ComMarker

Laser Marking Machine

M7-mopa

Manual

Security Statement ⚠️

Before using the laser engraving machine, please read this safety guide carefully.
It mentions situations that require special attention and includes warnings of unsafe practices that can cause damage to your property or even endanger your personal safety.

1 Laser Safety

• The lasers are very powerful that can cause eye injuries. It is recommended to wear laser goggles when using the machine.And we recommend OD4 goggle or better. This laser source carries a Class 4 laser rating, which emits invisible 1064nm wavelength laser radiation with average output power over 20W. Both direct beam and reflect beam will cause permanent damage to the eyes, skin, and might cause fire
• Avoid exposing your skin to Type 4 laser beams, especially at close range
• Teens must be supervised by parents while using the machine.
• Do not touch the laser beam while it is switched on.

2 Fire Safety

• The laser beam could burn substrate when marking, which will generate extremely high temperatures and a lot of heat.
• Some materials can catch fire during the engraving process, then creating gas and smoke.
• Do not leave the machine alone during the engraving process.
• Please do remember to clean the laser machine of debris, scraps and flammable materials after use.
• When using a laser marking machine, fumes, vapors, particles are generated from the material (plastics and other flammable materials), they are potentially toxic . These fumes or airborne contaminants can be hazardous to health.

3 Material Safety

• Do not engrave materials with unknown properties.
• Materials Recommended:
Metal, Stainless Steel, aluminum,copper,silver, plastic,etc.

4 Use Safety

• Ensure that the machine has been securely fixed to prevent fires caused by accidental shifting or dropping from the workbench during work.
• It is forbidden to point the laser to people, animals or any combustible object, whether it is in working condition or not.
• Make sure the auxiliary holder is on the marking surface before pressing "mark" button, prevent the laser beam from hitting people or other objects.

Assembly

1.Place the parts on the table

2. Put the lifting pole upright，Fasten the pole with the screws

3.Put the laser head on the supporting shelf of the pole and fasten the screws to fix the laser head

4.Plug in the power cable

5. Connect the data cable

6. Unlock the handle with the screw

7.Fix the positioner if needed. it is optional because it won't affect the marking effect
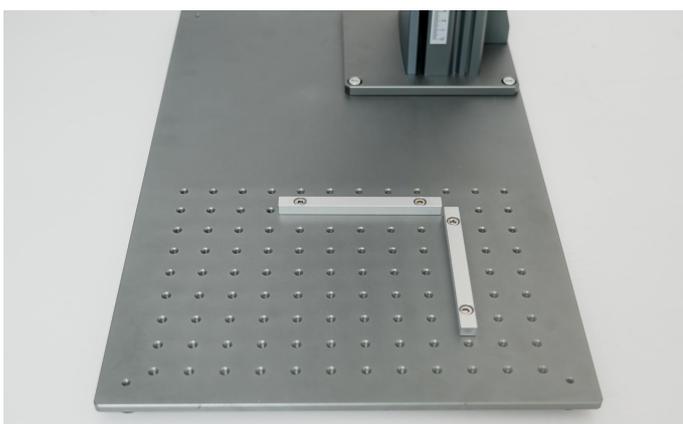
8. Connect the pedal with the machine if needed. It is also optional.

Operation Instructions

1.Install the driver

1.Right-click "this PC", click "Manage"	2.Click "Device Manager", find "USBLMCV2" in Other devices
3.Right-click"USBLMCV2" and "Update driver"	4.Select "Browse My Computer for Drivers"
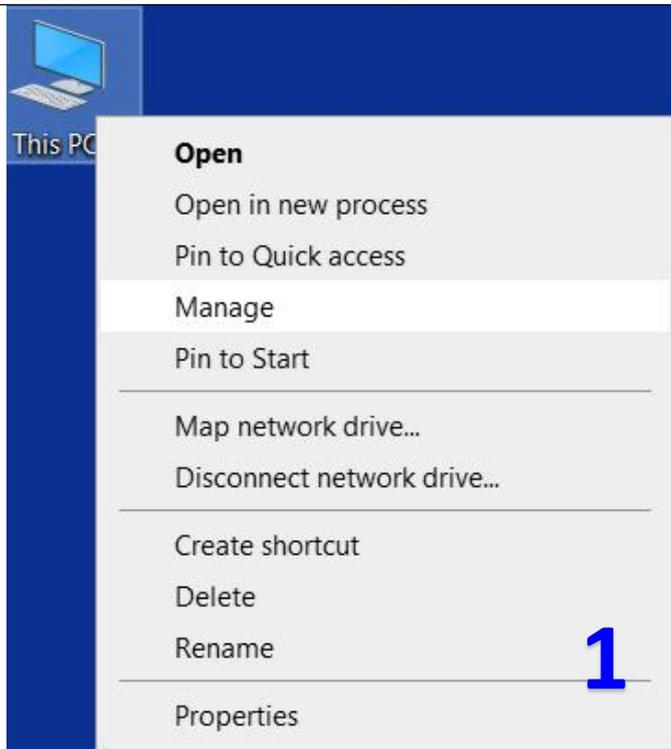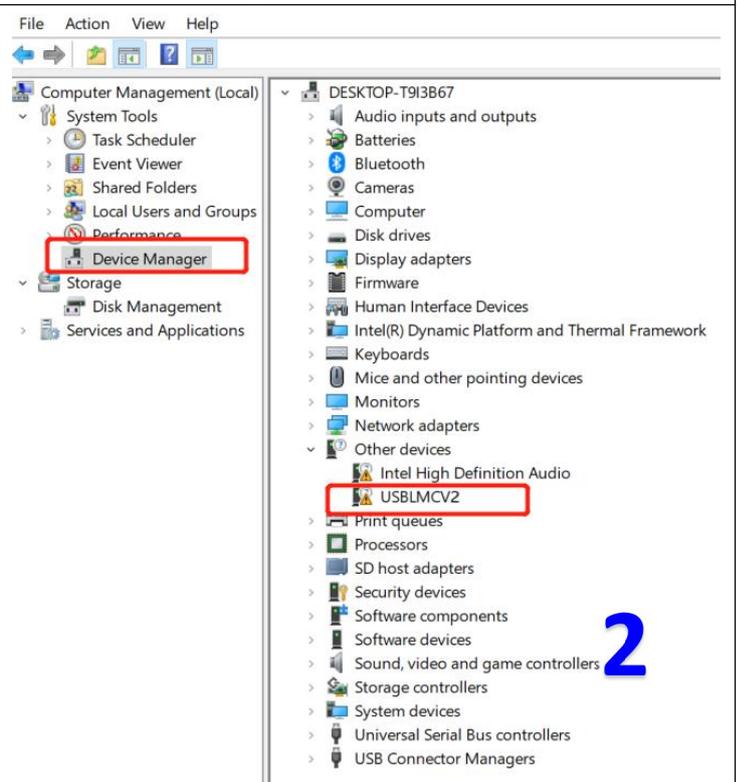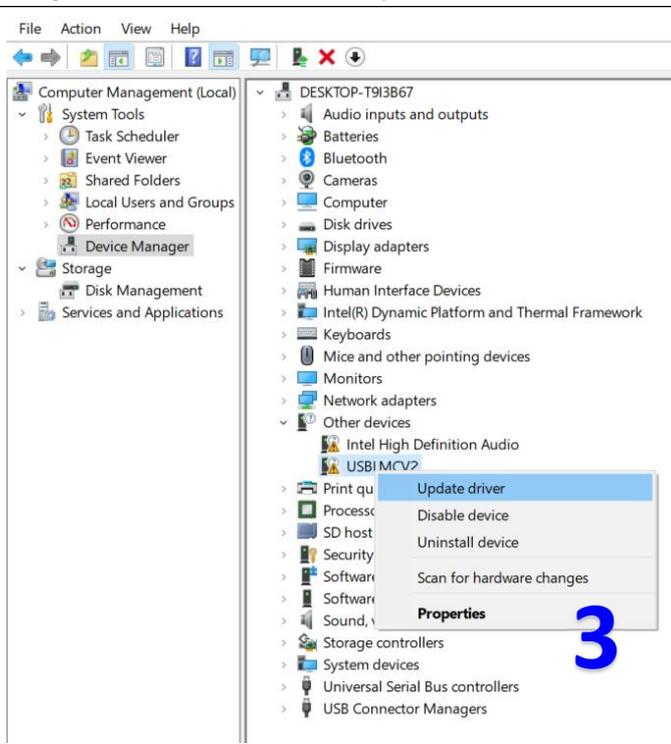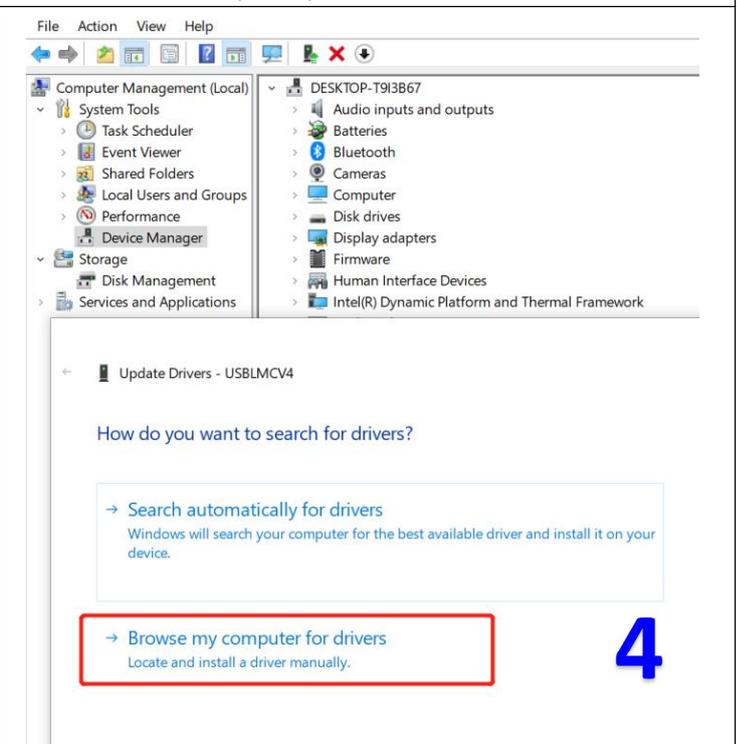
5.Find the corresponding file in the USB drive, click OK	6.Click "Install"
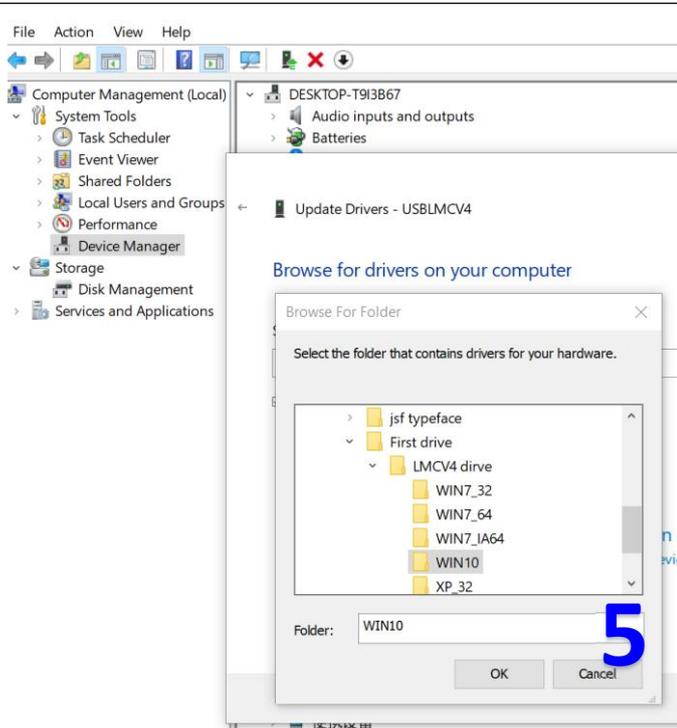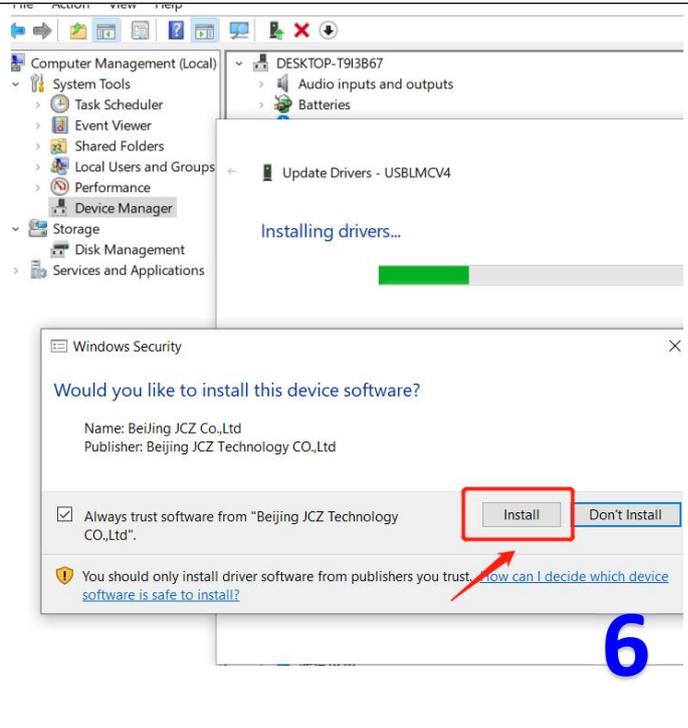
7.Click "finish" if it is successful	8.it will display "BJJCZ Device" in Device Manager
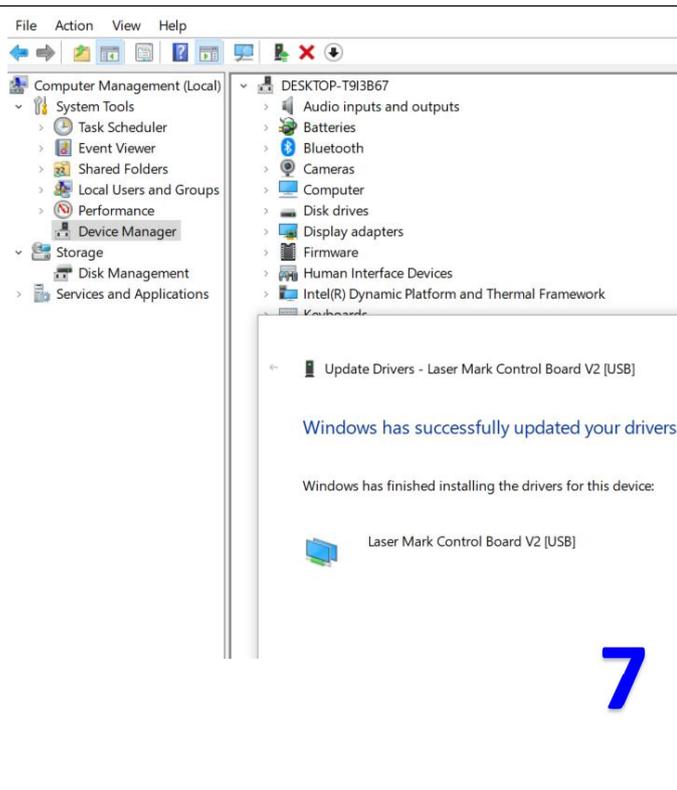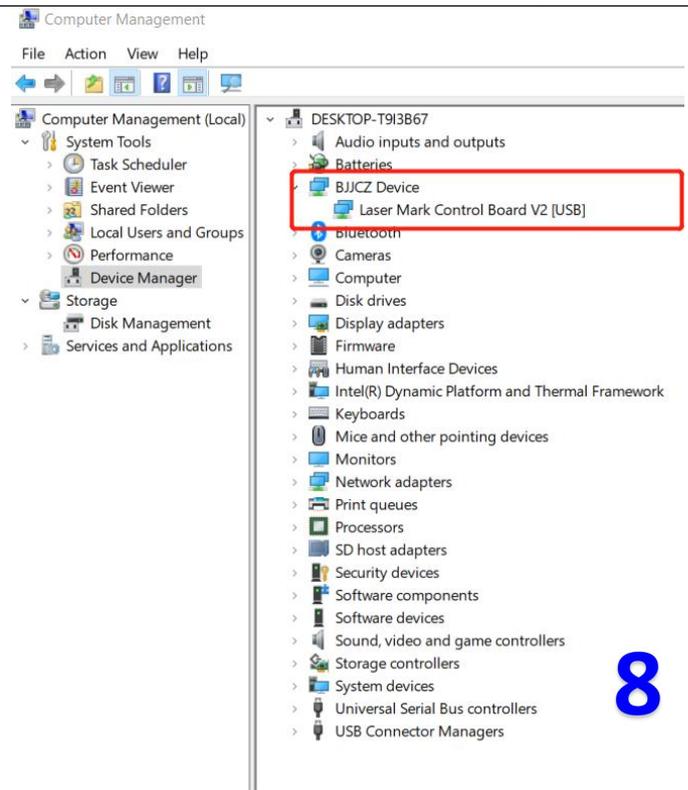
Noted: *It is recommended to copy and paste the files of the U disk to the computer desktop or other computer disks.

*If the driver installation is unsuccessful, please refer to FAQ 1

2. Open the software

Open the USB folder, open the "EZCAD for ComMarker" folder, and select the folder according to the marking area of your lens(11cm, 15cm or 20cm). Open the software "EZCAD2". You can enter "text", "picture" or "vector diagram" as shown in the figure below. It is recommended to select the text to test first
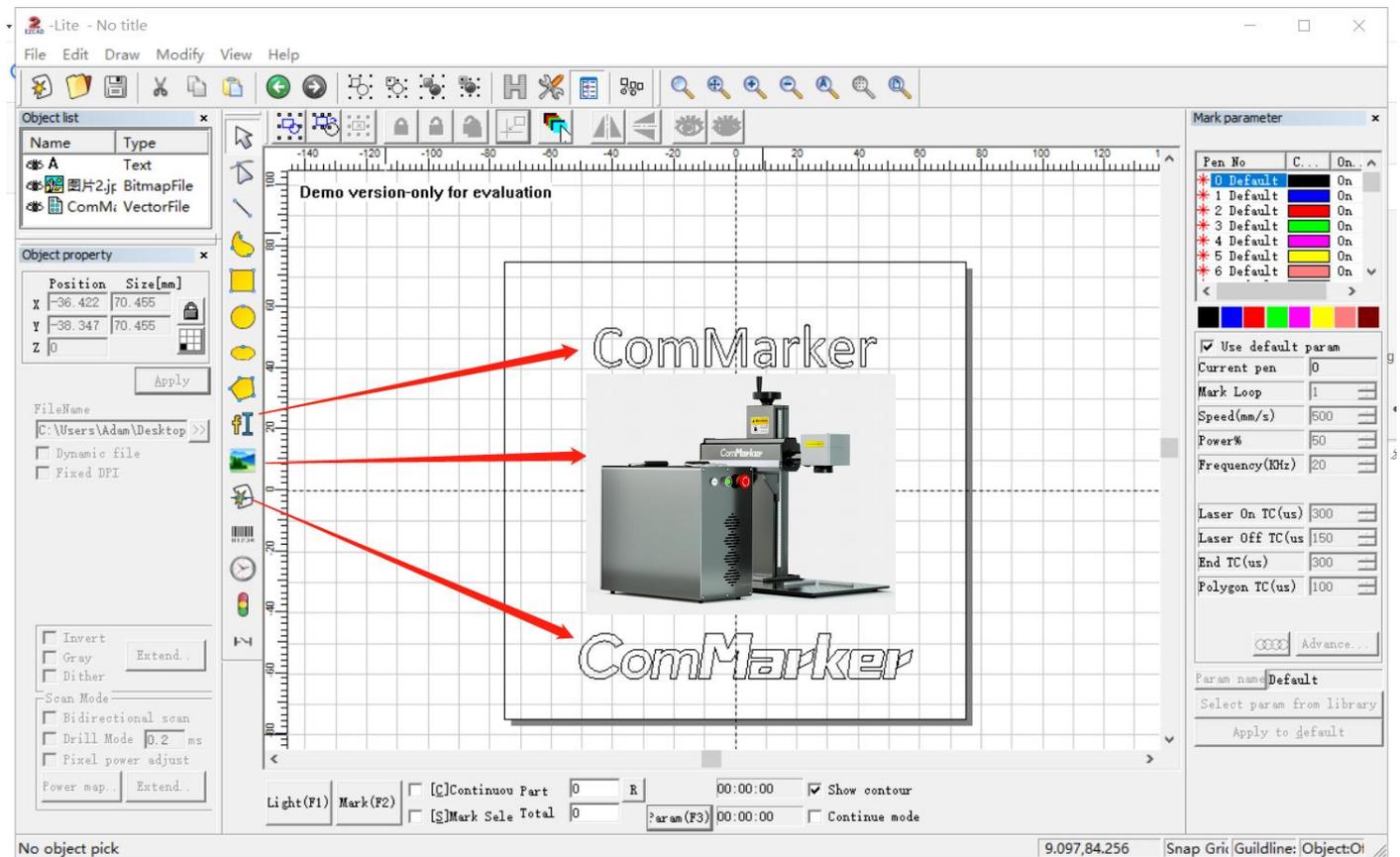
3. Import the correction file

Select "Parameter (F3)", tick "Use Correct File", click , select the file ending in .cor in the USB flash drive (or have been copied to the computer disk), and click "OK".
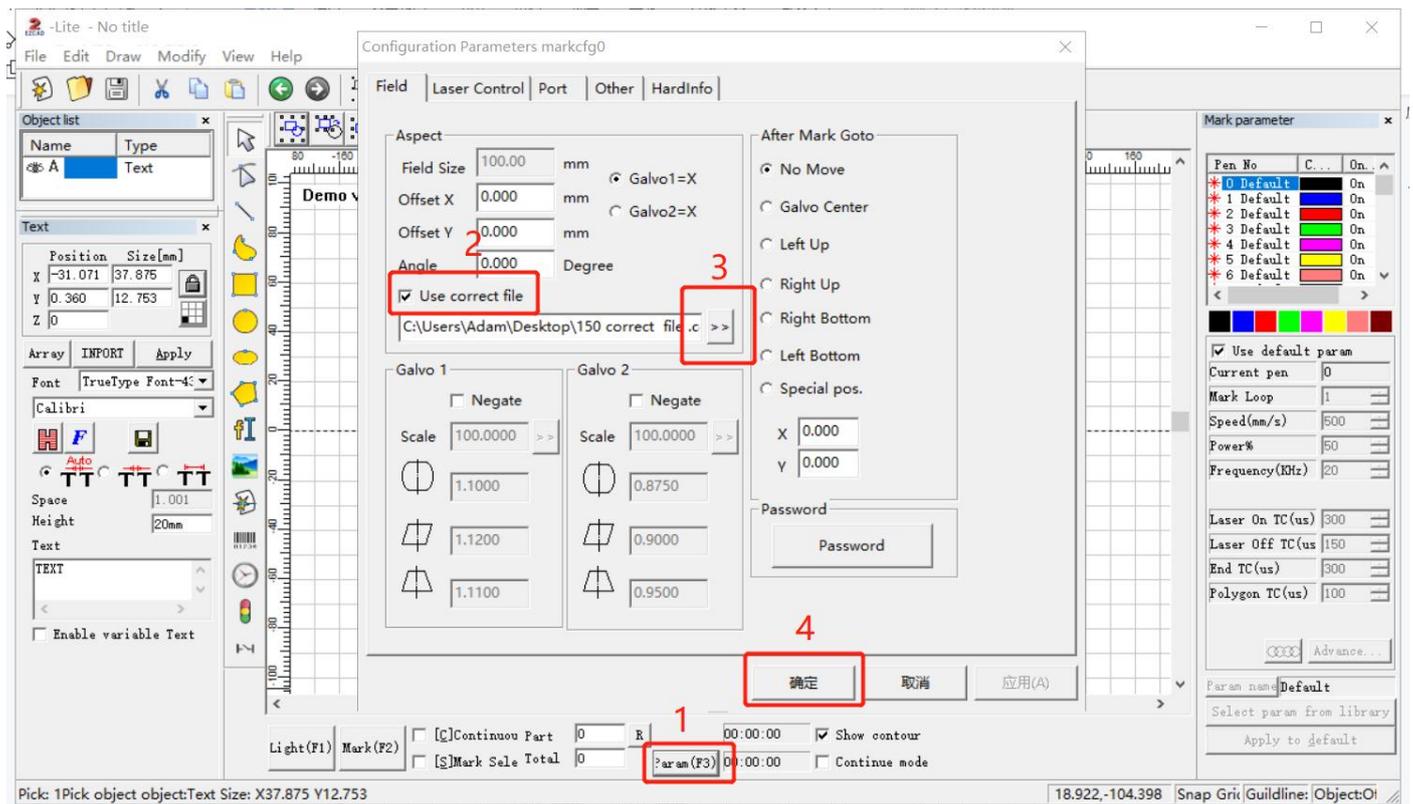
4. Adjust the focus

Adjust the hand crank handle of the column, lift the laser head, and make the three red light points gradually approach, until the three points become one point, which is the best focal length.
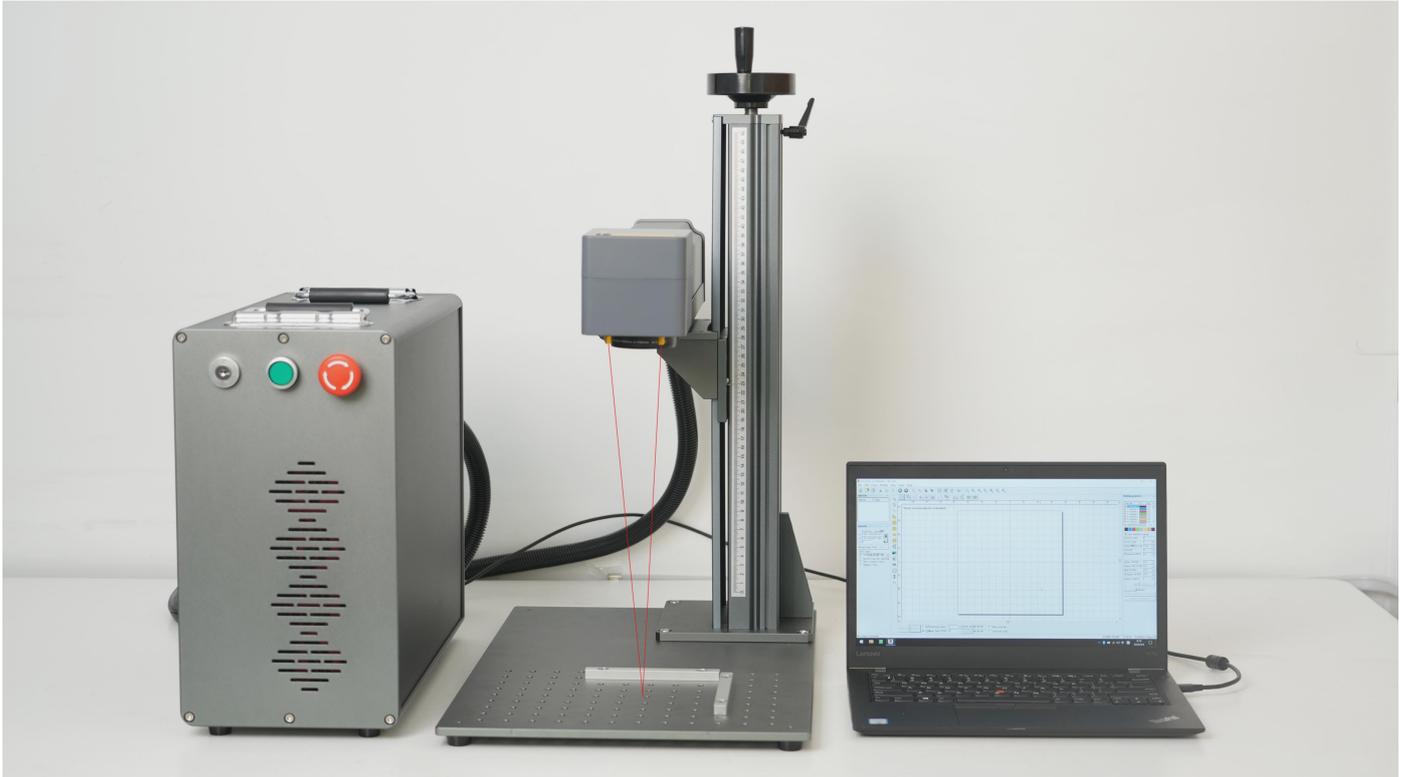
Note: Before the machine is out of the factory, we have done red light correction. At the position where the three red light spots are focused, the laser emits the strongest light. However, due to transportation reasons, the focus point of the red lights you received may shift, and the focus point is not the best focal length. Please refer to FAQ 2 at the back of this manual for debugging.

5. Marking test

Place the test engraving material on the machine. Click "Red Light (F1)", the area shown by the red light is the marking area. Tick "Default Parameters". Click "Mark (F2)" to start marking.
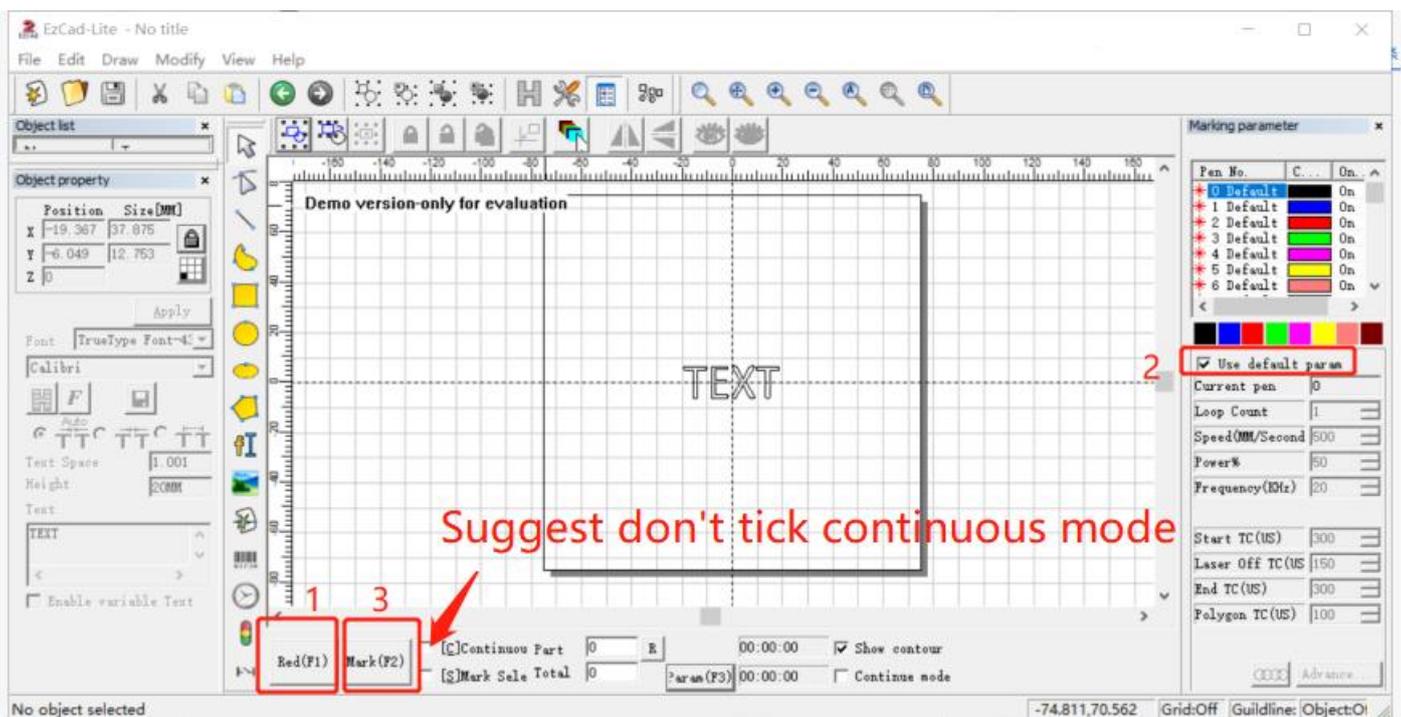
Parameters

Voltage	100V - 240V				
Laser Type:	M7-mopa				
Working Area	11cm x 11cm/15cm x 15cm/20cm x 20cm				
Wavelength	1064nm				
Marking Speed:	0- 10,000mm/s				
Accuracy	0.01mm				
Graphic Format Supported:	BMP, DXF, JPG, TIF, AI, PNG, JPG, etc				
System Supported	Ezcad2 (Compatible with Windows xp/vista 17/8/ 10) LightBurn (licence purchase needed) compatible with Mac , windows				
Cooling Type	Air Cooling				
Output Power	20w	30w	60w	80w	100w

Accessories

Power Adaptor   Data Cable

Ground Wire   USB Drive   Ruler   Foot switch

Goggles   Placing Helper   Allen Wrench
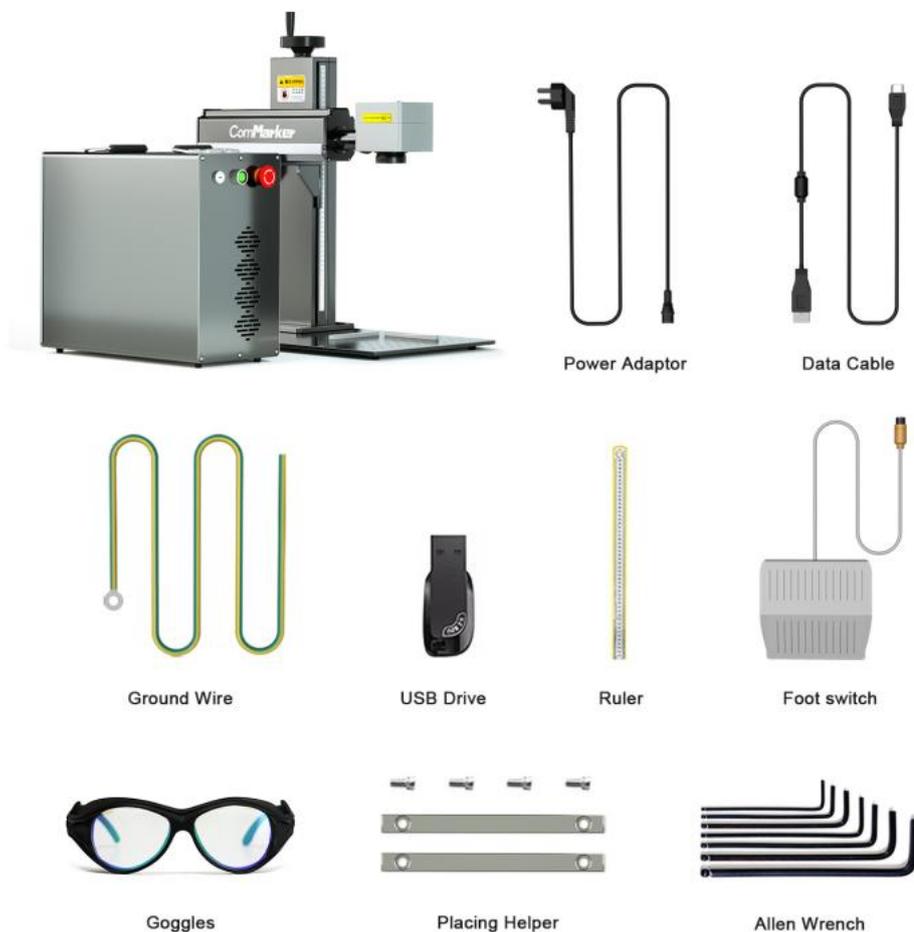
FAQ

Q1: The driver installation was unsuccessful?

*Please make sure to use the copyrighted window system, if not, please replace it with another computer.

*Please try to replace a data cable.

*It may be a computer port problem or a computer board connection problem, please try with another computer.

Q2：The overlapping position of the double red light is not the best focal length.

The measuring focal length of this machine is _____ mm, and the measuring distance is the length from the center line of the galvanometer to the surface of the engraving material. This parameter is measured manually, and each device has different focal lengths due to changes in laser sources and field lenses.

Please operate as the following steps:

1.Place the stainless steel test plate on the machine table	2.lift up the laser head close to the best focus point
3.Then turn on the machine and the auxiliary red light, connect the computer with the machine	4.Import the "TEXT" for testing , select the default parameters, and tick the "continuous part" button.
5.Press "light" to ensure it'll mark on the test material. Click "mark", and the laser is in continuous marking state	6.At the same time, manually lift the laser head and observe the obvious change of intensity of the laser beam. Stop when the laser emits the strongest laser
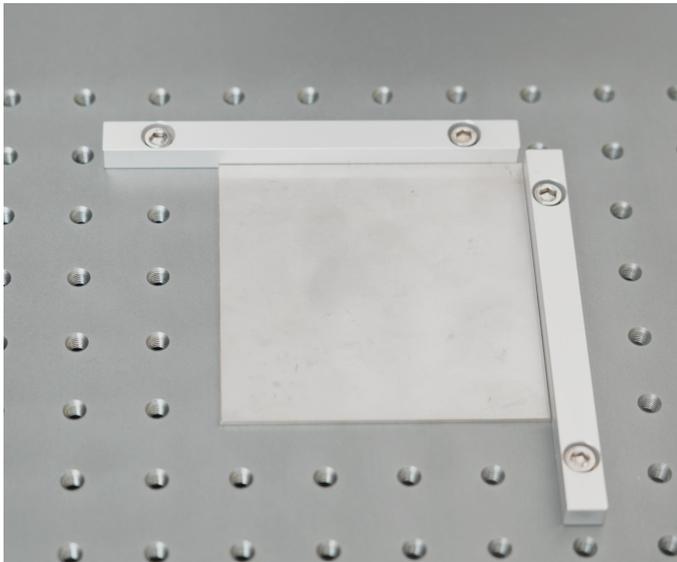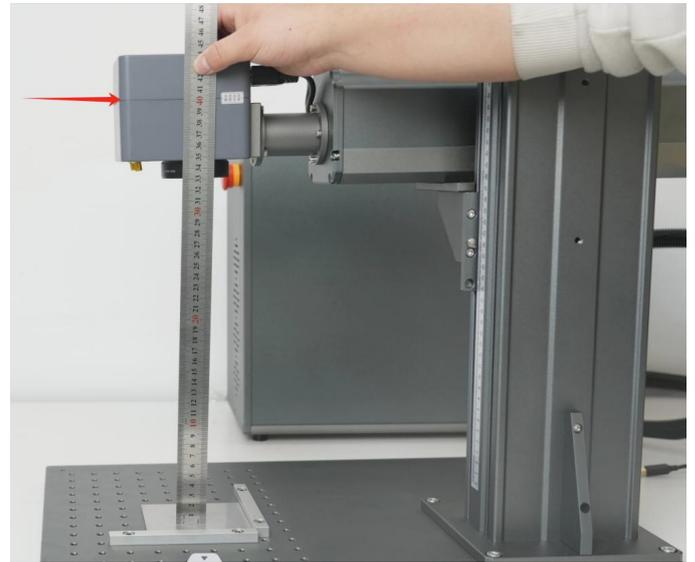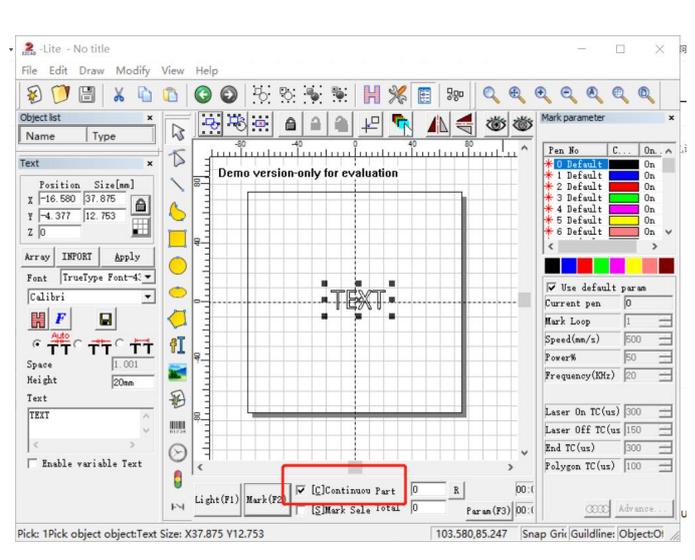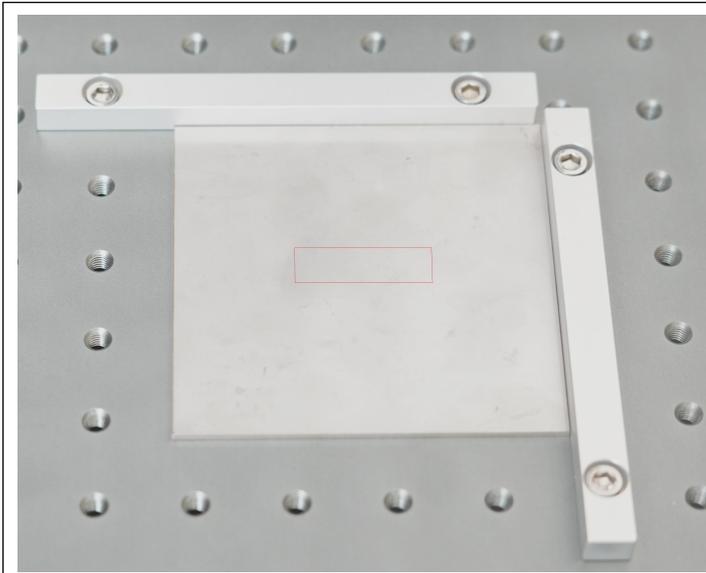
7.At this time, loosen the screws for the two beams of the auxiliary red light	8.Manually adjust the relative position of the red light dots to make them overlap.And tighten the screws

Q3: The USB flash drive is damaged and cannot be opened

*Please visit Commarker's official website to download the B3 driver and software.

*Contact after-sales staff or email us

Q4: The red light preview functions, but there is no mark or the marks are very light

*Please adjust the focal length, please refer to question 2 for debugging methods

*Contact after sales staff or email us

Q5: Can not find dongle, software will work at demo state

*The machine is not powered on, or the machine is not connected to the computer. Please turn it on and make sure the data cable is connected to the computer

*Driver is not installed successfully, try to uninstall the previous driver and reinstall "USBLMCV2"

Q6. The size of preview and the mark is inconsistent with the software display, or preview and the mark are not horizontal or vertical but with angles.

*Import the calibration file, please refer to step 3 of the operating instructions

*If the problem not solved, select "Parameter (F3)", select "Field". Input numbers in "Offset X" ,"Offset Y" or "Angle" according to the actual deviation number based on the measurement with a ruler.

*If it still doesn't work, please contact after-sales staff or email us
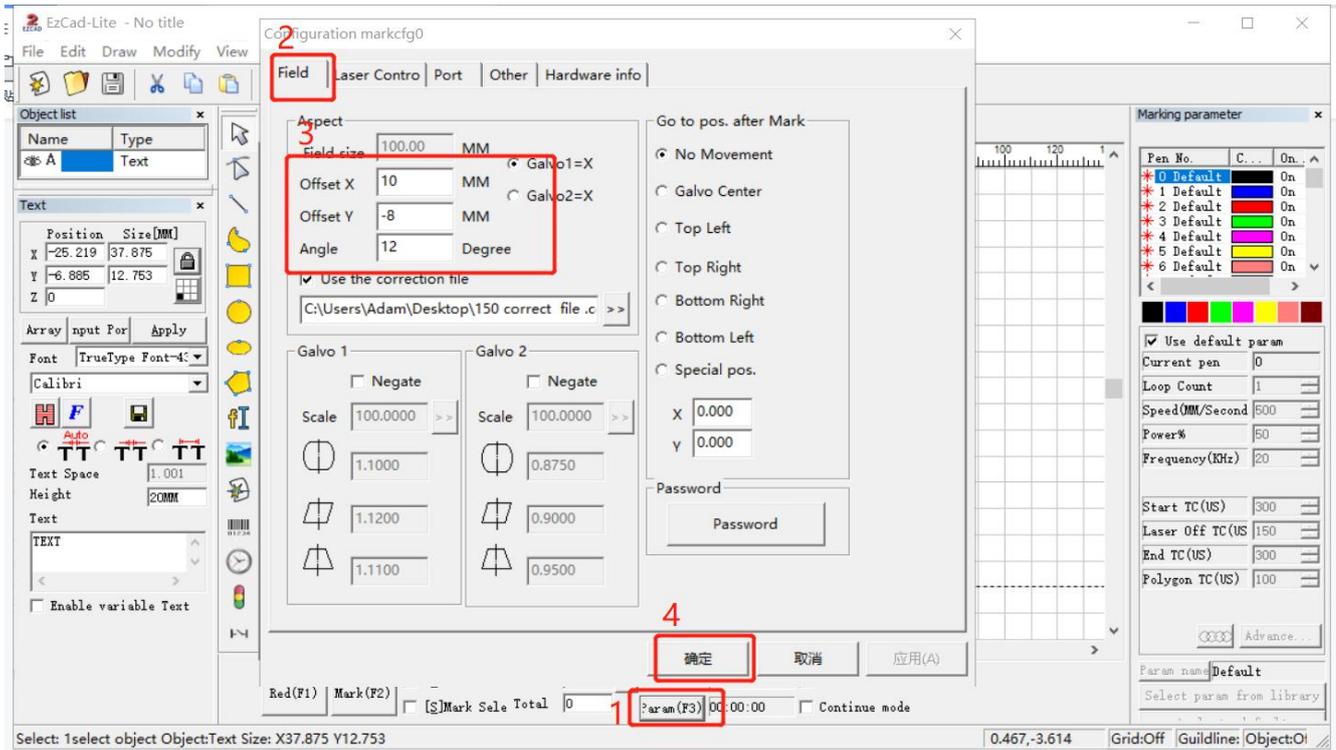
Q7: The red light preview is inconsistent with the actual engraving position

*Import the calibration file, please refer to step 3 of the operating instructions

*If the problem not solved, select "Parameter (F3)", select "Other" and "Red light pointer". Input numbers in "Offset X" and "Offset Y" according to the actual deviation number based on the measurement with a ruler. The number can be positive or negative, the red light will change in different directions at the positive and negative values.
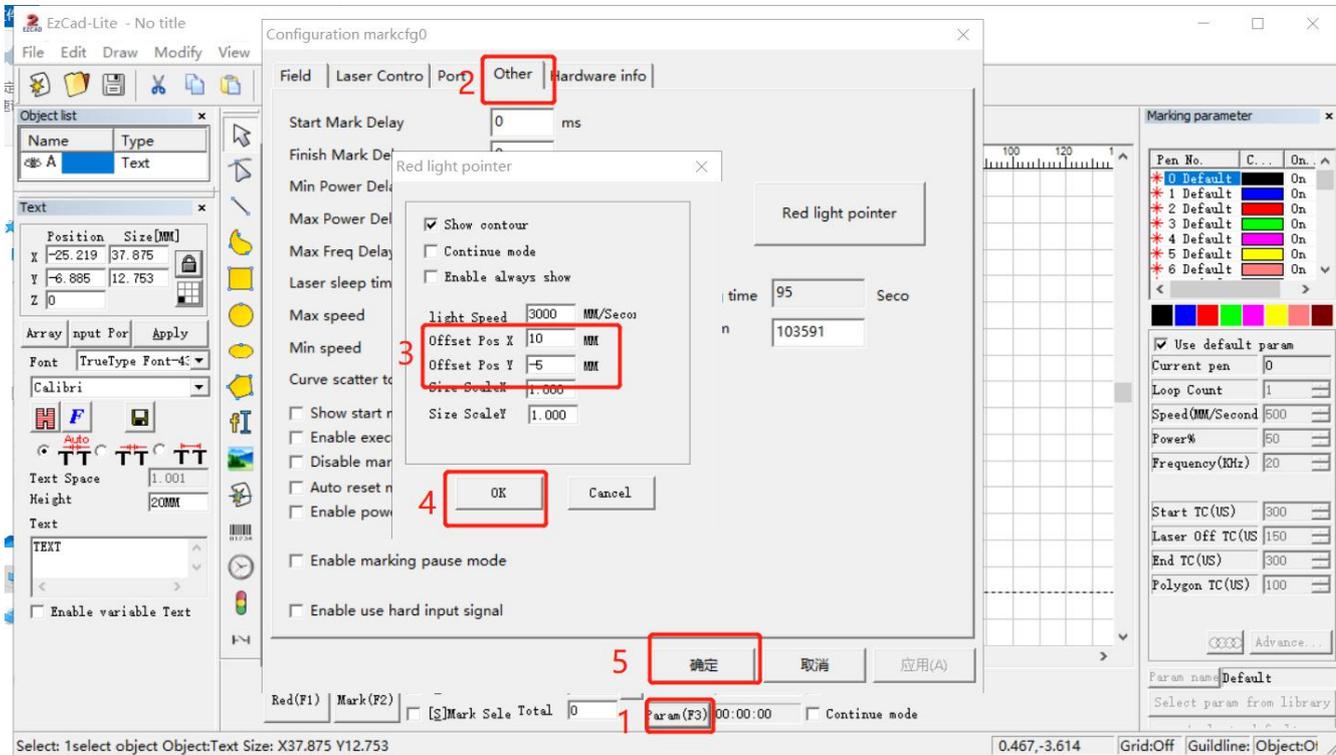
Q8: The preview and the shape of the mark is deformed

*Import the calibration file, please refer to step 3 of the operating instructions

*If it still doesn't work, please contact after-sales staff or email us

Q10: Nothing displays on canvas board when importing text or picture

*Please click the practical center button, the picture and text are in the center of the canvas
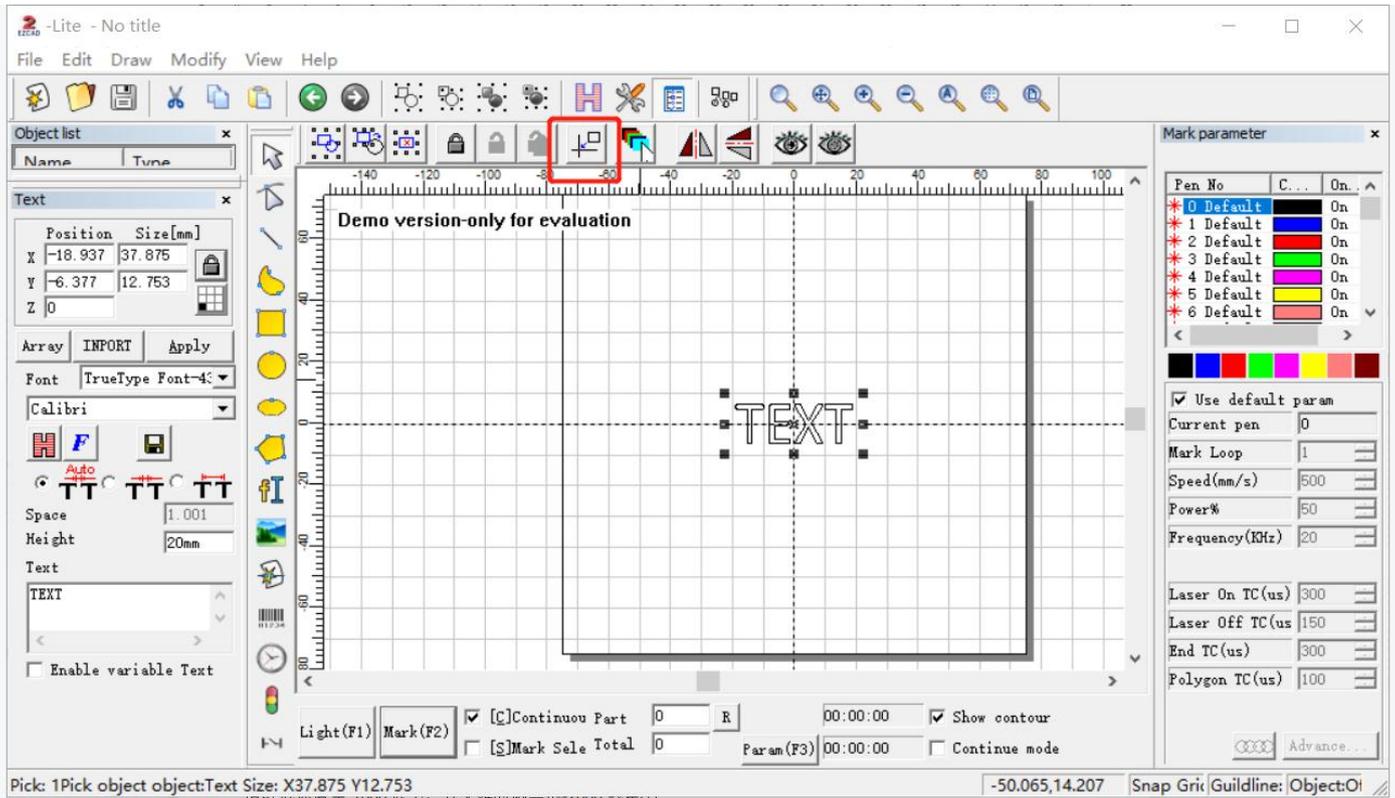
Q15: Marking laser stop emitting periotically, which makes the marks missing partially

*Reduce the "speed" to "less 1000", and adjust the "Laser on TC(us)" to "-2000" or less
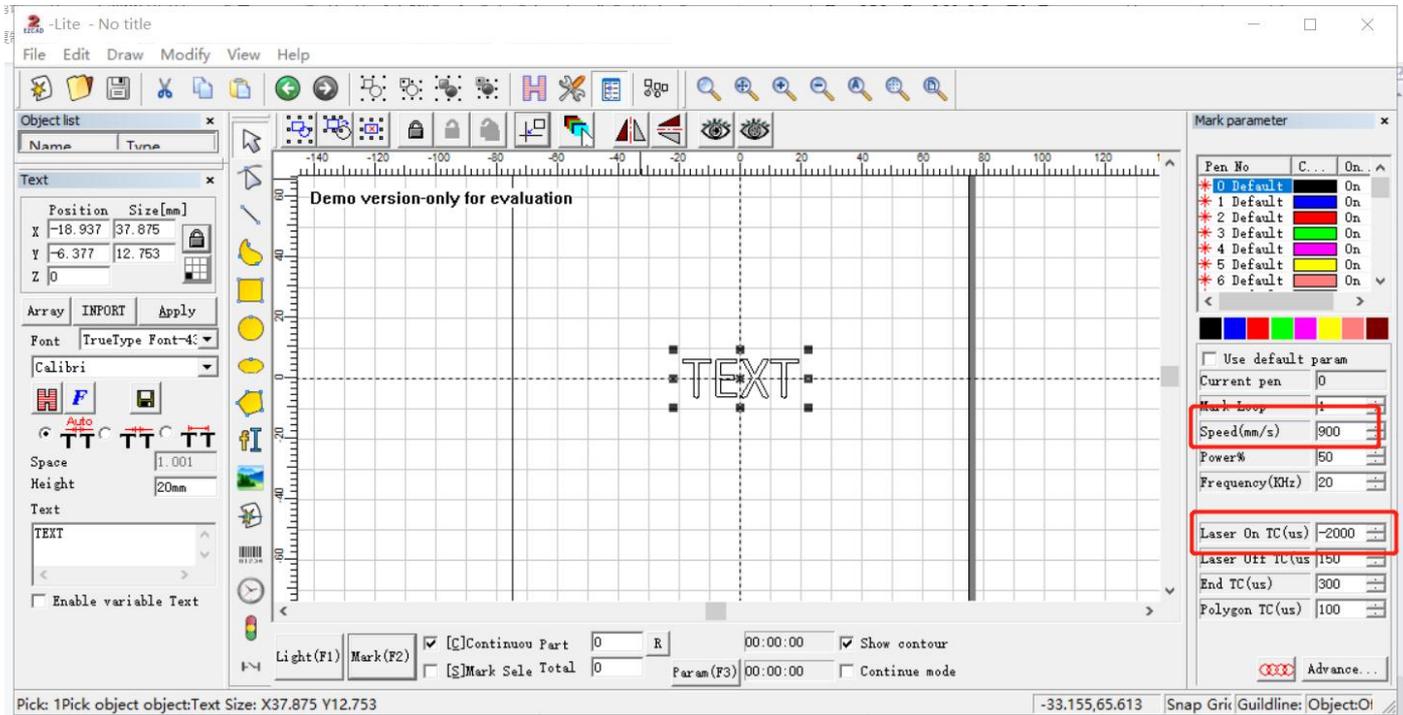
Note: This manual will be continuously updated. Please download the e-version manual If you need an updated manual

ComMarker

Customer Service:

➢ For more video and supportive materials,please visit our official website at:
www.commarker.com
➢ For Laser Engraver technical support and service please email:
support@commarker.com

Manufacturer: Hefei ComMarker Technology Co., LTD