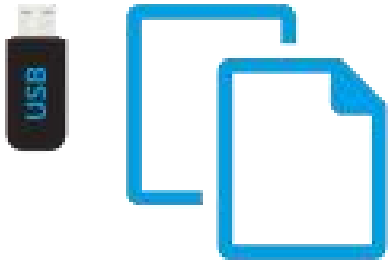
Segmented Area Cutting Operation

Additional registration marks are available for more precise axis alignment. Contour cutting is performed sequentially in each segmented area, which improves accuracy
and tracking for heavier media or media that has been laminated.



Duplicate Cutting Jobs Offline

Knowing exactly what trouble the users and what they want, Our system is designed to fix these practical headaches. With CALCA cutters, users are enabled to duplicate the cutting jobs offline.



Compatible with AutoCAD, CorelDRAW and MAINTOP

Leading the same industry, we make software by our- self, we are able to adapt our system to the latest version of popular CAD / CAM software, such as AutoCAD, CorelDRAW and MAINTOP.

Vacuum and Auto Fed System

Strong air flow to hold down the media flatly and tightly against the table top so that the tool carriage can perform fast, accurate cutting.Conveyor is applied for long
seamless cutting operation.It is used with a CCD camera to achieve fast and accurate set/contour cutting.

3. PREPARATIONS FOR CUTTING

3.1 Basic Operational Flow

For smooth operation, please follow the steps outlined below and make the appropriate settings explained in the relevant sections.

1. Before turning on the power supply, make sure that the cutter is connected to your computer and to any other peripheral devices as required.

3.2 Connecting to a Compute

2. Mount the cutter tool, and adjust the blade length.

3.3.1 Attaching a tool

3.3.2 Adjusting the Blade Length

3. Turn on the power supply to the cutter and the peripheral devices.

4. Media Stocker Installation

3.6 Media Stocker Installation

5. Load the medium.

3.7 Loading the Medium

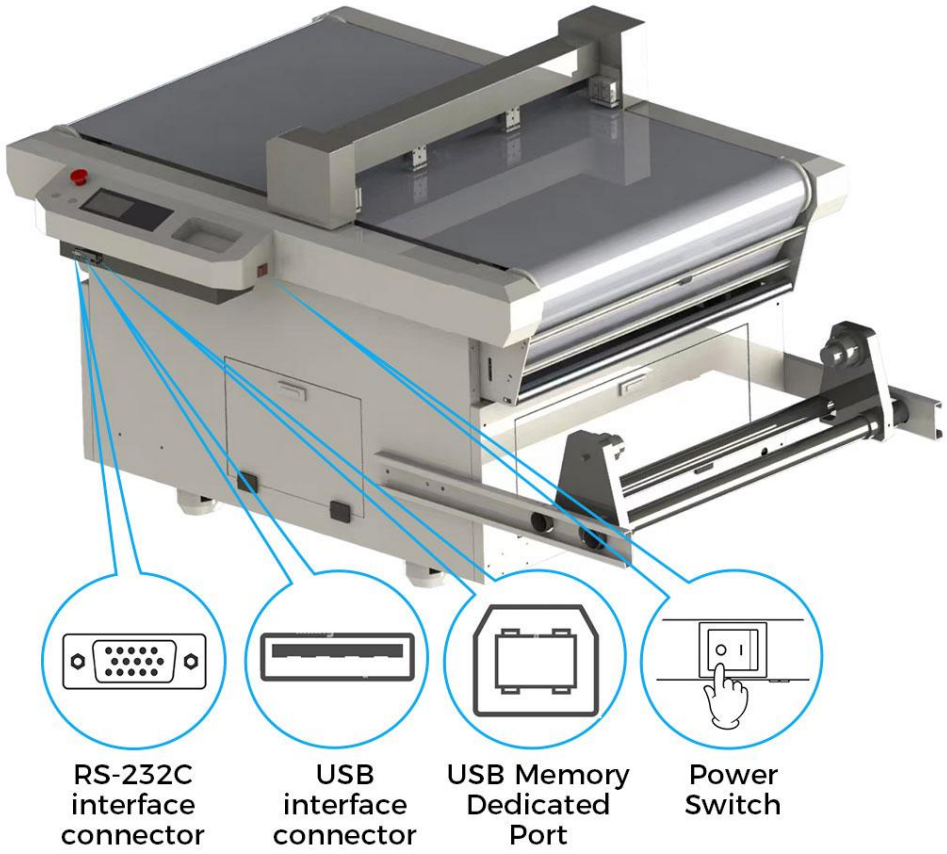
6. Running Cutting Tests

3.8 Preparations

Send the cutting data from your computer to the cutter to start the cutting operation.

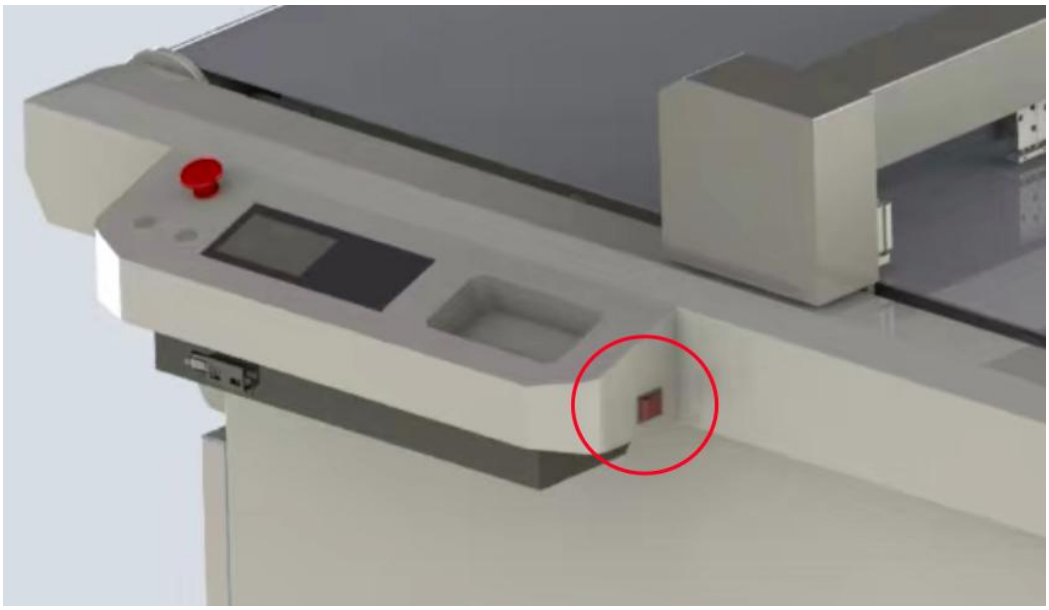
3.2 Connecting to a Computer

This cutter has 2 USB and 1 RS-232C interfaces, The 2 USB ports each allow you to connect to a computer or insert a USB flash drive, while the RS-232C port is used to calibrate the CCD camera.

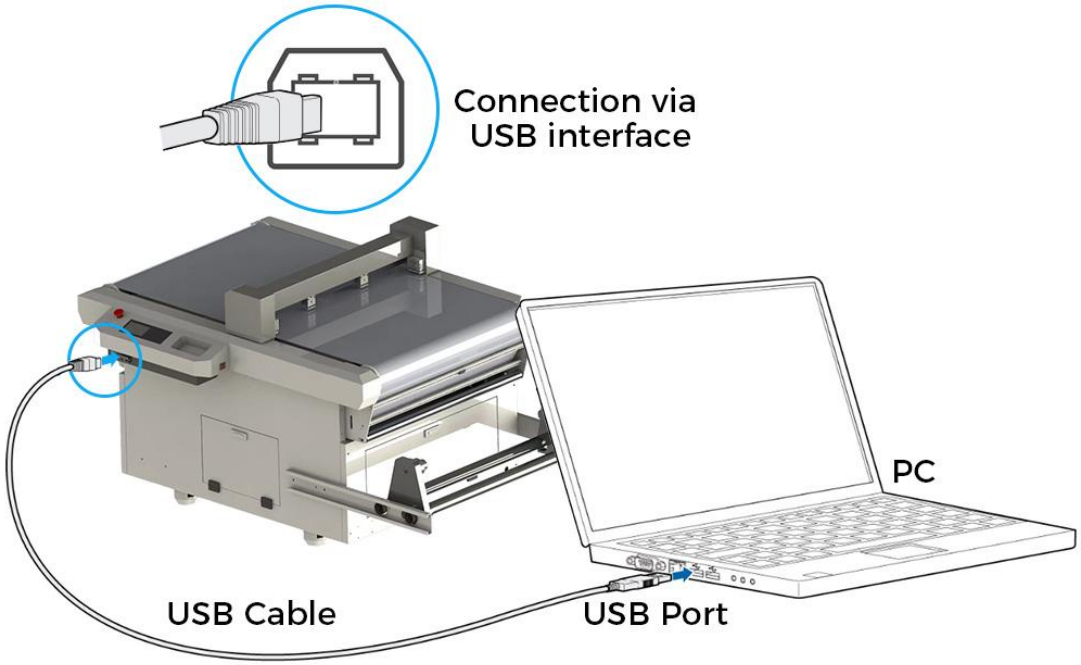


Use the USB interface to connect the cutter to the computer.

1. Make sure that the power switch is turned off (“○”side).



2. Connect the plotter to the computer using the interface cable.



3. After connecting the cutter to the computer with the USB cable, you need to press the [RUN/STOP] button on the control panel to put the machine online and prepare to receive the cutting data sent by the software.

Insert a USB flash drive

When a USB flash drive is connected to the machine, Press the RUN/STOP key will give priority to retrieve the processing file from the USB drive. After the

processing file is selected, the machine will enter the online state and start the cut process.

3.3 Attaching a Tool

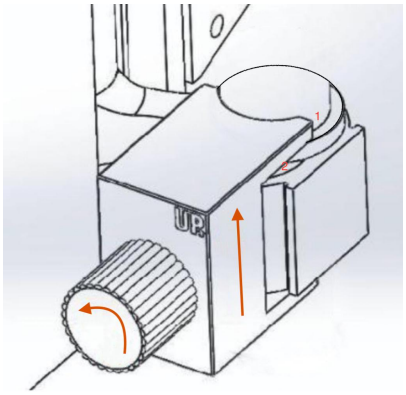
3.3.1 Attaching a tool

When mounting the tool in the tool holder, please note the following.

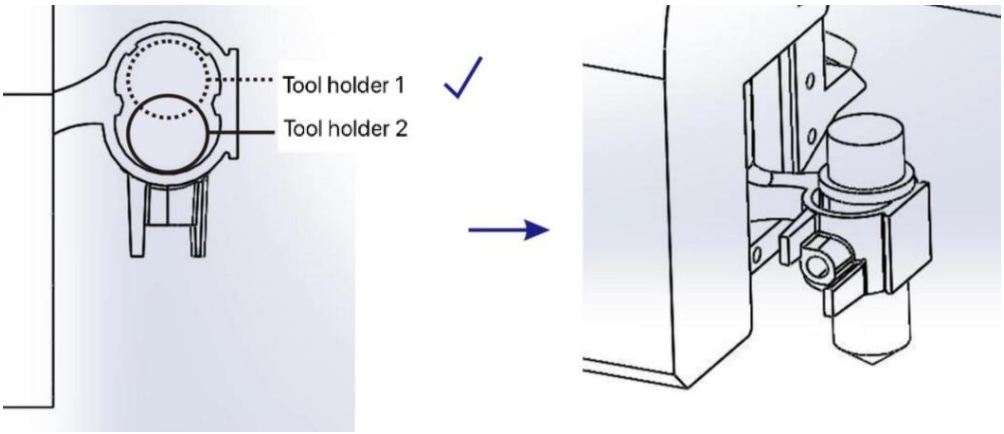
• When pushing the tool holder with your fingers, the blade tip may be protruding. Take care not to cut your fingers.

• To prevent injury, avoid absolutely touching the tool immediately after the cutter is turned on or whenever the tool is moving.

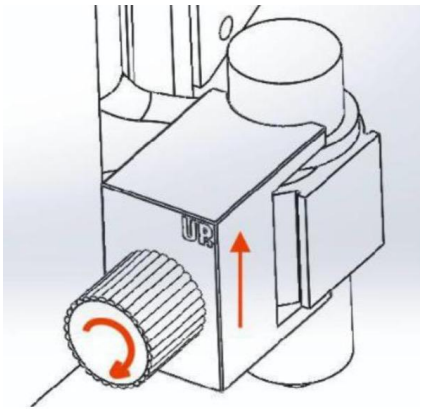
1. Loosen the tool holder screw. Put the tool into the tool holder 1



2. While pushing up the tool holder, push the tool into the holder until its flange completely touches the upper part of the holder.



3. Make sure that the tool bracket is engaged on the tool's flange, and then tighten the screw.

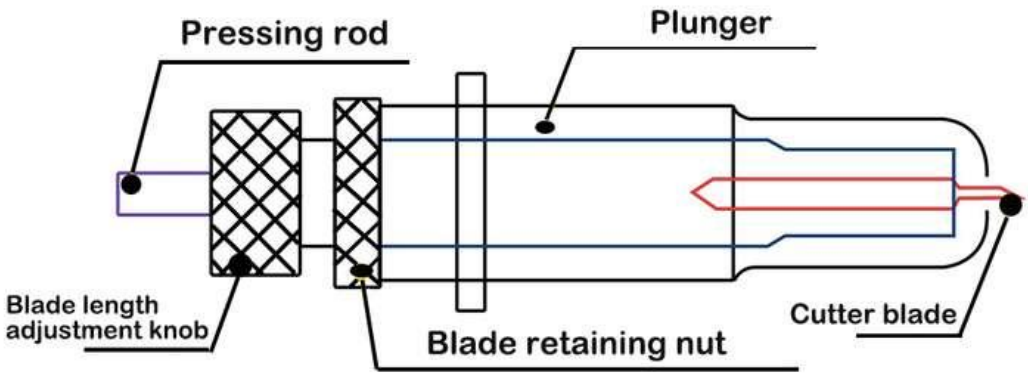


When removing the tool, turn the tool holder screw counterclockwise to remove the tool.

3.3.2 Adjusting the blade length

This chapter describes the structure of the blade holder, adjusting the blade length and replacing the blade

3.3.2.1 Structure of cutter blade holder

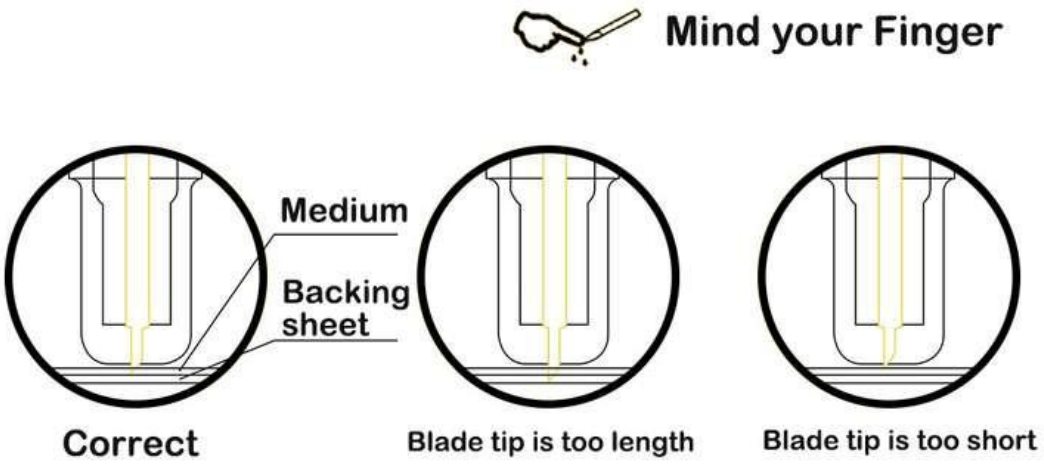



Don't touch the blade tip by finger

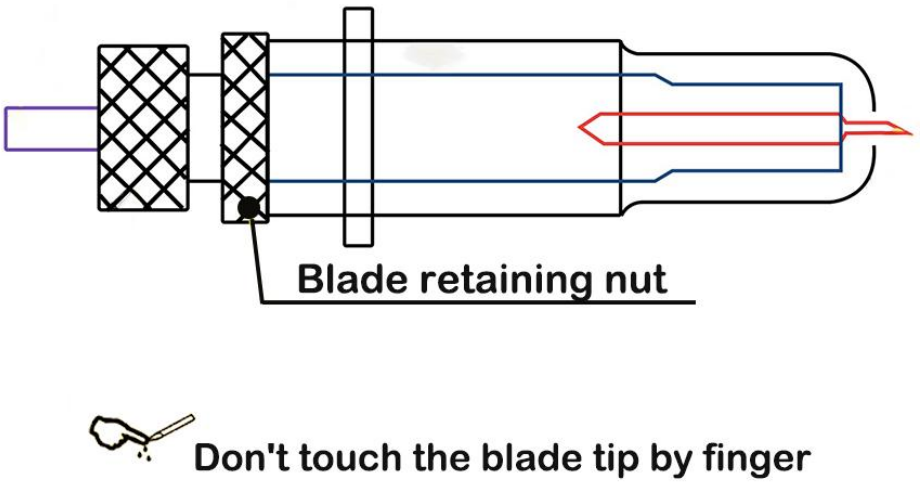
It may result in damaging the cutter blade or the workbench if the blade is extended too much.
Blade length needs to be adjusted to perform optimal cut. Perform few test cuts and set the optimal blade length.

3.3.2.2 Adjusting the blade length

1. Adjust the blade length by turning the blade-length adjustment knob. Extend the cutter blade tip to suit the thickness of the medium being used.
2. Extend the blade little by little to the thickness of the media. Optimal blade length is less than the thickness of medium and backing sheet combined, but more than the thickness of the medium. Try cutting the medium, and adjust so there is slight cutting on the backing sheet. If the backing sheet gets cut completely, reduce the blade length, and if the medium does not get cut completely, increase the blade length.



3. Adjust the blade to the appropriate length, and then tighten the screw.



4. Make sure the blade length is set less than the thickness of the media, please always perform "test cut" to adjust the blade length.
   To avoid bodily injury, handle cutter blades with care.

3.3.2.3 Replacing the cutter blade

1. Rotate the blade-retaining nut to loosen it, press the Pressing rod a few times, the blade extends out of the Plunger.
2. Remove the cutter blade from the holder, insert the new cutter blade.
3. Turn the blade length adjustment knob clockwise until the tip of the blade can be seen.

4. After the blade length is adjusted correctly, tighten the blade-retaining nut.

3.3.3 Setting the force

In the OFFLINE state, press the [SET] key to switch to the parameter setting, press the ◁ and ▷ keys to switch the menu bar, find FORCE, press the △ and ▽ down keys to adjust the pressure parameters, press the [ENTER] key to save the parameters.

Test cutting can be performed after making force settings to ensure that the selected cutting conditions actually produce the desired cutting results.

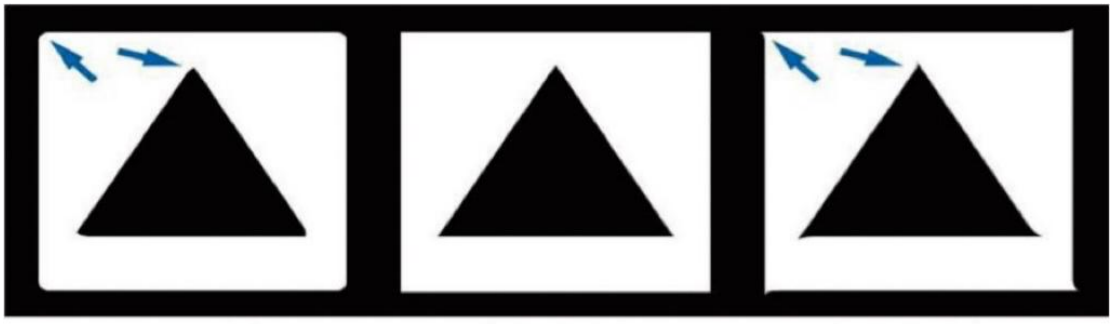
Press the [TEST] key to start the test. Try cutting the medium, and adjust so there is slight cutting on the backing sheet. If the cutting results are not satisfactory, press the [SET] key to enter the menu to reset the pressure value, please increase the pressure by about 5g-10g each time.

If the backing sheet gets cut completely, reduce the pressure value, and if the medium does not get cut completely, increase the pressure value.

3.3.4 Adjustment of offset

In general, the offset of the blade tip is 0.25mm or 0.50mm. If the adjustment value shown in the figure below is too large or too small, please press the [SET] key to enter the menu. Find the Knife Offset menu item, and increase or decrease the setting value.

Confirm the setting and press the [ENTER] key (SET).



NOT ENOUGH ADJUSTMENT OPTIMAL OFFSET VALUE TOO MUCH ADJUSTMENT

Check the corners of the triangle, if the corner is not cut or if it is cut too much, adjust the offset value.

Not enough adjustment, Increase the offset value.

Too much adjustment, Decrease the offset value.

3.4 Connecting to the Power

The cutter is delivered without a power plug. Have a licensed electrician connect to the power supply.

The electrician can either install a suitable amperage, phase and voltage rated plug for whatever country the unit is being installed.

What will I need?

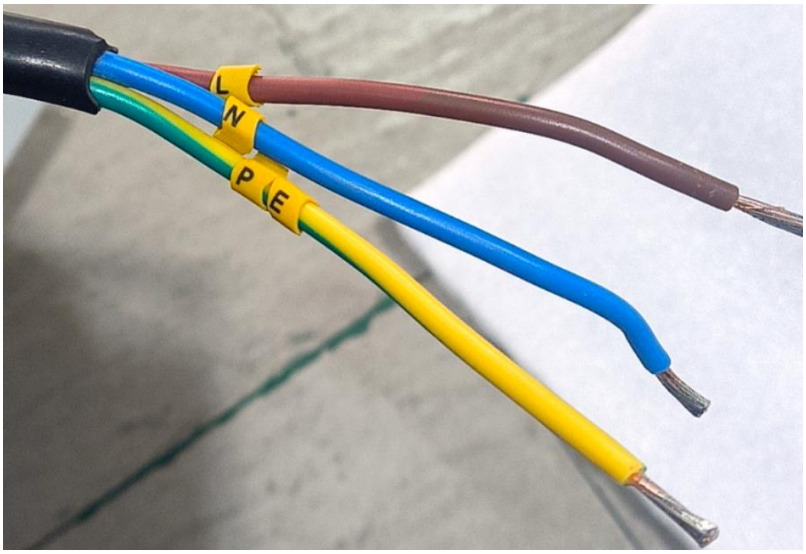
A screwdriver

A wire cutter

A knife

A plug (3 pins, rated above 10A)

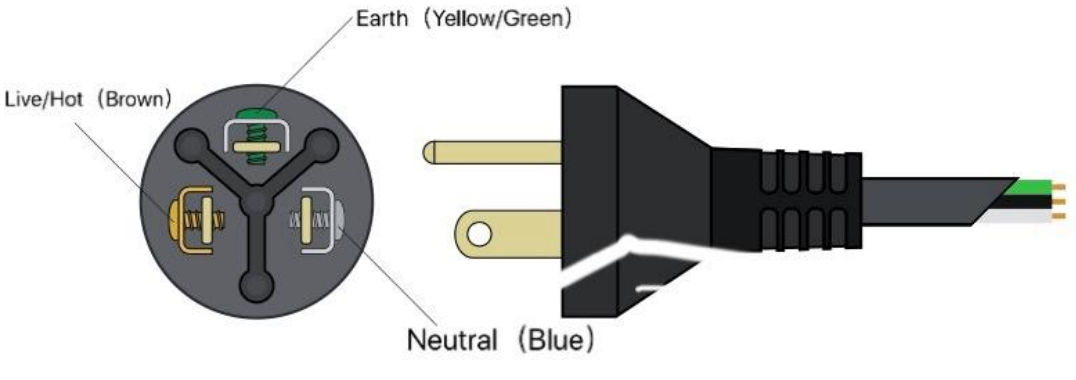
1. There are three different wires (live/hot, neutral, and earth/ground). The different wires are clearly marked with the letters "L", "N" and "PE". Use wire strippers to remove about 5mm (0.2 to 0.4 inches) of insulation from the end of each wire, so that the copper insides are clearly visible, as shown below.



2. Loosen the screw on the plug, on the side with the three pins poking out. Take the back off of the plug (the part you loosened by undoing the screw). The plug has markings inside to identify each pin:
   (L) = Live = Brown
   (N) = Neutral = Blue
   (PE) = Earth = Yellow & Green

Once you have prepared the plug and cable it is now time to connect the wires to the correct terminals.

3. If the plug has screw type cord clamp, remove or loosen this first. Connect each wire to the correct terminal. Slacken the screw and push the bare wire into the hole and then re-tighten the screw. It's often easier to push the pins up slightly when connecting the wires. Starting with the earth, then neutral and then live is usually the easiest order for wiring the terminals.



4. Check the wiring is correct and all the terminal screws are tight. Loose

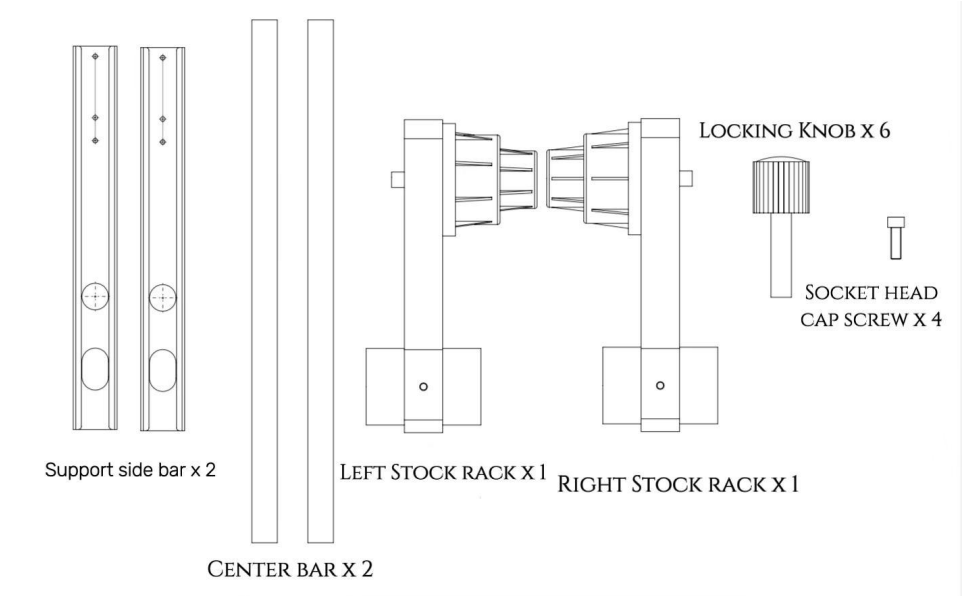
screws can cause overheating, put the back of the plug back on once all the wires are in and tight.

3.5 Turning on the Cutter and Initialization

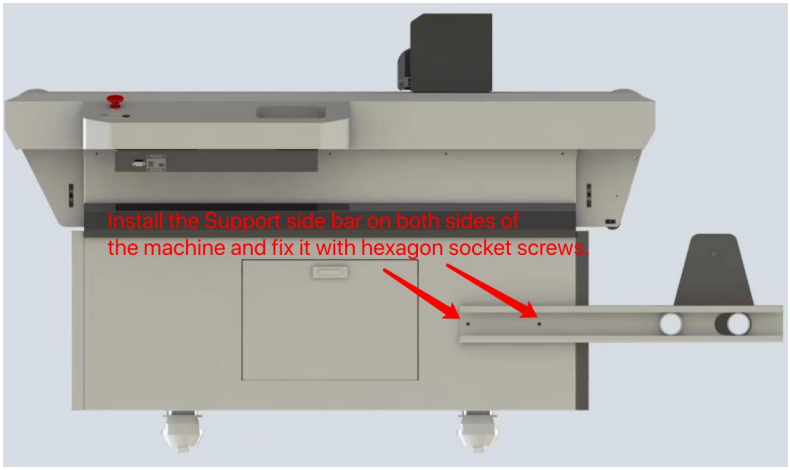
1. Turn on the power.
2. The control panel lights up, press the POSITION key, the Y bar and cutter carriage will start to move, observe the running conditions, if there is any abnormality, please turn off the power and contact your seller for help in time.
3. These operations are part of the initialization process, when the initialization process is complete, the plotter is ready to begin plotting or cutting.

3.6 Media Stocker Installation

The media stocker is made up of the following parts.



1. Fasten the Support side bar to the left and right sides of the machine with four socket head cap screws (two on each side)



2. Insert 2 center bars into the slots on the Left and right stock rack, and then push the Left and right stock rack to the middle of the center bar, leaving enough space on both sides of the center bar.
3. Thread the center bar through the holes in the left and right Support side bar

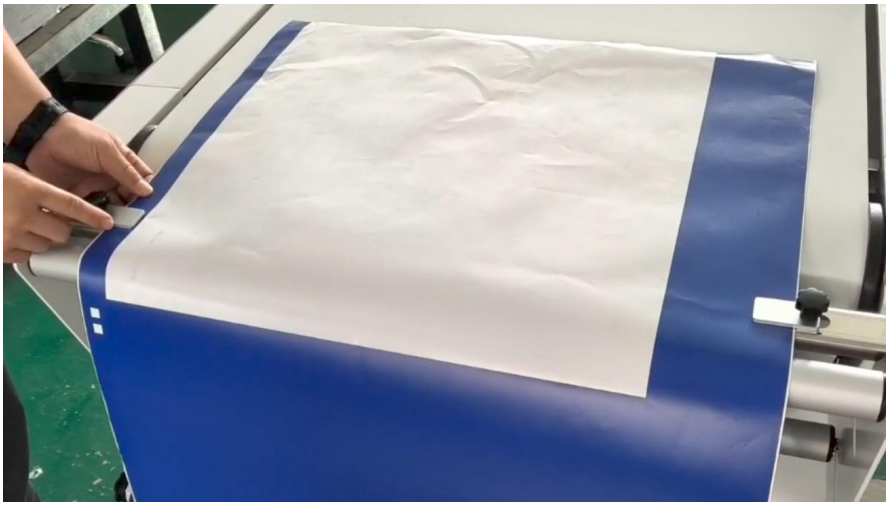
4. 6 Locking Knobs are installed on the Support side bar and the Stock rack respectively for fixing.

3.7 Loading the Medium

1. Place the media roll on the roll media stocker. As shown below

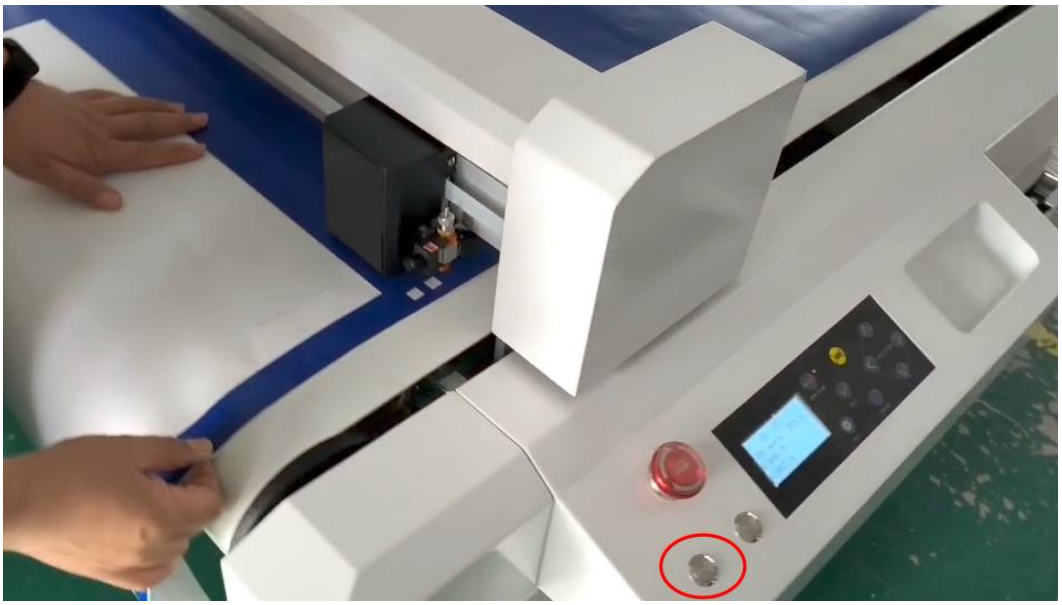
2. Media goes from the back of the cutter across the leading edge so that it emerges from the front.

3. Secure the edges of the media with a media lock



4. Pull the leading edge of the media away from the front of the cutter so that it completely covers the workbench.

5. Press the [VACUUM] key on the control panel. Turn on the vacuum pump's power supply, and ensure that the medium is securely attached to the workbench before cutting.



CAUTION

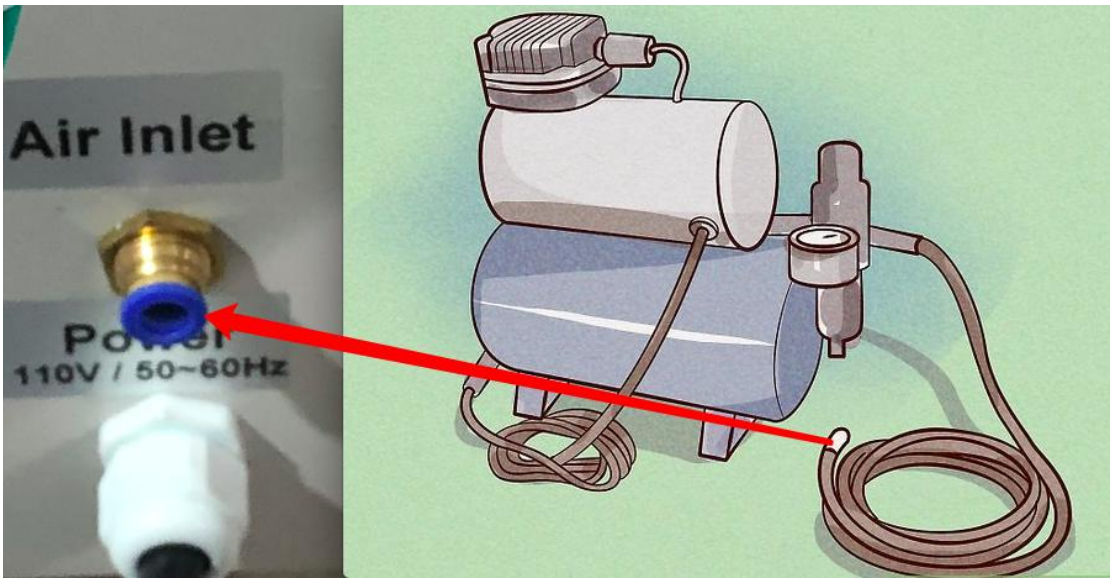
During the printing and baking process of the medium, the tension on the surface changes, which will make the medium slightly wrinkled when it is adsorbed, which will not affect the cutting.

3.8 Preparations

Test cutting can be performed after making the tool, speed, force, and acceleration settings to ensure that the selected cutting conditions actually produce the desired cutting results.
If the cutting results are not satisfactory, adjust the various settings and repeat the test cutting until the optimal settings are achieved.
During the test, please set speed smaller than 200mm/s; please make sure the protruding length of tool tip is appropriate, make sure the cutting force is smaller than 200g. You may increase the speed and cutting force gradually as you are more and more skillful in operation.

3.9 Supplement

The air compressor is not supplied as a standard accessory. It must be purchased separately.
• Be sure to select a vacuum pump which is affixed with either a label showing compliance with the relevant safety standard or with the CE marking.
• Air compressor selection:
Discharge Pressure: not less than 7 BAR / 101.5 PSI
Tank Capacity: not less than 50 LTR / 13.2 GAL
Outer Diameter of Air pipe: 7mm
When connecting the vacuum pump to a power supply, be sure to follow the wiring instructions given in the user's manual provided with your pump.
1. Attach the hose to the regulator valve. Set the compressor on flat ground.
2. Push the free end of the hose into the air inlet to attach cutter. As shown below



3. After the air compressor is connected, press the [PNEUMATIC PRESSURE BAR] key on the control panel to start the machine auto feed system.

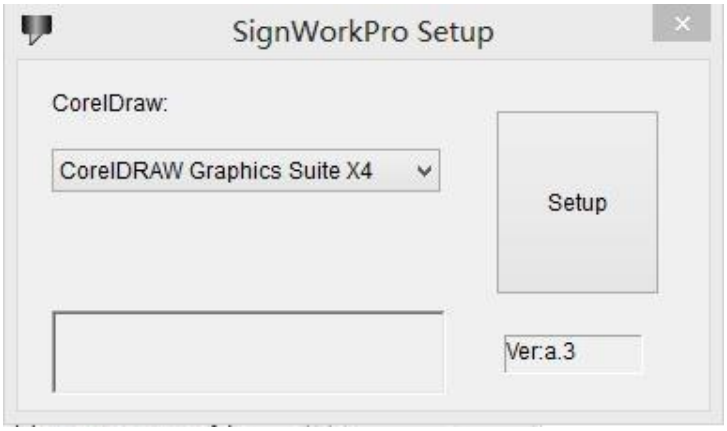
4. INSTALL SOFTWARE

4.1 Install SignWorkPro

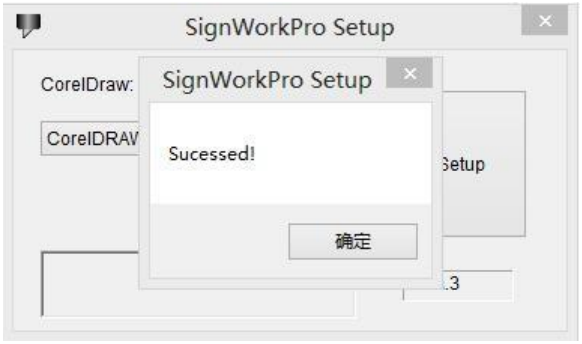
If you use the software CORELDRAW, you can directly output the cutting job to the cutter with steps below:

1. Get the installation package from your sales representative or us.

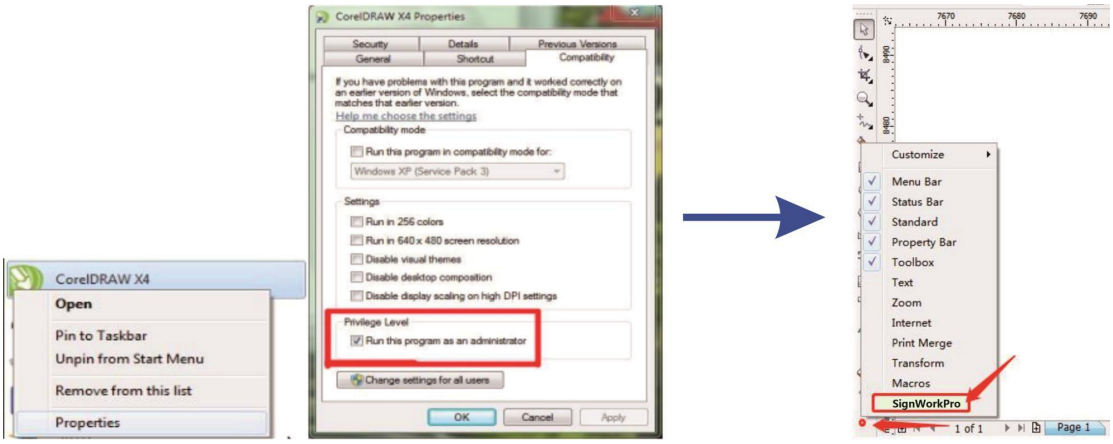
2. Double click to run, and then choose the corresponding CORELDRAW version, then click to install.



3. The installation is completed successfully.

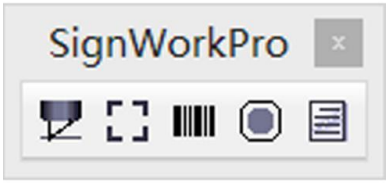


4. Right click the short-cut icon of CORELDRAW to choose Properties Compatibility and click Run This Program as an Administrator in the following



picture

1. Run CORELDRAW, then right click the item in red, then choose SignWorkPro. When the toolbar in the following picture pops up, the installation is fully completed.



4.2 Introduction to Icons of Software

Generate the cutting job with the selected icon and send to cutter.

Add Registration Mark to the selected contour.

Add auxiliary bar code to the selected Mark.

Automatically generate the contour for the selected picture.

Software settings.

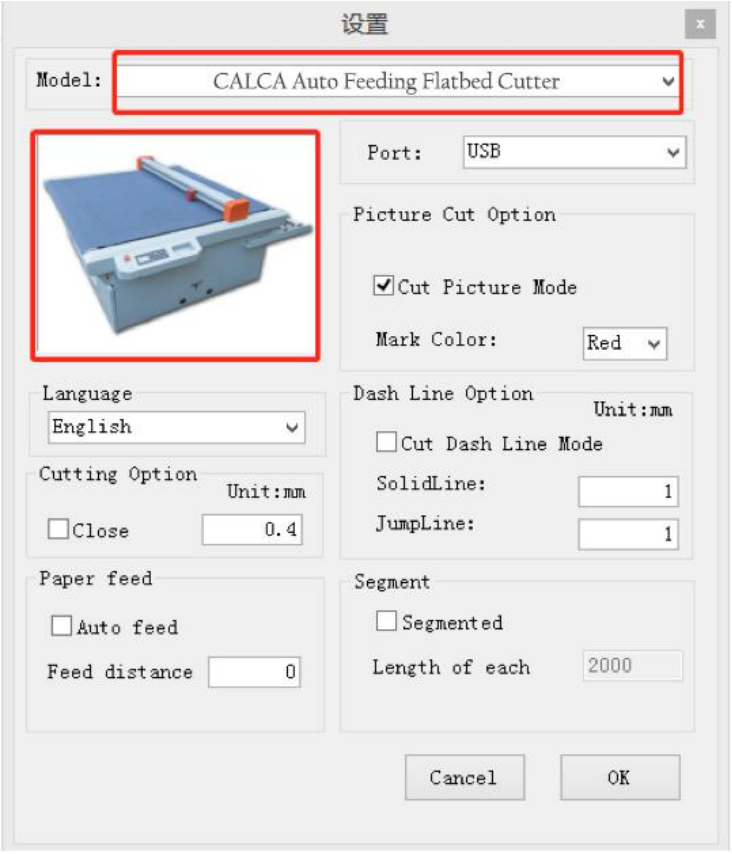
5.QUICK START to MACHINE OPERATION

5.1 Operation

1. Open Coreldraw and click on the icon in red circle as below

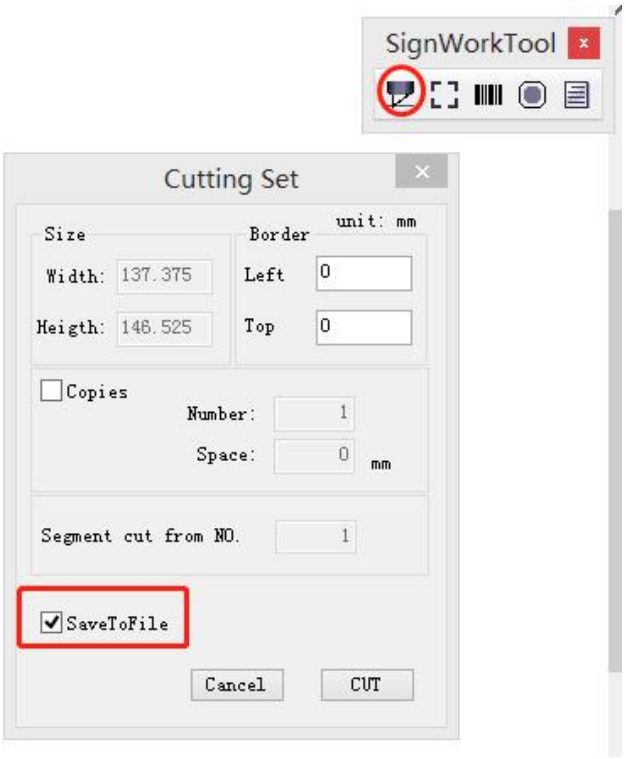
2. Then choose the correct model of the vinyl cutter, please note that this is important for well-off cutting / plotting operation. If the model is uncertain, please refer to the machine picture displayed. The model we are talking

about here is auto feeding CNC flatbed cutter series



3. There are Non-contour Cutting and Cut Picture Mode (Contour Cutting). The Segmented Area Cutting Operation and Duplicate Operation are applied to accomplish long length cutting or repetitive work.

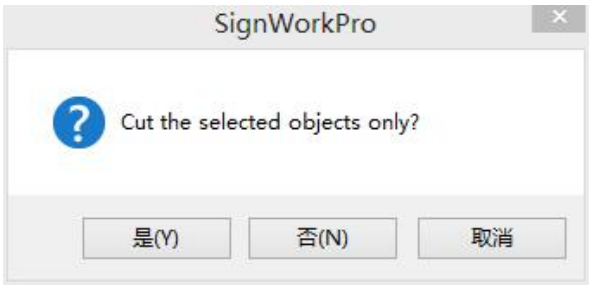
4. There are two ways to send cutting jobs to vinyl cutter, 1st is to connect cutter and
PC via a USB Cord and send files by PC; 2nd way is by USB Memory, in this way, you may download file by USB memory, then plugin it to cutter and then carry out
cutting operation offline. Please follow the picture below to get the cutting job.



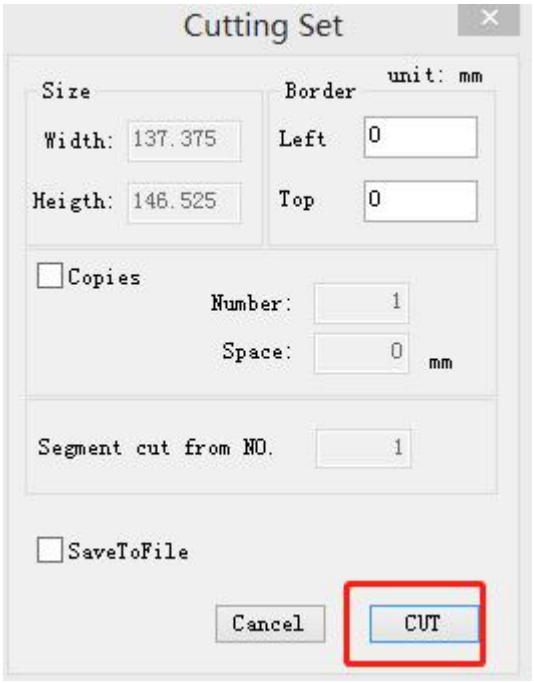
5.2 Non-contour Cutting

1. Choose the objects to be cut, and then  click.

2. As per window below, click Y to carry out cutting of the objects selected, all of the objects in the page will be cut if you click N.

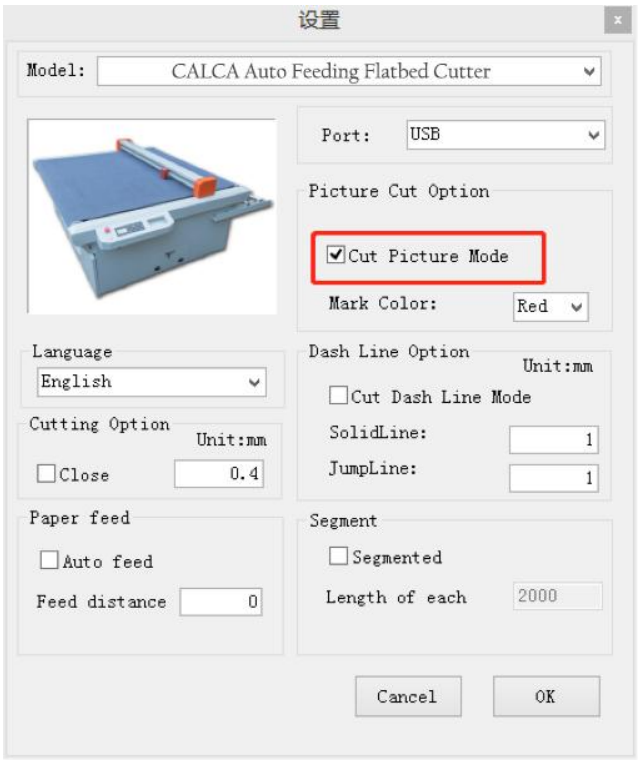


3. As the screen below, click CUT and the cutting operation will be executed. Before clicking CUT, please check the LCD display of machine and make sure it reads ONLINE, please press  to switch the mode to ONLINE if not.



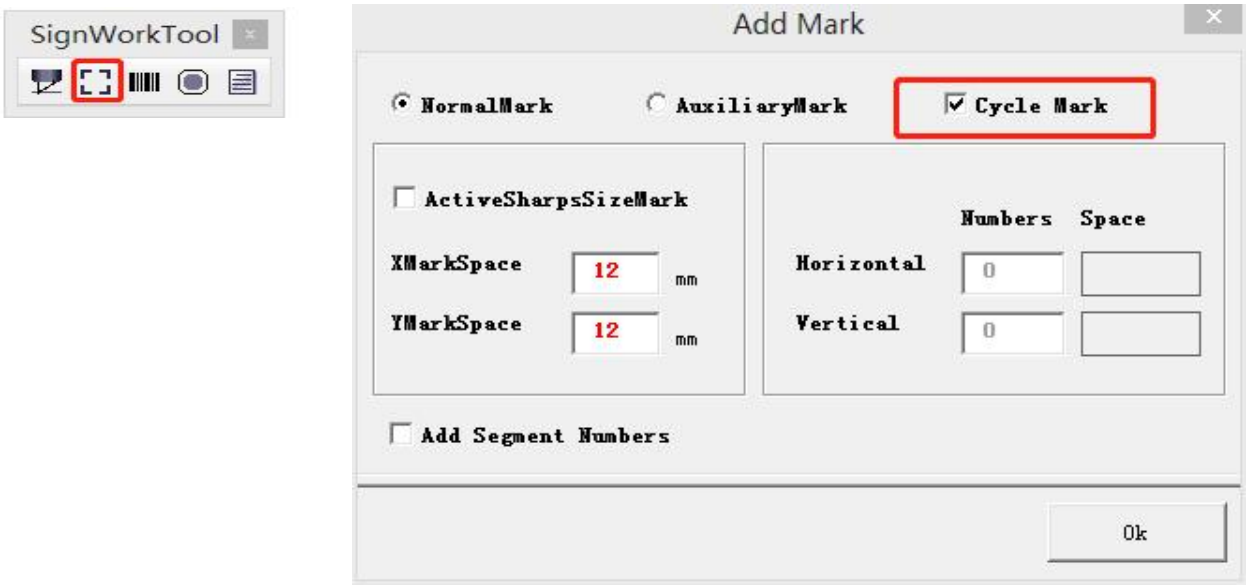
5.3 Contour Cutting

In the beginning, please switch the working mode to Cut Picture Mode(Contour Cutting),the machine won't read the registration marks if Cut Picture Mode is not picked,and it will carry out object(s) selected, which is Non-contour cutting.



1. Same to Non-contour Cutting operation, please get the objects to be carried out ready.

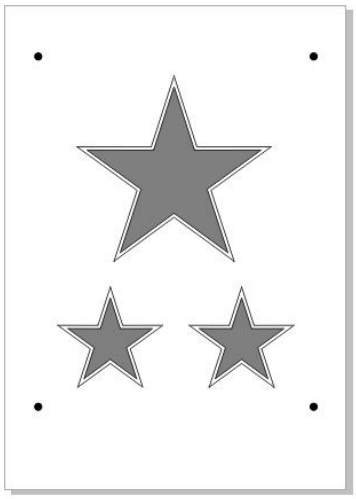
2. add Registration Marks click on Contour(s) and Picture(s), then click on As picture below, pick Cycle Mark



3. Then you will see follow screen, at this time, you are allowed to take fine tuning on the object(s) to be cut, please make sure all of the object(s) to be

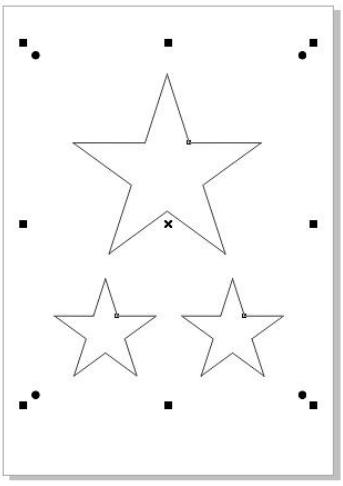
carried out are

inside of the registration marks, and there should not be any picture within 10mm to the registration mark(s), or it shall result in failure to recognize the registration mark(s).



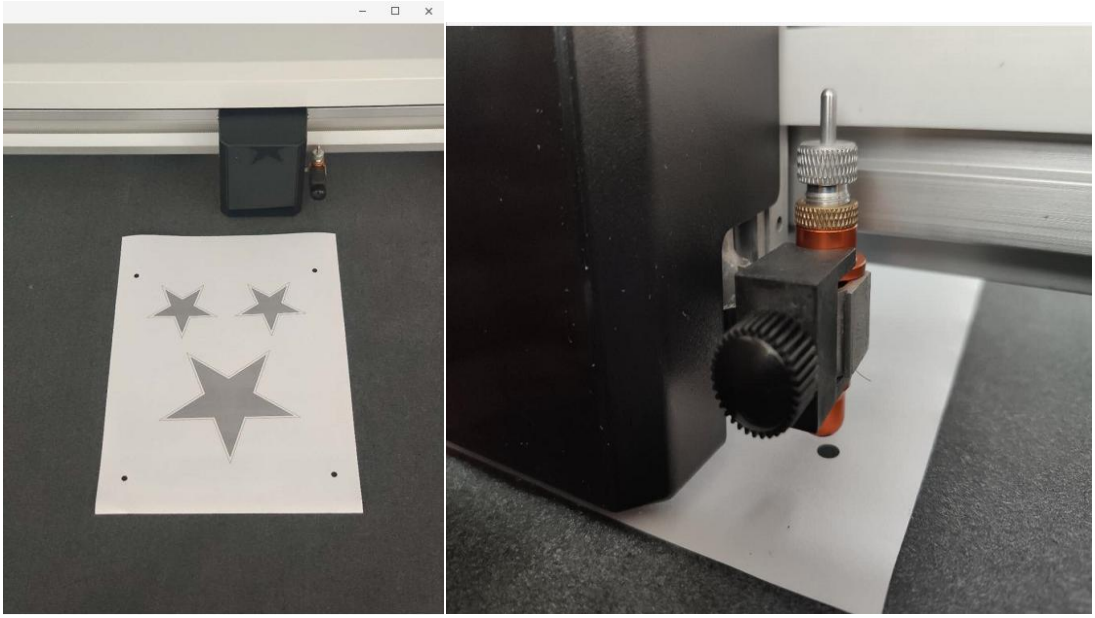
4. Hide the picture(s) which are not needed, just reserve Contour(s) and Registration

Mark(s). Make sure to select all of the Contour(s) and Registration Mark(s) that going to be carried out, no any one should be miss-selected.



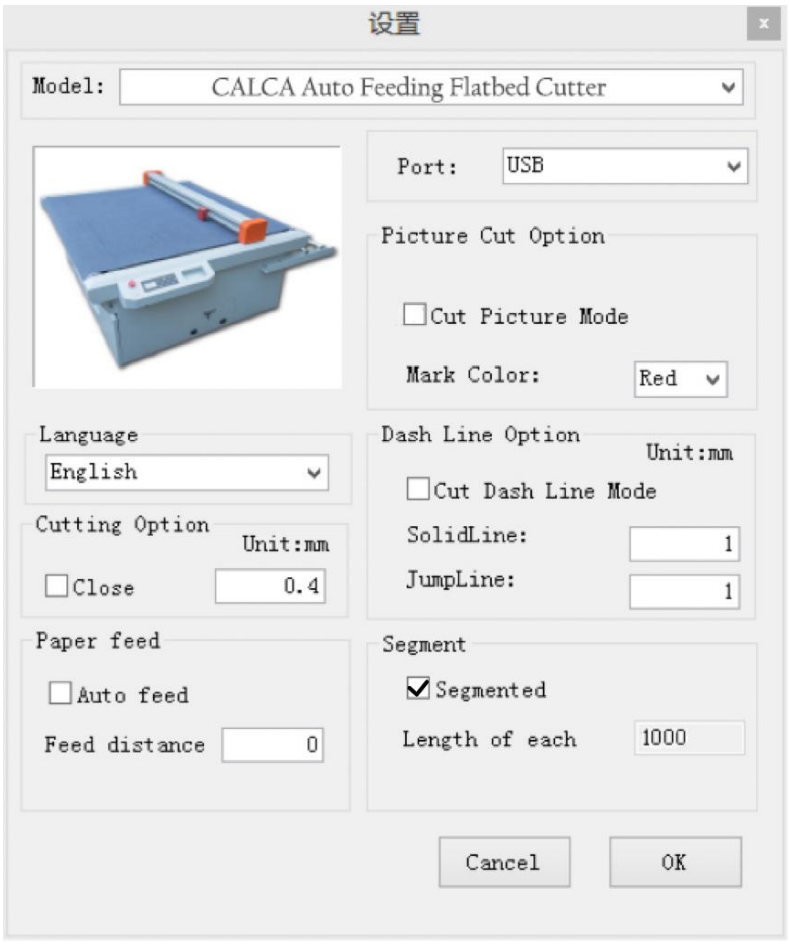
5. click  to pop up following screen:

6. See picture below, put the pre-printed paper on machine, let the cutter blade above the center area of the registration mark on top left corner of the paper as shown on Coreldraw page, click CUT, and you will see the CCD Camera will read the dots one by one, then cutting operation will be carried out.



5.4 Segmented Area Cutting Operation

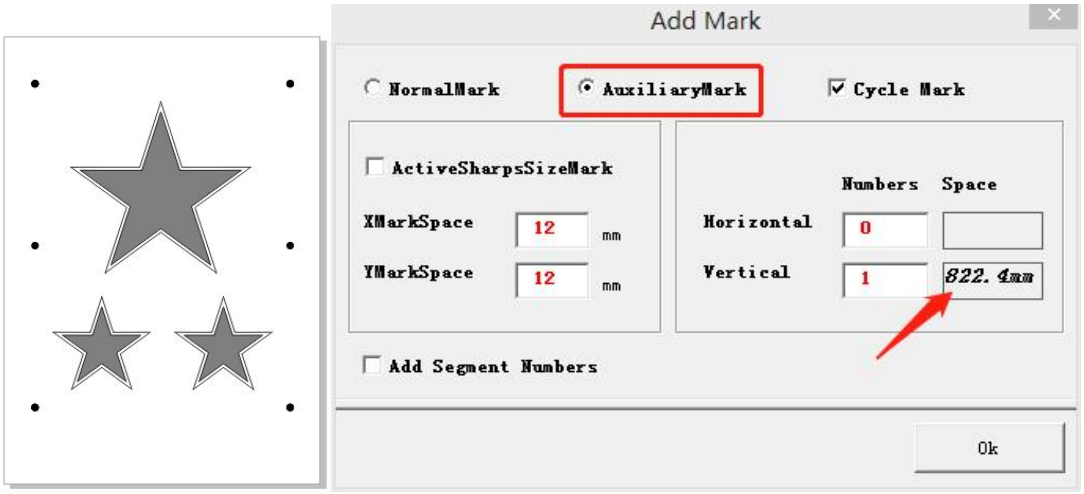
When cutting long length pre-printed media, you shall choose SEGMENTED as shown in following picture.



Please take a note:

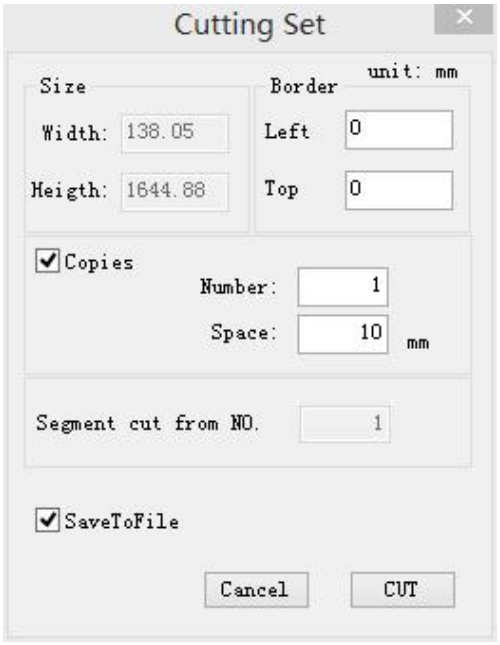
With Non-contour Cutting, you are allowed to choose the length of each segmented area, while it should not bigger than the Stroke of each axis of machine.

As per picture below, with Contour Cutting, it is unable to setup the length of segmented area, while the length is assigned by distance of registration marks, please make sure the distance should be smaller than the Stroke of each axis of machine.



After setup the length of segmented area correctly, please send the cutting job(s) to cutter either in the way of Non-contour cutting or Contour cutting, then the cutter will cut in the length of segmented area, and it will pull the next section of media onto table top after finishing the previous section, it will not stop until finishing the complete job.

5.5 Duplicate Cutting Job and repetitive work



When a repeat cutting is necessary, you need to take Copies feature, while this feature is applicable with U flash memory only.

Pick Copies and SaveToFile， input values in Number and Space, then click CUT, and then download the cutting job with U flash memory.

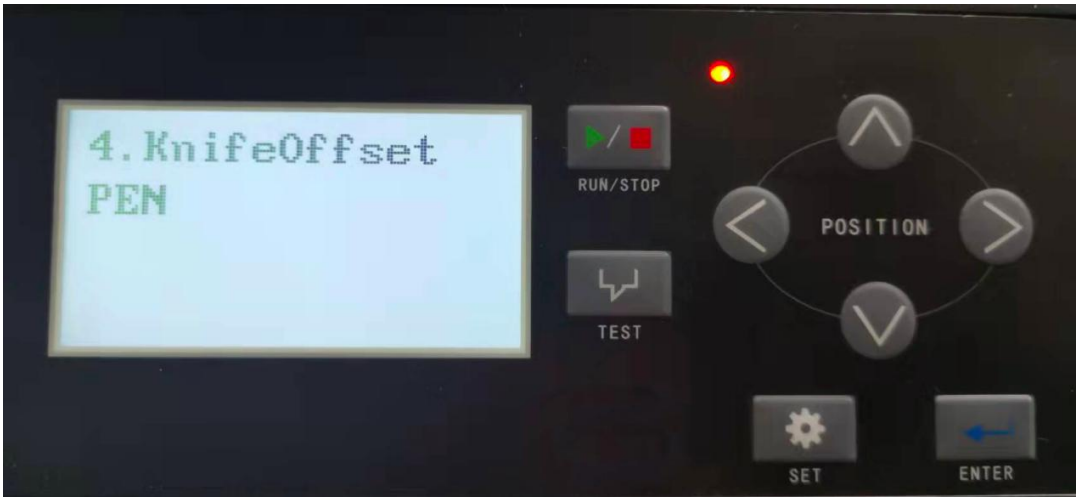
Connect the U flash memory to the cutter, then press  (Run/Stop), and then press  and  buttons to select the cutting job to be carried out.

Press [ENTER] key and machine will start to work, it will accomplish the number of copies as input previously, when a copy is finished, the machine will travel across the distance appointed and move to the next section/area, then it will start to cut in that area or read the registration marks there, the cutter will repeat the process till finish all of the job.

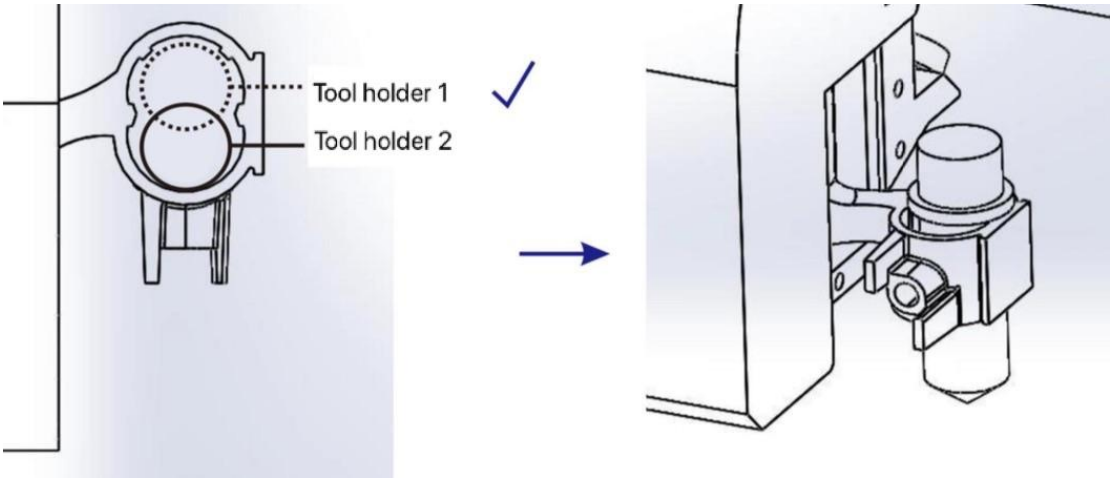
6. Calibration of CCD Camera

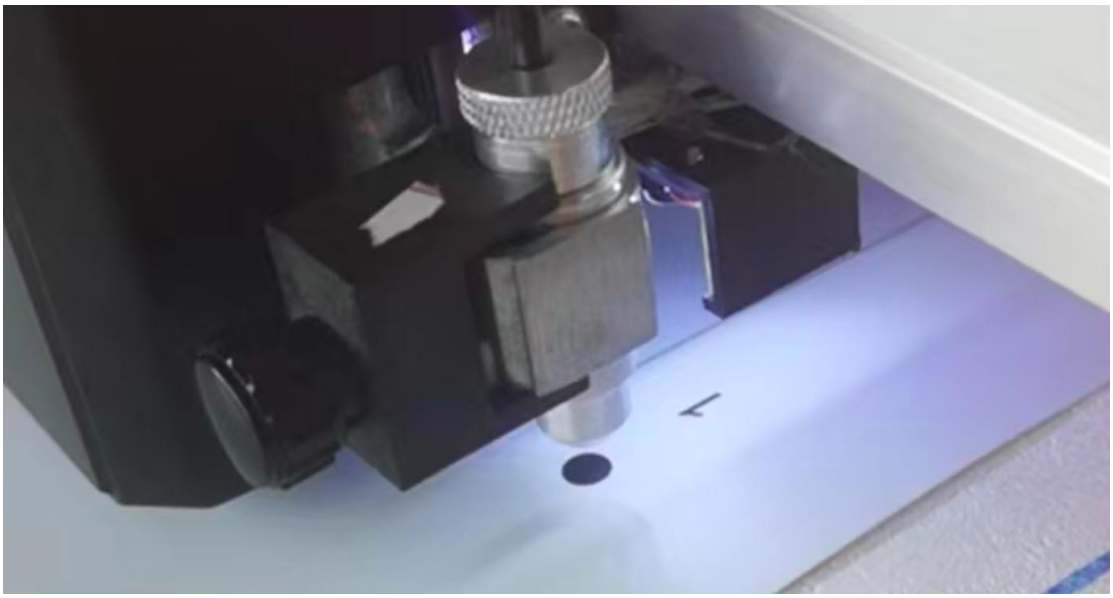
The calibration of the CCD camera needs to be done through software, please do not directly calibrate in the machine settings, it will cause the machine parameters to be reset.
Please contact your account manager for calibration software and calibration manuals
Please find the cutter pen, RS-232 interface and USB 2.0 cable in the tool box, as shown below.

1. Press [SET] key ---> 4.KnifeOffset ---> Press ▽ △ --->Change 0.53 to PEN:



2. Load the calibrating file with USB stick memory and connect it to cutter, place cutter Pen above position No.1, then RUN the file for testing:

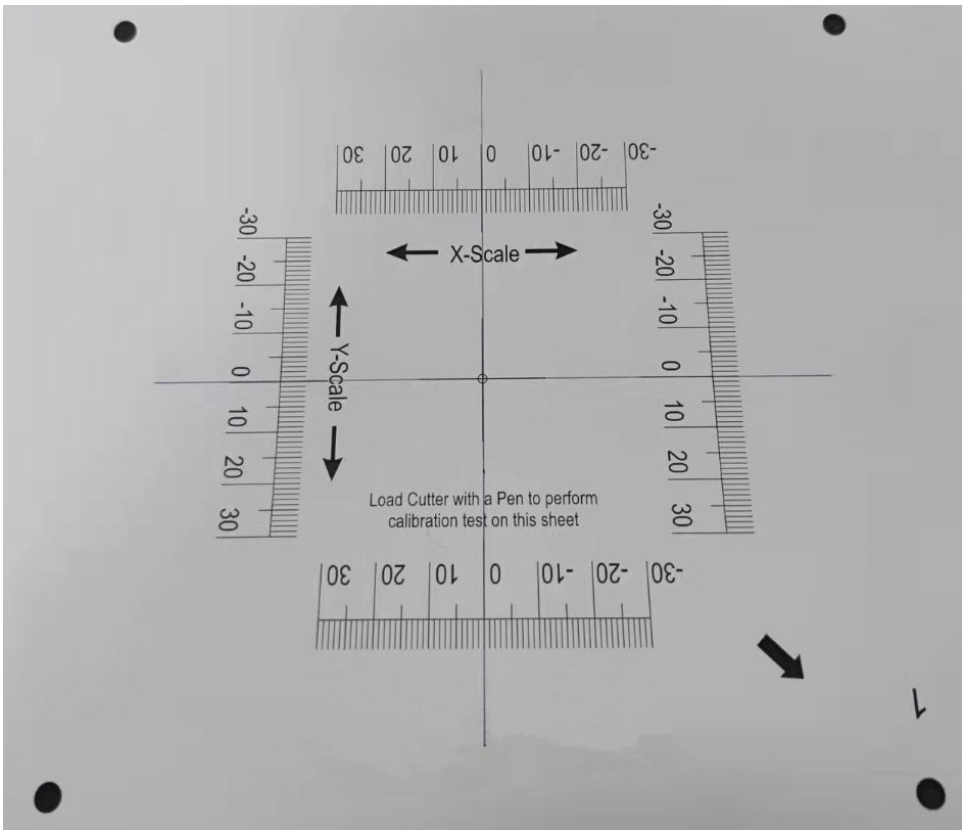




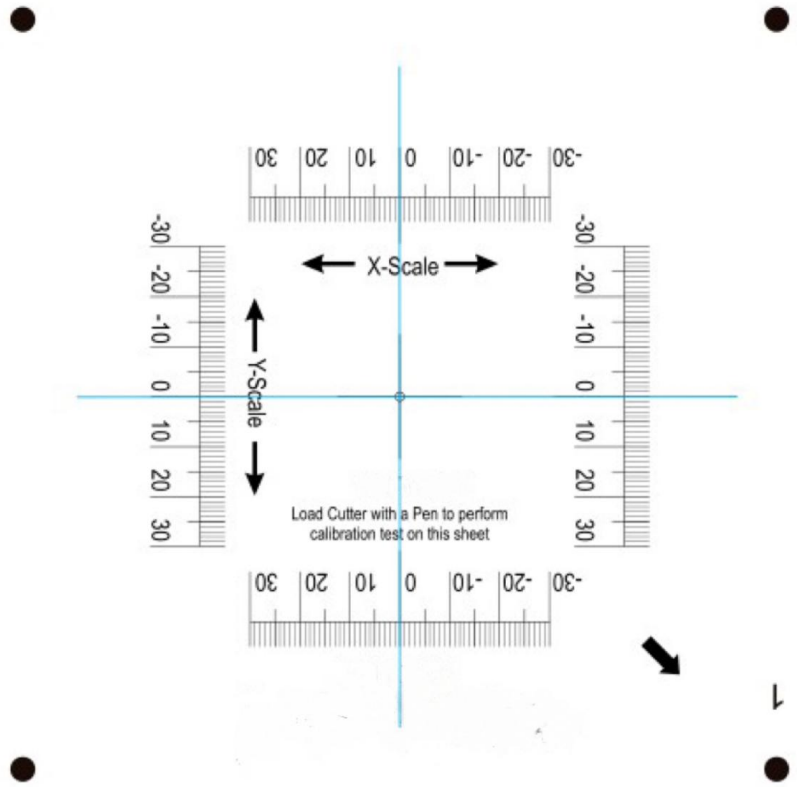
3. Check the CROSS marked by the cutter pen, you may adjust the Offset value horizontally and vertically via [SET] key ---> Mark Offset:


6.MarkOffset
SET for change
RUN/STOP
TEST
POSITION
SET
ENTER


MoveCutLineTo:
Left : 0.00mm
Up : 0.00mm
↑↓→← for change
RUN/STOP
TEST
POSITION
SET
ENTER



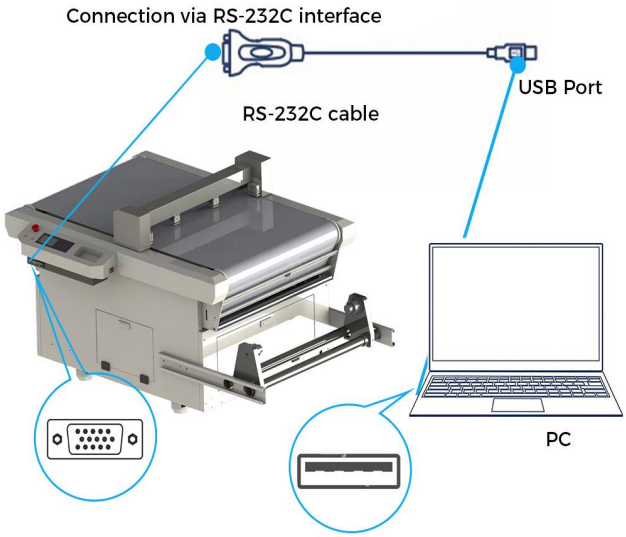
4. You may do more testing to make sure that the CROSS-by cutter pen is coinciding with cross pre-printed. See picture below:



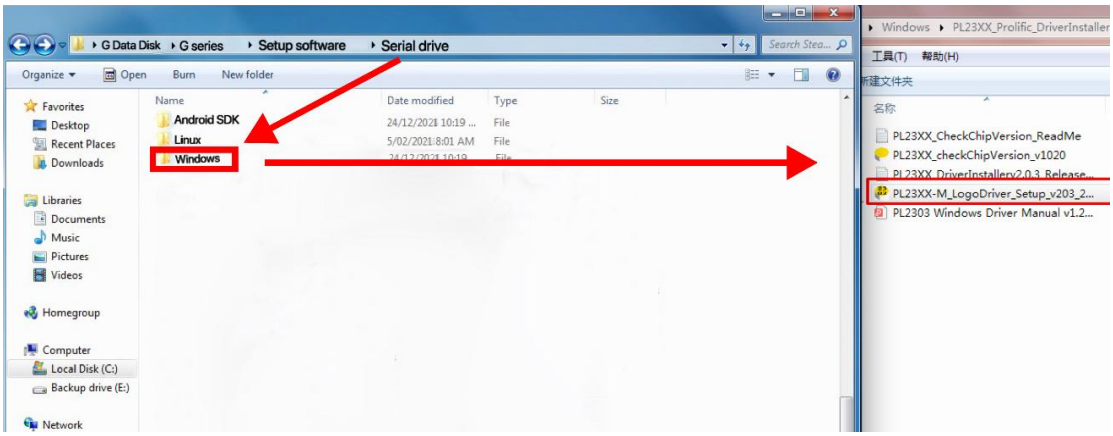
Setup CCD Parameters

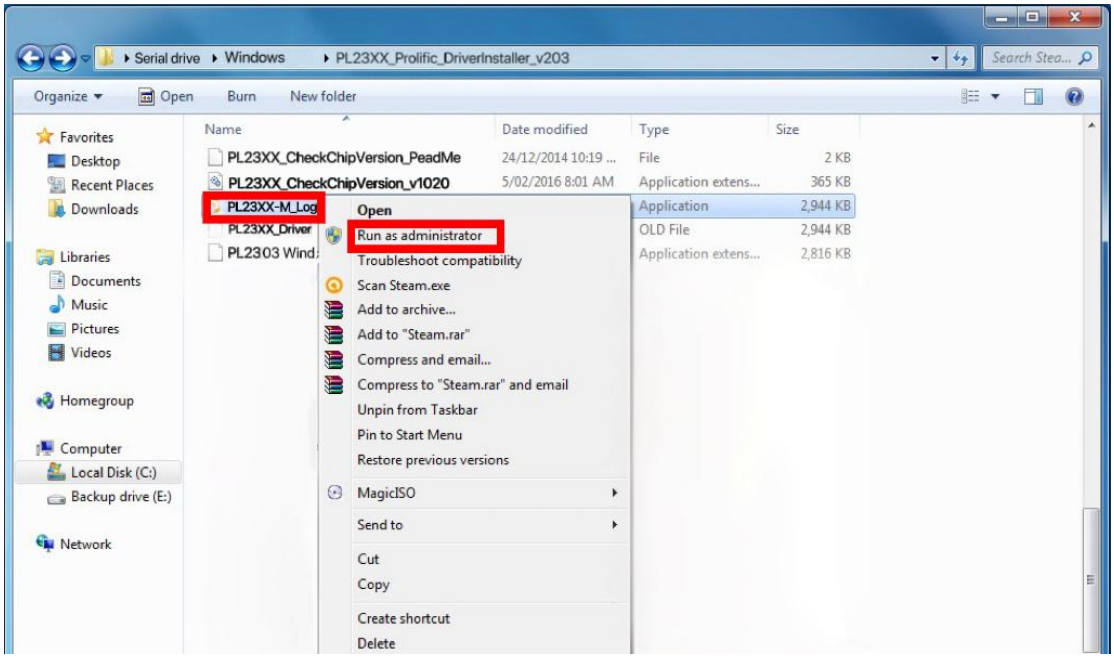
Notice: Only take following step when setup of CCD parameters needed. For Offset Calibration, please do as above.

1. Open accessory box and find cord as picture below, plug one end into the blue serial port of cutter while another to the USB port of PC.

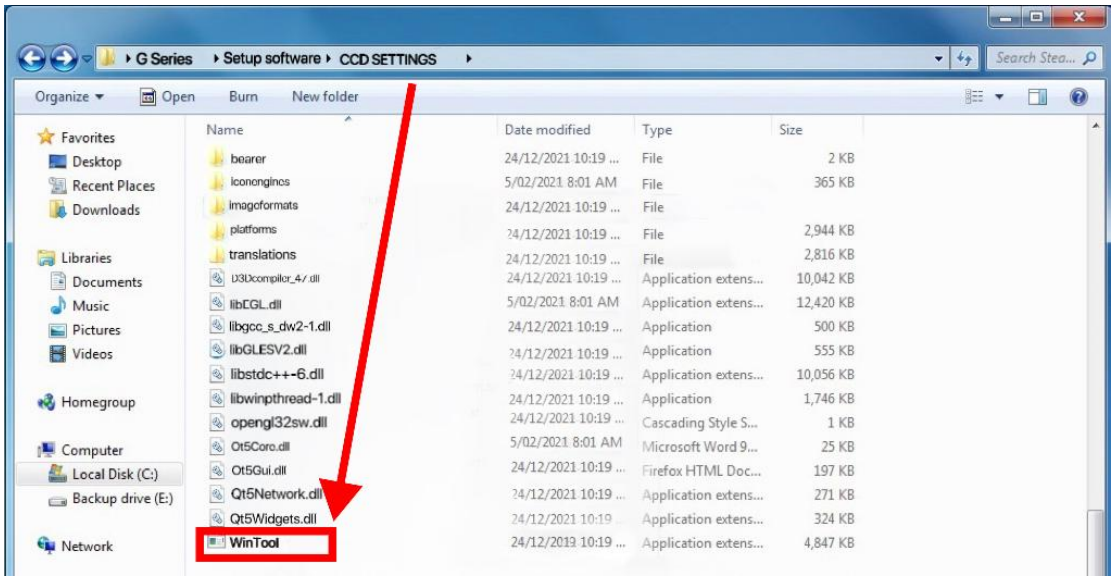


2. Load the driver for Setting up CCD:

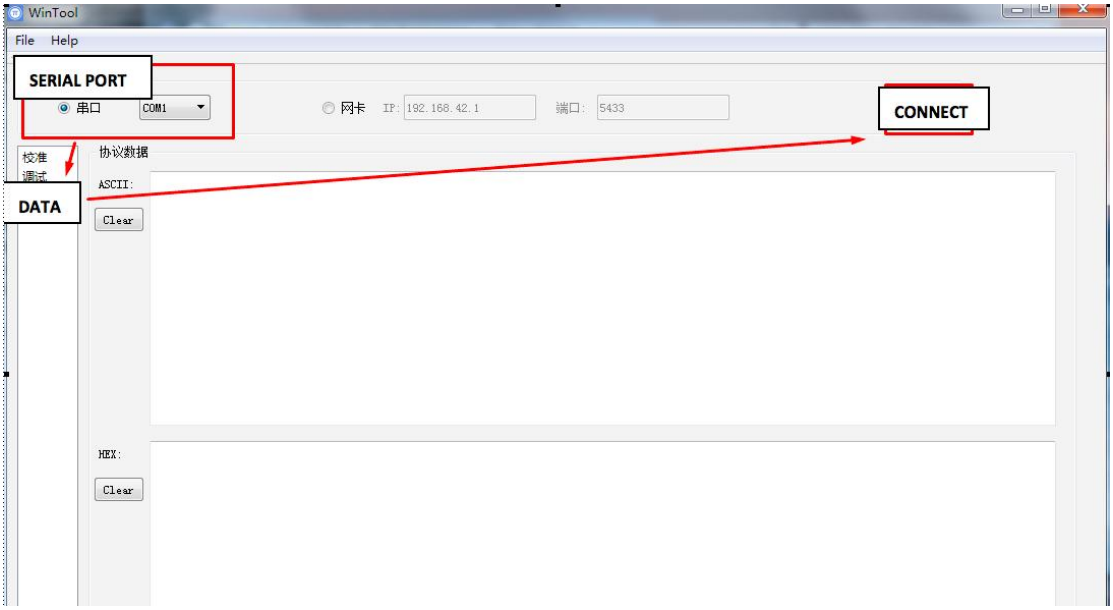




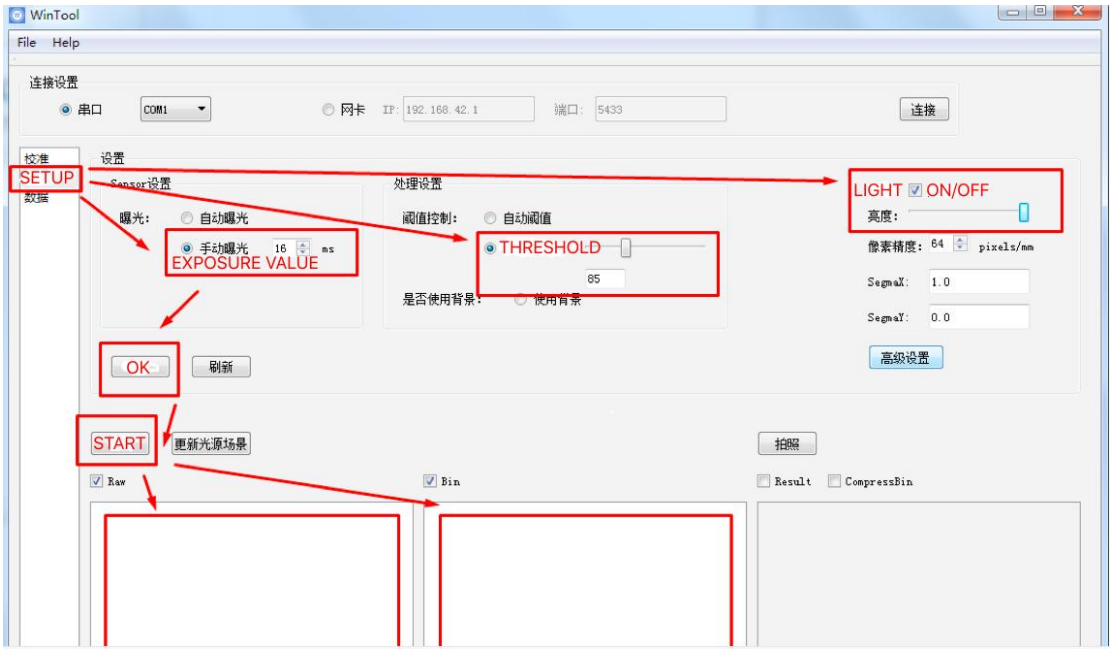
3. Open the folder of software



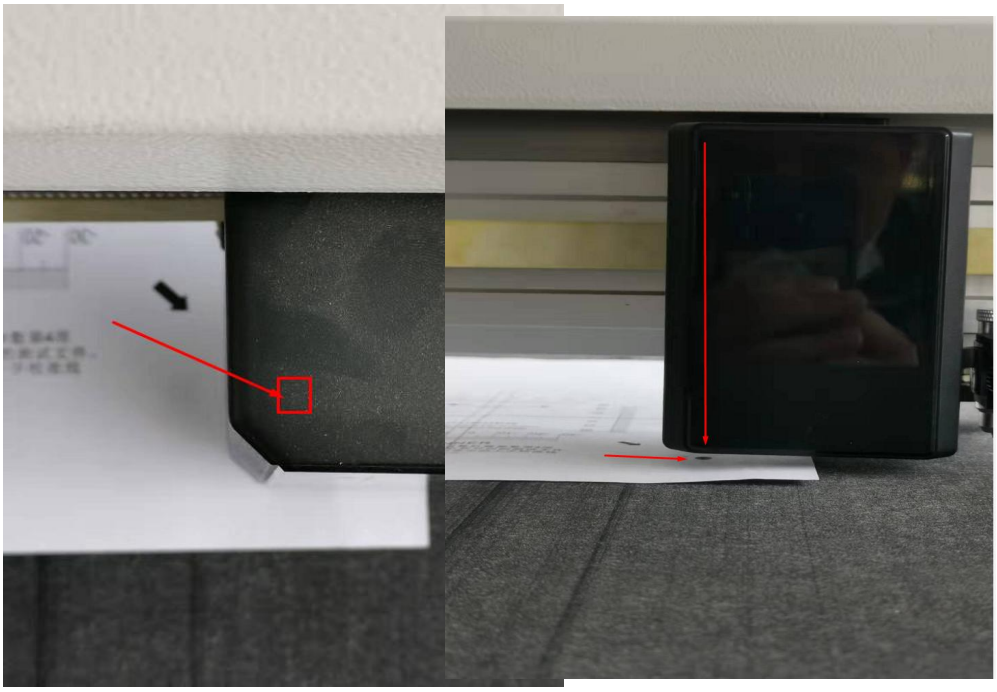
4. Click DATA to link PC and vinyl cutter:

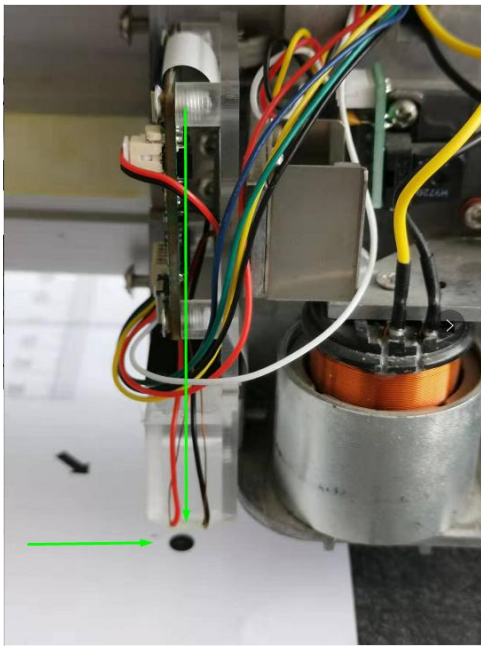


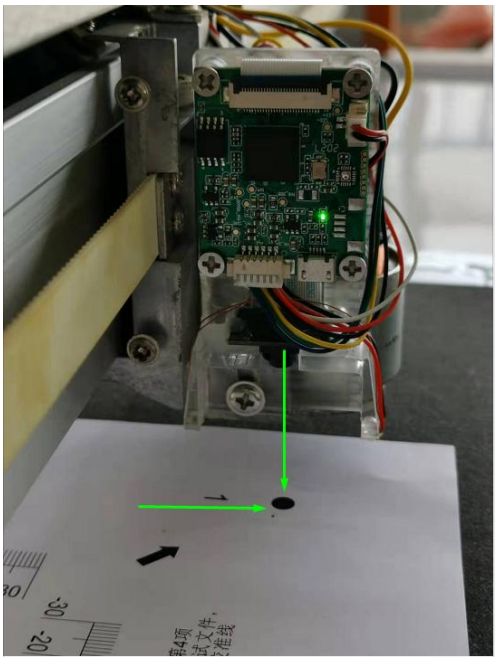
5. Click SETUP, you may setup value of Exposure Value and Threshold, click OK, then click START, then CCD camera starts to make pictures.



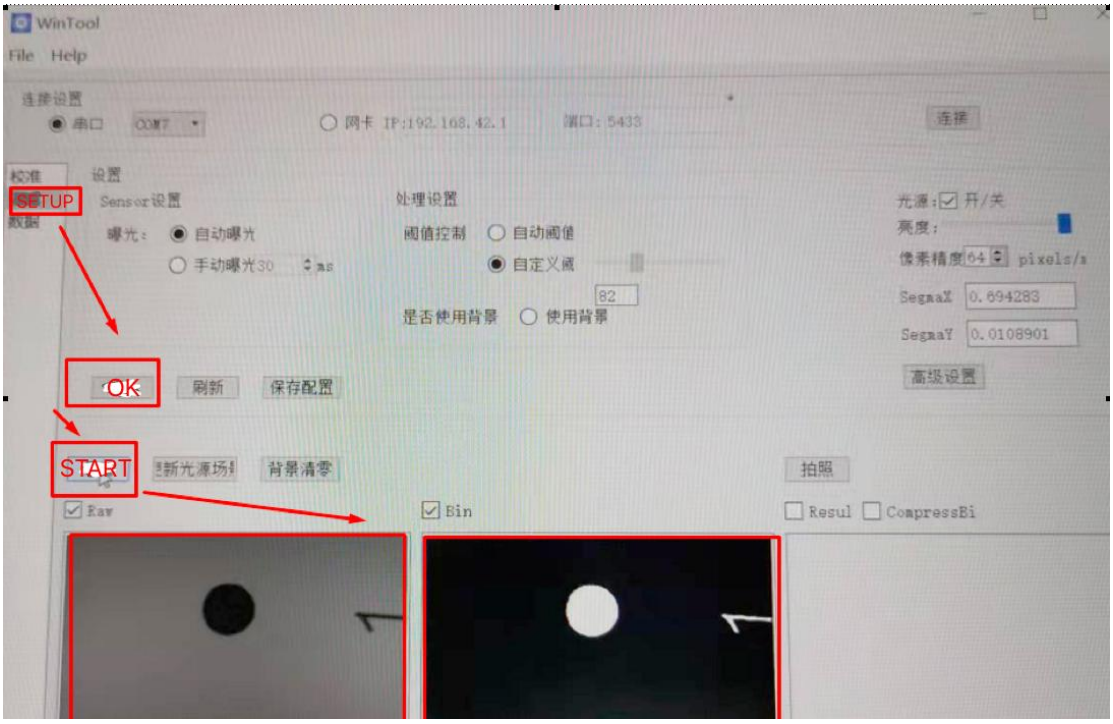
PUT CCD Camera above the DOT (Registration Mark):







6. As picture below, a clear Black/White DOT (in right red box) means correct setting, and then the setting is finished. Then turn off software, plug blue terminal to serial port of vinyl cutter, and redo step II. Calibration of CCD Camera.



7. TROUBLESHOOTING

Refer to this chapter if you feel something is wrong, or it does not work right. It also describes the settings of the cutter, confirming the cutting data, and method to create test patterns.

Symptom	Possible Cause	Solution
Nothing is displayed on the LCD panel.	There is no power supplied. Or, the plotter is defective.	Check that the power cord is securely connected to the cutter's AC line inlet and the electrical outlet. Check that the power is supplied to the electrical outlet. Contact your customer center if the problem still exists.
"cam cmd error" is displayed on the LCD	Turn on the cutter after turning it off	Contact your customer center if the problem still exists.

panel.	once. Unplug the U disk, plug it in again, and read the file	
Tool condition changes.	The [ENTER] key is not pressed after changing the TOOL CONDITION.	Check the TOOL CONDITION again. Setting the Tool Condition. Press the [ENTER] key
Corners are rounded. Corners are too sharp.	Blade and OFFSET does not match.	It is rounded: Increase the OFFSET It is too sharp: Decrease the OFFSET
The blade is cutting into the backing sheet.	The blade is extended too far. The cutting FORCE is too high.	Adjust the blade length. Lower the FORCE setting.

8. DAILY MAINTENANCE

During the course of daily maintenance be sure to observe the following precautions:

(1) Never lubricate the mechanisms of the cutter.

(2) Clean the cutter's casing using a dry cloth that has been moistened in a neutral detergent diluted with water.

Never use thinner, benzene, alcohol, or similar solvents to clean the casings, they will damage the casing's finish.

(3) Clean the cutting mat using a dry cloth. In case of stubborn stains, use a cloth that has been moistened in alcohol or in a neutral detergent diluted with water.

(4) When the Y rail-sliding surface gets dirty, gently wipe the dirt away with a clean, dry towel.

The sliding surface has lubricant on it, so be sure not to wipe all the lubricant off as well.

(5) Cleaning the Cutter Pen

Letting leftover media and paper dust build up on blades can dull them and cause them to deteriorate. Be sure to clean the cutter pen regularly and remove build up.

(6) Replacing the Cutter Plunger

The tip of the cutter plunger gets worn down due to friction with the media. When the tip of the cutter plunger gets worn down, cut quality suffers. When the tip of the plunger cap gets worn down, it is recommended that you replace it with the new cutter plunger.

Storing the Cutter

When your cutter is not in use, be sure to observe the following points:

(1) Remove the tool attached to the tool holder.

(2) Cover the plotter with a cloth to protect it from dust and dirt.

(3) Do not store the plotter in direct sunlight or in high temperatures.

9. WARNING

9.1 Warranty

Lifetime Technical Support

Limited to 2-year warranty on non-consumable parts, The repair is free of charge within 6 months and will be charged with material and labor cost after 6 months.

Normal wear and tear of equipment and consumable items (such as blades, cutting mats and push roller wheels) are not covered by the warranty.

Company or person requesting warranty repair shall contact CALCA for pre-authorization and selection of a qualified repair technician to service the equipment prior to performing service on the equipment. Failure to request pre-authorization for service repair and selection will result in denial of a warranty claim.

CALCA will not be liable for labor or material costs associated with equipment downtime or any other consequential damages including loss of profits or potential business sales, arising out of a warranty claim. It is the user's responsibility to secure the equipment and surrounding area to prevent damage **from damages arising from** a warranty claim. CALCA is not responsible for damages from improper care, maintenance or repair of equipment associated with normal operation.

9.2 Warranty Card

MODEL		**LOT #**	
BUYER		**DATE**	
SELLER		**TEL**	