

How To Adjust The Laser Path On Laser Engraving & Cutting Machine

After assembling your laser machine, the next step to make sure your laser path is correct.

While your laser machine laser path has been set when assembled at the manufacturers, but shipping may have moved the path, so always good to recheck the path.

The laser will output from the laser tube to mirror 1 then reflect to mirror 2 then reflect to mirror 3. The beam will then go through the laser head, fall down the focus lens, then will start to cut or engrave the material. The perfect condition is that all laser spots hit the center of the mirrors.

Adjust the laser from tube to mirror 1

Put a test paper in front of mirror 1, then press 'Pulse' on the control panel. Check the mirror to see where the laser landed. If in the center, move on to adjusting mirror 2. If there is no spot, adjust the location or height of the laser tube, making sure the height from left to right is equal. If the spot is not in the center, please adjust the location of mirror 1 holder. Once adjusted, press the 'Pulser' on the control panel, repeat until the laser beam is in the center of the mirror. Once the beam hits the middle of the mirror, remove the paper from mirror 1 and move on to mirror 2.

Mirror 1 to Mirror 2

Place another test paper in front of mirror 2. Using arrow keys on the control panel to move the track to the lower left corner, press 'Pulse' and check the spot on the test paper. If the path is correct move to Mirror 3. If not correct, adjust the screws at the back of mirror one holder and then mirror 2 holder to make sure the path is correct. Do not move on to mirror 3 until mirror two is correct.

NOTE: Regarding laser path adjusting, please be patient, because you may need to try repeatedly before you find the best, but there are certain rules. For example, if you find that the laser spot is rightward, please tighten the corresponding right screw, that is, this screw will cause the lens to move left, then

the laser spot will move to the left, please click the pulse to observe the position of the laser spot at any time, please remember to fine-tune the screws each time. Similarly, if you find that the laser point is to the left, tighten the corresponding left screw.

The upper screw is adjusted for the up and down direction. If the spot is upward, tighten the screw. If the spot is downward, please loosen the screw. Please remember to fine-tune it.



Make sure that the nut in the screws are tightened once you have the right laser path adjusted.



Mirror 2 to Mirror 3

Place the test paper in front of the hole of the laser head, move the laser head to the left of the X axis, press 'laser' then move the laser head to the right of the X axis, press 'laser'. Check to see if the two spots are equal with each other and in the center of the hole. If not, adjust the screws on the second mirror holder repress 'laser'. Once it is hitting the center, attach a test paper under the laser

head and press 'laser', check to see that the spot is in the center. If the beam hit the center then your optical path is correct, if not, adjust the screws on the laser head.

Adjust the angle of the beam by turning the screw clockwise to point the angle down . Counter clockwise will bring back straight

Clockwise will move mirror to right. Counter clockwise will move mirror to the left

Counter clockwise will move mirror to the right and Clockwise will move mirror to the left

Mirror 2

If laser beam is in the top left quarter. Clockwise will move it to the right. Aim for middle

If laser beam is in the top right quarter. counter clockwise will move it to the left. Aim for middle.



This screw will move the beam up and down.

Mirror 3

According to adjusting the platform up and down, please measure the focal length with the acrylic focusing plate which we provide.

Adjusting Mirror 3 is the same way as Mirror 2.

Once the optical path is correct and confirmed the focal length, you are ready to begin to enjoy your laser!

