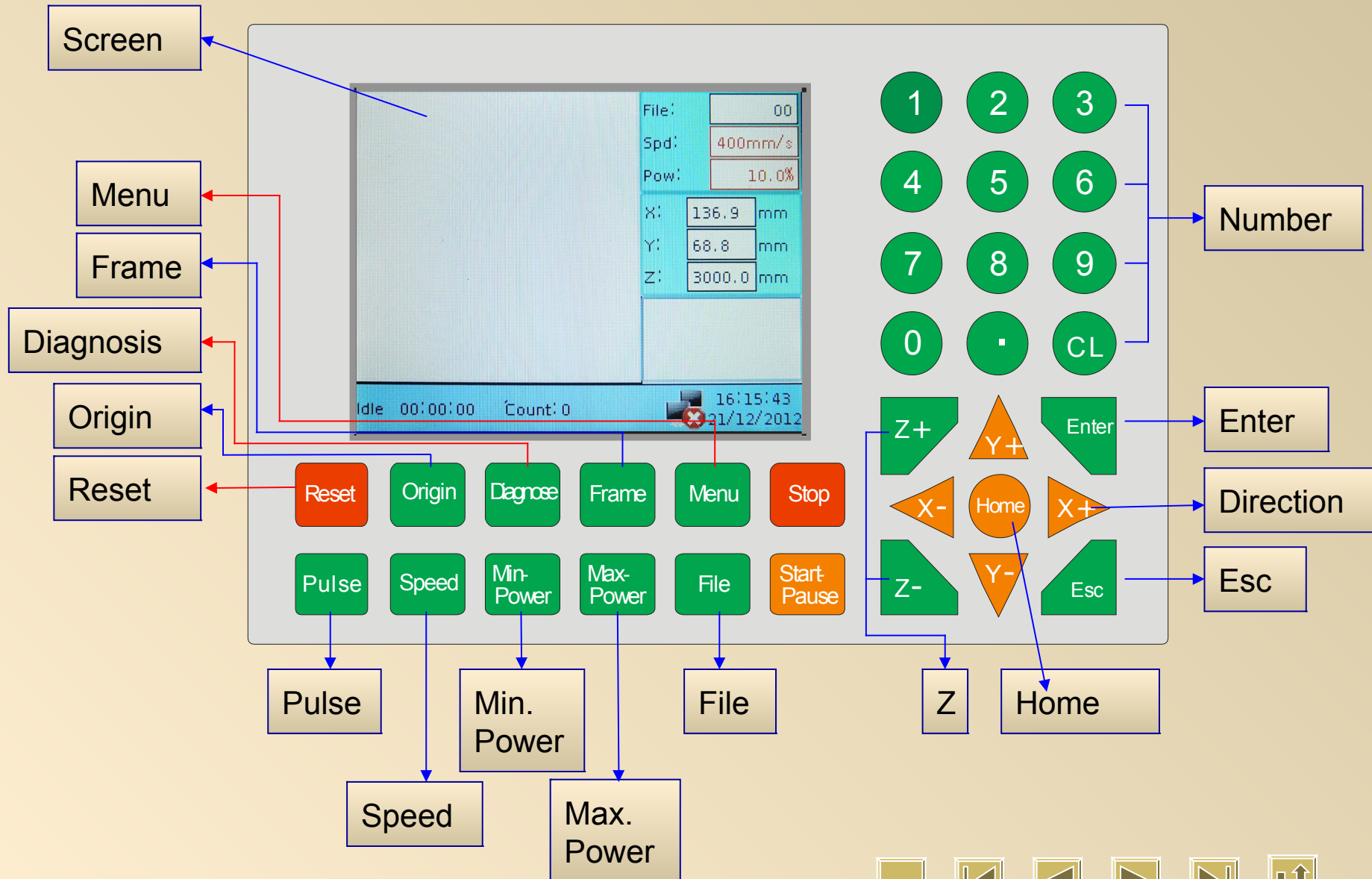


User Manual



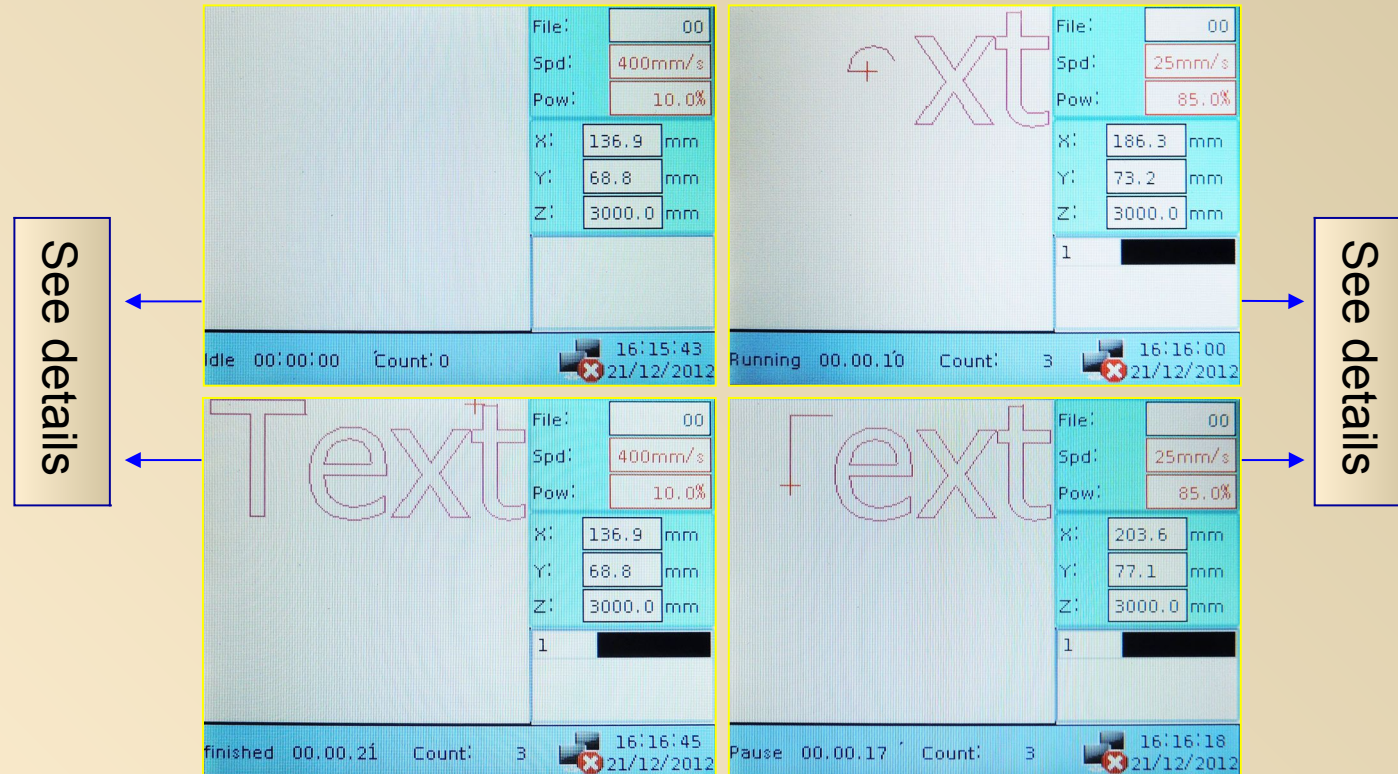
Panel Operation

(Click the following button for detailed introduction)



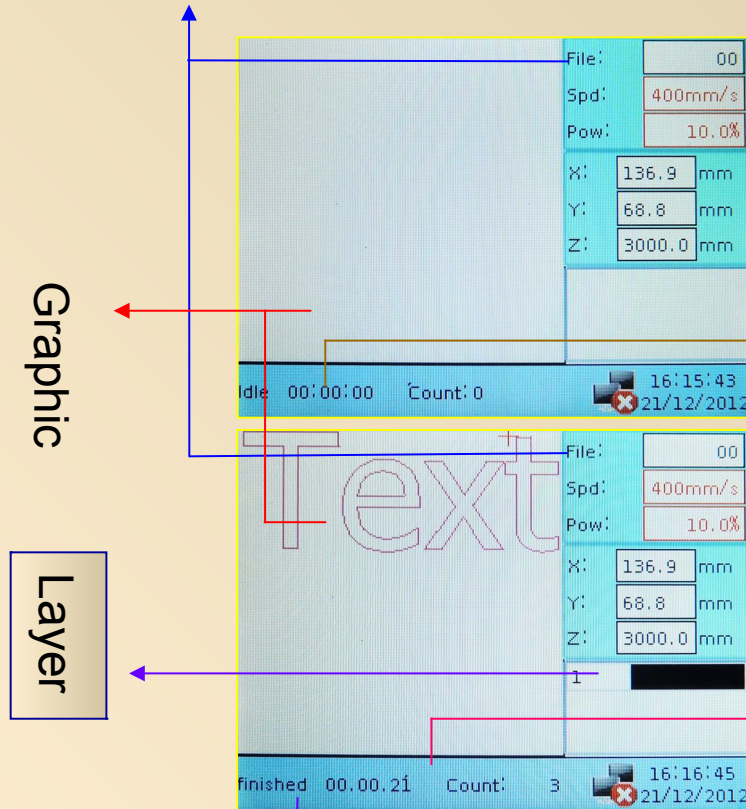
Screen

There are 4 types screen: Idle, Finished, Running, Pause. "Idle" and "Finished" is similar. The only difference is time showing in left bottom under "Finished" interface.



Idle & Finished

File : " 00" on screen: we didn't choose any file. Therefore, this number is the file name we saved.



Speed: Unit (mm/s) , moving speed if it's under "Idle".

Power: It's shown % , and you can even increase/ decrease 0.1% . It indicates power when you press "Laser" under "Idle" interface.

X、 Y、 Z : Coordinate for each axis

Idle: Not working.

Network Connection

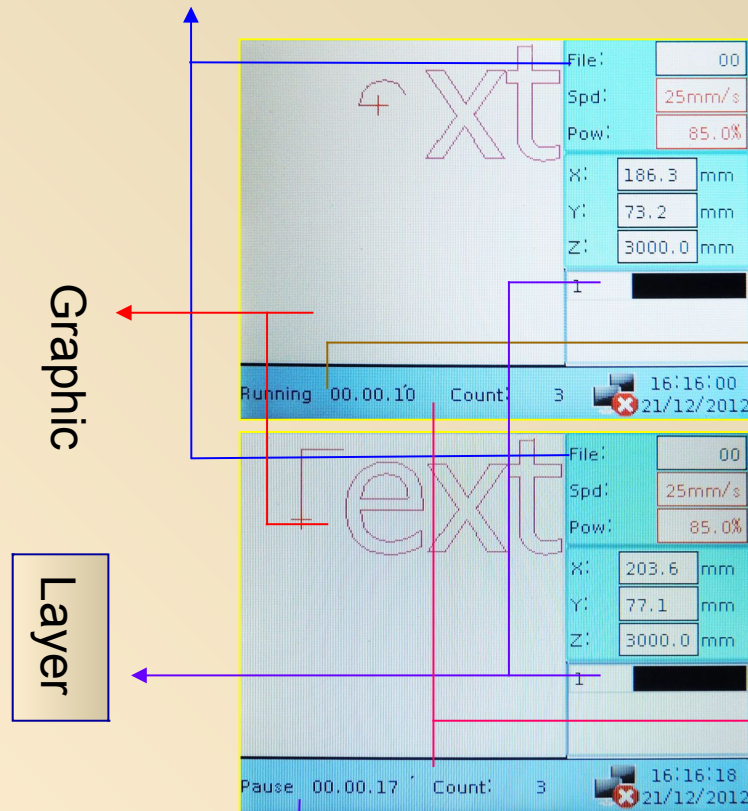
Count: It's the process time for one file. If we import new file, it starts from "0" again; And it adds on base of original number if the file is already existed inside our memory.

Finished: Our job is finished and we will also see how long it takes.



Running & Pause

File : " 00" on screen: we didn't choose any file. Therefore, this number is the file name we saved.



Speed: Unit (mm/s) , moving speed if it's under "Idle".

Power: It's shown % , and you can even increase/ decrease 0.1% . It indicates power when you press "Laser" under "Idle" interface.

X、 Y、 Z : Coordinate for each axis

Running: under working and we will also see how long it takes during it's

working.
Network°Connection

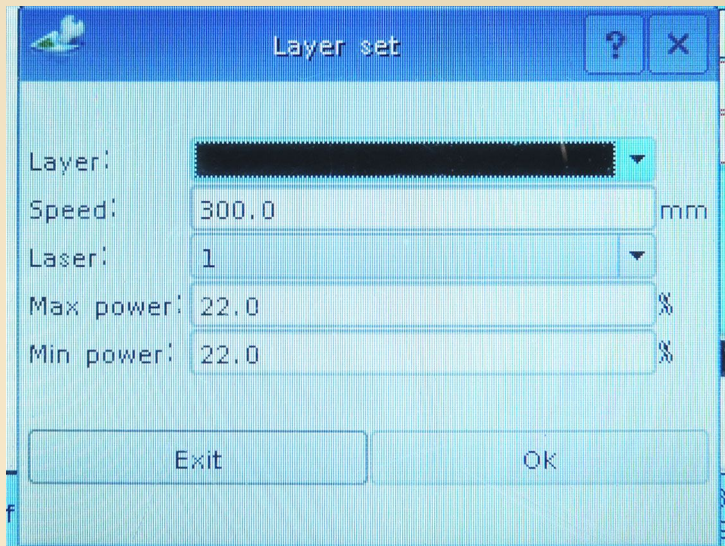
Count: It's the process time for one file. If we import new file, it starts from "0" again; And it adds on base of original number if the file is already existed inside our memory.

Pause: Machine stop temporally and we will also see how long it takes till the moment it stops.

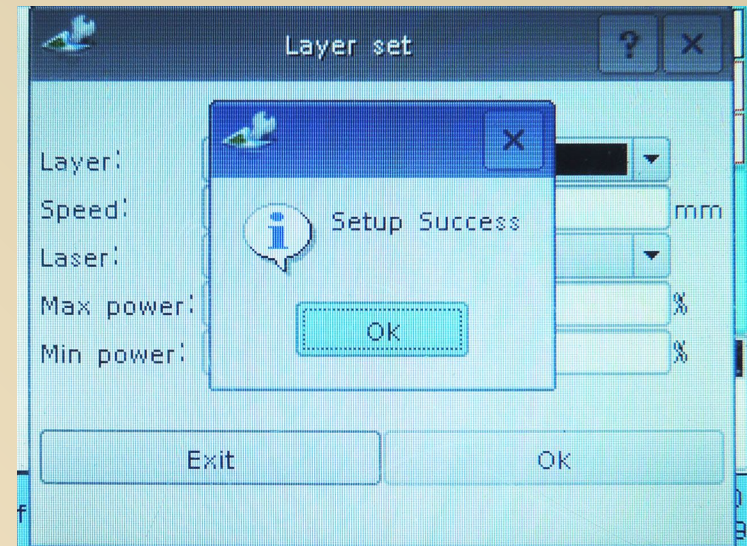


Layer

1. Press “Y+”, and “Enter”, then we will see the following window :



2. Press “X+/ - ” to choose cursor location, and “0-9” of number buttons to change parameter. Press “Enter” and it comes out the following window:



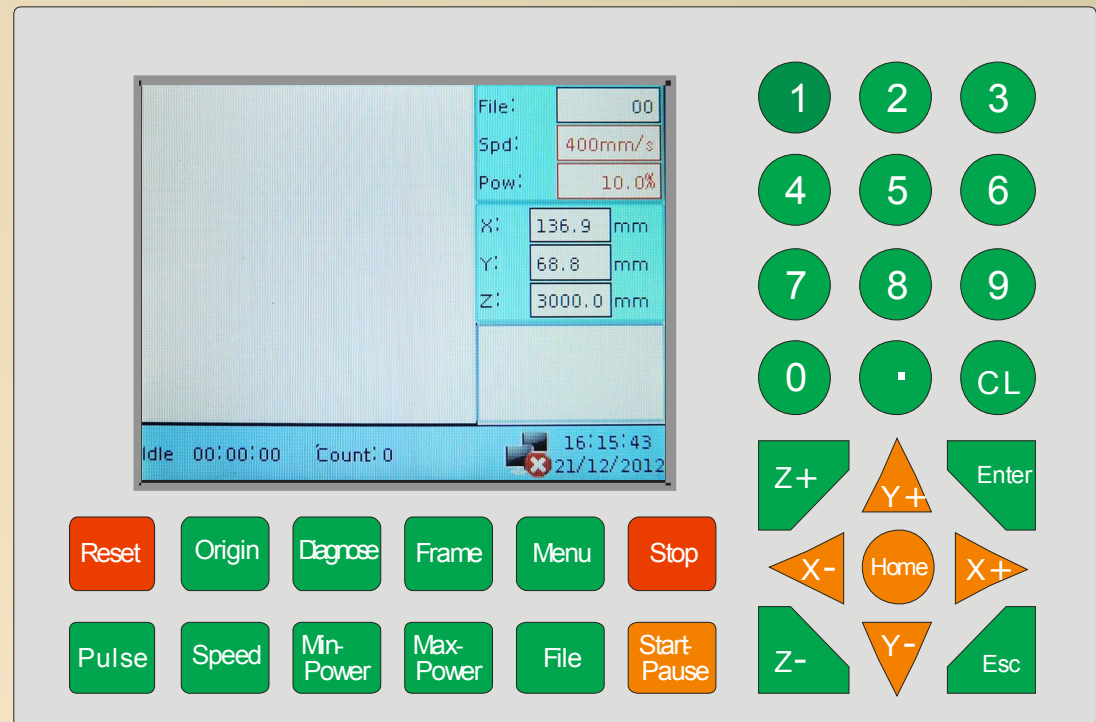
Parameter changing from “Layer” is the speed and power during working. The changed parameter will be saved on panel. If we get it out from panel, machine works with the same parameter as changed before.

All buttons work under “Idle” and “Finished”.

Some buttons don't work under “Running” and “Pause”

Running : The following buttons work normally: Reset, Speed, Min. Power, Max. Power and Start/ Pause.

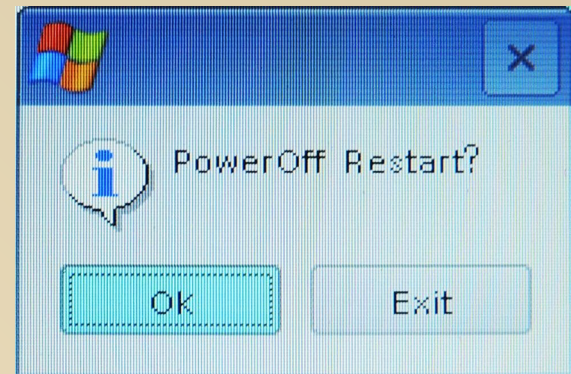
Pause : The following buttons work normally:
Reset, Speed, Min.
Power, Max. Power, Start/
Pause, Esc, Z and
direction button.



Reset

Reset

Press “Reset” button when the power is on, we will see it goes back to Machinery Zero Point (Top right) and “Resetting” is shown on screen. Then laser head moves back to the point you set up before by “Origin”. In case power is off during our job, there is a hint as shown as follows:



“Ok” : machine continue to work to finish the rest unfinished parts.

“EXit”: You unfinished parts will not be processed again. And there is no way to get it back.

Attention: Press “Ok”, “Finding out break point” is shown on screen. If the data is large, so it takes more time. It’s normal. Suppose we work around 1 hour, it takes 1 min. to find the break point where the power is off.

Enter & Esc



Enter: Confirm the operation



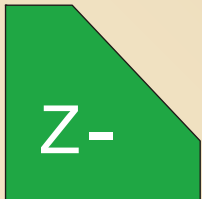
Esc: Cancel the operation

Z

To change different parameter under Parameter Set-up or adjust Z axis to move up & down.

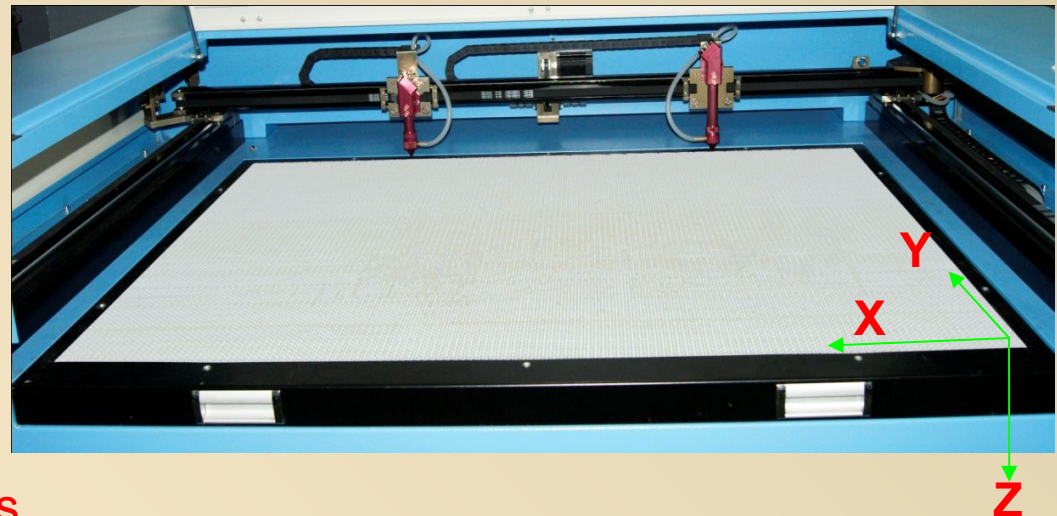
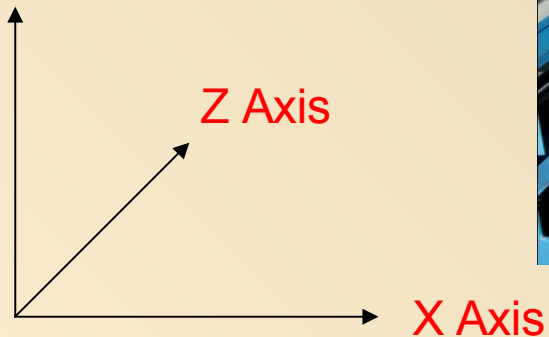


Platform up

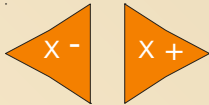
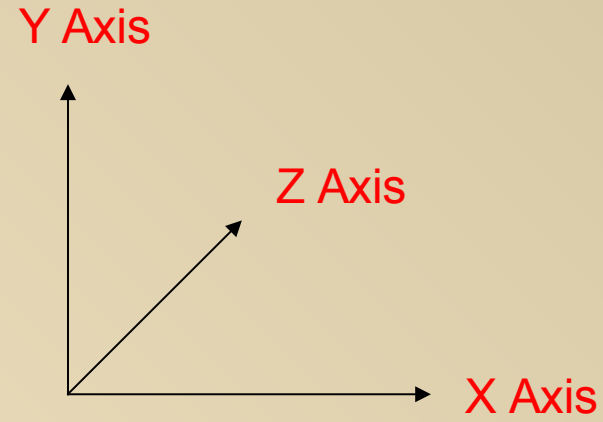
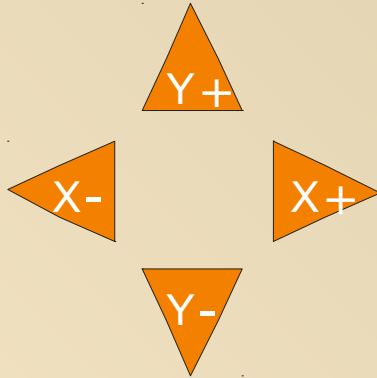


Platform down

Y Axis



Direction Button



$X+/-$: Left, right



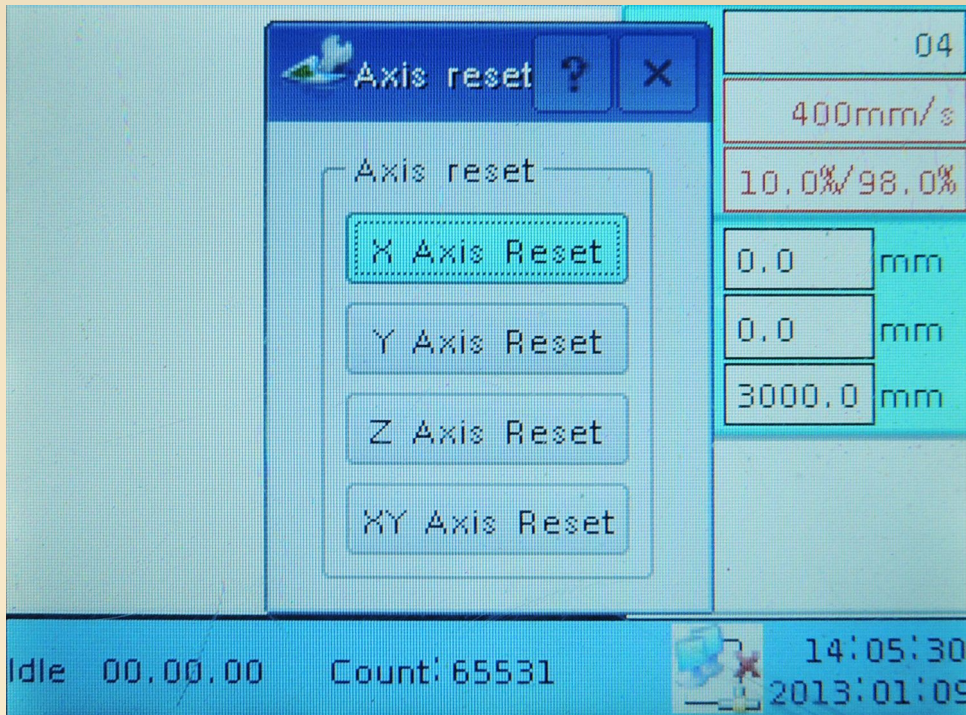
$Y+/-$: Front, back

Home

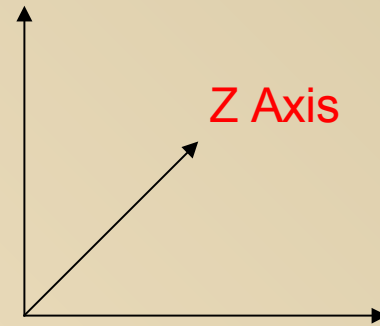
Press



the following window can be seen :



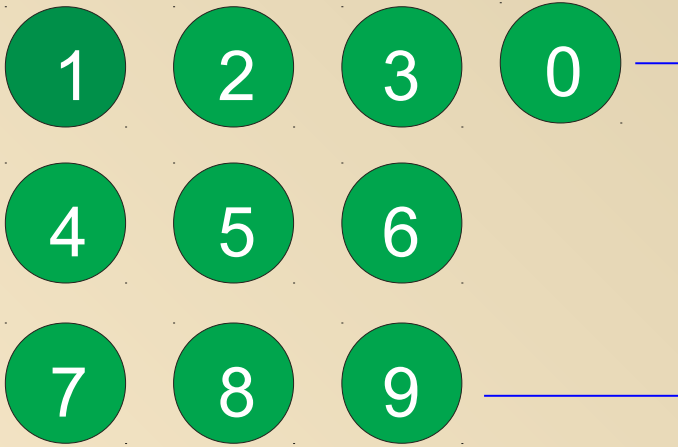
Y Axis



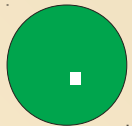
Z Axis

X Axis

Number



0 - 9 number button



Decimal Point



Cancel



Pulse

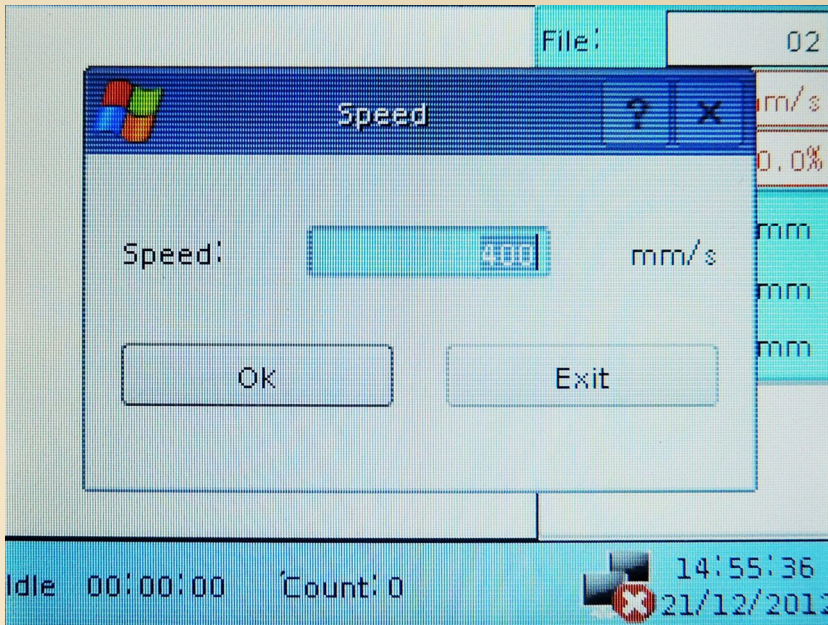
We can press “Laser” button under “Idle”, “Work”, “Pause” and “Continue to work after power off”. There is laser light coming out when we press it. And the light lasts for the same time as our press.

If we press “Laser” and direction button at the same time, we can cut manually. In this situation, power is the “max. power” we set.



Speed

Press **Speed** , here comes with the below window:



Idle, Finished


Direction button moving speed

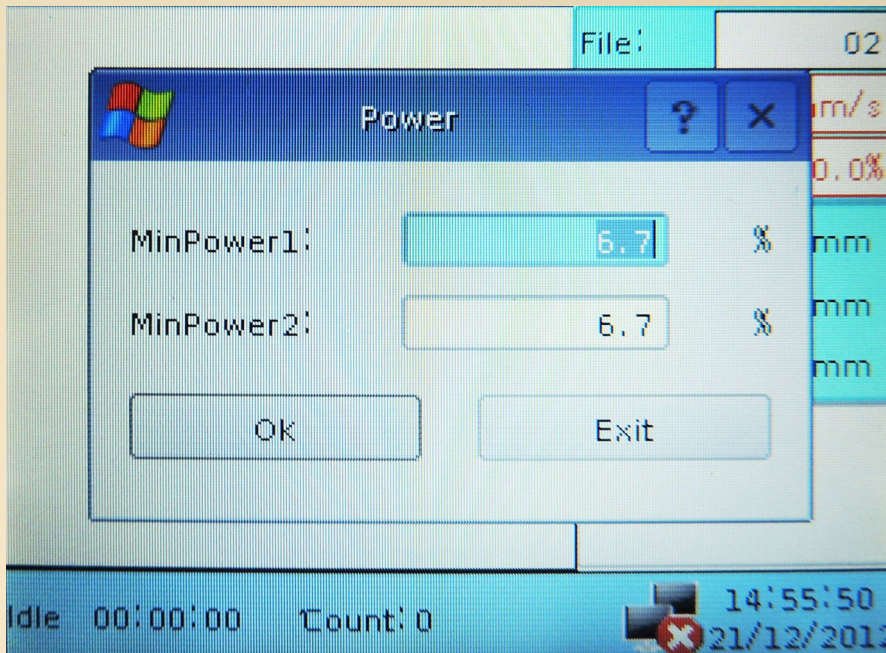
Running, Pause

Speed for working

In this window, we change speed by number button “0-9” . Press “Enter if it’s ok.
If not, go to “Esc”.

Min. Power

Press “Min. power”  , we shall see the following:



Idle, Finished
Doesn't work

Running, Pause
Change min. power.

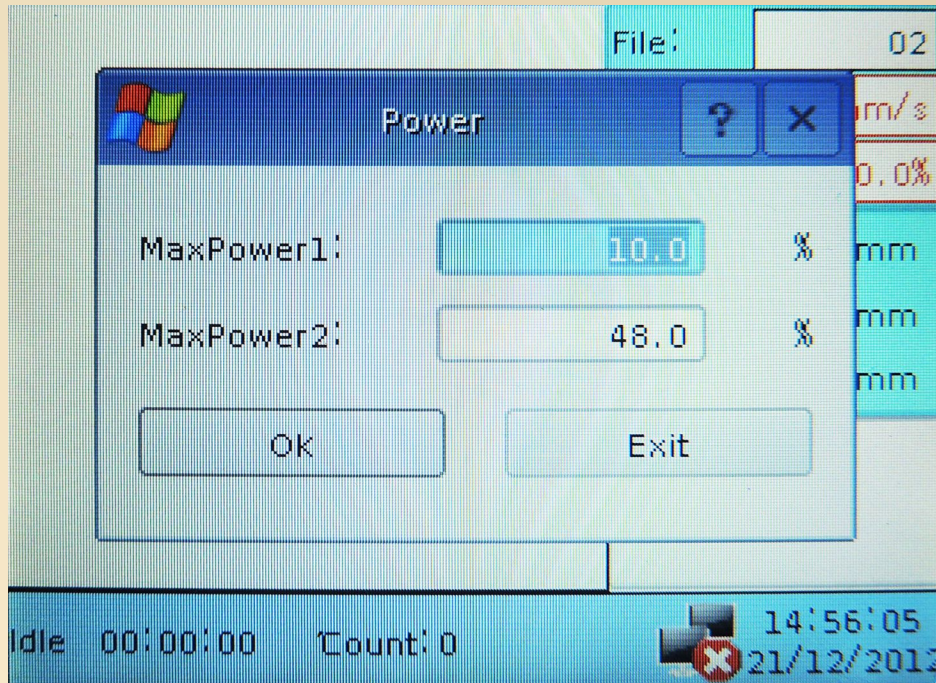
In this window, we change min. power by number button “0-9” . Press “Enter if it's ok. If not, go to “Esc”.

Max. Power

Press “Max. power”

Max-
Power

, we shall see the following:



Idle, Finished

Change power for “Laser” button

Running, Pause

Change max. Power

In this window, we change max. power by number button “0-9” . Press “Enter” if it’s ok. If not, go to “Esc”.

File

Press **File**, the following window will be shown in front of us:

The 'File' window displays a table with the following data:

	File name	Count
1	123	2
2	XIAOYUAN	65531
3	QQ	0

Annotations and descriptions:

- Count**: Number of time for one file processing. The no. is increasing.
- Preview**: A grid of 20 small circles (5 rows by 4 columns) used for previewing file content.
- Read Memory file**: A button to read files saved in panel or change file name.
- U disk**: A button to read files from a U disk.
- Other**: A button to read files from other sources.

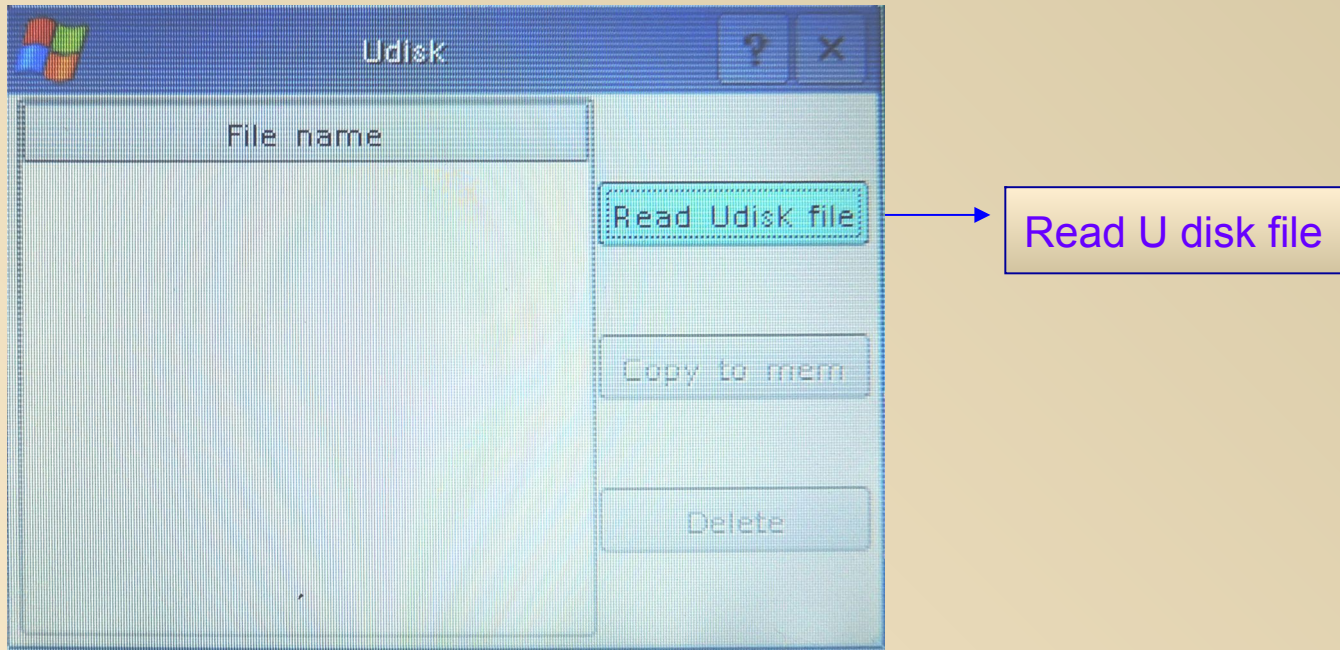
A red arrow points to the 'File' label on the left side of the window.

Direction button X+/- is used to choose "File" by moving cursor, and we will see the file from "Preview". Press **Start-Pause** to start to work.



U Disk

Click “U disk” to view the following:

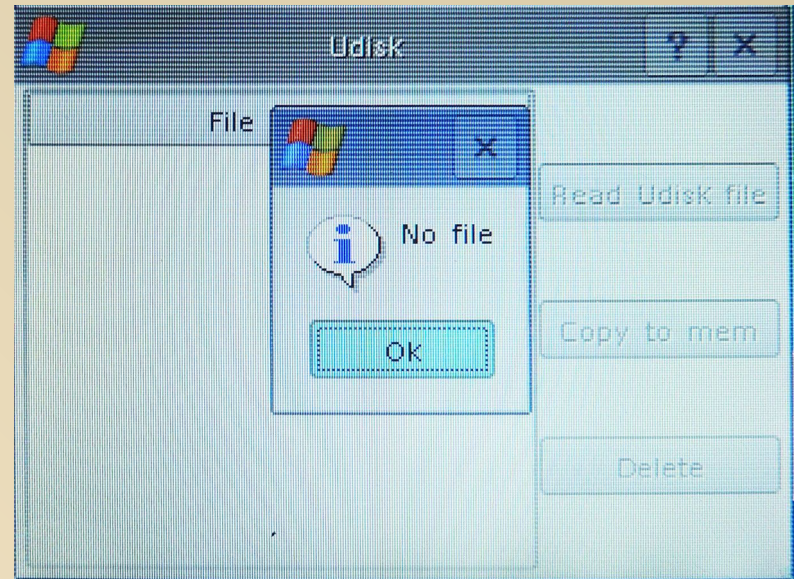


Read U disk file

Choose "Read from Flash Memory", Press "Enter", there are 2

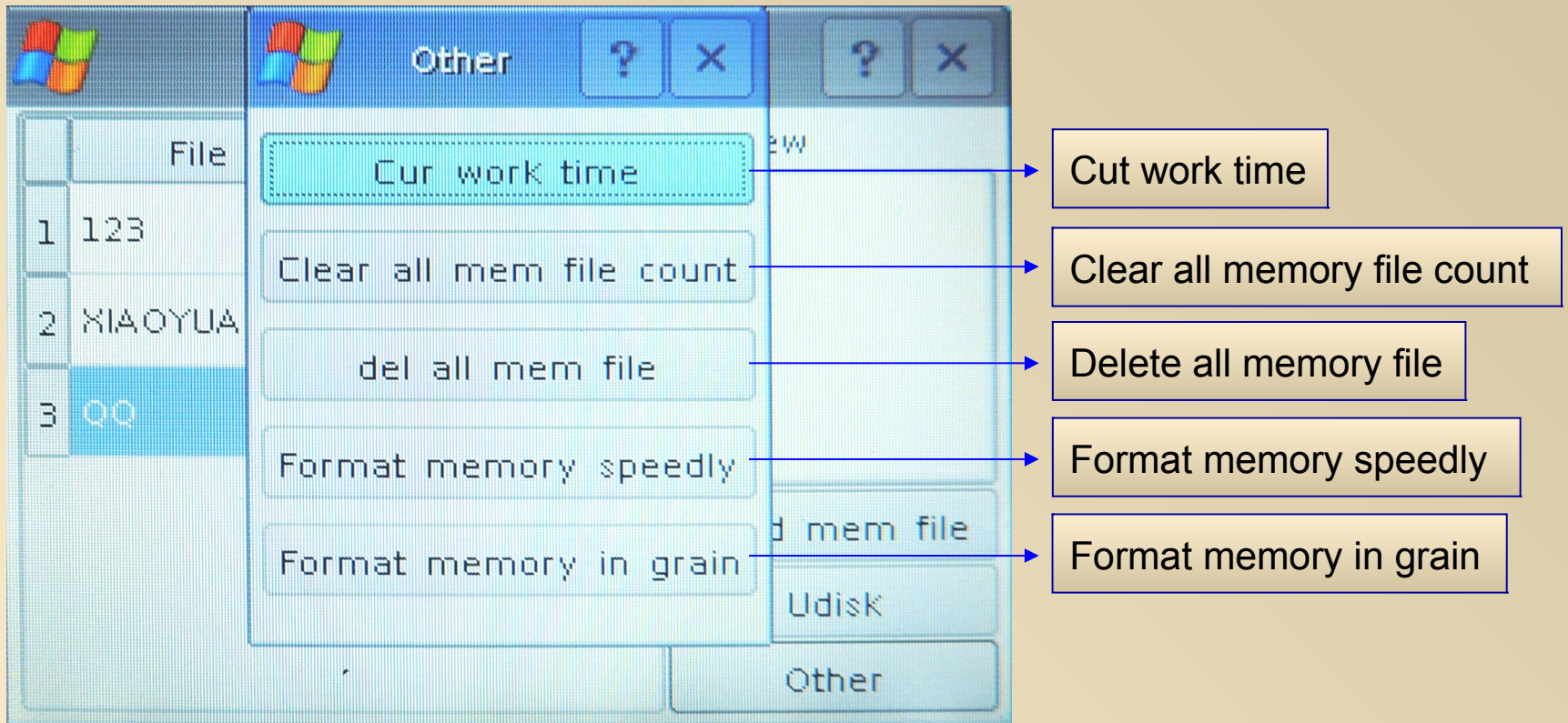
1: If our U disk have file(s), we could see the following window:

2 : If there is no file (s) inside our U disk, we just press "Enter" to escape.



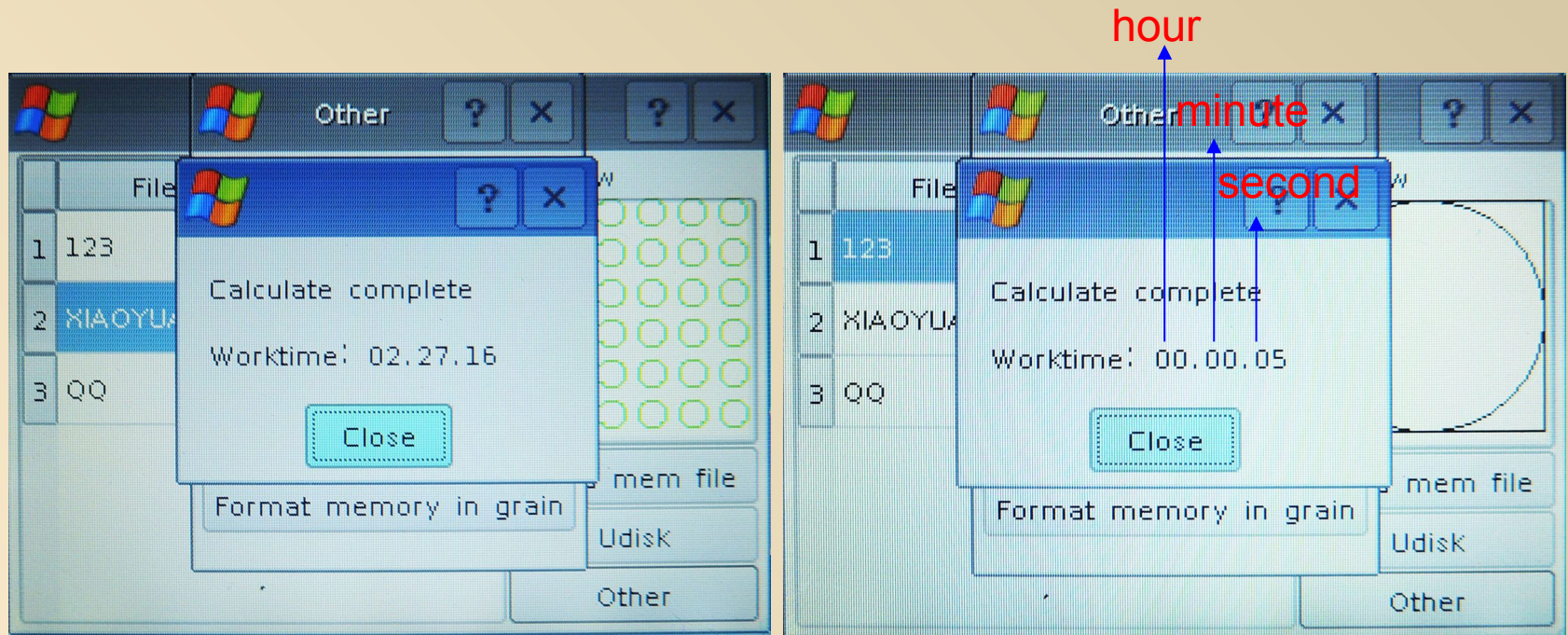
Other

Choose “other”, Press “Enter”, let’s see the following:



“Other”- Cut work time

Choose “Cut work time”, press “Enter” so we will see:



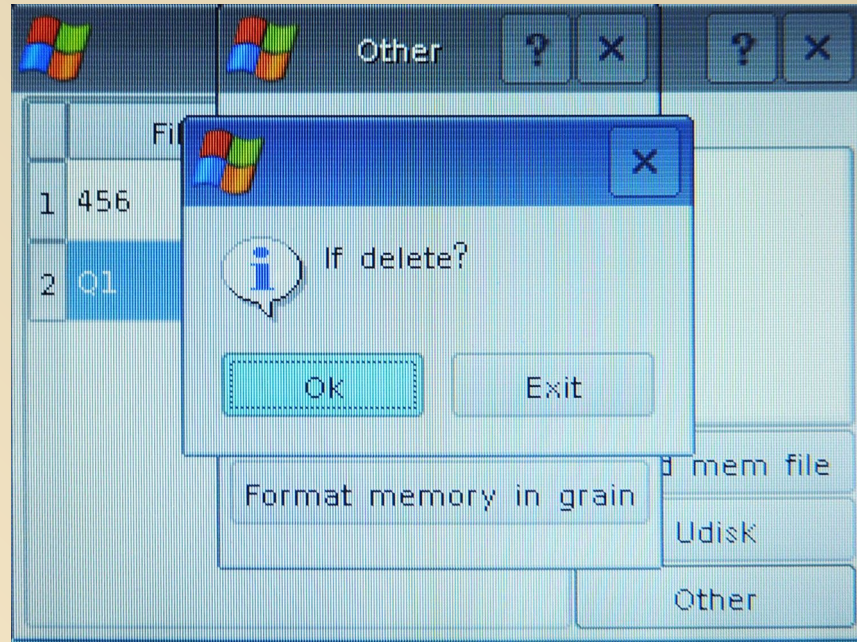
With the above function, we will get an approximate time for our job by computer.

“Other”- Clear all memory file count



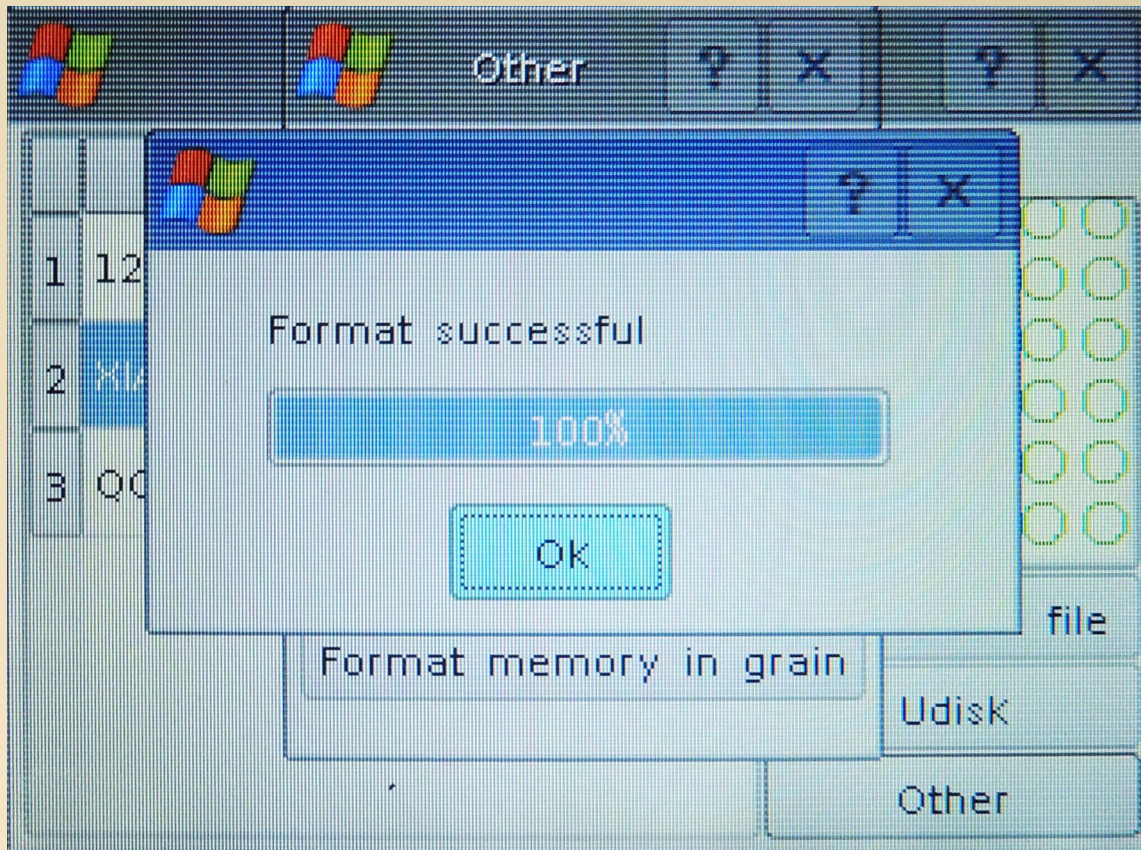
Clear all memory file count : simply, file (s) number is/are zero clearing.

“Other”- Delete all memory file



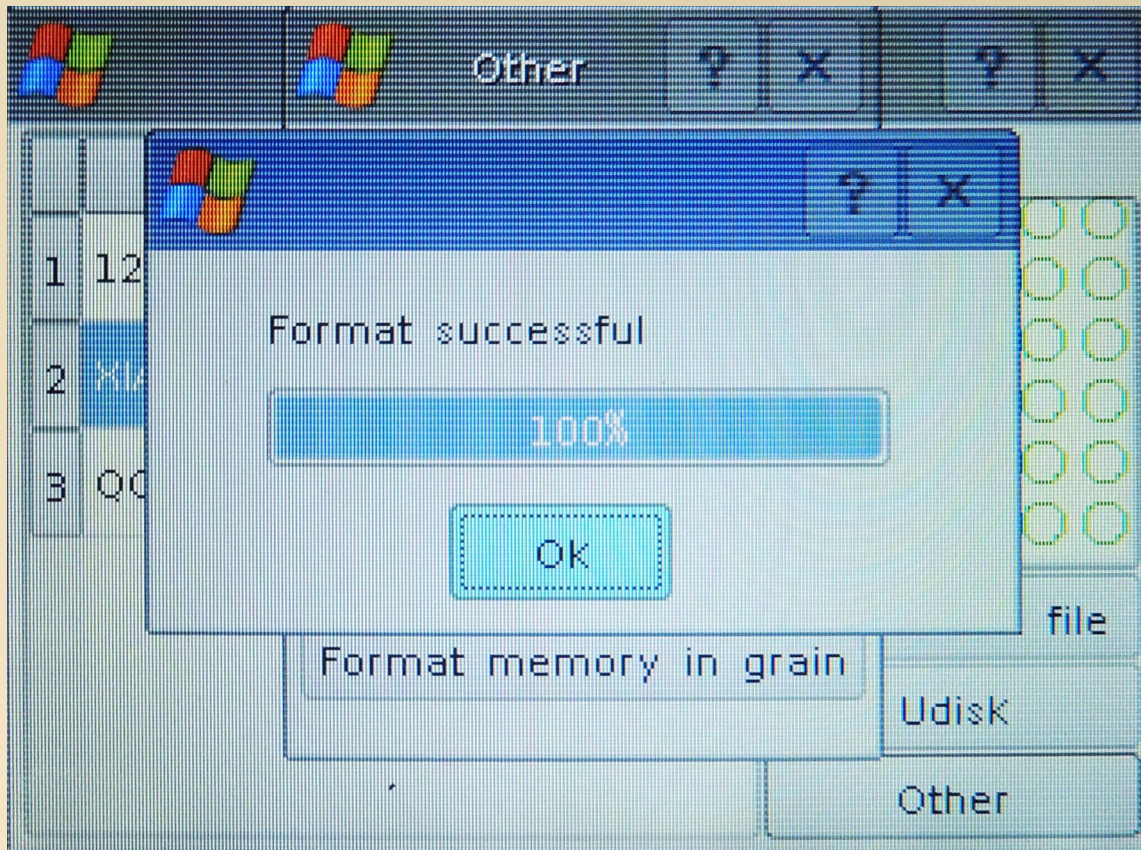
Delete all memory file : Simply file (s) is/ are deleted completely inside memory on panel.

“Other”- Format memory speedily



“Format memory speedily”, obviously, is faster than “**Format memory in grain**”. Usually, we choose “Quick Format”

“Other”- Format memory in grain



If “Format memory speedly” doesn’t work, we will choose this one.

Origin

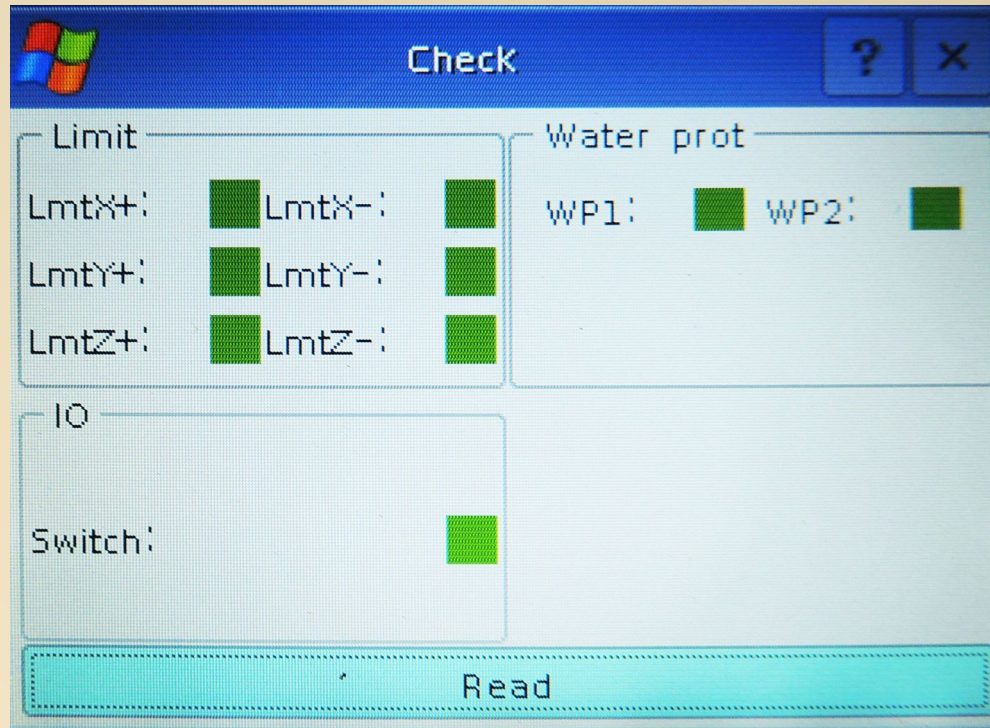
The origin key can be used in 'Idle' screen. After the key is pressed, the motherboard will take the crossing point formed by X axis and Y axis of laser machine as the relative original point for the graph, also called positioning point. (It is also the location of the laser head). As mentioned before, in the 'Idle' or 'Finished' screens, pressing the Start/Pause key will start the processing of the current file (the file in the memory of the motherboard), the positioning point determines the location of the processed file. The positioning point is not functioned in other screens.



Diagnosis

The following window can be see if we press

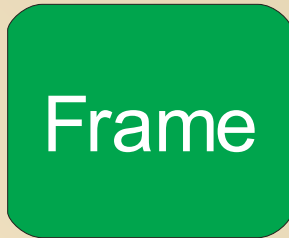
Diagnose



Read parameter can help us to know the situation for water limit, water protection etc.

Frame

Press this button so laser head moves around the edge of our design to know if it's the exact place we want to work. It's common used when we are not familiar or the materials we process are expensive.



Menu

The following window can be see if we press

Menu

The screenshot shows a CNC machine's menu interface. The menu is titled 'Menu' and contains five options: 'Sys info', 'Sys config', 'Func', 'User para', and 'Mach para'. Each option is linked by a blue arrow to a corresponding label on the right. The 'Sys info' option is currently selected, and its details are displayed on the right side of the screen. The status bar at the bottom shows 'Idle 00.00.00', 'Count: 0', a time of '15:00:51', and a date of '21/12/2012'.

Menu Option	Value	Unit
Sys info	10.0%	
Sys config	136.9	mm
Func	68.8	mm
User para	3000.0	mm
Mach para		

System Info

System Config

Function

User Parameter

Machine Parameter

Idle 00.00.00 Count: 0 15:00:51 21/12/2012

Menu- System Info

Press X+/- - direction button to choose cursor location 。 Go for “System Info” and enter. Here it comes:

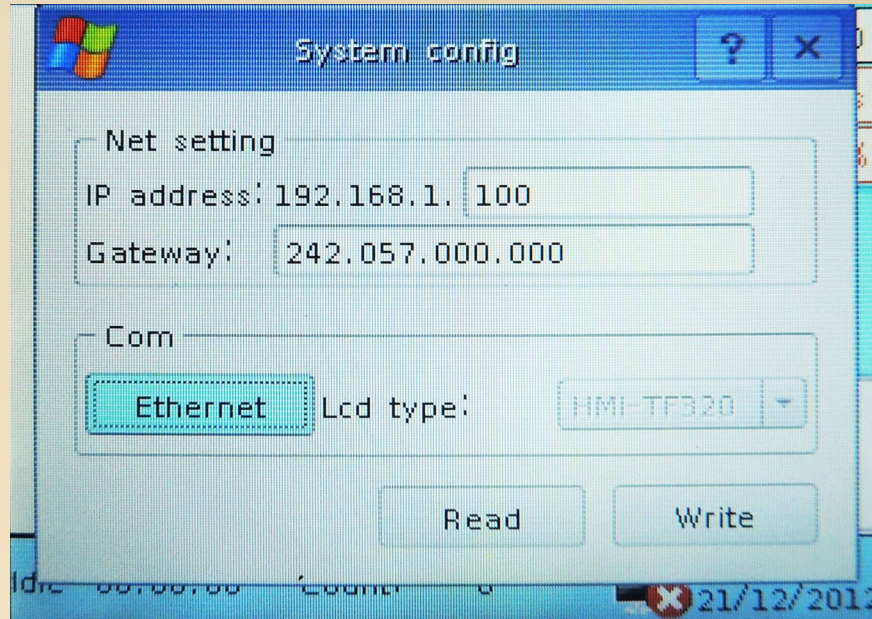
System info	Limit info
Total laser:(H:M:S)	08:27:39
Total on time:(H:M:S)	13:19:30
Total work time:(H:M:S)	00:31:27
Pre work time(H:M:S)	00:00:04
Total work times:	29
X Total traval:(m)	7383
Y Total traval:(m)	5192
Total count:	29
<input type="button" value="Clear"/>	
<input type="button" value="Read"/> <input type="button" value="Exit"/>	

System info	Limit info
X Limit+:	<input type="button" value="Normal"/>
Y Limit+:	<input type="button" value="Normal"/>
X Limit-:	<input type="button" value="Normal"/>
Y Limit-:	<input type="button" value="Normal"/>
Z Limit+:	<input type="button" value="Normal"/>
Z Limit-:	<input type="button" value="Normal"/>
<input type="button" value="Read"/> <input type="button" value="Exit"/>	

Press “Enter” to read parameter inside. Press “Z+/-”, we can choose different item. And “Y+/-” can switch from “Limit Info”. “Esc” to go back to Menu.

Menu- System Config

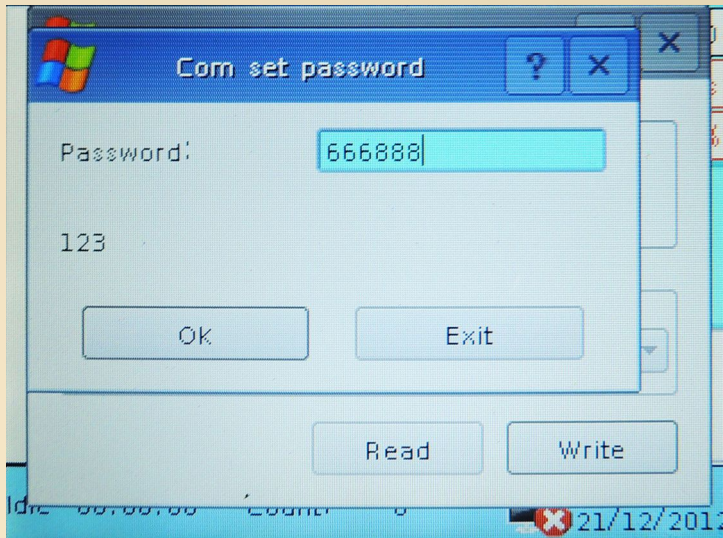
Press X+/ - to choose cursor location. When it stops at “Config.”, “Enter” to check details:



Press “Enter” to read parameter inside. Press “Z+/-”, we can choose different item. IP and gateway address can be changed by number buttons. “Read Parameter” is necessary and make sure to press “Enter” to confirm adjustment.

Menu- System Config.

1. Ethnet and USB can be chosen. If you press “Enter”, password is required as follows:



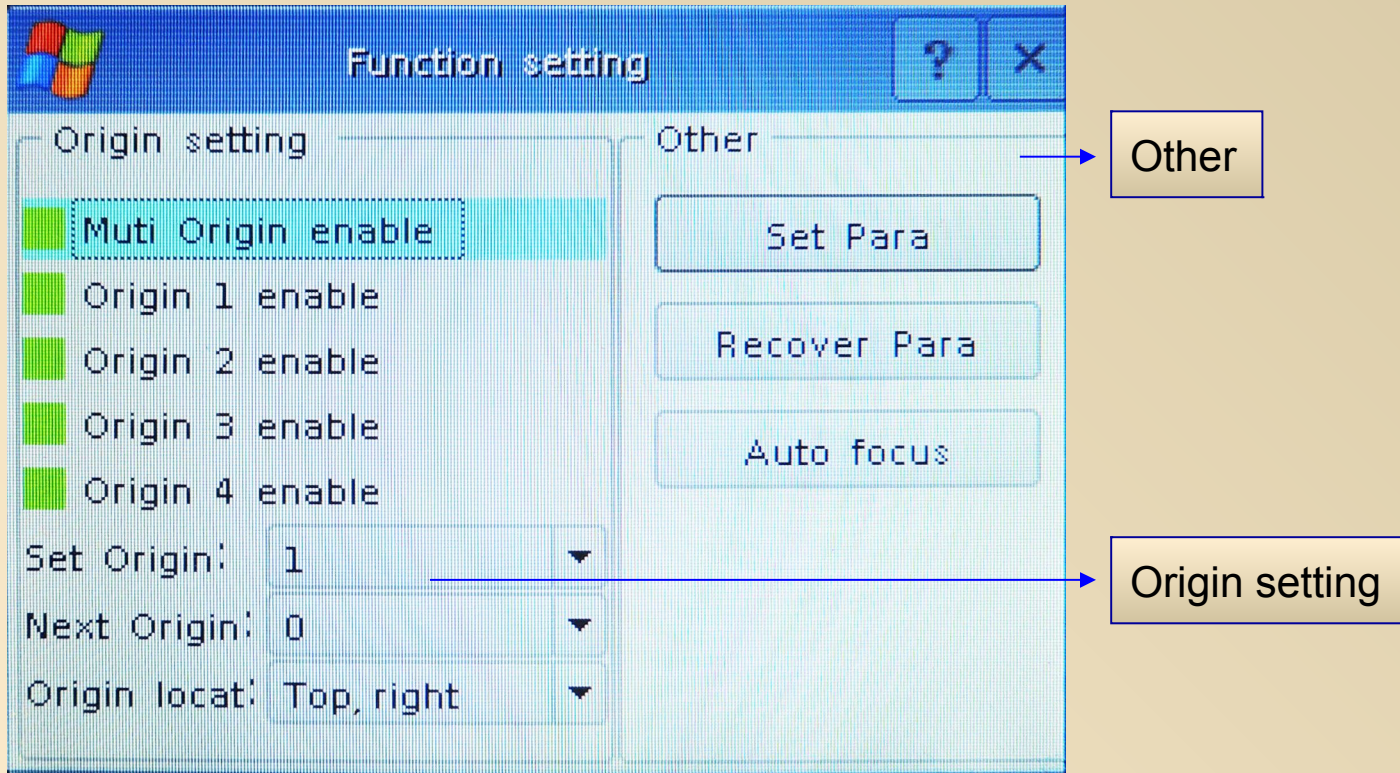
2. Type into the password, here comes with Communication Setup:



Still press “Z+/-” to move to “Communication Port”, and “X+/-” to choose “USB” or “Ethnet”, “Enter”, and “Read Parameter”.

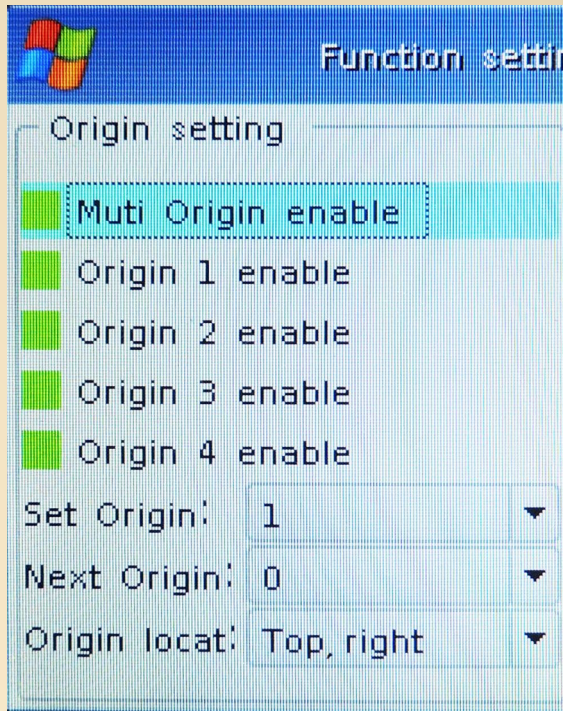
Menu - Function

Press X+/ - to choose cursor location. When it stops at “Function”, “Enter” to check details:



Function – Origin setting

Press “Z+/-” to choose proper item. Press “Enter” , it shows red color. If not, it’s green.
And the change will be saved automatically when you close this window.



Multi Origin : “ Yes” or “No”. If we choose “No”, it has one origin only. It’s finished through “Origin” on the panel. Suppose we choose “Yes”, we have several origin to set up. But “Origin” on panel doesn’t work. We have to set up through menu.

Origin 1/2/3/4 : Press “Enter” to confirm each origin.

Next Origin : 0~4 can be chosen. It shows the origin for our next design. 0 equals “Origin” set up on panel, 1~4 is different origin we set u on the above.

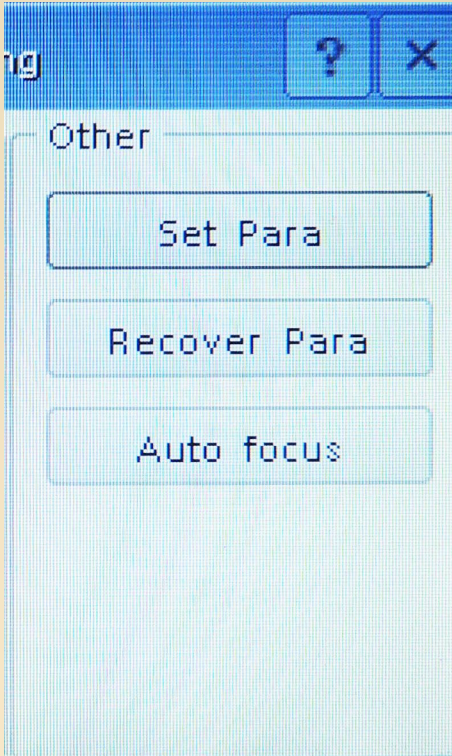
Origin 1~4 available: We can make them all work or forbid some.

Origin Location : This is graphic origin showing in front of us.

Attention Once we choose Multi Origin, suppose next origin is 1, and four origin work, the origin order will be like this 1->2->3->4->1->2..... It always work in this way when we choose “make the original as origin.” And “present origin” will not change when output.



Function - Other



Manufacturer Parameter

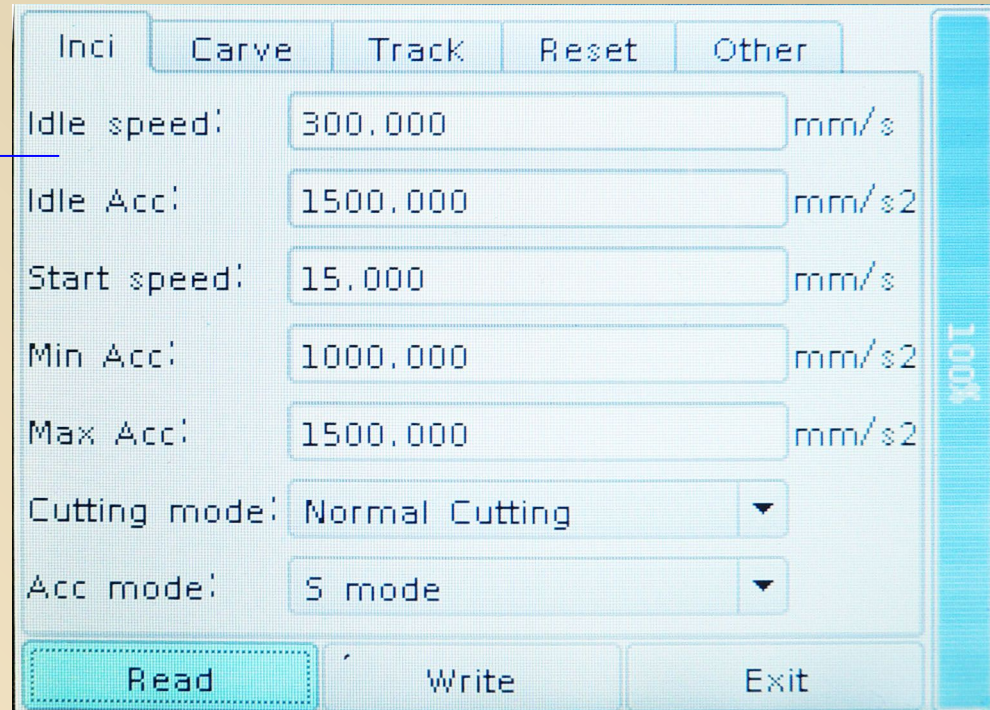
Recover Machine Parameter : In case we change any parameter accidentally and work improperly, we can use this function.

Auto focus : Not valid yet.

User Parameter

Press X+/- to choose cursor location. When it stops at “User Paramter”, “Enter” to check details:

interface for each item



The screenshot shows a software interface for setting user parameters. At the top, there are five tabs: 'Inci', 'Carve', 'Track', 'Reset', and 'Other'. The 'Inci' tab is currently selected. Below the tabs, there are seven rows of parameters, each with a text label, a numerical input field, and a unit. The parameters are: 'Idle speed:' (300.000 mm/s), 'Idle Acc:' (1500.000 mm/s²), 'Start speed:' (15.000 mm/s), 'Min Acc:' (1000.000 mm/s²), 'Max Acc:' (1500.000 mm/s²), 'Cutting mode:' (Normal Cutting), and 'Acc mode:' (S mode). At the bottom of the interface, there are three buttons: 'Read', 'Write', and 'Exit'. The 'Read' button is highlighted with a dashed border. On the right side of the interface, there is a vertical blue bar with a '100%' label.

Parameter	Value	Unit
Idle speed:	300.000	mm/s
Idle Acc:	1500.000	mm/s²
Start speed:	15.000	mm/s
Min Acc:	1000.000	mm/s²
Max Acc:	1500.000	mm/s²
Cutting mode:	Normal Cutting	
Acc mode:	S mode	

Again press “Z+/-” to move to different item, and “Y+/-” to switch different mark at the top.

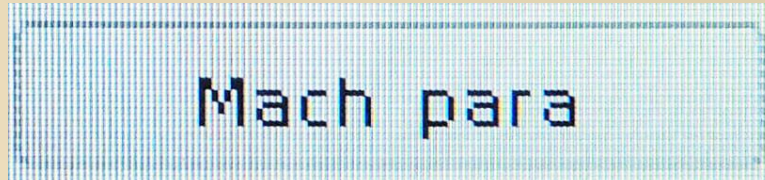
Inci	Carve	Track	Reset	Other
X start speed:	20.000		mm/s	
Y start speed:	15.000		mm/s	
X Acc:	5000.000		mm/s ²	
Y Acc:	2000.000		mm/s ²	
Line shirt speed:	150.000		mm/s	
Scan mode:	Common mode		▼	
Facula Size:	98.0		%	
Read		Write		Exit

Inci	Carve	Track	Reset	Other
Go scale mode:	Close laser		▼	
Go scale blank:	0.000		mm	
Read		Write		Exit

Inci	Carve	Track	Reset	Other
Reset speed:	80.000		mm/s	
X on reset:	<input checked="" type="checkbox"/> Enable			
Y on reset:	<input checked="" type="checkbox"/> Enable			
Z on reset:	<input checked="" type="checkbox"/> Enable			
U on reset:	<input checked="" type="checkbox"/> Enable			
Read		Write		Exit

Inci	Carve	Track	Reset	Other
Array processing:	Bi-dir		▼	
Return position:	Absolute Origin		▼	
Delay before feed:	5.000		s	
Delay after feed:	0.000		ms	
Focus:	0.000		mm	
X Backlash:	0.000		mm	
Y Backlash:	0.000		mm	
Laser time:	0.000		ms	
Manual set:	0.000		mm	
Language:	English		▼	
Read		Write		Exit

Menu-Machine Parameter



Machine Parameter : Set-up already from manufacturer, we don't suggest you to change any of them without notice.

Thanks for your time and
patience !