

## VINYL CUTTER USER MANUAL & ASSEMBLY INSTRUCTIONS







#### **NEED HELP? CONTACT US!**

Have product questions? Need technical support? Please feel free to contact us:

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**IMPORTANT:** Be sure to review the contents of this manual before attempting to operate the equipment. This manual should be located where it can be easily referenced by all users of themachine.

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## **I.PACKAGE CONTENT**

|    | Ltem  | Quantity         | Unit |
|----|---|------------------|------|
| 1  | Cutting plotter                               | 1                | Set  |
| 2  | Power supply cable                            | 1                | Рс   |
| 3  | Blade   | 1                | Box  |
| 4  | Blade holder                                  | 1                | Рс   |
| 5  | Pen holder                                    | 1                | Рс   |
| 6  | Ball pen core                                 | 1                | Рс   |
| 7  | COM connection cable                          | 1                | Рс   |
| 8  | USB cable                                     | 1                | Рс   |
| 9  | Spanner                                       | 1                | Рс   |
| 10 | USB driver                                    | 1                | Рс   |
| 11 | Bracket screws                                | 1                | Bag  |
| 12 | Operation manual                              | 1                | Рс   |
| 13 | Stents  | 1                | Set  |
|    | To protect the machine, please only attached. | vuse the accesso | ries |

## **II. TECHNICAL PARAMETERS**

| Model                         | 375     | 720     | 870     | 1350   |
|-------------------------------|---------|---------|---------|--------|
| Max. feeding width            | 375mm   | 720mm   | 870mm   | 1350mm |
| Max. cutting width            | 285mm   | 630mm   | 780mm   | 1260mm |
| Cutting thickness             |         | ≤1r     | nm      |        |
| Speed/Pressure                |         | 20-800  | )mm/s   |        |
| Buffer                        |         | 1-4     | 4M      |        |
| LCD display                   | CN/EN   |         |         |        |
| Real-time speed<br>adjustment | Support |         |         |        |
| Interface                     | COM+USB |         |         |        |
| Re-cutting function           | Support |         |         |        |
| Re-cutting accuracy           | 0.127mm |         |         |        |
| Resolution ratio              |         | 0.0245m | nm/step |        |
| Language format               |         | DMPL    | /HPGL   |        |
| Voltage                       |         | AC 85   | -264V   |        |

## **III. PRECAUTIONS**

- 1 Protective material must be removed before turning on the cutting plotter.
- 2 Check the label on the back side of the plotter to confirm that the rated voltage required by the plotter matches the voltage of the power base.
- 3 First = sure that the power switch is off, then plug the power supply into a grounded power outlet.
- 4 Please do not touch the power cord with wet hands to avoid electric shock.
- 5 Please only use the power cord, data cable provided with this product, or manufacturer-approved replacements.
- 6 Please do not drop metal objects and liquids into the machine to avoid malfunction.
- 7 After shutting down, you mentit another 5 seconds to turn on the cutting plotter again.Otherw will cause damage to the cutting plotter.
- 8 In thunderstorms, turn the power switched ff and unplug the power cord.
- 9 Please do not privately change the manufacturer's components.
- 10 Manufacturer reserves the right to change product specifications without prior notice.
- 11 The manufacture pears the legal obligations of the product itself sold to the users and does not bear other losses caused by the malfunction of the products.

- 12 Without our company's permit, no part of this manual can be copied or transmitted in any name.
- 13 Do not drag the carriage by hand.
- 14 If there is an abnormal sound after powering on the machine, please turn off the power immediately and contact the after-sales department for feedback.

### **IV.INTRODUCTION FOR MAIN PARTS**





## **V. OPERATION INSTRUCTION**



## **VI. MACHINE ASSEMBLY DIAGRAM**





## 2

Unscrew the cap from the **B**lade Carriage.



## 3

Remove the protective cover from a new blade.

## 4

Insert the blade into the top of the blade arriage.











# Screw the cap back onto the blade

## onto the blade carriage.





Adjust the carriage cap until the blade is protruding approximately 1/64 of an inch.





Adjust the brass ring until it fits snug against the cap. This will help keep the cap in place during operation.



Blades should be replaced every 6 months. Your blade may need to be replaced more often if you are cutting thicker material such as flock, glittee or refl ectives.

1). Assembly the blade into holder, see as below:



 Loosen the blade adjustment nut and rotate the shank to adjust the length of the exposed blade tip. Determine the tip length according to the thick ness of the material.





- 1 Press the pressing rod when you want to change blade. Take out the blade when it is exposed.
- ② Assembly the blade holder into wago a. Loosen the fixed screw on tool holder



- b, Put the blade holder into tool holder
- c, Tighten and fix the blade holder when it arrives to correct position



*Tips*: Do not touch the blade tip by finger, otherwise, your finger will be injured and the tip will be blunt.

#### Installation steps of cutterbed



1 Loosen the locking knob on the carriage arm.



2 Place blade carriage into the carriage arm.



**3** Tighten the locking knob on the carriage arm.



## **VII. HOW TO USE THE PRODUCT**



The main screen of the cutter allows you to set the main settings of the cutter, including the cutting speed and cutting force options. It also allows you to cut a test pattern or check the amount of force currently set.

| Reset button                    | Resets by stopping the cutter, and setting the origin of the carriage arm to its right most position.   |
|---------------------------------|---|
| Offline/Leave/<br>Option button | Accesses the Offline/Pause mode.  |
| Setup button                    | Accesses the Setup mode.  |
| Test/Move button                | Will cut a small test shape so that the current force and<br>speed settings of the cutter can be tested. You can use<br>this to determine the proper cutting speed and force<br>settings needed for different materials without wasting<br>large amounts of material from cutting full designs.   |
| Origin button                   | Used to test z-axis functionality (by dropping the blade<br>down if the carriage is functioning correctly) or to set a<br>new origin point when the machine is in its Offline mode.   |
| V+ / V- buttons                 | Adjusts the cutting speed. A cutting speed of 300 mm/s is a<br>reasonable default speed that can be used for most cuts.<br>When working with smaller and more detailed images, a<br>slower speed may be required. When working with larger<br>and less clear images, a higher speed can be used to<br>shorten the operation time.   |
| F+ / F- buttons                 | Adjusts the cutting force. A cutting force of 100g is a<br>good general starting place to work from when determin-<br>ing the force needed for a specific material. All cuttable<br>materials will depend on the amount of force needed, so<br>proper testing should always be made to determine the<br>force to use. The amount of force used should be enough<br>to fully penetrate the material to be cut while not enough<br>to cut through the backing material. |



Offline mode is used to reposition the cutting material and blade to set a new starting position for the next design. Offline mode can also be accessed while the cutter operates and will pause the current cutting process. Although changes can be made to the material and blade positions if Offline/Pause mode is accessed during cutting, making changes to either setting is not normally recommended.

| Reset button                    | Resets by stopping the cutter and setting the origin of the carriage arm to its right most position.   |
|---------------------------------|--|
| Offline/Leave/<br>Option button | Ignore any changes made to the material or blade<br>positions and exits Offline/Pause mode, returning<br>the cutter to the main screen. Resumes any cutting<br>that was taking place when Offline ine/Pause mode<br>was entered.   |
| Setup button                    | Has no function in this mode.  |
| Test/Move button                | Accepts any changes that have been made to the<br>material or blade positions and exits Offline/ Pause mode<br>returning the cutter to the main screen. Resumes any<br>cutting that was taking place when Offline ine/Pause<br>mode was entered from the new blade/material positions. |
| Origin button                   | Accepts any changes that have been made to the<br>material or blade positions and exits Offline/Pause mode<br>returning the cutter to the main screen. Resumes any<br>cutting that was taking place when Offline/Pause mode<br>was entered from the new blade/material positions.      |
| V+ / V- buttons                 | Repositions the material by moving the feed rollers. After<br>movements are made, you can confirm the changes by<br>pressing the Test or Origin buttons or cancel by pressing<br>the Offline/Pause button.   |
| F+ / F- buttons                 | Repositions the blade by moving the carriage arm. After<br>movements are made, you can confirm the changes by<br>pressing the Test or Origin buttons or cancel by pressing<br>the Offline/Pause button.  |

Place the roll on top of the stand rollers for heat press vinyl, please flip the roll.



2 Release the pinch rollers to release levers.







Adjust the pinch rollers so there is one roller on each side of the vinyl (and one roller near the center on models with 3 or more rollers). Avoid lowering a pinch roller to the gap between the two feed rollers.



5 Leave a gap of between1/2"-1 1/2" from the edge of the roller and the edge of the vinyl on both sides.









4

# If you would like to change the position of where the cut will be made:

1 Press the OFFLINE/PAUSE button to enter offline mode.

2 Adjust the vinyl to where you want to make your cut to start by using the Up and Down arrow keys on the control panel.



3 Now, adjust the blade to where you want your cut to start by using the Left and Right arrow keys.



4 Press the origin button to tell the cutter that this is the location where you would like the cut to begin.



When choosing a starting location for your design, remember that the process will start in the bottom right area of the design. Please leave enough room to the left of and behind the starting location to finish your cut.

If you would like to make other adjustments to the pressure, speed, or other settings you can do so now. If you are setting up for your first cut with the machine then the default values should be a good starting point.

If you make any adjustments to your cutter, make sure that you return to the main screen before you attempt to cut.

### **VIII. HOW TO CONNECT THE PRODUCT TO THE SOFTWARE**

Attach the power cord to the cutter and then plug in the unit and turn on the power.



If you use a Serial Cable to connect your cutter to a computer, then no further setup is necessary. Connect one end of the cable to the cutter and the other end to a computer, and setup is complete. If you have more than one serial connection on your computer, or you are experiencing communication issues between your cutter and computer, then you may wish to verify that the correct COM port is being used in your software setup, but for most users, the COM port will be COM1.



If using the USB Cable to connect your cutter to a computer:

Installing vinyl master software

SignMaster software is an easy-to-use software with the tools to help you take your projects from concept to a ready-to-cut computer image file.

The driver is automatically installed during software installation. You do not need to install the driver separately.

#### IX. HOW TO USE THE SOFTWARE AND CUT OFF THE CONNECTION BETWEEN THE SOFTWARE AND THE MACHINE

Open the software, select cut content, and click send to the cutting plotter

1

Click the cutter icon in the red box



#### **Click properties**

| General  | Cutter Control  | Settings | Tiling/Panels |            |   |
|----------|-----------------|----------|---------------|------------|---|
| -Vinyl C | utter (Plotter) |          |               |            | h |
| Selec    | t Model         | Cutte    | er KI-720     | Properties |   |
| Medi     | a Width         | 630.0    | 00 mm         | Quantity   |   |
| Job N    | lame            | Untit    | led           | 1          |   |

#### Click connect

| Recent Job           |              |             |  |
|----------------------|--------------|-------------|--|
| Preview  Cut Options | 🔊 Connection | Calibration |  |

#### Select machine model

| -Current Vinyl Cutter (P | lotter)       |        |       |   |
|--------------------------|---------------|--------|-------|---|
| 🖶 Current Cutter         | Cutter KI-720 |        |       | • |
|                          | Direct USB    | Remove | + Add | 6 |

#### Select Direct COM Port

| Connection Method |                     |        |
|-------------------|---------------------|--------|
| Port Type         | 🟺 Direct COM Port 🗸 | ⑦ Help |
|                   | 🏺 Direct COM Port   |        |
|                   | Direct USB Port     |        |
| Settings          | 🔊 Windows Port      |        |

#### Select USB-SERIAL CH340 (COM)

| Settings    |                           |
|-------------|---------------------------|
| 🏺 Port Name | SUSB-SERIAL CH340 (COM5)  |
|             | 🚽 USB-SERIAL CH340 (COM5) |
|             | Auto Detect               |
| L           |                           |

#### Click Done

| Current Cutter   | Cutter 81-720             | •  |
|------------------|---------------------------|----|
|                  | Direct COM5 Remove + Add  | 12 |
| onnection Method |                           |    |
| Port Type        | 💎 Direct CDM Part 👻 🛞 Ha  | ,  |
| ettings          |                           |    |
| 🖗 Port Name      | 🛃 USE-SERIAL CH340 (COM5) | •  |
|                  | Auto Dete                 | п  |
| Saud Rate        | sazo 💌 Detect             |    |
| New Control      | Hordware (CTS/RTS)        |    |
|                  |                           |    |
|                  |                           |    |
|                  |                           |    |

#### Click cut now





#### Click cut now



### **X. DOWNLOAD LINK OF SOFTWARE**

#### **Download link of software** : https://fcws6.com/downloads/signmaster/SignMaster\_UniverDS-R\_35\_GW.exe

1 Frequently asked question :

When the machine is powered on, the carriage inclines, the carriage does not move and makes noise, and the carriage automatically moves to the right and make noise, etc., all of which are smaller less derailing.

Solution: Refer to the repair video.

2 The product cannot be connected to the software.

**Solution:** Check software port settings, as shown in the following figures.

|                              | 1.5 - [*Untitled.vDoc]             |                    | General Cutter Control  | Settings Tiling/Panels |            |
|------------------------------|------------------------------------|--------------------|-------------------------|------------------------|------------|
| Fie Edit View                | Layout Arrange Objects Inages Text | Carves Colors To   |                         |                        |            |
| 1                            |                                    | • 🔊 - T            | -Vinyl Cutter (Plotter) | Cutter KI-720          | Properties |
| 20.732 m                     |                                    | Corner Style Round | Media Width             | 630.000 mm             | Quantity   |
| T#                           | -250 -200 -150                     |                    | Job Name                | Untitled               | 1          |
|                              |                                    |                    |                         |                        |            |
| Consection Net               | lod                                |                    |                         |                        |            |
| Connection Meth<br>Port Type | Direct COM Fort                    | @ HHQ              | Recent Job              | Cut Options            | Galbration |

3 The software cannot identify the device.

Solution: When the computer is connected through a USB cable, it is normal that the "Direct USB Port" is unavailable and turns grey. Since the machine outputs USB-COM, the correct choice is "Direct COM Port", as shown below.

| Connection Method |                     |          |
|-------------------|---------------------|----------|
| Port Type         | 👘 Direct COM Port 🖉 | (?) Help |
|                   | 🌵 Direct COM Port   |          |
|                   | Direct USB Port     |          |
| Settings          | S Windows Port      |          |

4 The carriage is damaged and needs to be replaced.

Solution: For details, see the replacement operation guide video.

5 The D-typed motherboard is damaged and needs to be replaced.

Solution: For details, see the replacement operation guide video.

6 The interface board is damaged and needs to be replaced.

Solution: For details, see the replacement operation guide video.



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