

## Vinyl Cutter User Manual V4.0

If you use vinyl roll, please before to cut unwind in advance the quantity of material necessary for the cutting.

Place the pinch rolls about 1 inch on each side of vinyl, also lower the intermediate pinch rolls.

To verify your vinyl alignment, place the cutter "OFF Line" and use the top and bottom arrows to feed in and out vinyl from the cutter.

From WinPCSIGN software cutting control panel, use the feed button, the cutter will unwind the necessary quantity of vinyl material for your cut then will return in the point of departure the origin point (0,0).

Remember always unwind manually the necessary quantity of vinyl before proceeding to the alignment test or cutting.



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### **Thank you for choosing our vinyl cutter:**

Before using the plotter, we suggest you read this user manual first or view the DVD supplied with your cutter. We will show you how to use your plotter easily, how to keep your plotter in good condition. When you have trouble in using cutting plotter, please turn off the machine's power, then look for the resolution in this manual; or contact the machine dealer who will help you to resolve problems; or send E-mail to us or visit our forum on [www.signmax.us](http://www.signmax.us)

### **The model what you buy:**

360C cutting plotter (12")

450C cutting plotter (15")

720C cutting plotter (24") stand in option

800C cutting plotter (30") c/w stand

1120C cutting plotter (42") c/w stand

1360C cutting plotter (48") c/w stand

### **Factory Remark:**

It is possible that our factory will change the cutting plotter setup later. We must repair your cutting plotter immediately, if your cutter becomes defective or needs maintenance.. But we have no responsibility to pay for the damage.

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## **Notice**

- (1) Sign Max cutting plotter's power supply is 90V-230V, when your power supply does not fit the requirement, please add the right power cable.
- (2) Don't touch the plotter's track when it is running. If the plotter is damaged or works wrongly for this reason, we will repair your plotter but not free.
- (3) Prevent the small objects falling on or into the plotter.
- (4) Please turn off the power if you don't use plotter for a long time.
- (5) Don't remove or plug any wire when cutting plotter or computer is power on.
- (6) Cutting plotter's shell must connect to the ground with an metal wire.

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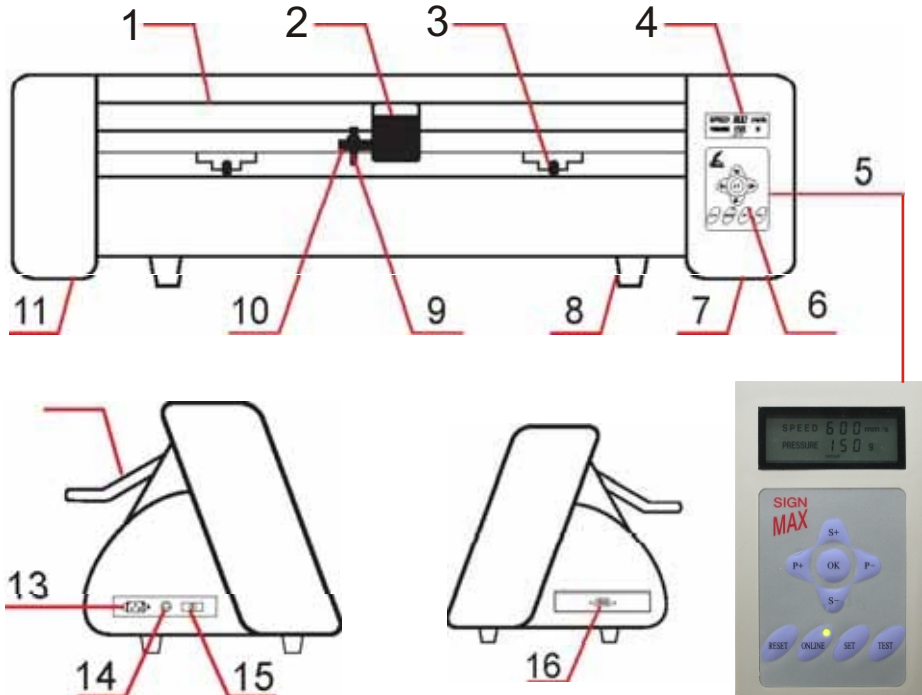
When you open the box, check the contents with the check list inside, make sure that nothing is missing, every box must content:

Name	Quantity
Cutting plotter	1 unit
User manual	1 book
Sign software	WinPCSIGN 2007 Basic or Pro
Power cable 110V	version
Serial cable Rs232	1 pcs
Fuse	1 pcs
Ball pen	<b>1 pcs</b>
Ball pen holder	1 pcs
Blade	3pcs / 1
Blade holder	1 pcs
Plotter ruler	1 pcs
Plotter cover sheet	1 pcs
Stand	1pcs (only for 800/1360)

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## Main parts descriptions

Front side / Left and Right sides



- 1) Protection cover
- 2) Carriage
- 3) Roller
- 4) LCD display
- 5) Keypad panel
- 6) LED lamp
- 7) Right shell
- 8) Machine's foot
- 9) Blade holder
- 10) Seat of blade holder
- 11) Left shell
- 12) Pinch roll hand level
- 13) AC power port
- 14) Safe fuse
- 15) Power's switch
- 16) RS232 port (Serial port)

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## How to install machine

### **(1) Place the machine:**

Place the machine on a horizontal table, adjust plotter four feet, to keep plotter very horizontally. Make enough space not only to the front of plotter but also to the back of plotter.

No vibration when plotter is running. Don't touch the plotter with magnet. Place the plotter in a clean room.

We suggest you connect the machine's metals shell with the ground using a metal wire, to avoid ESD.

### **(2) First power on, examining plotter:**

Set the power wire to machine power port, connect the power wire to AC110V power. Switching the power on, the green LED on keyboard will light when power is on. Later, the carriage must move to right side itself, and return a little. This is the initialization of cutting plotter. The message of speed and pressure will be showed on the LCD monitor.

Followed are the machine parameters:

Speed: 600mm/s

Pressure: 150

### **(3) Connect to computer:**

You can choose the computer port (com1 or com2).

Turn off the computer power; turn off the plotter power.

Connect one side of the serial RS232 cable to the computer RS232 port, other side beconnected to the plotter.

Turn on computer; turn on the plotter, waiting a moment for machine examining itself.

Run the WinPCSIGN program, choose

"RedSail Cutter driver in driver list or SM Cutter driver in the driver list", and setup the software parameter as the following:

Port: com1 or com2, see configuration in multimedia training.

Baud rate: 9600

Parity: None

Data bit: 8

Stop bit: 1

Data flow control: RTS/CTS; XON/XOFF

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Above is done, every thing will be ok. If the red LED on keyboard is light, please press the "ONLINE" key one time. When the green LED on keyboard is light, you can output the data from computer to your cutting plotter.



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## Keyboard panel operating detail

When you turn on the plotter's power, after for a moment, the carriage will move to right side itself and the green LED on keyboard will light. The LCD monitor will show the data of speed and pressure. This process is an initialization of the plotter. On this keyboard, four arrow keys will be used as speed's key and pressure's key. Those arrow keys have different functions in different mode. Plotter has two working mode:

### ***Online mode:***

Receive the data: when you turn on the plotter's power, the green LED on keyboard will light after a while, we call this mode "ONLINE". On "ONLINE" mode, the plotter can receive data from computer. (Notice: if you want to output the data to plotter later, please must return to this mode).

Change speed: on "ONLINE" mode, if you want plotter's work quickly, you can press "S+" key; if you want slowly you can press "S-" key. (Remark: if the work you want to cut is big, you can select quickly or slowly; if the work you want to cut is small, you must select slowly. The smaller the less slowly, because slower means more accuracy).

Change pressure: on "ONLINE" mode, if you want cutting pressure is heavier, you can press "P+" key; if you want slighter you can press "P-" key. (Remark: if your cutting paper is thick, you can select heavier; if your cutting paper is thin, you need slighter, the thinner the slighter; if the blade is old, you can set the pressure to heavy; if you use new blade, you must change the pressure very slight, because heavy pressure cause the blade very easy to break.

### ***Offline mode:***

If the red LED on keyboard lights, we called "OFFLINE" mode. On this mode, you can press any arrow key continuously to move the carriage or paper to everywhere you want it go. Later press "OK" key, a new origin will be defined. (By the way, machine's origin is the same as the computer file's origin).

### **Plotter cutting test:**

On "OFFLINE" mode, you can press "TEST" key and the plotter will cut a design itself. According to this, you can change the speed or pressure to find out the best state of the machine.

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### Reset the plotter:

When the plotter is working wrong by other problems or you want to stop cutting immediately, you can press "RESET" key one time to stop the cutting work. All the data will be cleaned and the carriage will move to the right side.

### Summary of the operation in “ON Line” mode

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- 1) Press the button “ON Line” to see the button light green.
- 2) You can send data to the cutter
- 3) You can change speed using
- 4) You can change pressure

### Summary of the operation in “OFF Line” mode

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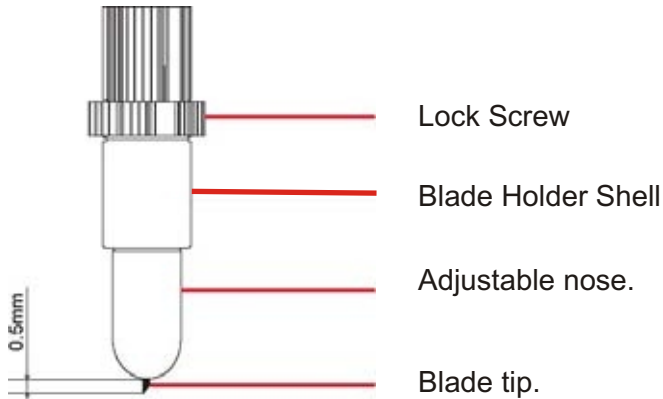


- 1) Press the button “ON Line to see the button light red.
- 2) You can press continuously DOWN or UP arrow to move vinyl in or out the cutter.
- 3) You can press continuously LEFT or RIGHT arrow to move the carriage head anywhere.
- 4) If you press the “OK” button you define a new origin where the head is placed.

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## Cutting Blade and Plotting Pen

### Cutting Blade Holder:



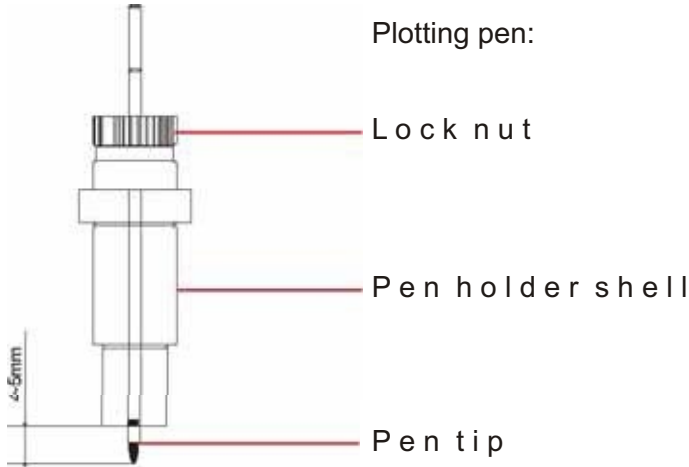
On the working state, the knife can rotate in holder very smoothly. In the first time you can screw the "close screw" off the "holder's shell", set the blade into bottom of holder, then close the "close screw" to avoid the knife falling out, let the knife peep out of the holder less than 0.5mm. When you want to change the blade, take out the old blade, change with a new one, then close the "close screw", keep the blade peep out of the holder less than 0.5mm. (The locknut will not screw, usually).

### Remark:

The operating of changing blade is dangerous; you must protect your finger from being hurt.

Keep the blade peep out of the holder less than 0.5mm; little peep out can extend the blade's using-life. Pressure is bigger, knife using-life will shorter. When the blade is not very sharp, you can rub it on a rubber, thus you can extend the blade using-life.

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You can use standard ball pen refill as plotting pen; keep the ball pen tip out of the holder between 4mm and 5mm. Using method is similar as blade's process; please try it yourself according to the blade's changing method.

### **Set the knife holder or pen holder on holder's seat:**

Turn off the plotter power.

Set the holder on holder's seat, turn the screw of seat of holder.

Turn on the power, the carriage will move to right side; you can press "TEST" key to check your cutter configuration.

### **Load media /Load paper.**

#### **Load media /Load paper:**

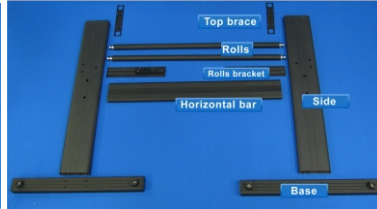
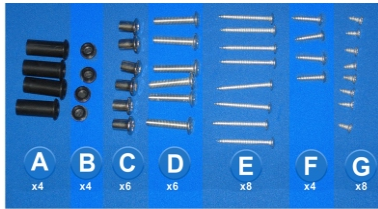
When you move the roller, you must lift the handle first; the right roller will not move, usually.

Lift the handle, the roller will lift 1-2mm, then you can load your media.

Laying down the handle, you can press "UP" key (S+) or "DOWN" key (S-) continuously, the paper will roll to front or back; please confirm the paper must move straightly during the distance that you want to cut.

Adjust the speed and pressure, and then you can output the data to the plotter.

## Base assembly ...



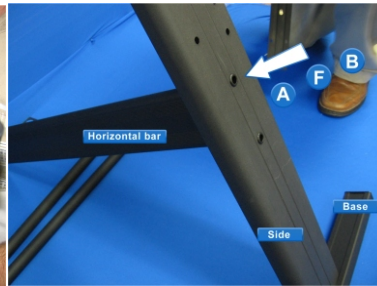
- A) 4 plastic dowels.  
B) 4 plastic caps.  
C) 6 cover nuts.  
D) 6 nuts 1 1/4" length.

- E) 8 screws 1 1/2" length.  
F) 4 screws 5/8" length.  
G) 8 screws 3/8" length.

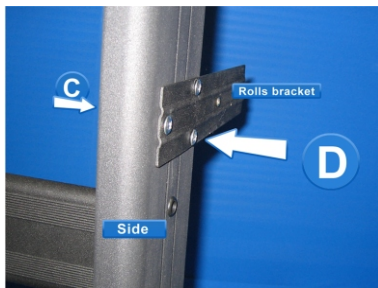
Arrange parts as show in the picture.



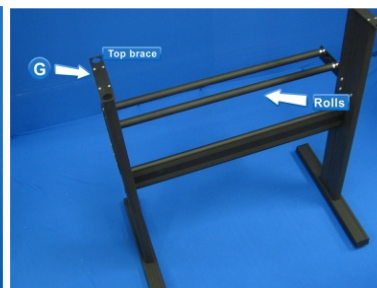
Use screws (E), fix the bases to the sides bars.



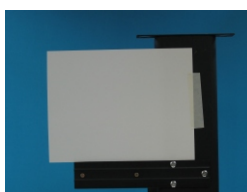
Place 2 dowels in sides, use screw shown in F and fix to the horizontal bar.



Use C inside to fix the rolls bracket



Use the 8 screws shown in G to fix the top braces.



Use a square or a paper fix brackets at 90 degrees with the side bars.

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### **Equipment Limited Warranty**

Return Warranty Registration Form to activate your warranty.

The following is a general warranty statement for all Sign Max equipment. To receive the complete warranty statement specific for your Sign Max product, please register your product online ([www.signmax.us](http://www.signmax.us)) and we will forward you the product specific warranty.

All Sign Max products are of the highest quality craftsmanship and are warranted against defects in materials, circuitry and/or workmanship. All Sign Max equipment warranties for a period of one year and include parts and labor. The warranty begins from the date of purchase and **REQUIRES** that the purchaser send a completed Warranty Registration Form to Entreprises Sign Max inc or register online ([www.signmax.us](http://www.signmax.us)) within 30 days of purchase.

Under no circumstance will Sign Max be liable for direct, indirect special, incidental, or consequential damages resulting from any defect in hardware or documentation, even if advised of the possibility of such damages. Though Sign Max has tested the equipment, the purchaser assumes all risks regarding its quality and performance.

### **Special Notice Regarding Vinyl Cutter Equipment**

Blade, blade holder, cutter strip, pinch rolls, head carriage, media have been tested to ensure consistent quality output will not be covered by Sign Max's warranty.

This warranty does not cover shipping damage or defects due to abuse or mishandling. In addition, the warranty is void if the product has been opened or serviced in any way by someone other than a service technician.