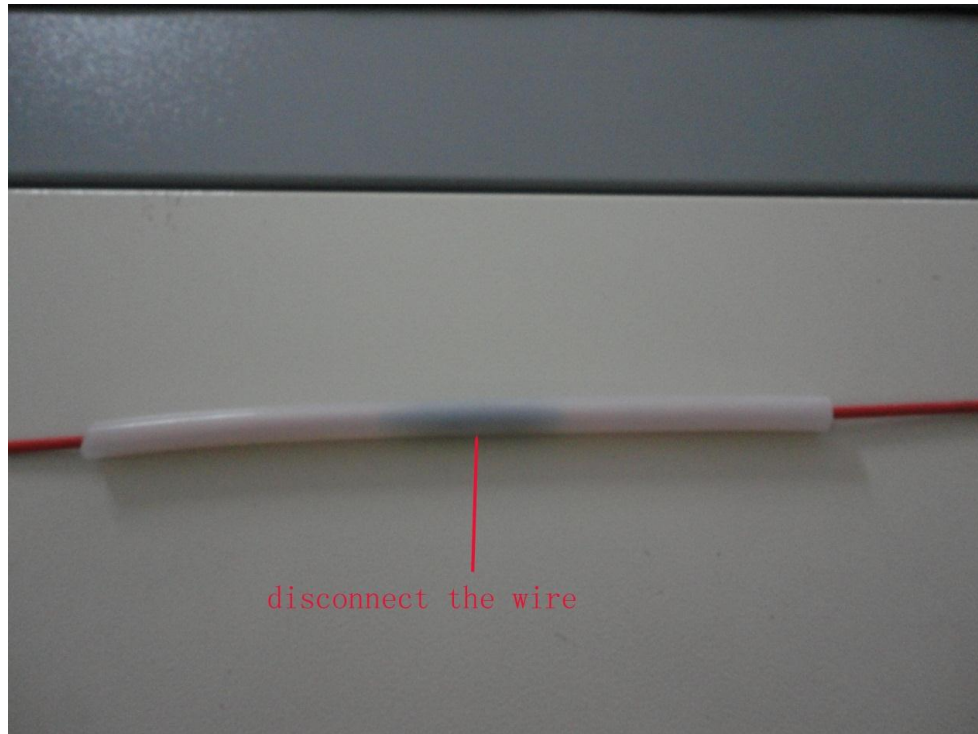


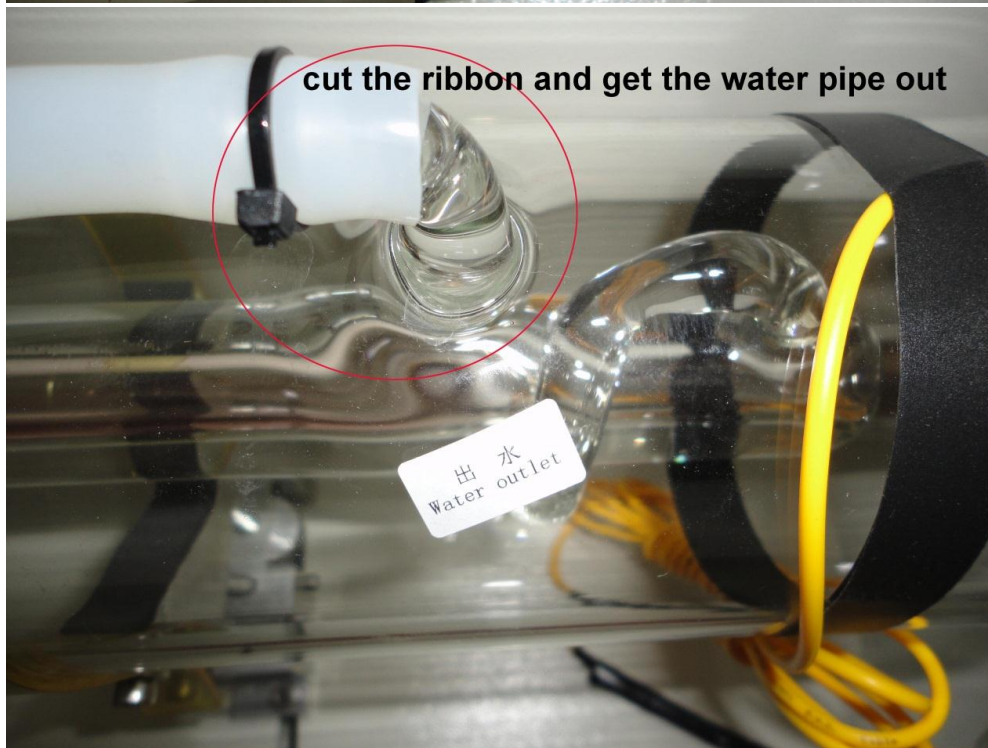
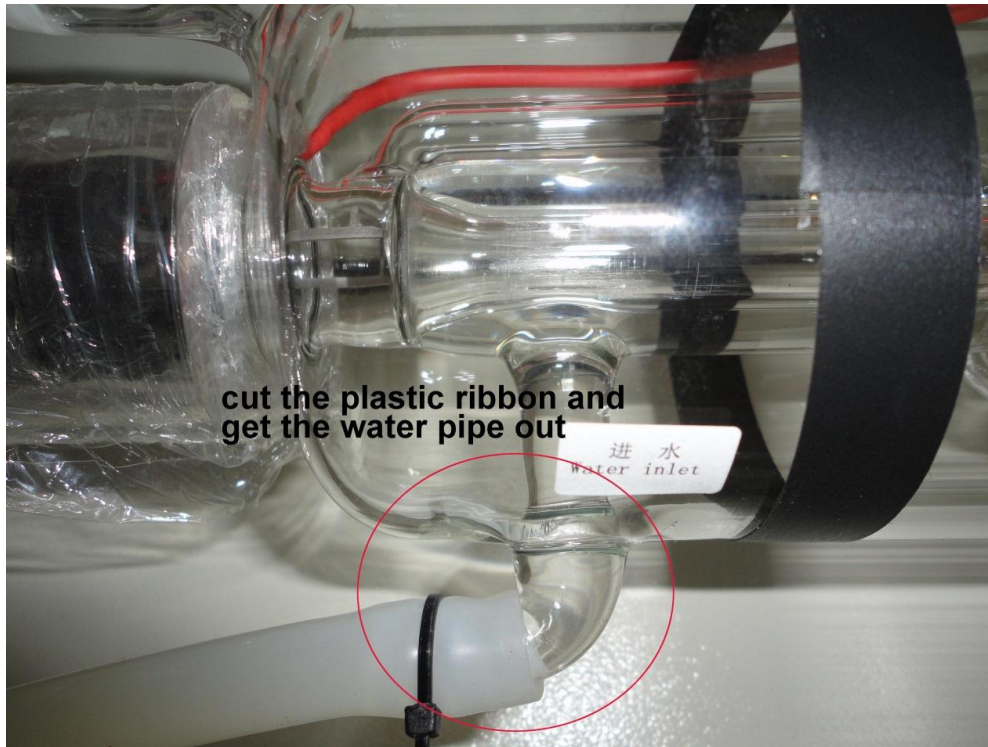
Make sure the following is done before replacing the tube:

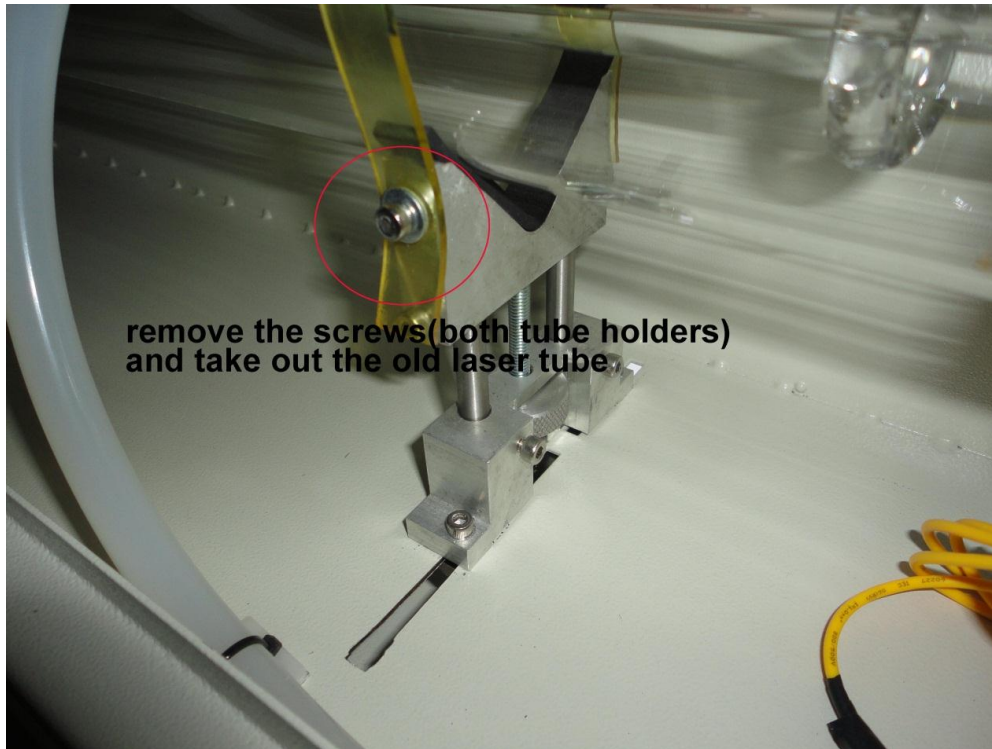
1. Turn off the power of the whole laser machine
2. Turn off the water pump and the water chiller
3. Get out the water inside the laser tube and inside the water pipe(to avoid water leakage to the electronic parts while replacing the laser tube)

Procedure:

1. Take the old laser tube out and follow these steps:





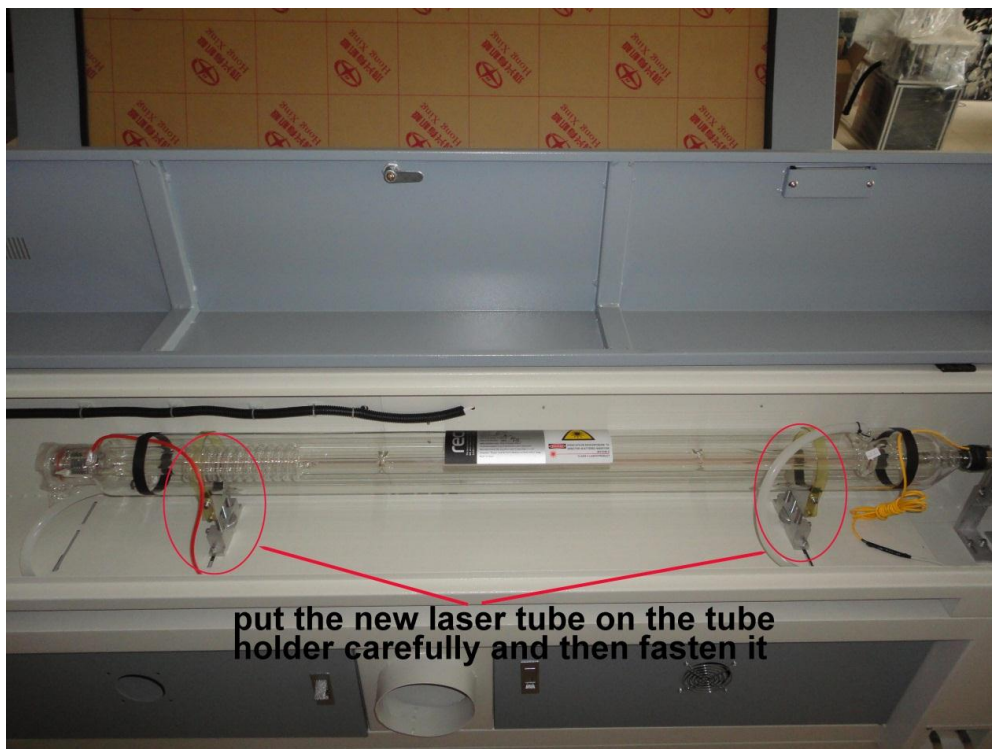


**remove the screws(both tube holders)  
and take out the old laser tube.**

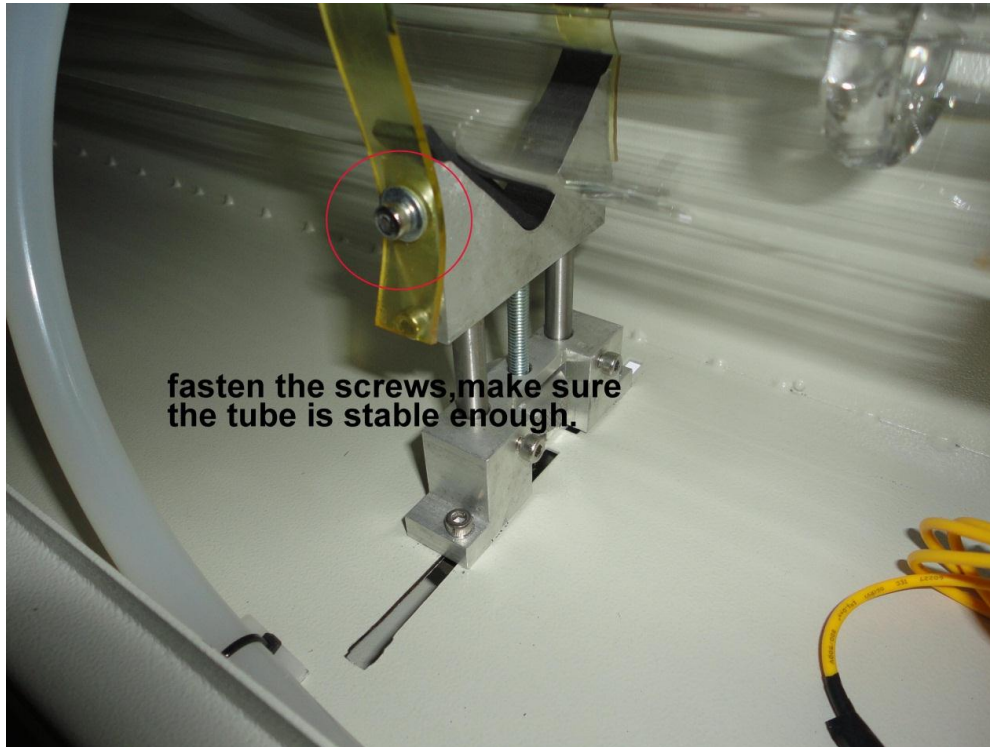
Then take out the old tube and install the new tube.

2. Installing the new tube

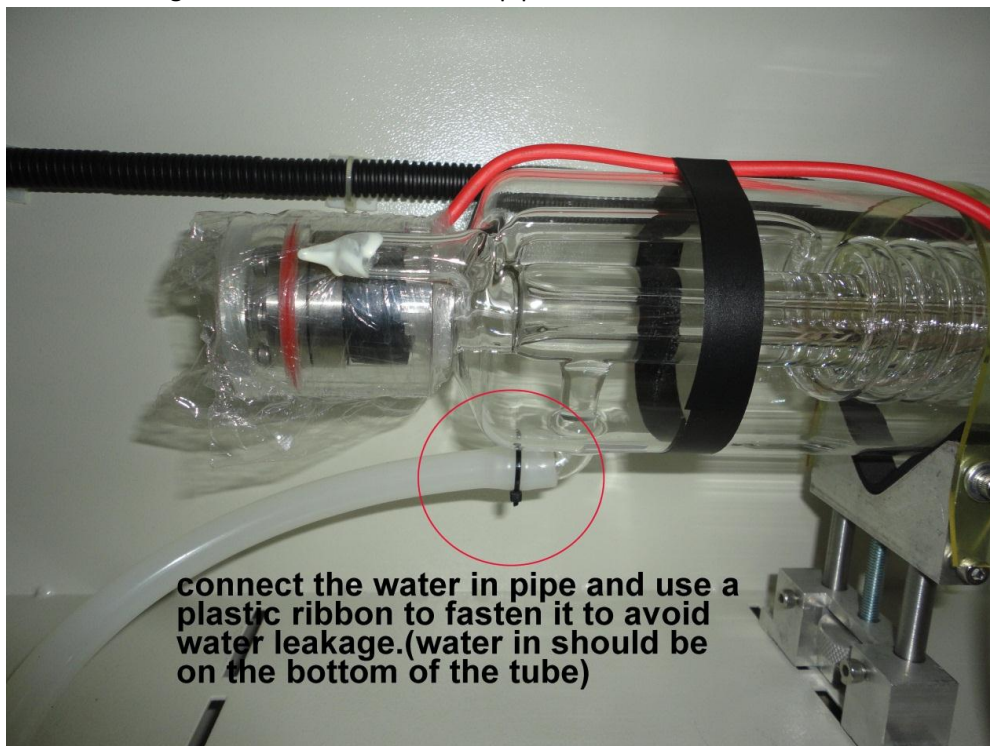
- 1) Put the tube on the tube holder carefully and then fasten the tube by using the plastic trips, then screw it. And make sure the side with a mirror is direct at the first reflective mirror.



**put the new laser tube on the tube  
holder carefully and then fasten it**

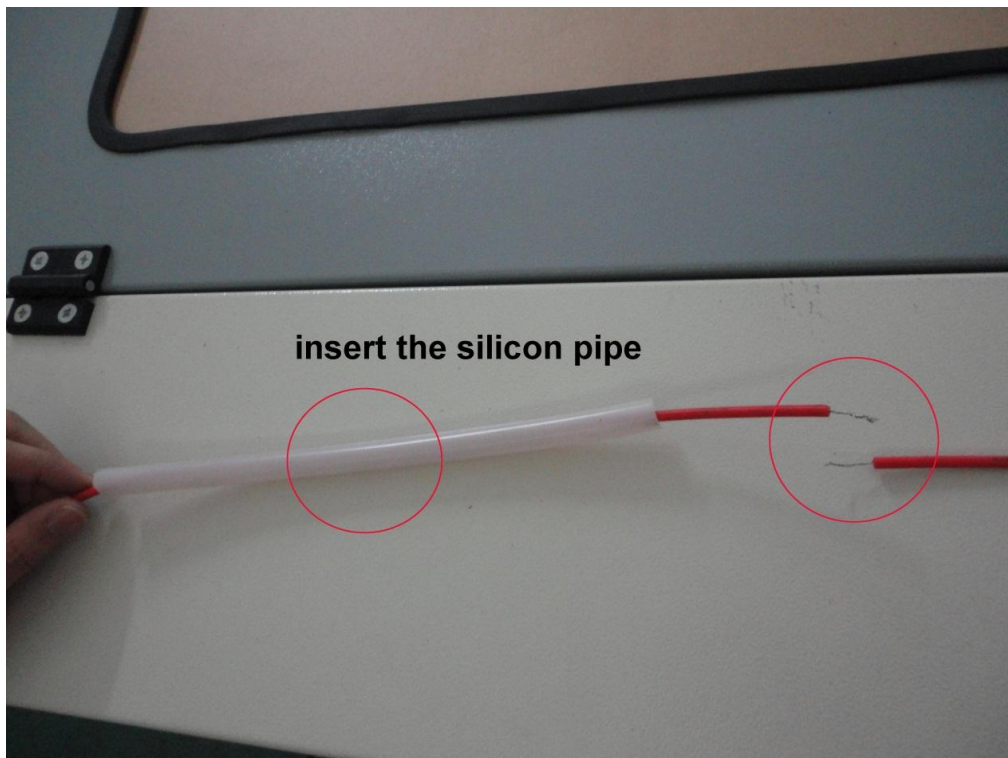


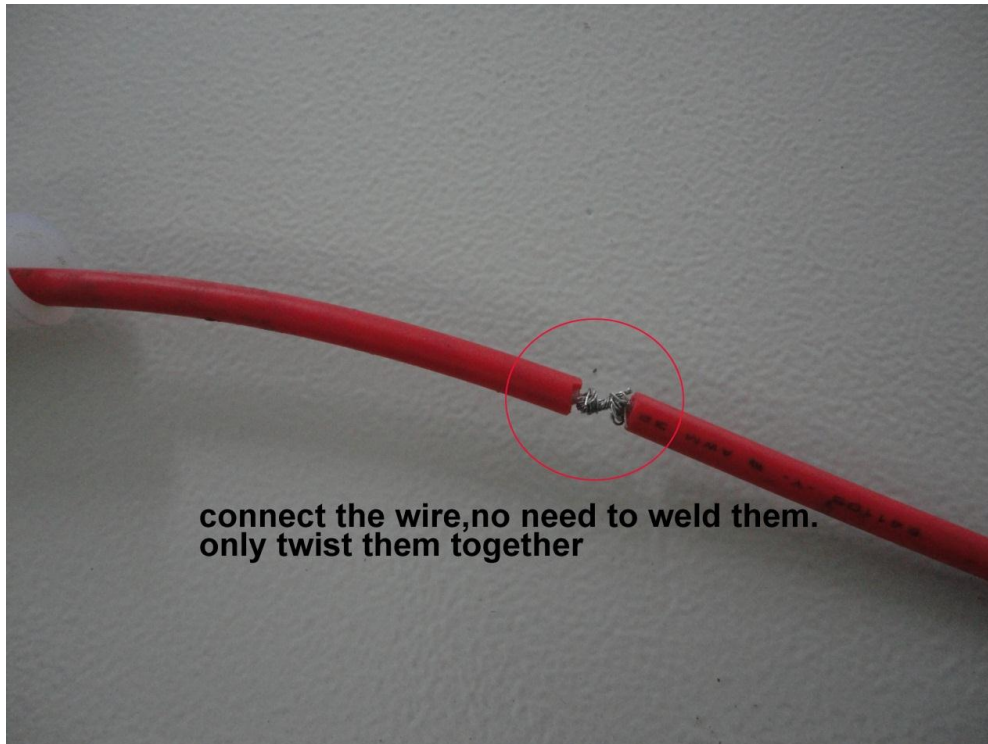
2) Connecting the water in and water out pipe

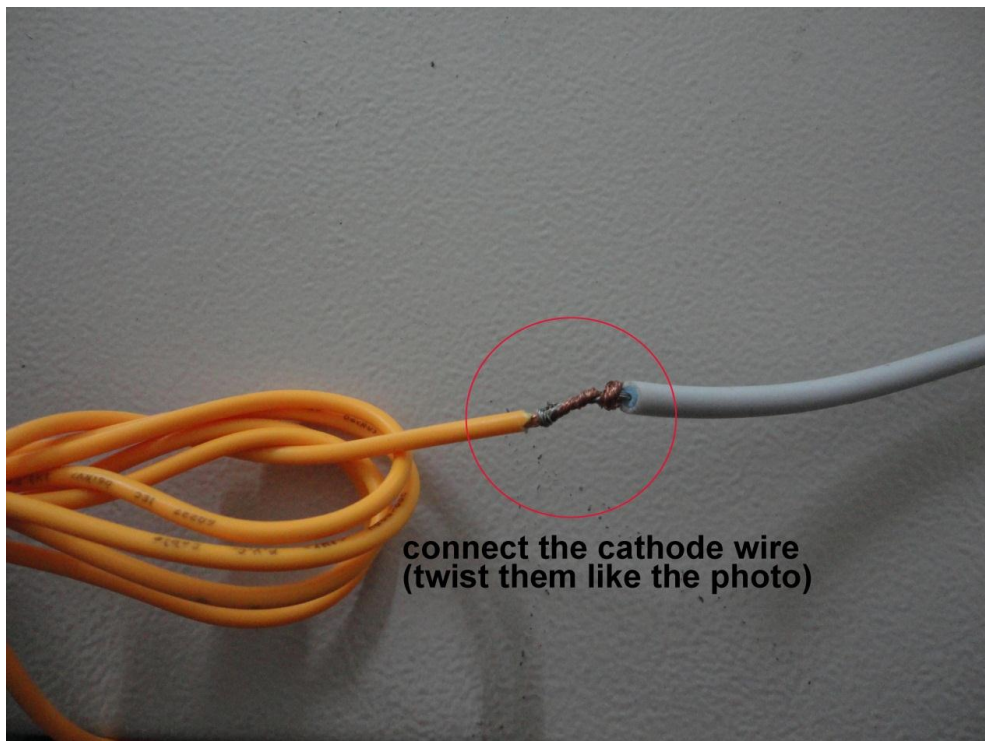
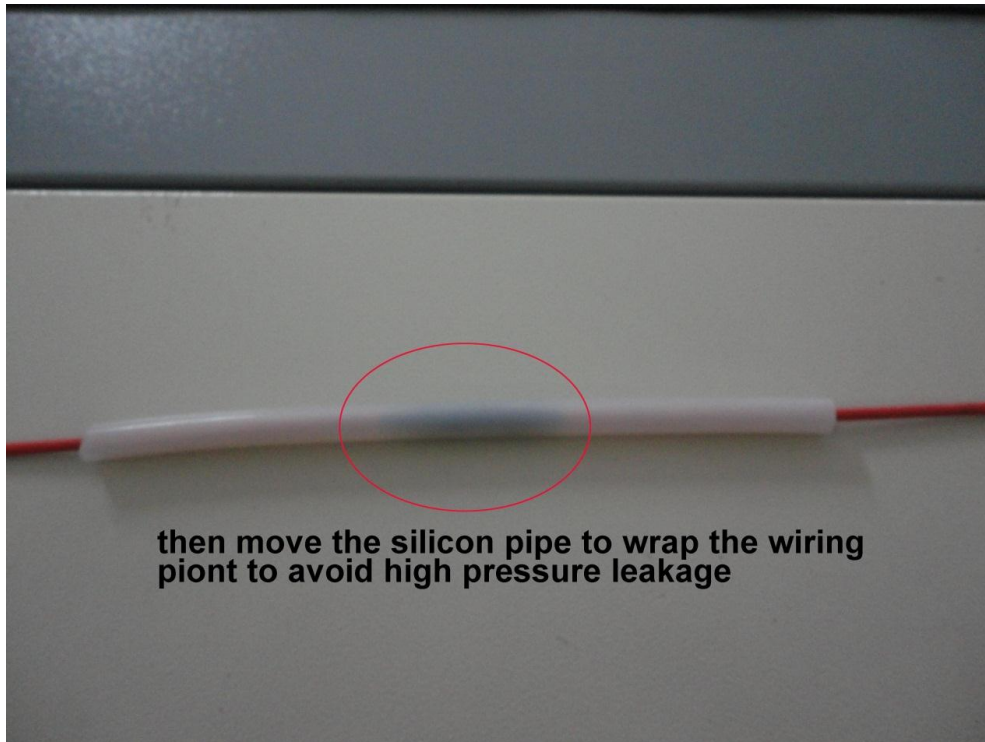


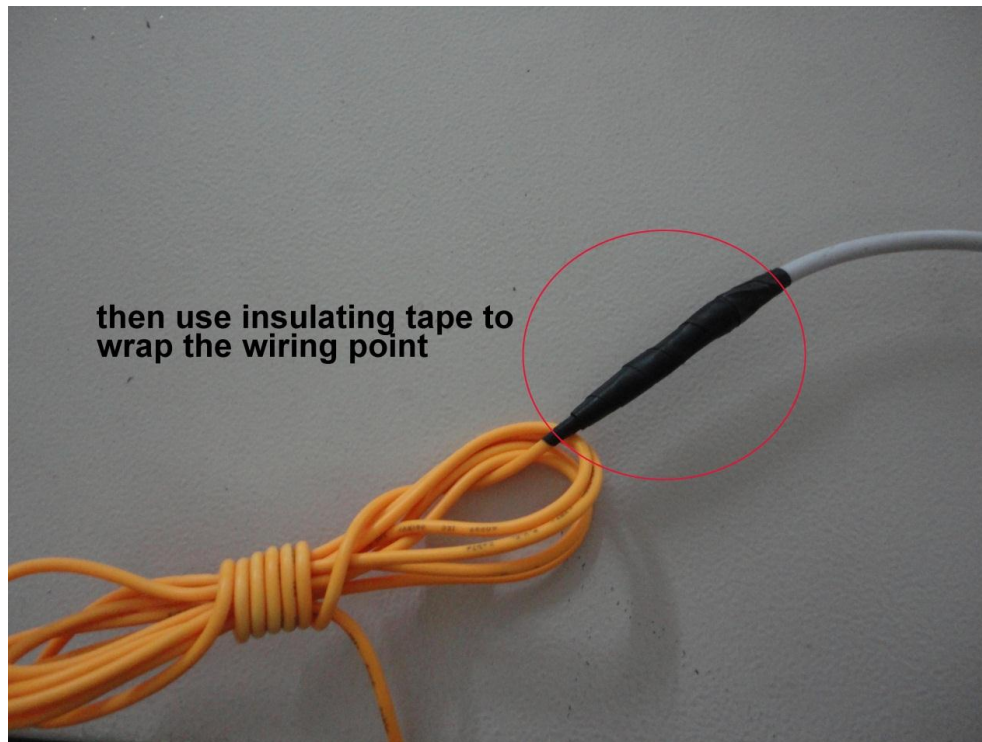


3) Connecting anode and cathode





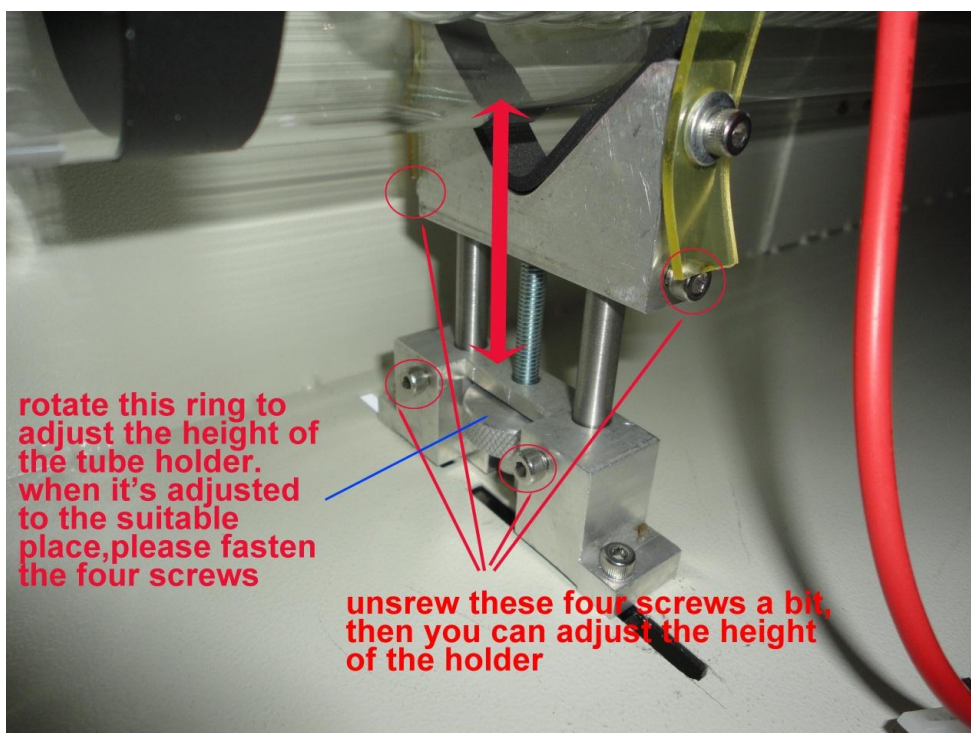


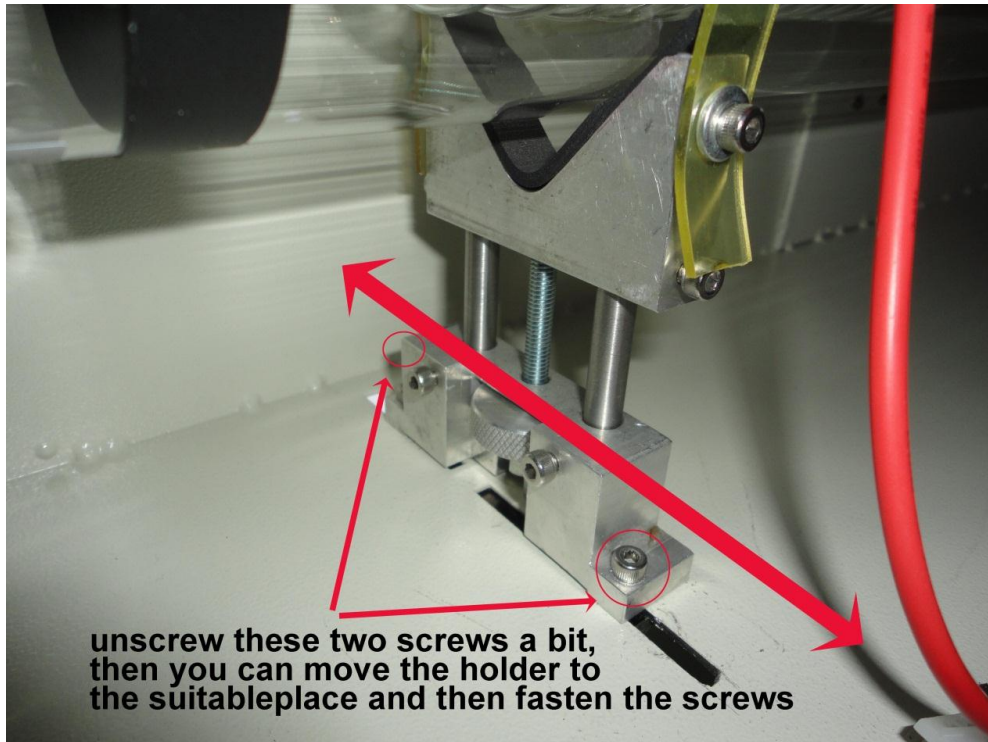


The wirings is done, now please put the water pipe and the wires on the suitable place.



3. Check if the laser path is working well.
  - 1) Turn on the water pump or water chiller and wait till the water full of the laser tube.(water must fill the whole internal tube, there should not be any bubble inside the tube)
  - 2) Turn on the laser main switch and laser power switch and press the “Laser” button on the panel to check if the laser beam works ok.
  - 3) Check if the laser beam is in the center of the third mirror. And check if the engraving and cutting quality is ok. If so, then the job is done. If not, you will need to do some adjustment like below:





Adjusting the laser beam to the perfect position will need time, please be patient and adjust carefully. If still having problem, please adjust the whole laser path according to this video:

<http://www.youtube.com/watch?v=Fy6XDhYvP9M&list=PL7D79E4B3C58BB303>

Thanks for choosing THUNDER LASER products!

If you have any more questions,please send mail to

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