

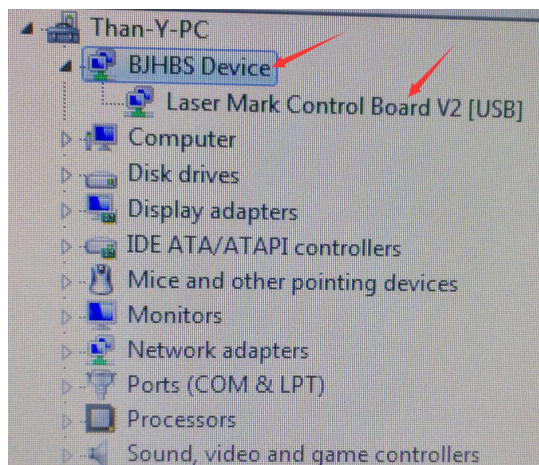
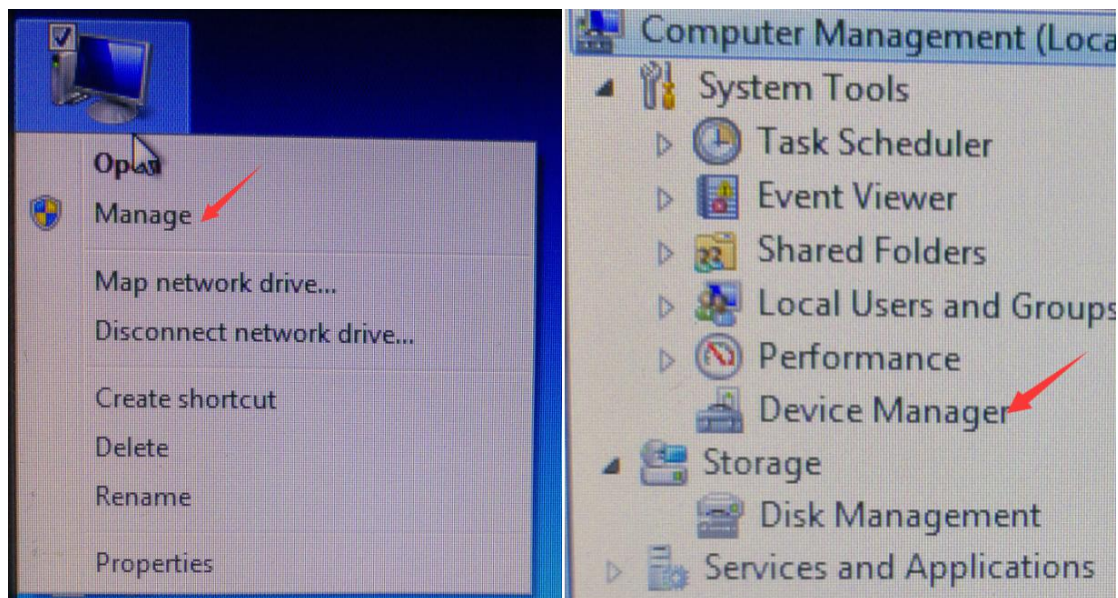
EzCad parameter setting and debugging

If the computer is not shut down in normal order, or is forced shut down, or encounters a sudden power outage, when the user runs the software again after booting on, users may encounter a parameter error. Below are how the users should redo the parameter setting.

Driver check-up

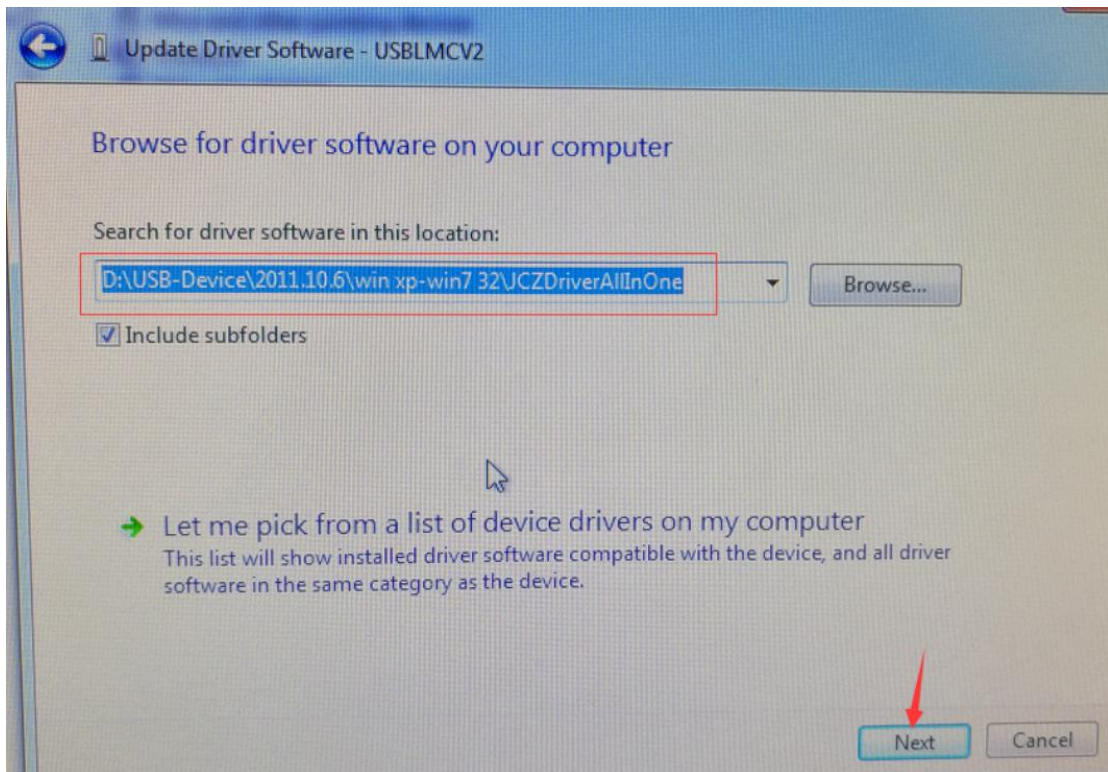
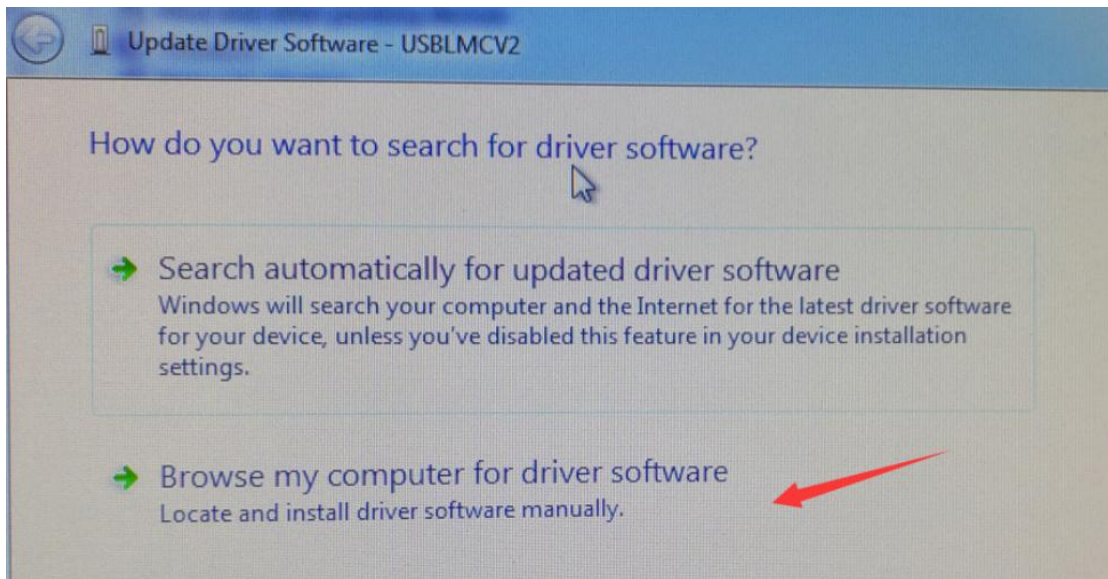
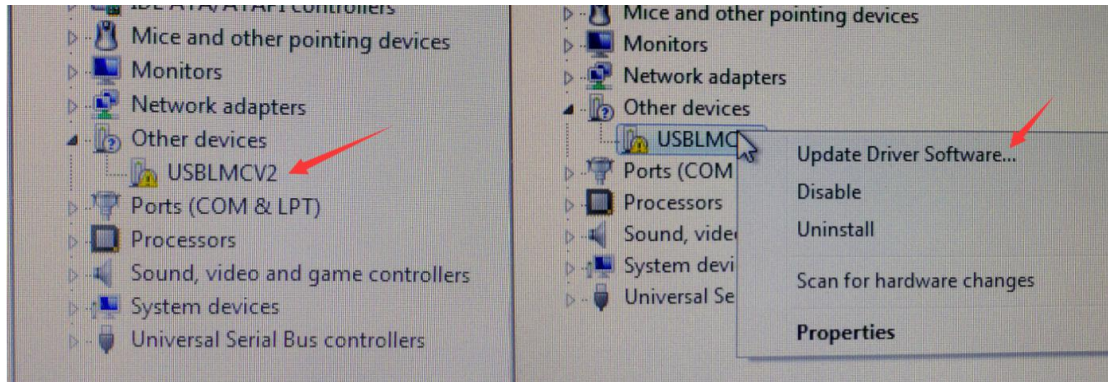
Step 1

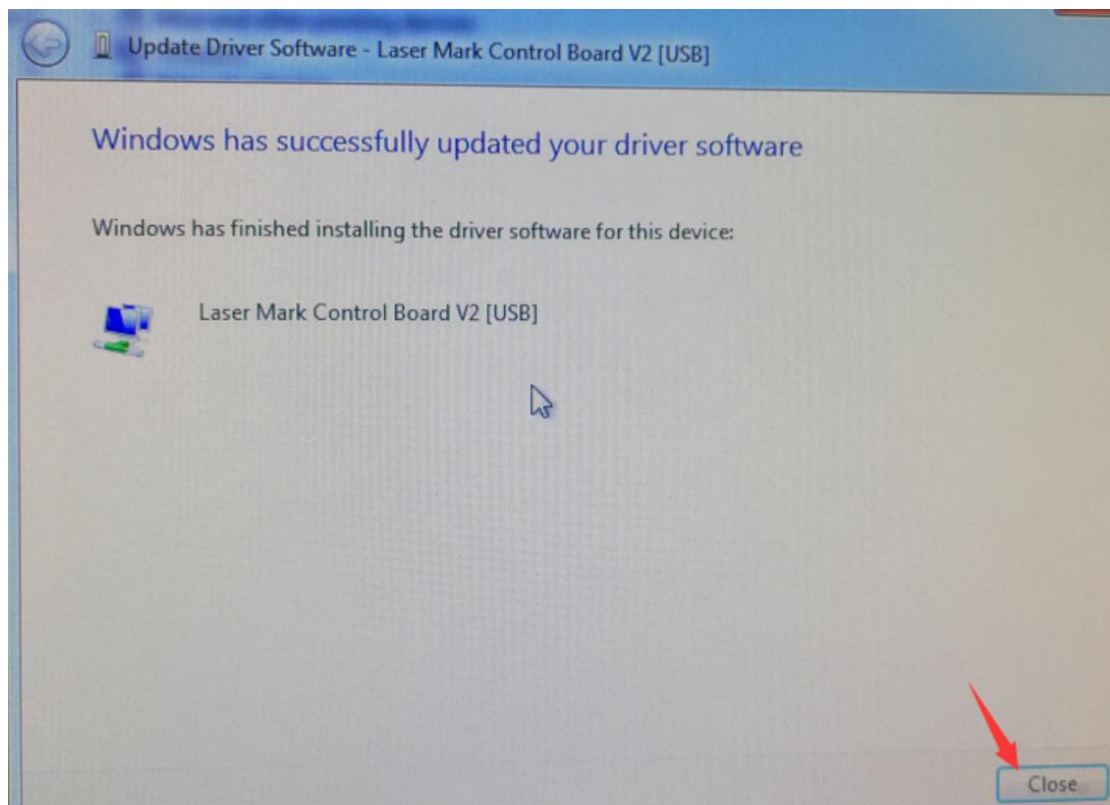
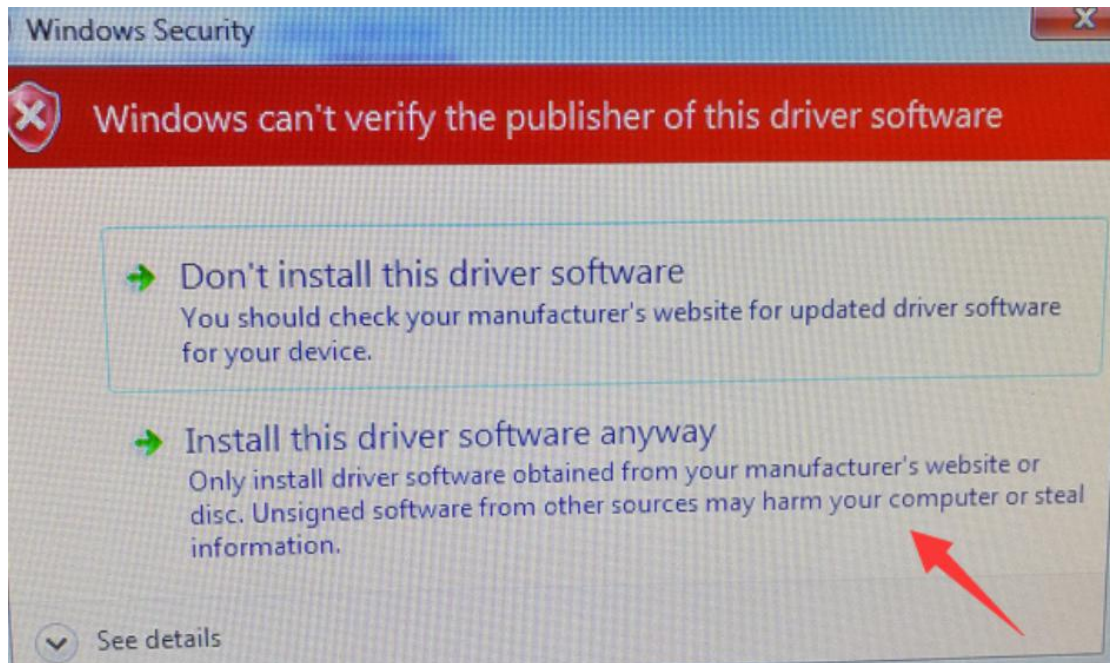
Turn on the laser marking machine → right-click on “My computer” → Manage → Device Manager, check if there is a driver named BJHBS Device/laser Mark Control BoardV2, if yes, it indicates that the board driver is working fine. In this case, please skip step2.



Step 2


If the driver BJHBS Device/laser Mark Control BoardV2 is not there, please find the uninstalled driver USBLMCV2 and right-click on it. Install the driver as below pictures demonstrate.



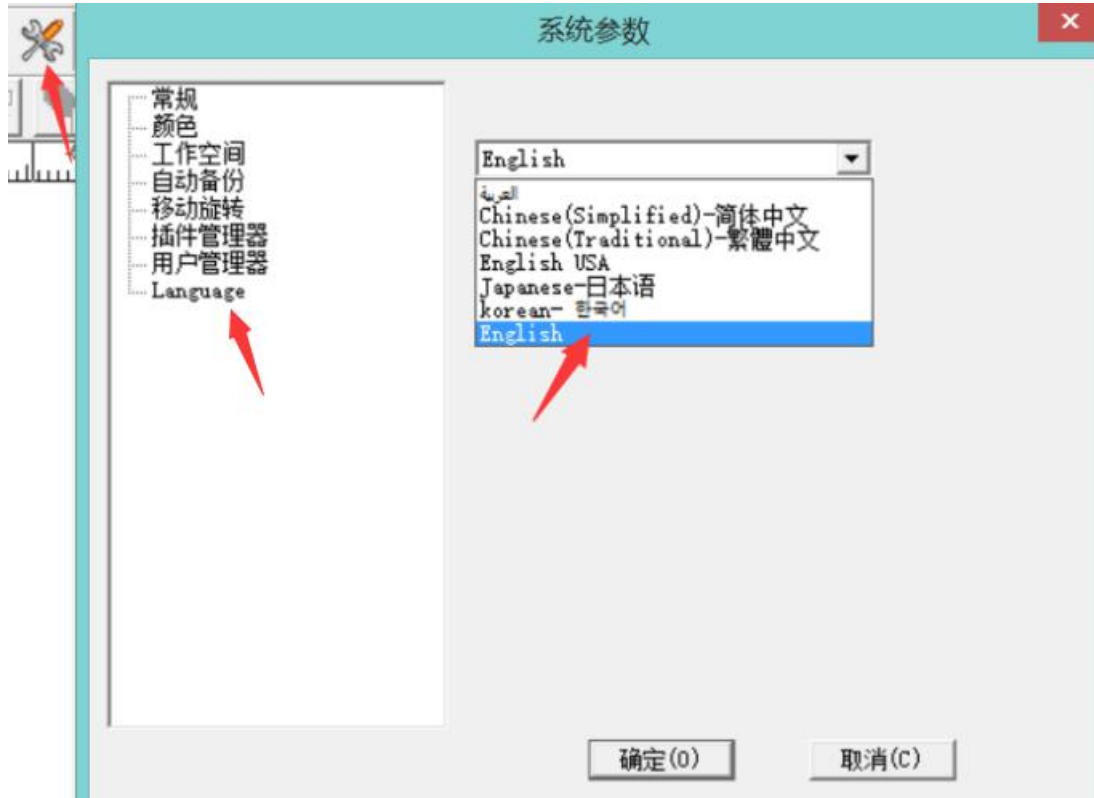


Step 3

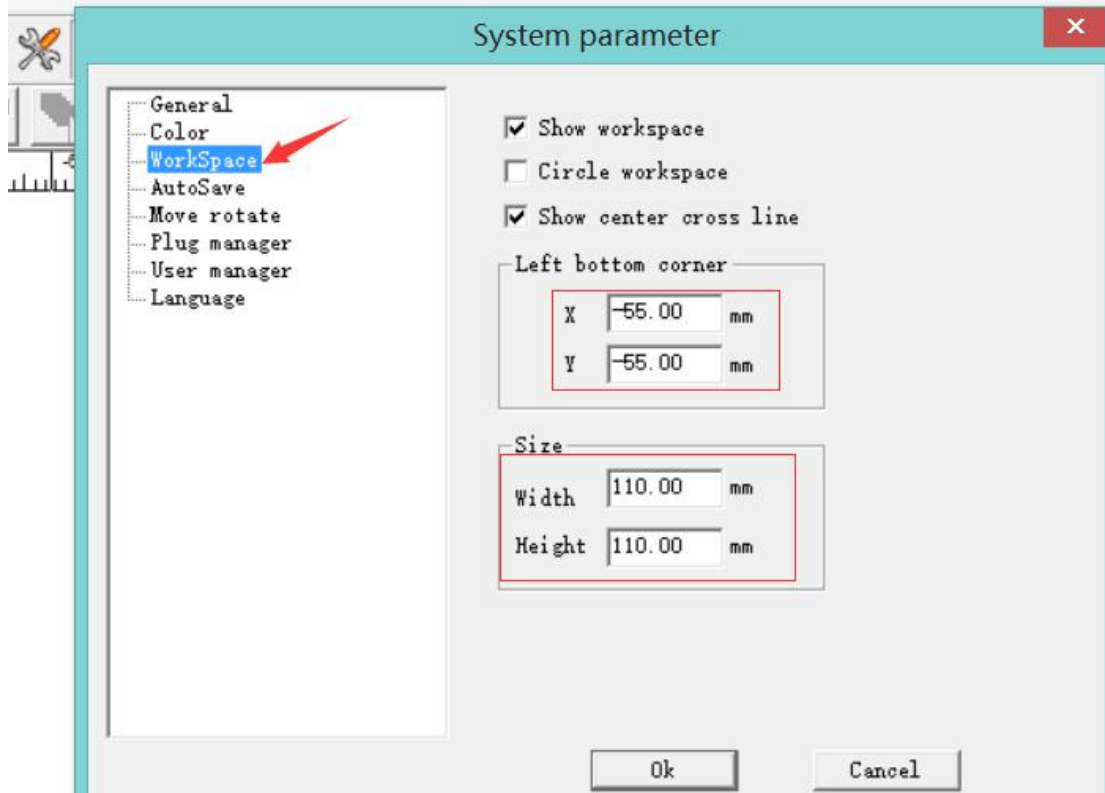
Run EzCad and choose the preferred language and workspace/marketing area.

Single-click on the System parameter icon. (the pointed one) 

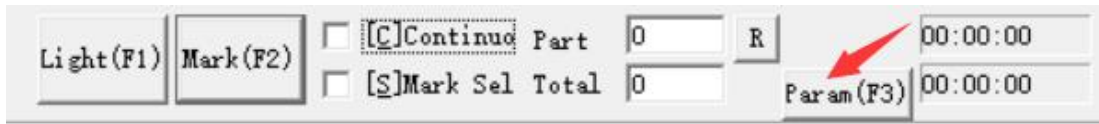
Choose your preferred language as below. Please note that you have to close and rerun EzCad to activate this setting.



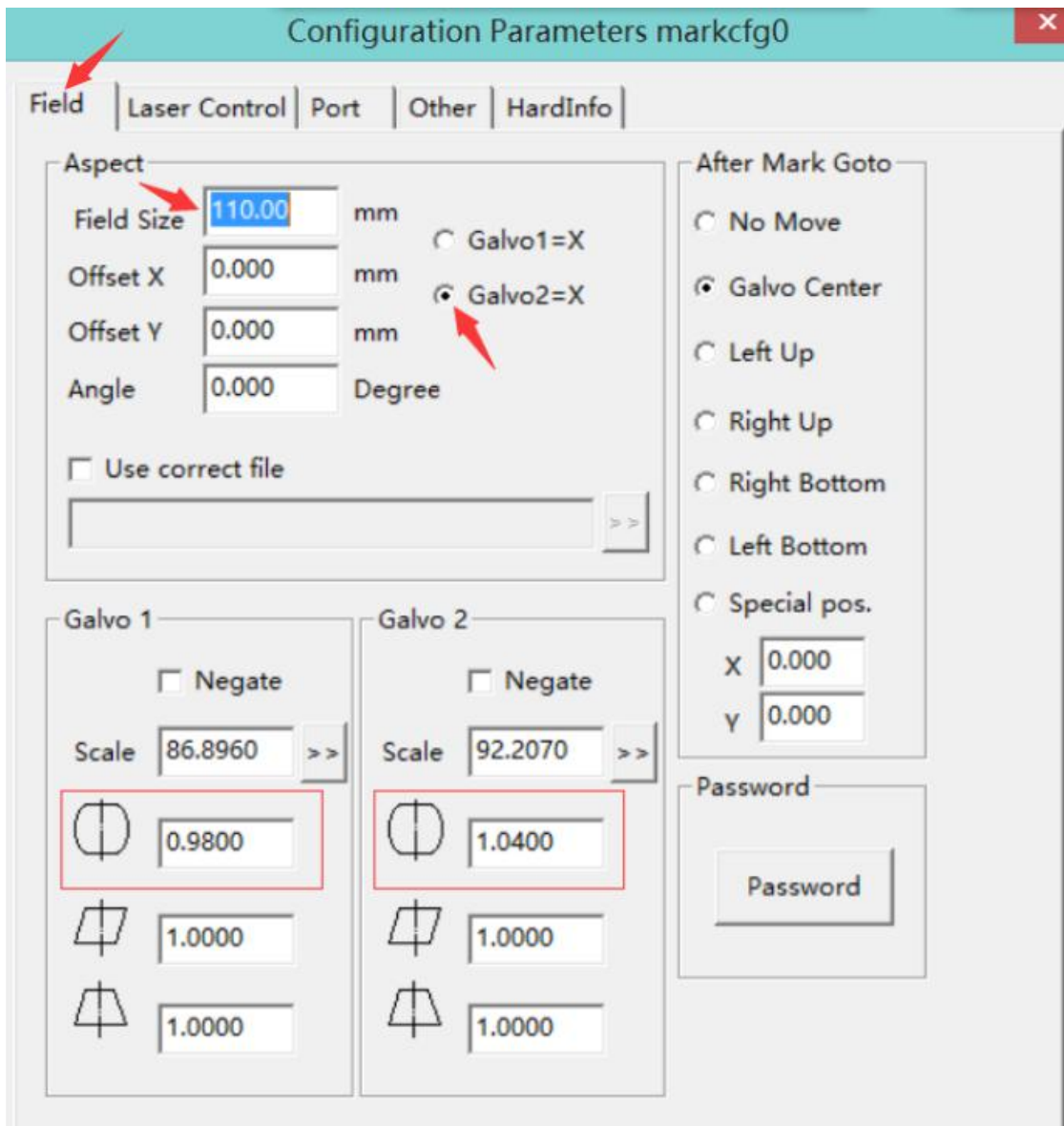
To change WorkSpace/marking area, please follow below picture. (Here takes 110x110 as an example)



Step 4 Single-click on/Press F3 to change software parameters.

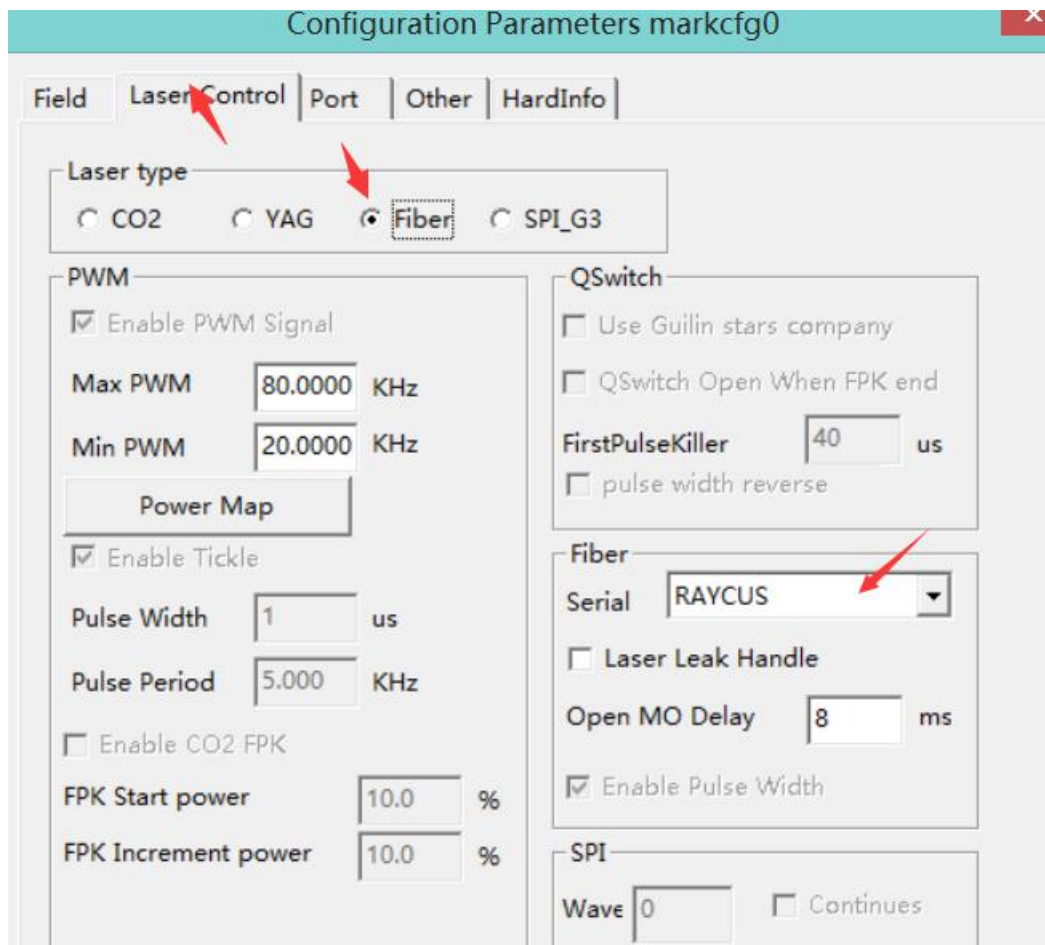
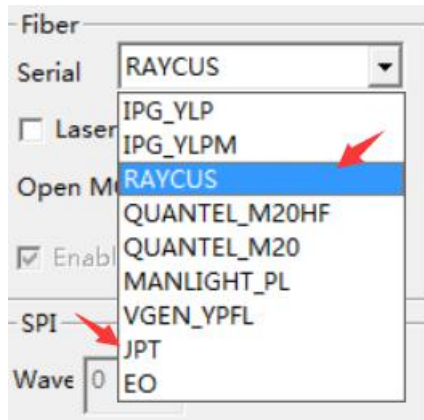


Below takes 110x110 lens as an example, please input or choose as the following pictures show. Please note: these two parameters right below are meant to correct a distortion.



Choose the right laser brand as below:

Laser Control → Laser type → Fiber → Choose your laser brand in the dropdown menu. (In this case, it's RAYCUS)



Port settings

The following picture is for the laser marking machine **without** an enclosure.

Field | Laser Control | **Port** | Other | HardInfo

Stop mark input port

Stop prompt message

0

1

2

3

4

5

6

7

Door IO

Inport NULL HIGH

Laser Ready IO

Inport NULL HIGH

Outputport NULL HIGH

Laser power IO

Port NULL HIGH

Red Light Pointer IO

Outort 0 HIGH

Inport NULL HIGH

Marking IO

Outort NULL HIGH

Marking Finish IO

Outort NULL HIGH

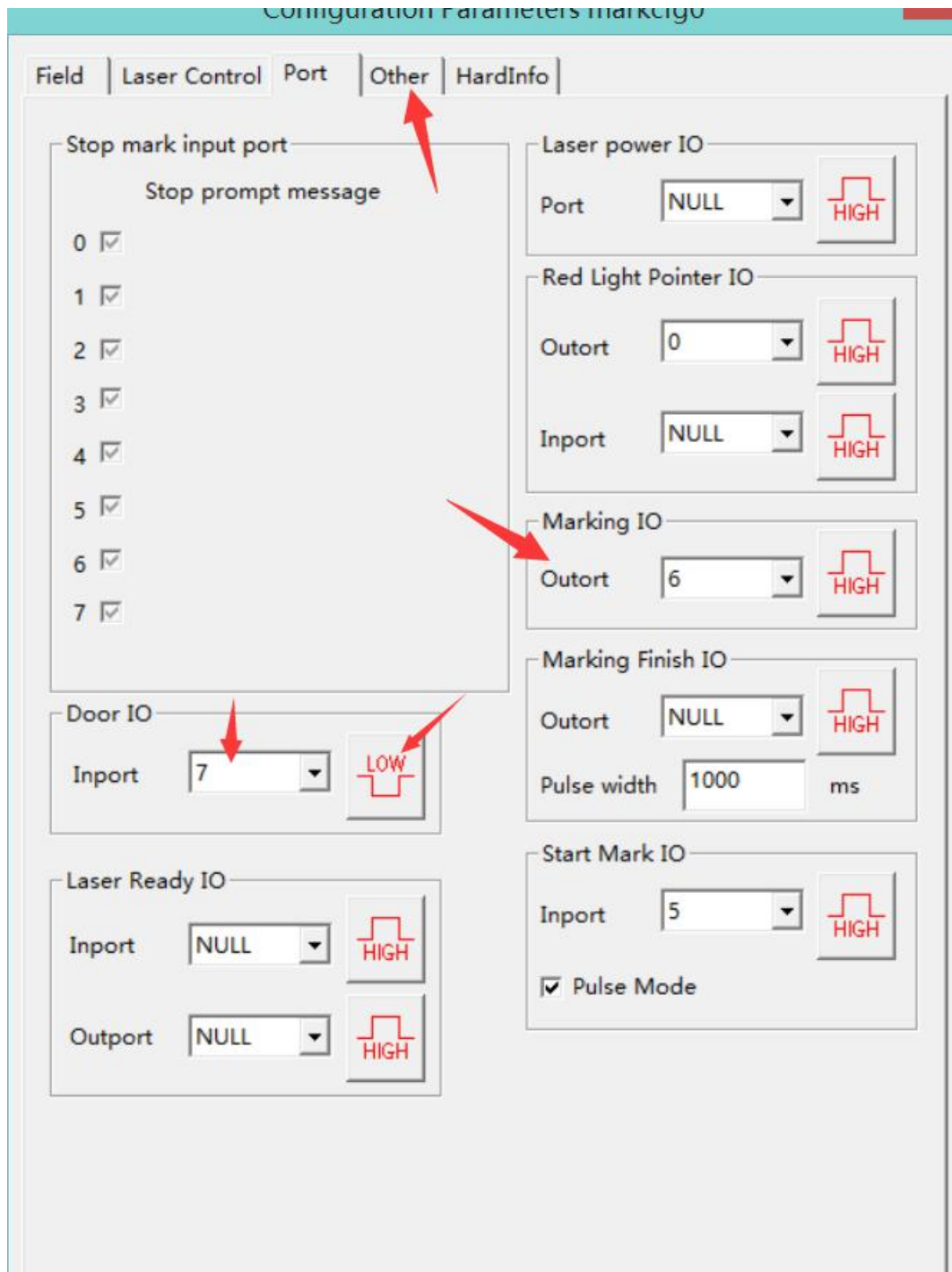
Pulse width 1000 ms

Start Mark IO

Inport 5 HIGH

Pulse Mode

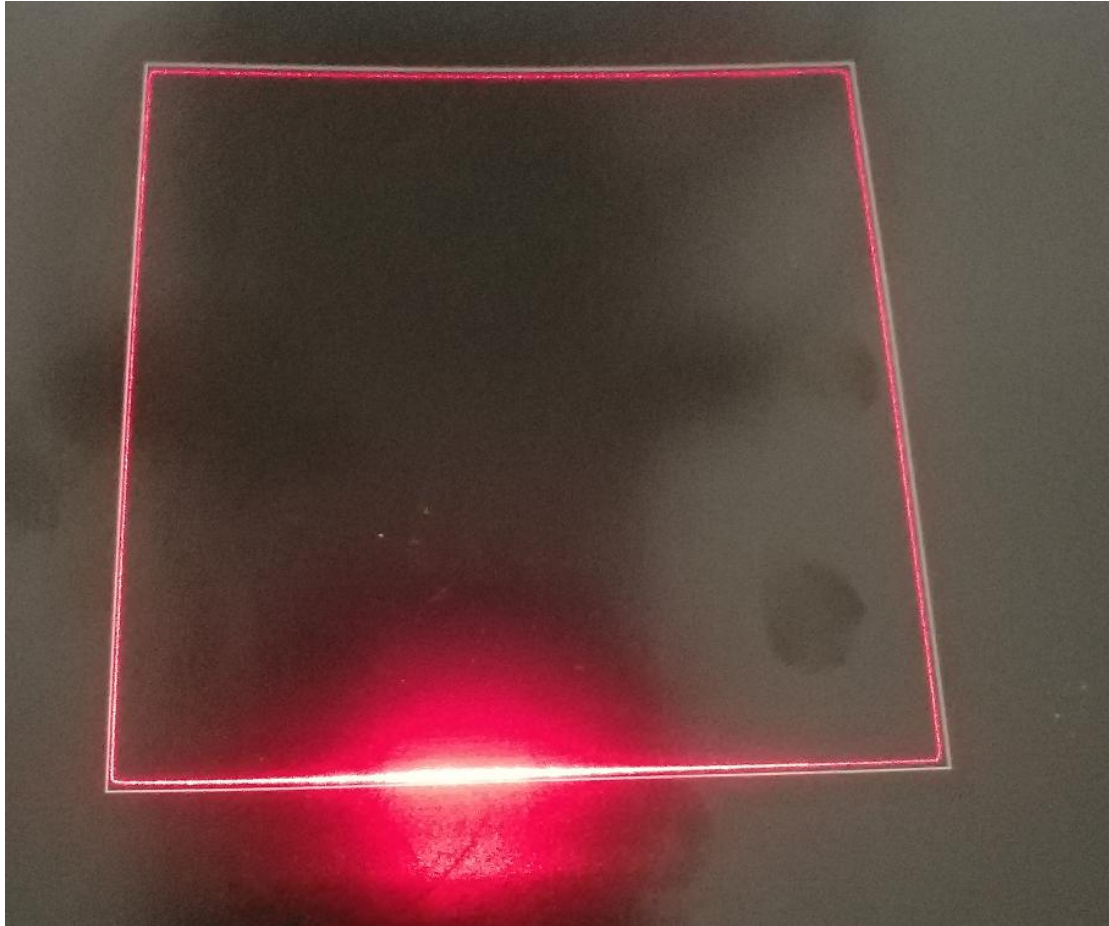
The following picture is for the laser marking machine **with** an enclosure.



Don't forget to click on OK button to save the change you've made on the setting.

Step 5. Regulate the red-light square.

Draw an 80mmX80mm square on the software and press F2 to mark it on a board that's been put under the scanner. Make sure the board is larger than 80x80mm. Don't move the board after the marking and press F1.

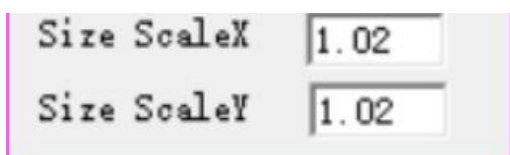


As the above picture shows, the red-light square (AKA marking preview) doesn't coincide with the real marking. This is where regulation should be applied.

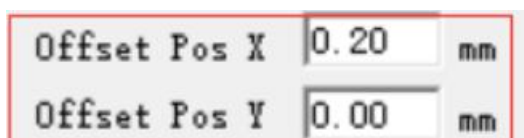
Click on or press F3 → Other → Red light pointer

Amend offset pos XY value and Size ScaleXY value.

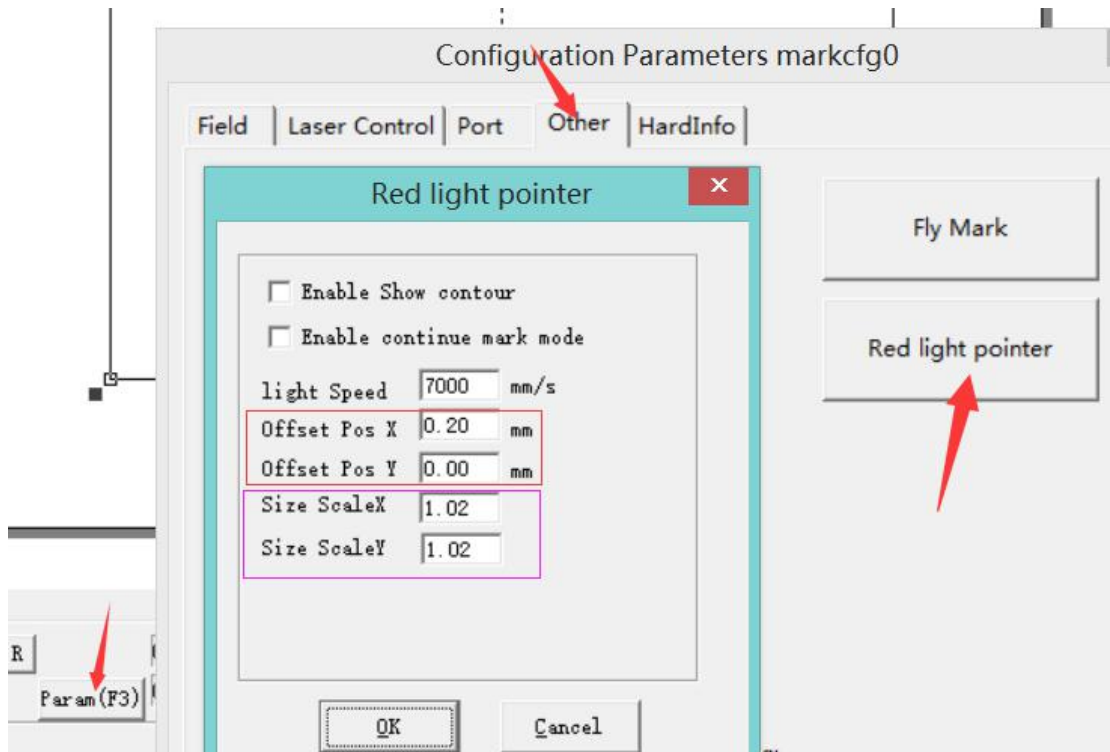
Usually, input 1.02 for Size ScaleXY value.



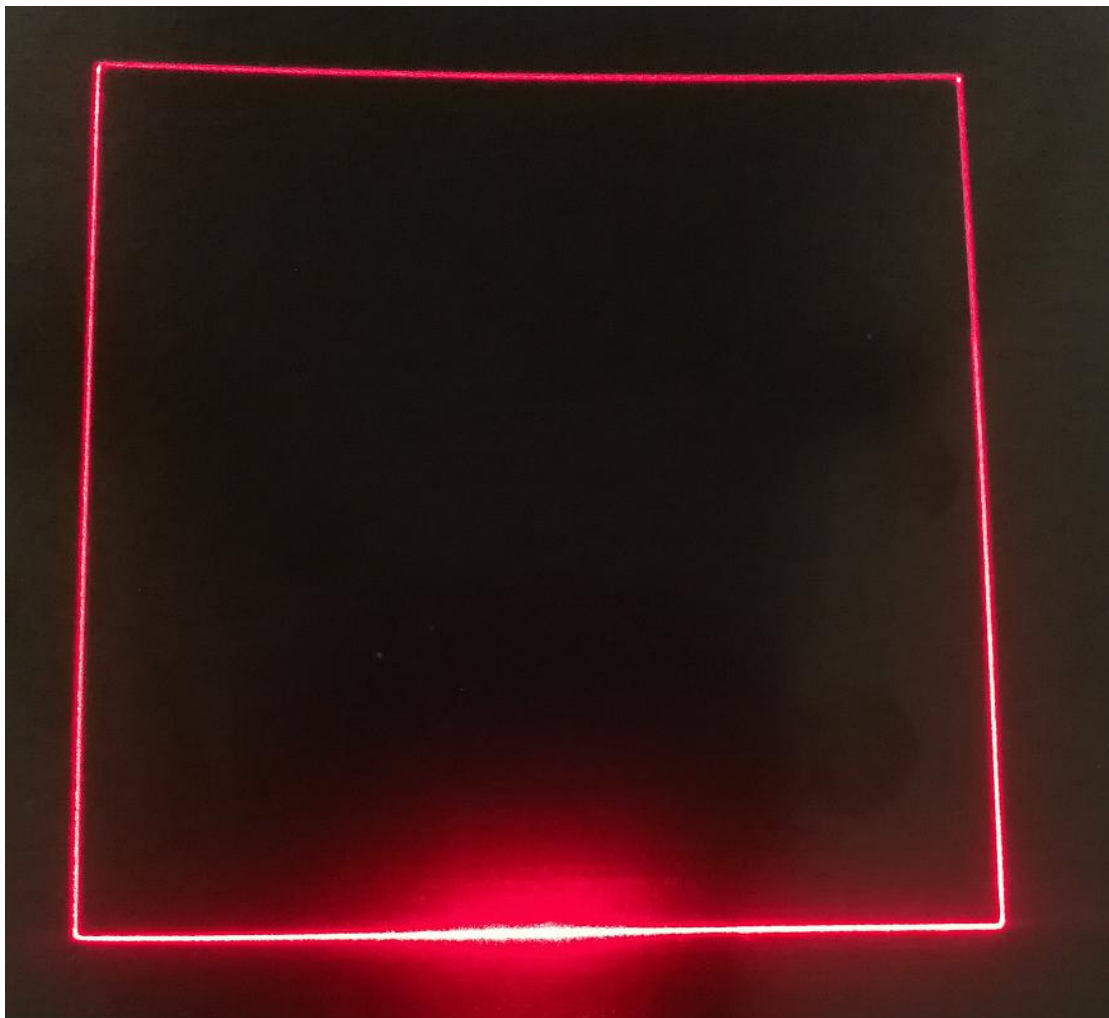
Fine-tune offset pos XY according to the real deviation.



- + 0.1X represents red light moves to the right by 0.1mm.
- 0.1X represents red light moves to the left by 0.1mm.
- + 0.1Y represents red light moves up by 0.1mm.
- 0.1Y represents red light moves down by 0.1mm.

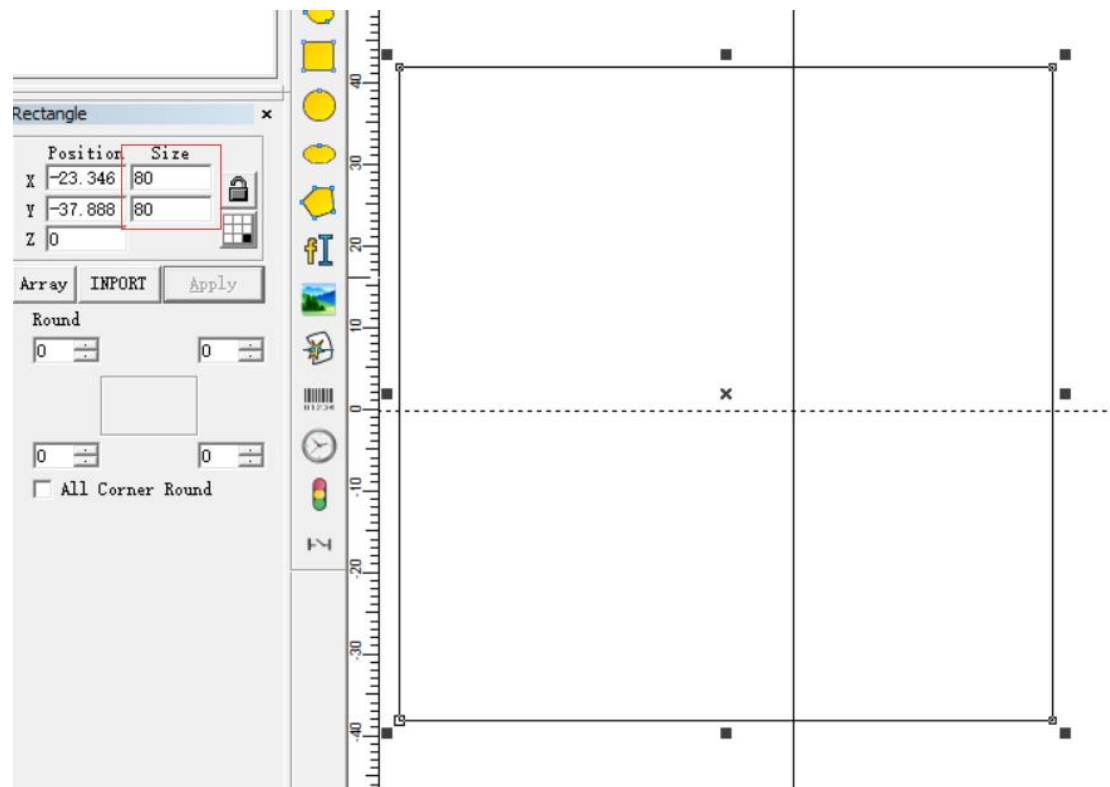


Press F1 again after the modification of parameters. As below picture shows, the red-light square coincides with the real marking perfectly, if not, continue with the fine-tuning until it does.

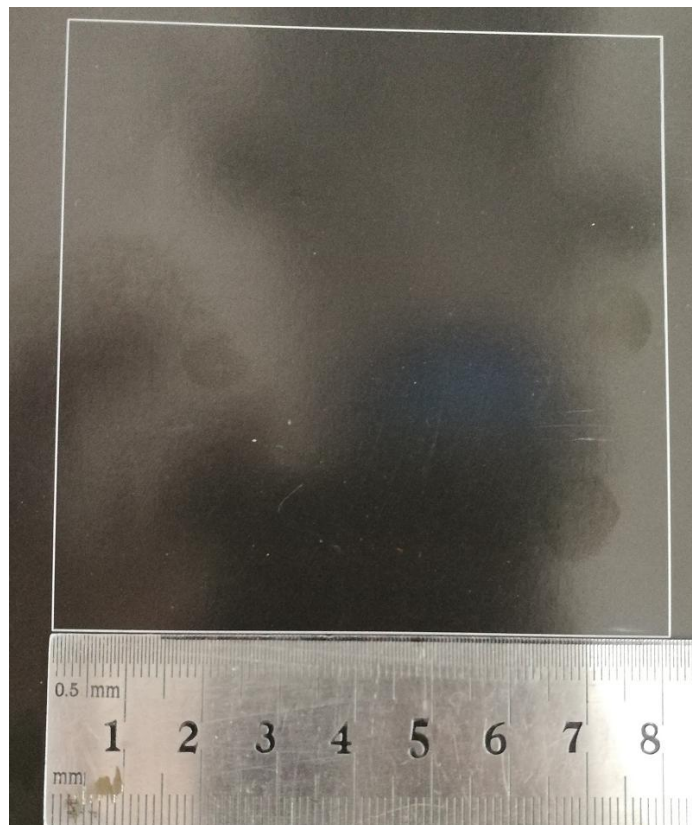


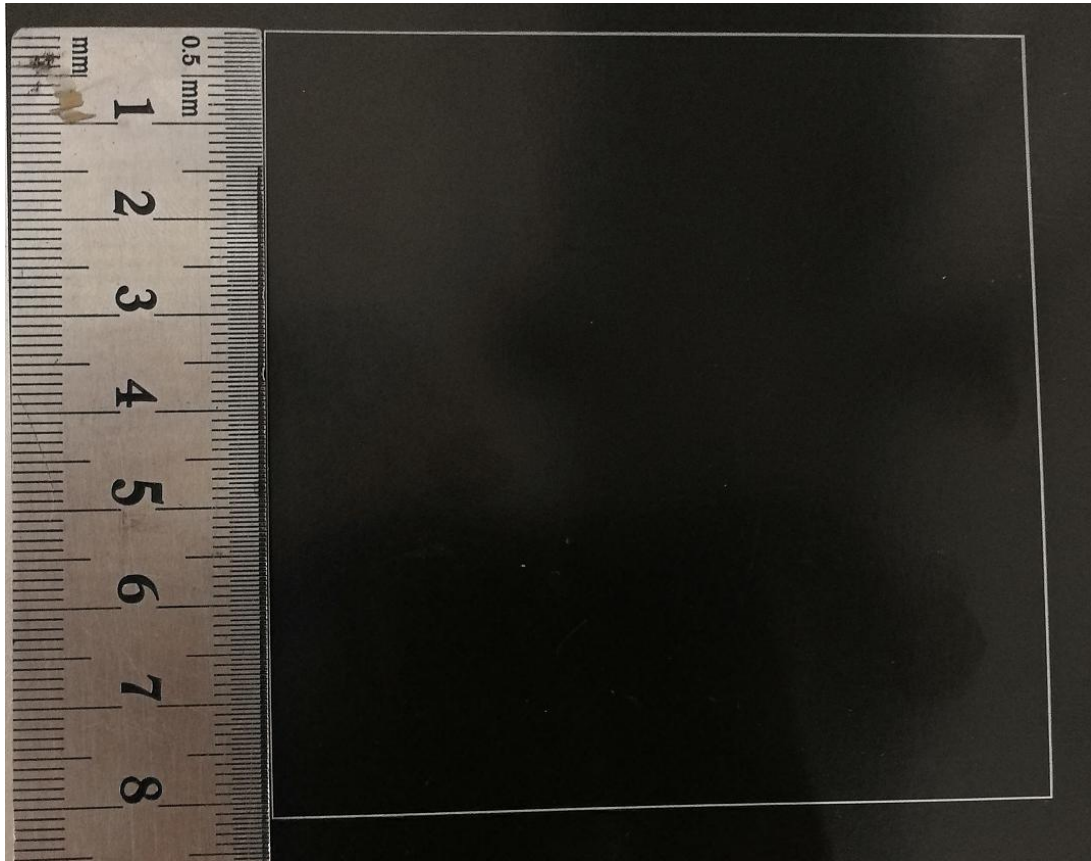
Step 6 Regulate the marking size.

Draw an 80mmX80mm rectangle on the software.



Measure the actual marking with a ruler, in our case, as below picture shows, the size of the actual marking is 82mm(X)x81.5mm(Y).





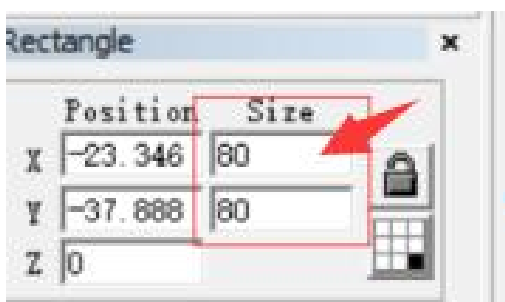
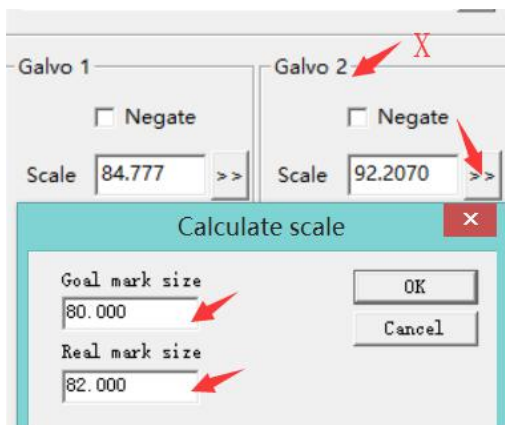
Click on/Press F3→Field

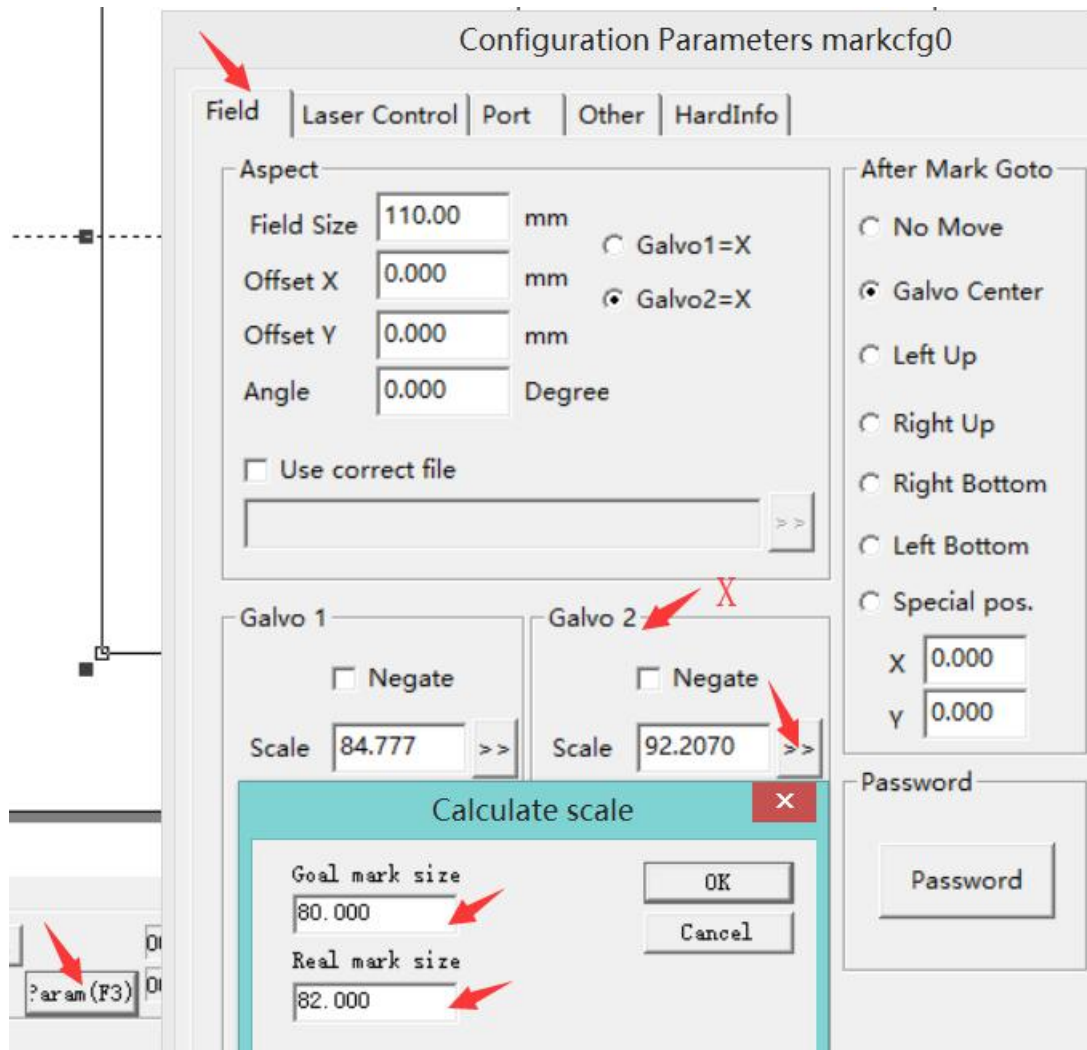
Operate as below pictures show.

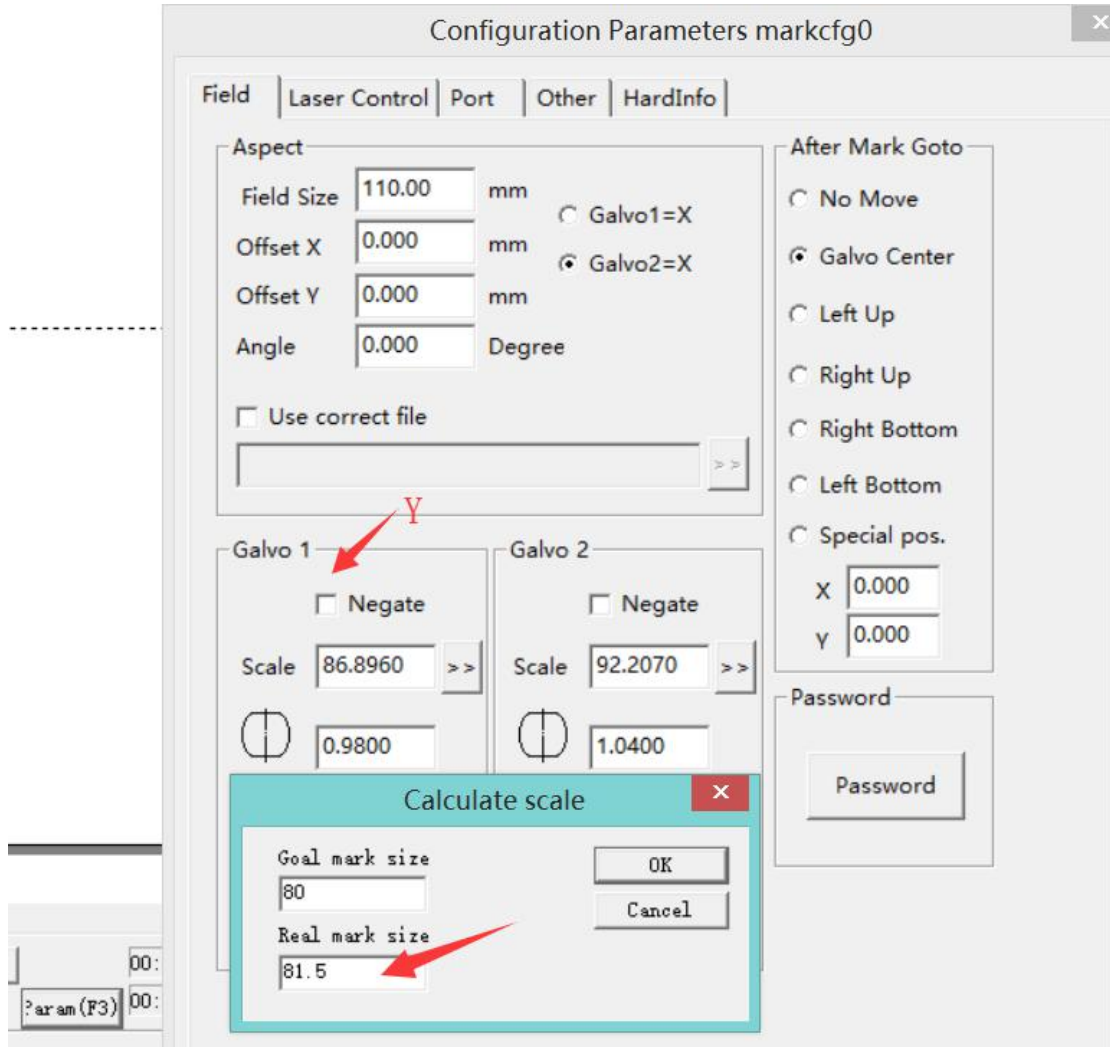
Please note:

Goal mark size value should be same as Position size value.

Real mark size value should be same as the real measurement.





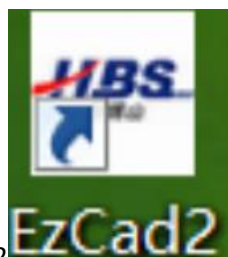


Please also note Galvo2 stands for X axis and Galvo1 stands for Y axis.

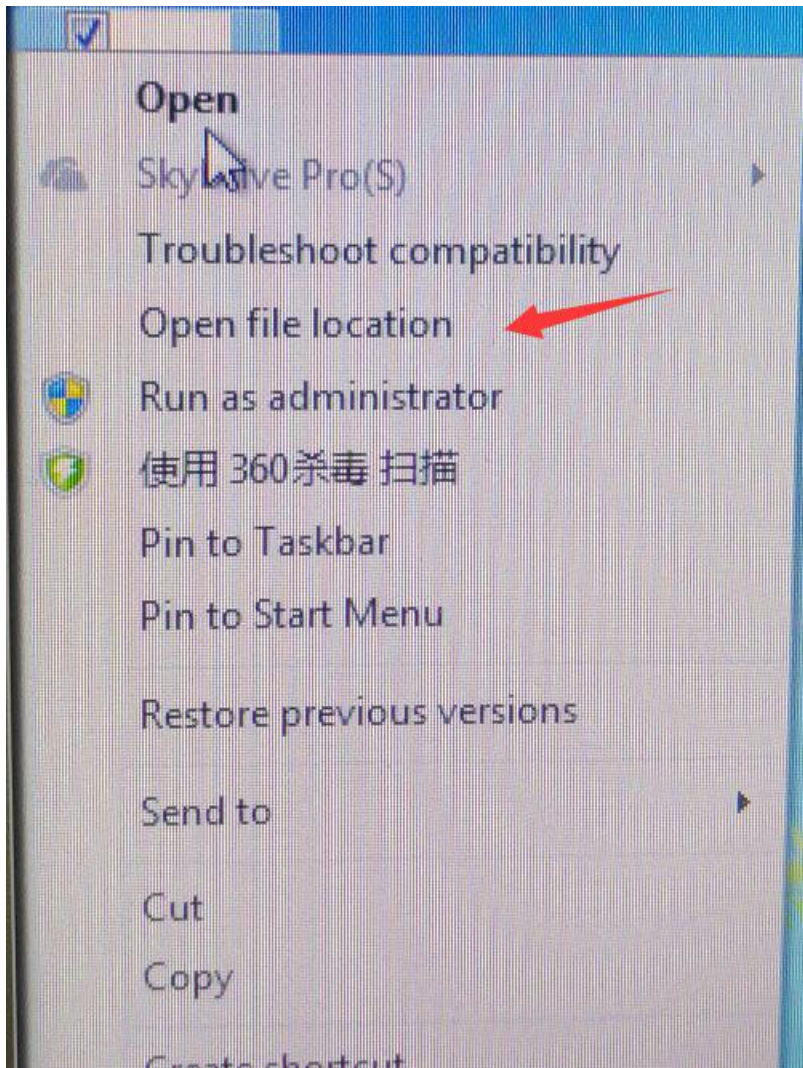
Click OK after modification, mark again and measure again, if the value is not accurate, continue the previous step until the requirements are met.

Step 7 Software backup.

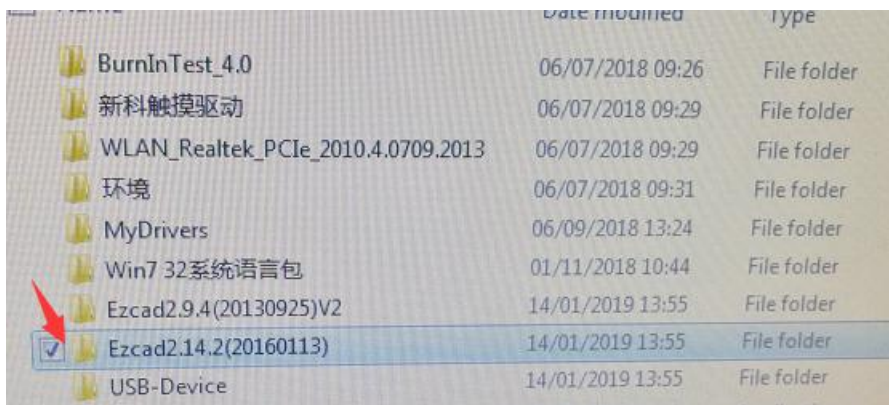
In order to avoid parameter disorder again, we suggest backing up the currently set software. If parameter disorder happens, you can delete current software folder and the backup software could be substituted. Backup software can be stored on other computers or removable disks. The details are as follows.



1. Right-click on the EzCad2 shortcut and open file location.



2. Compress this folder and store it elsewhere.



3. When there is a problem with the software, delete this folder and unzip the backup folder to the same location.

4. Open the backup folder and create a shortcut on the desktop.

