



CO2
LASER ENGRAVING
MACHINE
INSTRUCTION
60W
(110V)

Any problems, please send some pictures
or a video to sales4@asc365.com.
We will reply to you in 1-2 business days.

WWW.ASC365.COM
sales4@asc365.com

So glad that you buy our laser machine ,
please operating according to the following instructions

Please handle the laser machine with care,because the laser glass tube is fixed into the machine,it is fragile.

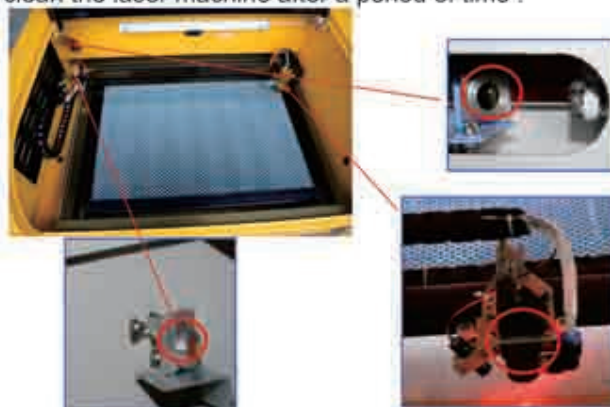


Don't connect to the power supply first, according to the following steps :

1 - Take out laser machine, open the front lid of the machine. Then take out the six parts.



2 - Check the laser reflective mirror and lens to see if there is sundry, dust. Clean it with alcohol. You should clean the laser machine after a period of time .



How to clean a Lens?

Use denatured alcohol and Q-Tips. Softly apply the alcohol. Allow the alcohol to evaporate as you swirl the Q-Tip to remove dissolved filth.

What focal lens comes with the laser machine?

18mm

3 - Put the laser machine smoothly, first take a bucket of water ,connect the pump to the laser machine. Then put pump to the bucket (water in bucket should higher than the pump) **Note that inlet and outlet of connection**

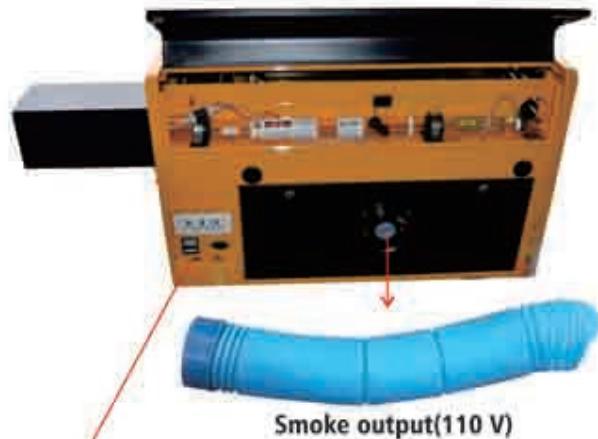
Note that inlet and outlet of connection !



4 - Please open the rear cover of machine, and put **test bar** into bucket where has water pump.

Notice: please lightly open or turn off the rear cover to protect laser tube.

5- smoke tube to the slot behind the laser machine.



Ground wire:

Reconnect ground wire to prevent electrostatic interference.

6 - Connected the power supply of pump (Should pay more attention to the safety of the electricity).

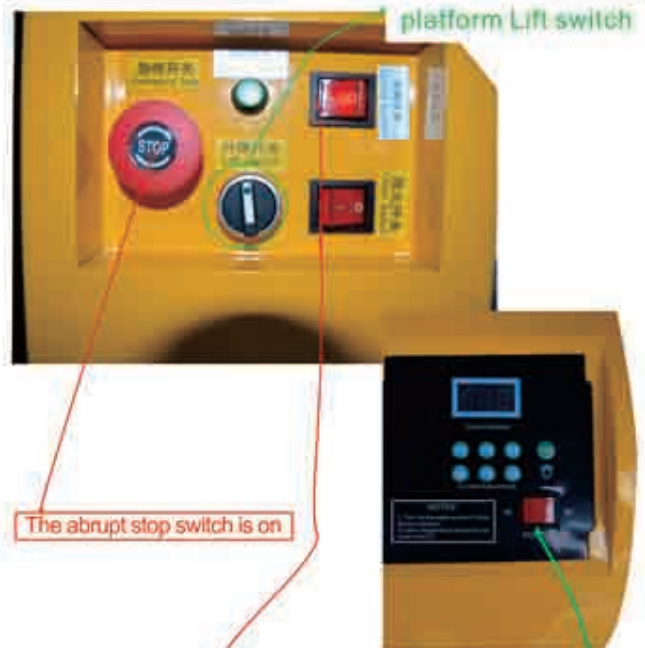
There are some bubbles at first.

7 -Connected the power supply of blowing air pump.(110V)

8 -Connected the power supply of blowing Smoke output.(110V)

9 - Laser power supply connection.

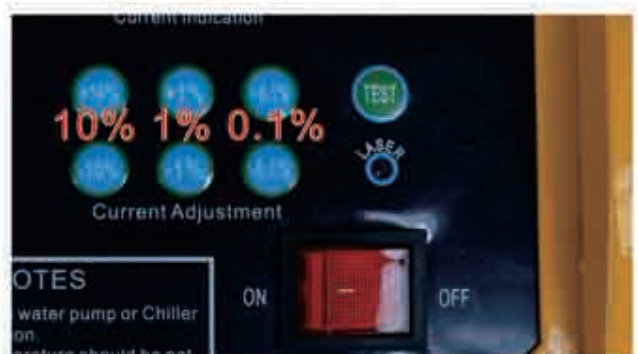
Open the power switch



10 - Connected the power supply of laser machine, press "on", laser plotter automatic back to zero.

11 - Turn on the "laser switch". if not out of the laser, please turn on "POWER" then test, until the laser light.

12 - According to the different material adjustment of cutting and engraving laser POWER size.



You could change the power setting manually on the Laser's front control pane.

Here has three ways: $\pm 10\%$, $\pm 1\%$ and $\pm 0.1\%$.

When adjust the optical path, please use " $\pm 1\%$ " to prevent danger!!!

Installation Of The Software

Notice:

- 1) LaserDRW could make machine work normally.
 - 2) We also provide a Corel software for free which is only for study and reference.
 - 3) If you want to use CorelDraw software or even newer version, please download it from "Corel" official website (www.CorelDraw.com).
- Then, you can install CoreLASER.

★ **One:** Connect the laser machine and encryption dog to computer.

Then turn on the computer and laser machine .



USB Line



Safe Dog

Connect the computer



★ **Two:** Software Installation

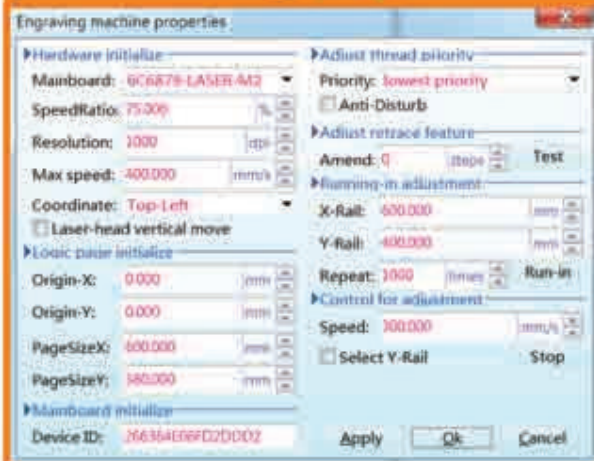
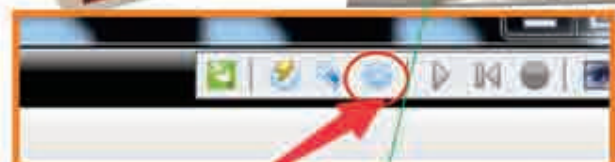


- #1 Data Setting #2 Engraving #3 Cutting
#4 Engraving Machine Properties #5 Task Waiting
#6 Reset #7 Stop



Right click on the icon can
Change language

★ **Three:** Software Setting Up



According to the picture, open the laser machine and input the number on the main board into the software.

It works (cuts) great on the left side and fades to nothing on the right side. Any ideas?

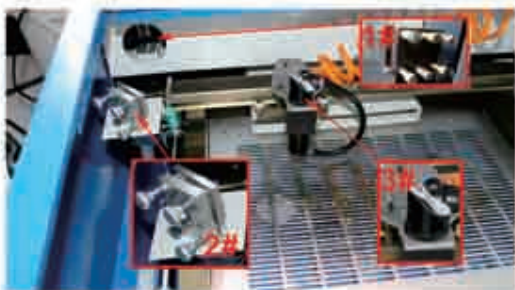
Optical Path Adjustment

After let all power cables connect well and electrify, turn on the engraving machine power supply, at this time, the machine starts to reset and return to the last origin point. All above shows that the machine is running normally, then turn on the "Laser Switch", As shown in Fig.F2-13



F2-13

Begin to adjust the optical path, As shown in Fig.F2-14



F2-14

Firstly, adjusting the laser position. Make the multilayer adjusting paper stuck on the 1# mirror frame, and then push the "Test Switch" key on the control panel. There will be a burned point in the paper, check whether the light spot is in the center of the mirror, if the light spot is not in the center of the mirror center, we have to make the light spot in the center of the mirror by regulating the location of the laser tube.

Then adjust the 1# reflector mirrors. Move the beams to the nearest place to the 1# reflector; push "Pulse" to get a spot in the paper. And then move the beams to the farthest place from the 1# reflector, get another spot in the paper. We adjust the angle of the mirrors by adjusting the three screws on the back of mirror (clockwise rotation the above screw, the spot will be down; clockwise rotation of the lower left corner of the screw, the spot will move to left.), to insure that all the spot are in the same place in the paper when and where the beam we move.

After adjust the 1# reflector mirror well, the next, adjust the mirror 2# as we do at the first step, move the laser head to the nearest side to 2# reflector, then make a spot in the paper, then move the laser head to the farthest place to 2#, make a spot. We have to adjust the further spot overlap with the first spot by adjust the screws on the 2# reflector frame.

Note: As the best, the location of light spot should be in the center of mirror light spot can not hit the edges of the mirrors. If playing in the edges, please continue to adjust the mirrors until the light spot in the central of them.

At last we have to check whether the light spots are superposition wherever the laser head is. If the spots can not coincide, please re-adjust the optical path by the way we talked above until the spots coincide.

After finished the adjustment, we will check whether this laser spot is playing in central of the laser head light hole. If not, turn off the laser power supply, adjust the laser tube position. If it is left and right excursion, which side is biased on, we move the laser tube to this side direction. Such as: if left, we adjust the laser tube to left; if right, we adjust the laser tube to right.

If the migration is up and down, we have to adjust the laser tube to the opposite direction, that is, if up, we will make the laser tube down; if down, we will make the laser tube up.

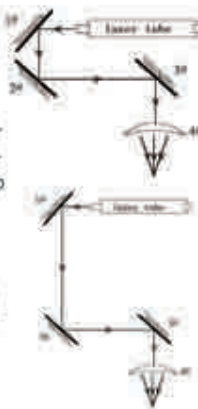
After adjustment of optical path, please close the laser tube protective cover.

Alignment Standards of Optical Path

During common use, there may appear some deviation with the optical path, resulting in no laser or light path is abnormal, then please refer to the following method to adjust the optical path:

Step one: First to ensure laser beam from laser tube to the center of 1# reflector mirror.

Step two: Affix multi-storey double sticky tape paper on the 2# reflector (Or other objects can be marked on), move laser beam to closest location of laser tube, press pulse (choose suitable power), get a spot on the paper (with special attention: In order to prevent the laser radiation wounding, with a piece of cardboard first to test the approximate location of the spot, and then adjust).



Step three: Move away the beam to the position far from the laser tube, press pulse, get another spot on the paper.

Step four: If the two spots are not superposition, adjust the screws on the back of the 1# mirror to make the laser fire on the same position as the first spot.

Step five: Repeat the second to the fourth steps until the two spots overlap completely. Moreover, the spots should be in the center of the hole.

Step six: Affix multi-storey double sticky tape paper on the 3# reflector, move laser head to the nearest position from 2# mirror, press pulse (choose suitable power), get a spot on the paper.

Step seven: Move away the laser head to the position farthest from the 2# mirror, press pulse (first to detect the approximate location of laser with a piece of cardboard to prevent wounding), get another spot.



Step eight: If the two spots are not superposition, adjust the screws on the back of the 2# mirror to make the laser fire on the same position as the first spot. Step nine: Repeat the sixth to eighth steps until the two spots overlap completely. Moreover, the spots should be in the center of the hole. Step ten: Affix multi-storey double sticky tape paper on the 3# reflector, press pulse, get a spot on the paper, if it is in the center of light hole, then pass.

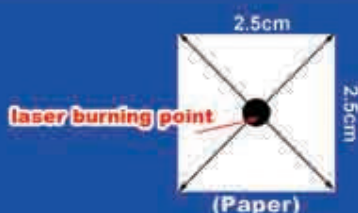
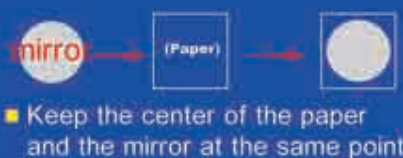
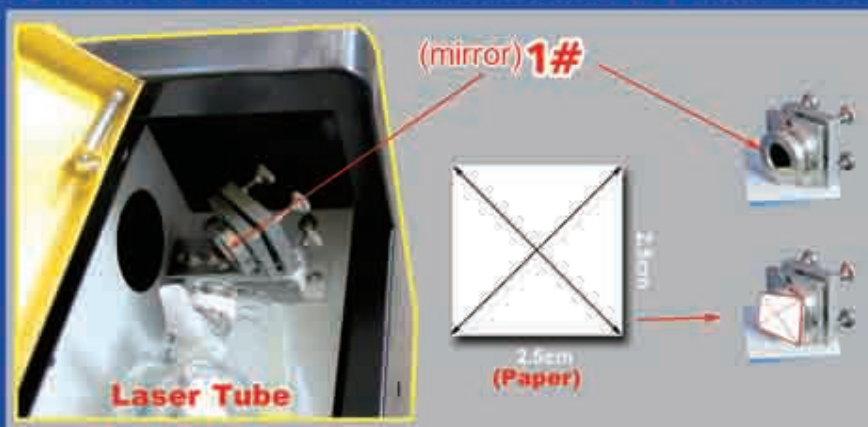
Step XI: If the laser light is not in the center of light hole, as below figure:

In the left Figure, the spot is upper and right biased. Top to bottom bias: can only raise or lower the laser tube. Inside and outside bias: only move the laser tube in or out to adjust. In this case, it is essential to lower the laser tube (here refers to low-voltage side of the laser tube), and then, from the beginning of all the re-adjustment of the first step.

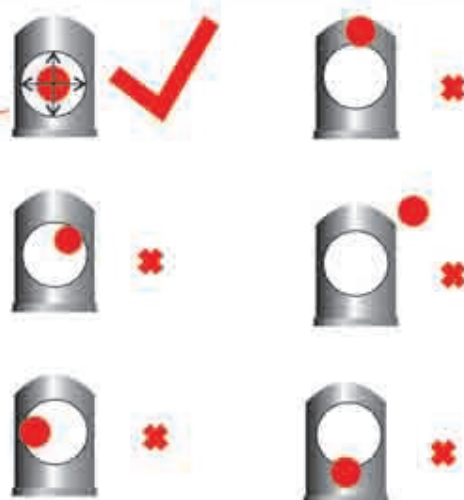
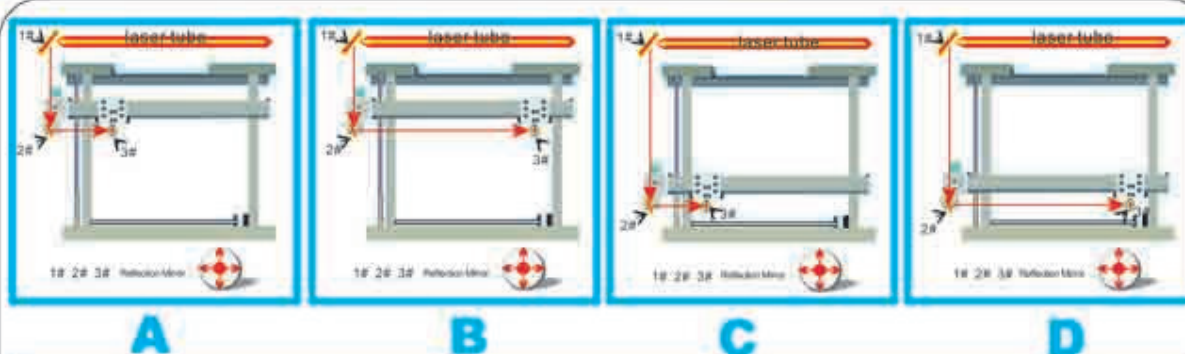


Note: The operator can't do the above working until after the professional training. Otherwise, the operator do this working must with the help of the professional. The operator must pay attention to security when adjusting, to prevent the laser radiation wounding.

First to ensure laser beam from laser tube to the center of 1# reflector mirror.



It is the best results if laser can leave a mark at the center of the test paper



The laser must hit the center of the 3# in the four pictures above(A,B,C,D)



Power Wire



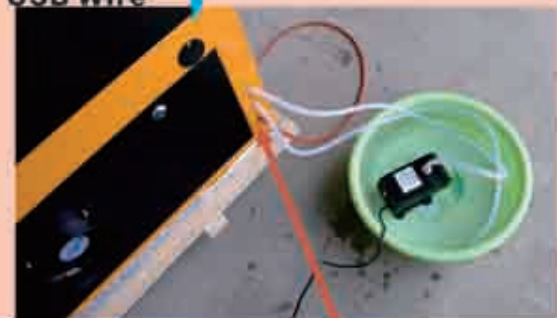
Smoke Pipe



USB Wire



Water Pump(110v)



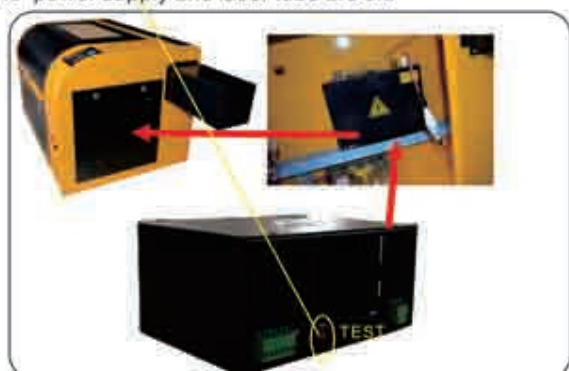
★ Problem:

The laser engraver randomly stopped shooting any laser.
It does not even come out when we press the **TEST** button.



Solve :

1. Press **TEST** button of power supply, if have beam, the power supply and laser tube are ok.



2. Press **TEST** button of mainboard, if no laser, please check water protection whether work normally.
(Testing Standard : Water Cycle is ok)

IF NO

Please check the water pipe whether blocking or fold.

IF YES

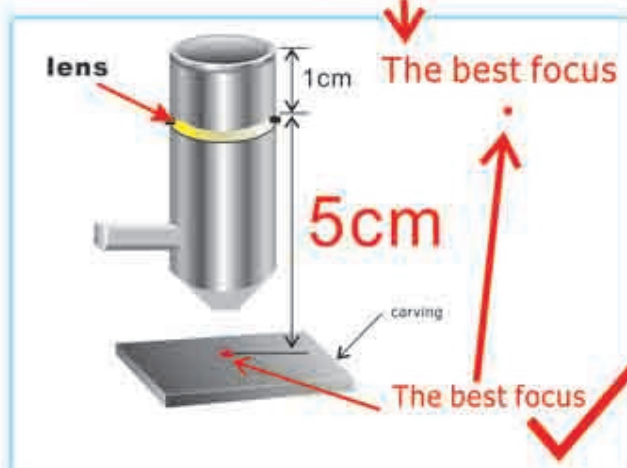
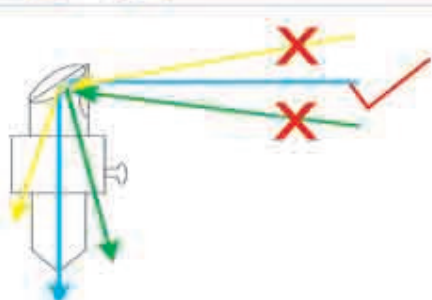
Step1 : Please check two wires of water protection whether have virtual connection or disconnect.

Step2 : If check step1 is ok, the swift of water protection is broken, please change it or contact us. (sales4@asc365.com)

★

Optical path is right, but no laser.

Or changing the laser head lead to no laser beam form machine.
Please adjust the height of laser head to make reflective mirror 3# and 2# in a horizontal line.



Parameters

Laser Type: CO2 Gas
Tube Trigger Volt: 20KV
Tube Operating Volt: 15KV
Current: 0~22mA
Engraving Area: 600x400mm
Maximum Item Size to Engrave: 23.62"W x 15.75"L (600mm x 400mm)
Laser Tube (life hours): 1000-1300 Hours
Laser Power: 60W
Engraving Speed: 0-13.8 in./s (0-350mm/s)
Cutting Speed: 0-1.38 in./s (0-35mm/s)
Minimum Shaping Character: 0.04 X 0.04in (1mm X 1mm)
Resolution Ratio: 0.001 in (0.026mm) / (1000dpi)
Power Supply: 110V~250V for other countries all over the world.
Please tell us what voltage you want after you buy this item.
Resetting Positioning: ≤ 0.0004 in (0.01mm)
Motor Type: Stepper Motor
Software Supported: corelDRAW software (both NewllyDraw and NewSeal function)
Power Consumption: ≤ 250 W
Operating Temperature: 32-113F (0-45C)
Graphic Format Supported: BMP / JPG / JPEG / WMF / EMF / PLT
Water Cooling: Water Pump include
Recommended Spare Parts/Consumables: Laser Tube, Focal lens, Reflection lens

★ Problem:

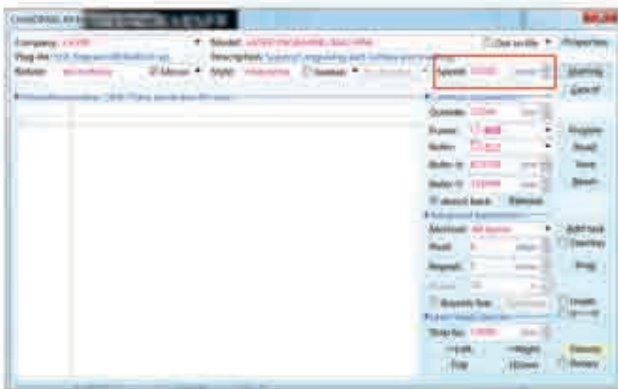
It has been engraving and cutting very well until today.(#1)

- The engraver will cut one name plate good
- Then it will start the next one good
- But somewhere in the middle of the engraving, something happens and the engraving starts to go off.

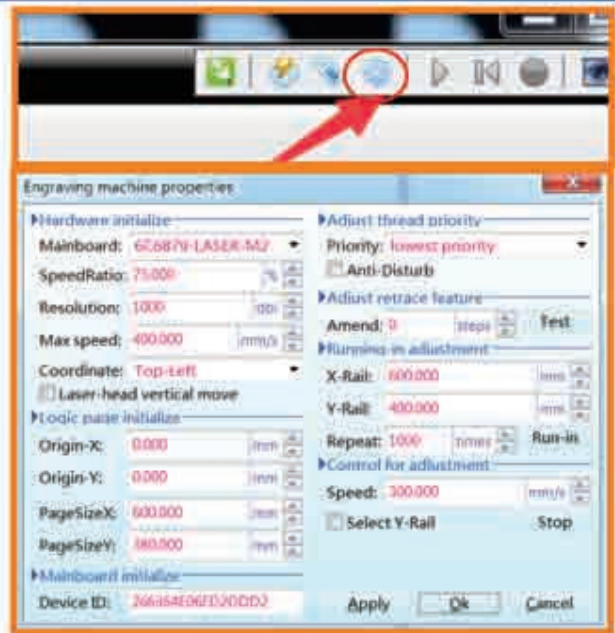
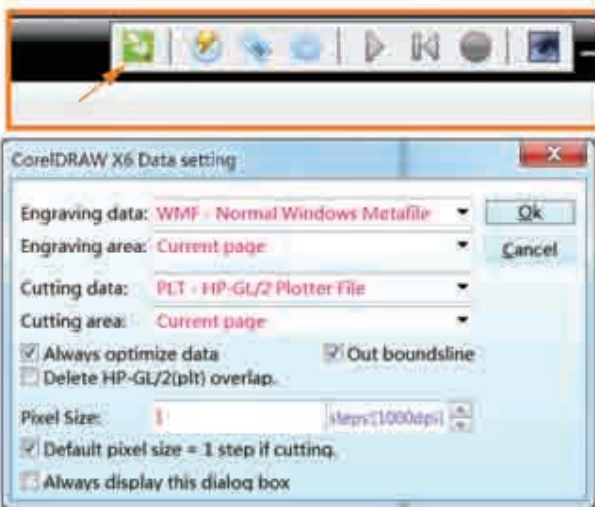


Solve :

1. Please put the bucket filled with water to cool the laser tube.
2. Reinstall software.



3. Engraving speed less than 300 and other properties, please see attachment picture.

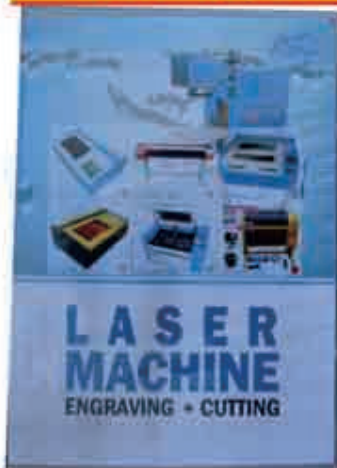


4. Reconnect ground wire to prevent electrostatic interference.



Software installation

Please copy these files to your computer(system C:). Then installed.

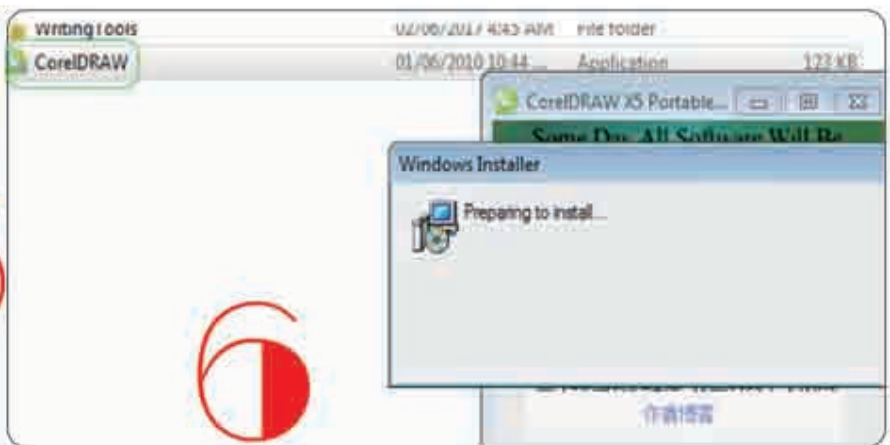
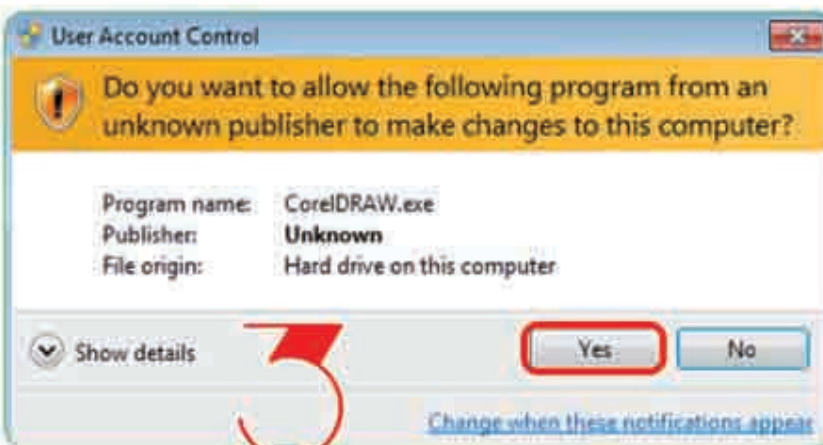


- CorelDRAW LASER-Software
- ha_CorelDRAWX5 ←
- Seal engraving software
- CorelLASER insert the specified
- Install the software instructions
- read me
- WinsealXP 2013.02

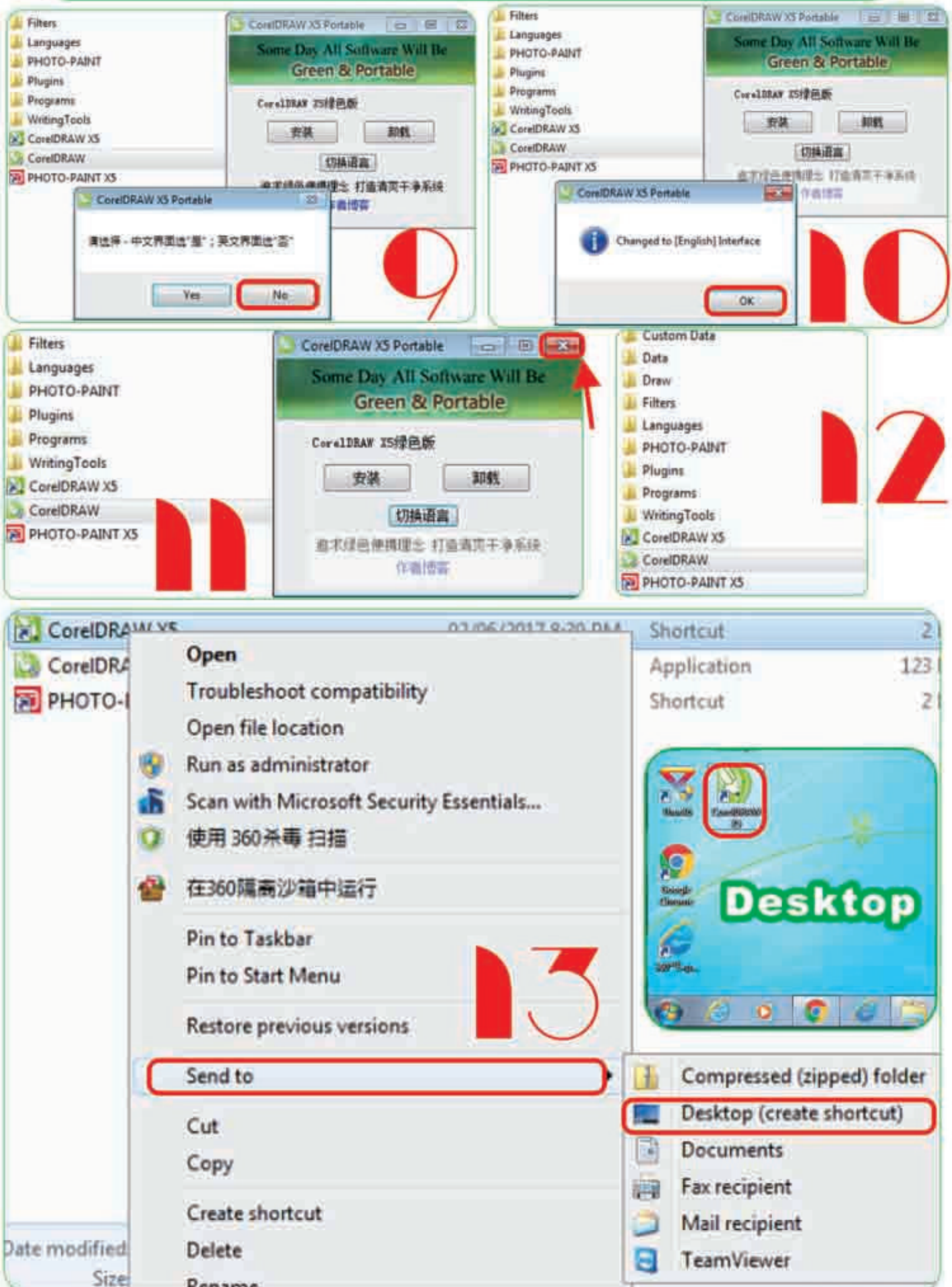
- Custom Data
- Data
- Draw
- Filters
- Languages
- PHOTO-PAINT
- Plugins
- Programs
- WritingTools

CorelDRAW

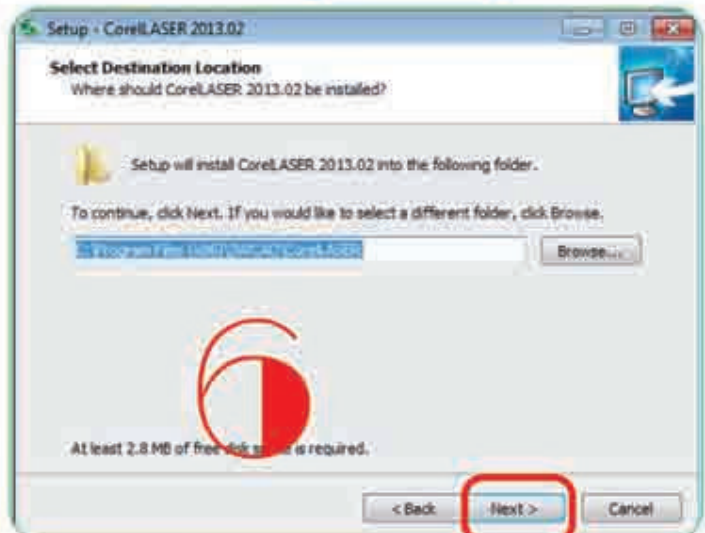
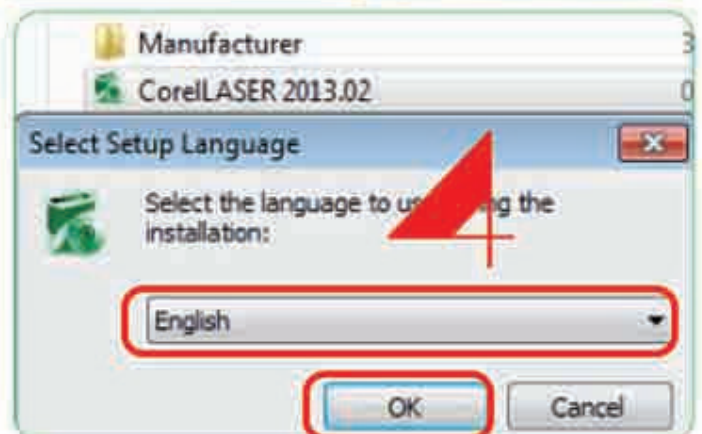
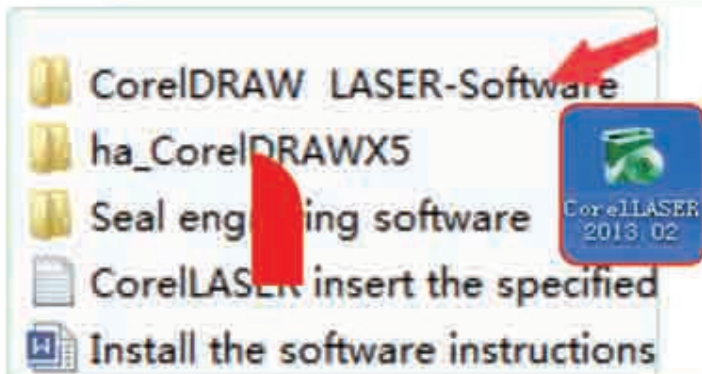
Install Program



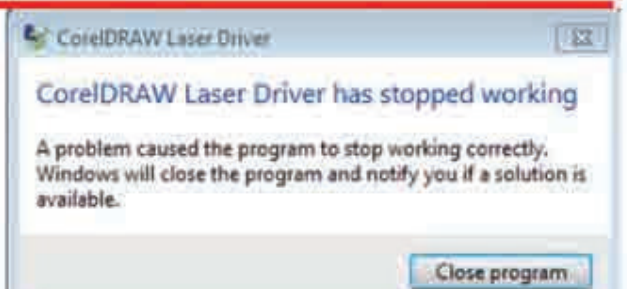
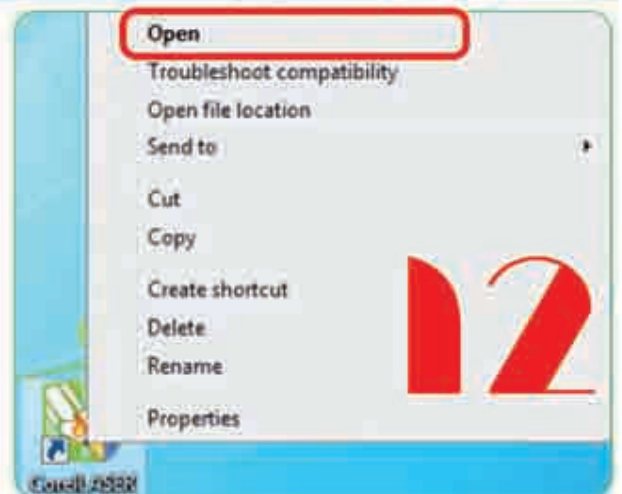
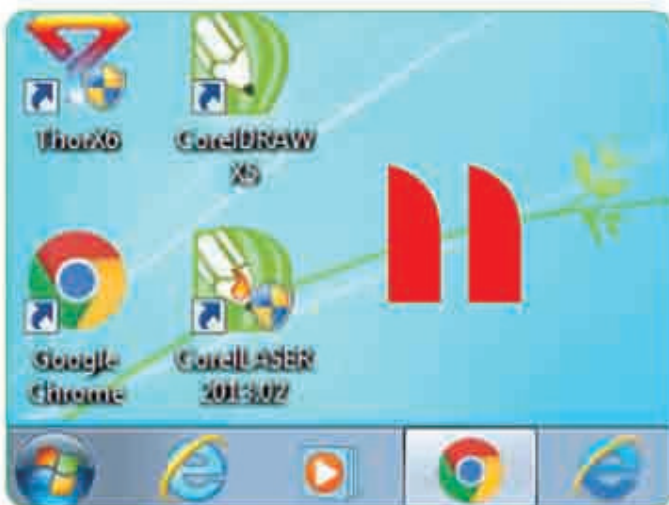
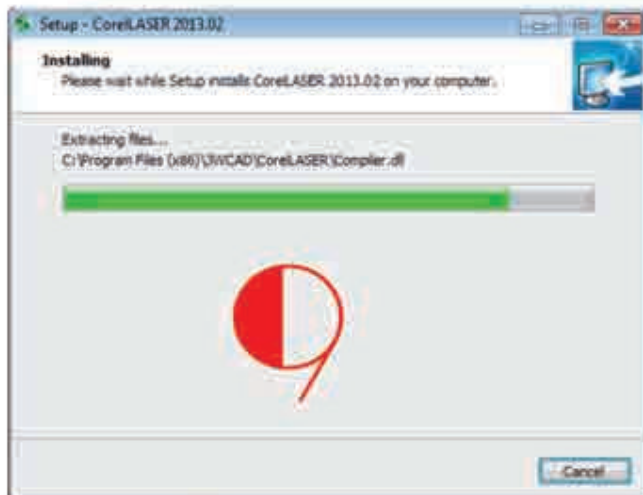
Software installation



Software installation



Software installation



Download: Microsoft Visual C++ 2005 SP1 Redistributable Package (x86)

