



Setting Your Focal Depth Within RDworks

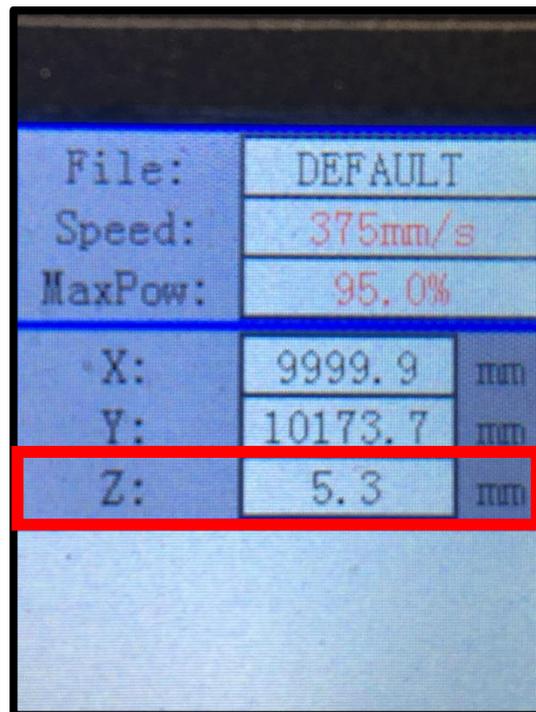
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You are going to first want to make sure that the laser head assembly is installed with the rubber O-ring on the bottom, the Lens with the convex side facing up in the middle, and lastly the locking ring on the top.

Installing your focal lens video: <https://www.youtube.com/watch?v=UyI0rtIf6zU>

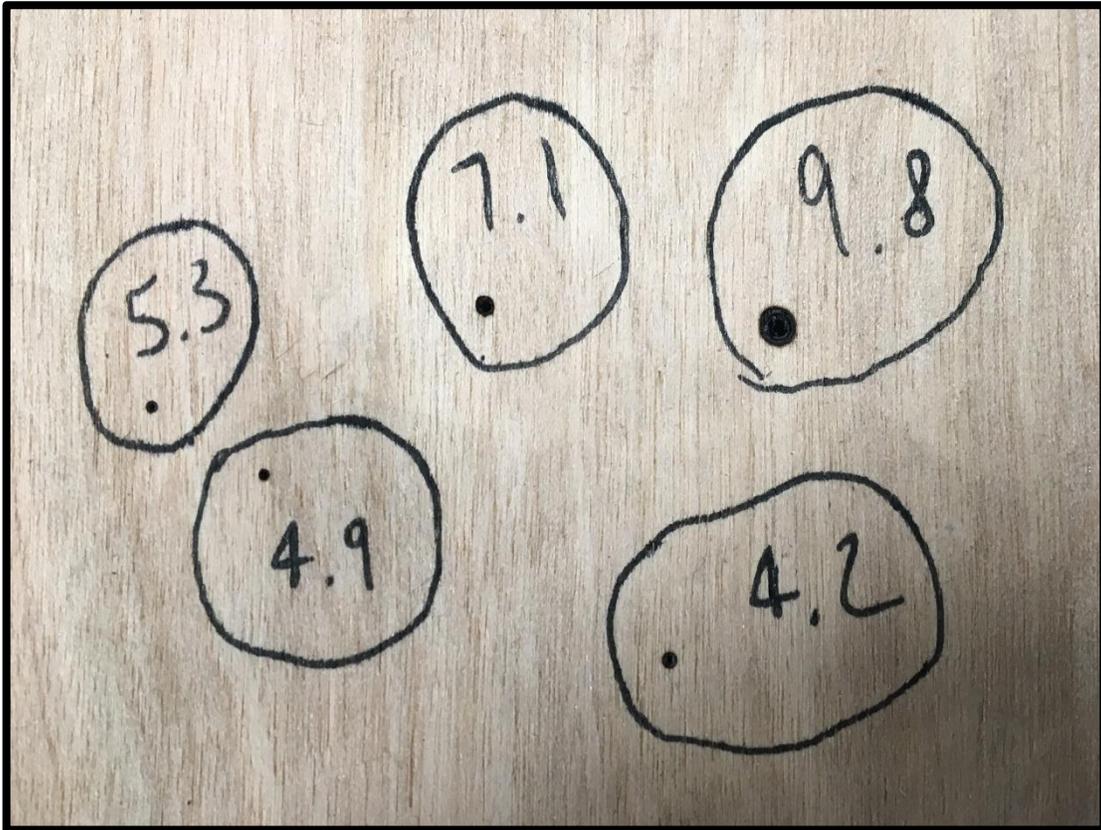
If you install the lens with the convex side facing down the laser will not be able to focus and it will leave a very large dot wherever you decide to pulse, no matter where you put the table.

To find the best focal depth you are going to put a piece of wood down on the table and hit the autofocus button on your machine. To get to this function you will go to the control panel of your machine, hit the Z/U button in the center of the arrow pad, you will then use the down arrow to go all the way to the bottom of the window and click enter on autofocus once it has been highlighted. Once the machine has finished focusing you are going to pulse onto the wood at 95% power. Once the pulse has been burned into the wood you can write down the coordinate for the Z-axis next to that mark.



Where your Z-axis coordinate is located on the control panel

After you have the pulse marked onto your material, you will then raise or lower the bed (your preference) and pulse at different heights. You will be marking each Z-axis coordinate for the corresponding pulse along the way. What you are looking for is the smallest dot possible burned onto your material, this will be your new focal depth. An example of this is shown on page two.



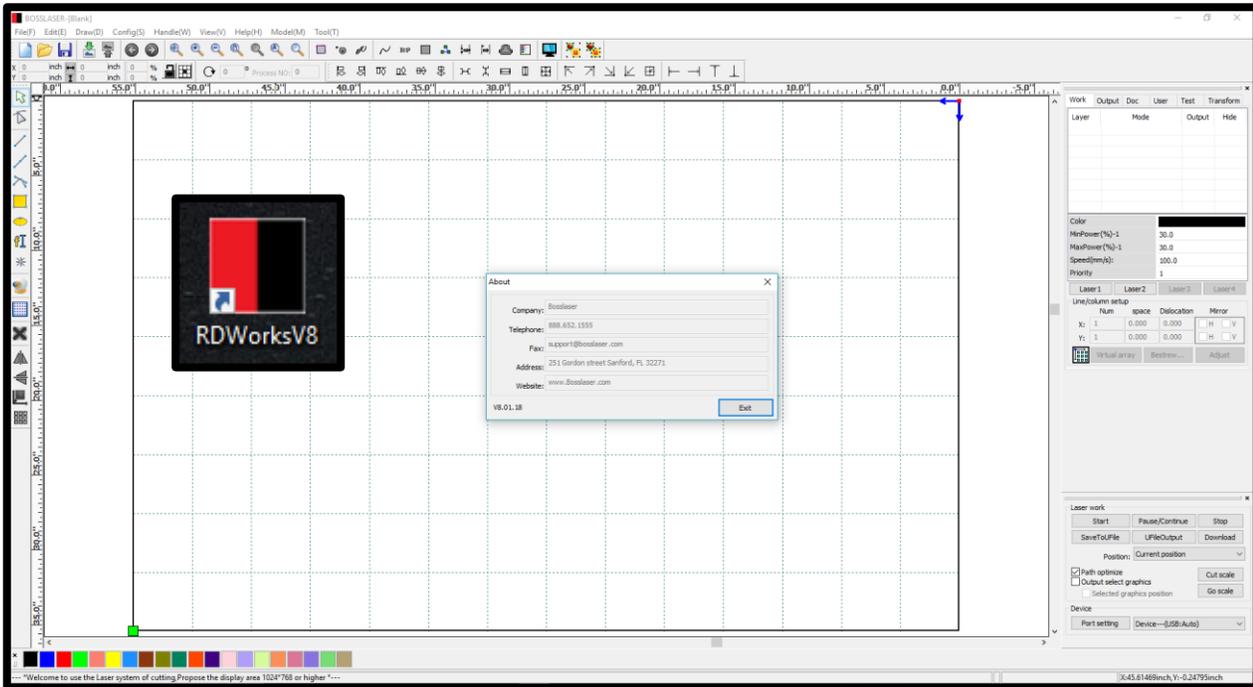
Examples of pulses each at different heights

After you have your desired focal depth you will go to the computer and open your LaserWorks/RdWorks software. With the machine powered on, and blue cord plugged in from machine to computer, you will click the “read” button on your software to read the current machine settings. After you have “read” the settings to the computer, you will go into your user settings tab and change your focal depth to the new number that you feel yields the best results, in our case 4.9mm.

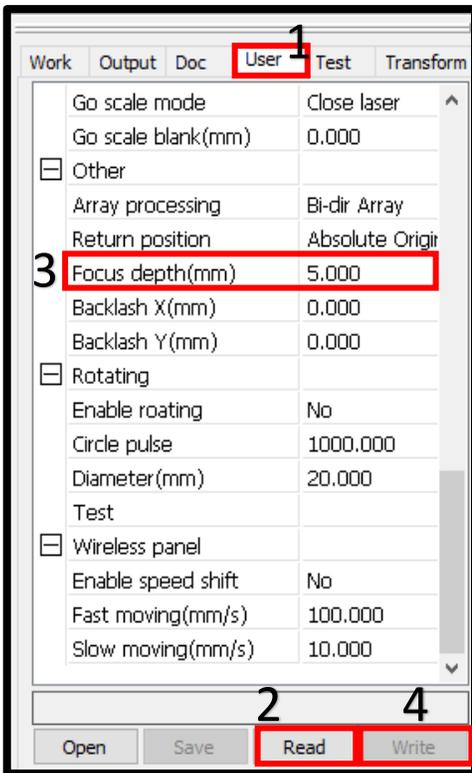
*****The numbers that are shown above were used as examples and your machine may not produce the same results at the same focal depths that are shown above*****

Changing focal depth video: <https://www.youtube.com/watch?v=FftI-SZEQQQ>

Setting Focal Depth on Bosslaser Machines



To change the focal depth on your laser machine you will:



1. Click on the User tab in RdWorks
2. At the bottom of the window, click the “read button” with the machine powered on and plugged into the computer with the blue USB cable.
3. Change the number in the “focus depth (mm) section. (This tab will be near the bottom end of the window)
4. After you have changed it to your desired focus depth you will then click the “write” button. This will make it so that whenever you use the autofocus command in the Z/U menu on the machine that it will always default to the number you have specified as the focus depth.