

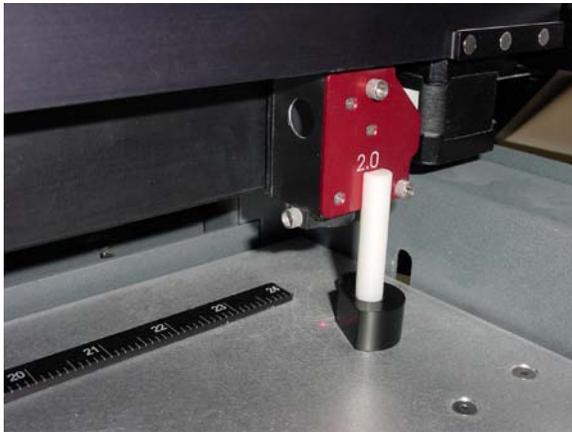
Calibration Procedures for VLS

1. Lens Calibration (perform 1st)
2. Cutting Table Calibration
3. Rotary Calibration

Lens Calibration

NOTE: This procedure must be performed with the solid aluminum Engraving Table installed. Do not use the honeycomb Cutting Table for this procedure.

1. Power up your computer and the VLS. Home the Z-axis by clicking the HOME Z button in the VIEWER tab of the VCP.



2. Using the UP and DOWN arrow buttons, either on the machine or in the UCP, bring the Z-axis table up. Using the appropriate Focus Tool for the lens installed (the standard is 2.0, other Focus Lens Kits are optional), focus directly on the surface of the table.



3. In the UCP, click the SYSTEM tab and choose 2.0 from the Lens Size list.



4. Click on the Calibrate button within the Lens Size box of the System Tab. The following window appears. Click on Save to accept the new Z Position. Your 2.0 Lens has now been calibrated.

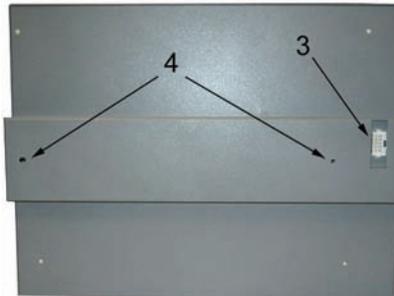
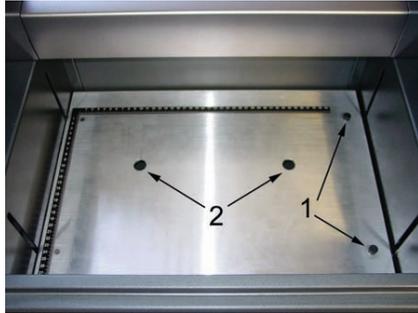


5. If you have purchased the 1.5 or HPDFO optional lens kits, calibrate the lens kit according to steps 1 through 4. Be sure you select the proper lens size from the list before calibrating.

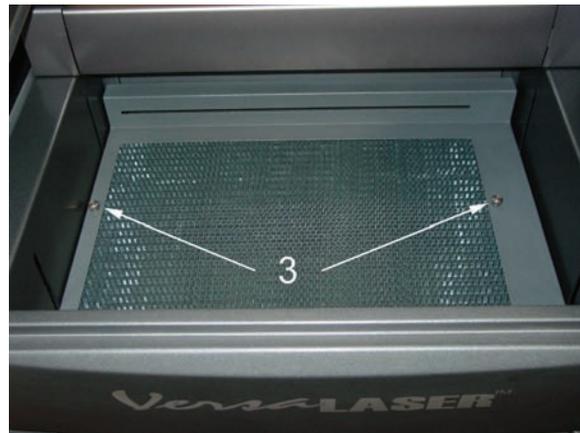
Cutting Table Calibration

Installation

1. Turn on your VLS machine by clicking on the red POWER button on your Universal Control Panel.
2. Lower the table all the way down to the bottom of its travel or down far enough so that you can remove the table and install the VCA without interfering with the moving parts of the VersaLASER.



3. Remove the table by loosening the two captive thumbscrews (1). Insert your fingers into the two holes (2) and slowly lift the table out of the VersaLASER being careful not to bump it around. On the underside of the VCA find the self-aligning electrical connector (3) and two alignment holes (4).



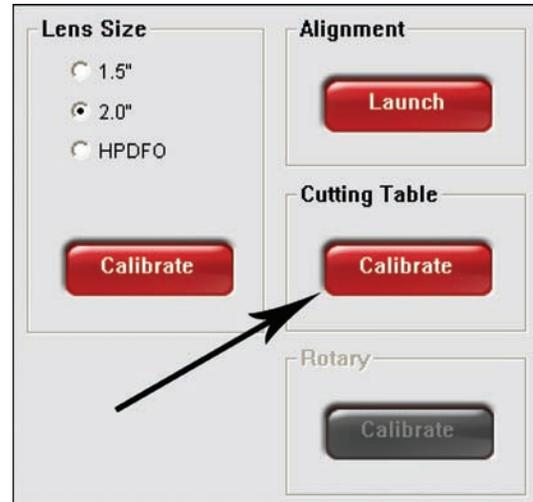
4. Inside the VersaLASER you will find the large recessed slot with a self-aligning electrical connector to the right side (1) and the two alignment pins (2).
5. By using the thumbscrews as handles (3), insert the VCA into the slot (it is OK to do with the power on because it is hot swappable) and move it around until the connector engages and the fixture sits flat. DO NOT raise the table at this point.

Focus Lens Calibration



To properly use the VCA for the first time you **NEED** to calibrate your focus lens to the top of the VCA surface. If you do not calibrate the focus lens the focus carriage may cause damage to your VCA and focus carriage.

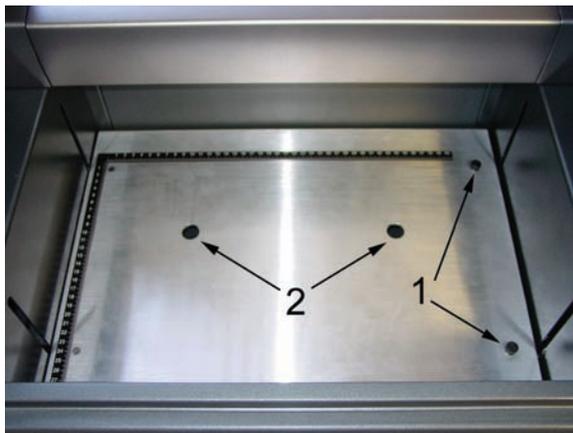
6. After you have installed the VCA into your VersaLASER, manually focus to the VCA surface by using your appropriate focus tool.
7. Once that is complete, go directly to your System Tab and you will notice that the red CALIBRATE button for the Cutting Table box will be activated. Click on the CALIBRATE button. A window will appear. To accept the new Z-height click on SAVE.
8. You are now done calibrating the new Z-height for engraving or cutting on the VCA.



Rotary Calibration

Calibration and Installation

1. Turn on the UCP and VLS.
2. Open the top door.
3. Lower the table all the way **DOWN** to the bottom of its travel so that you can remove the table.

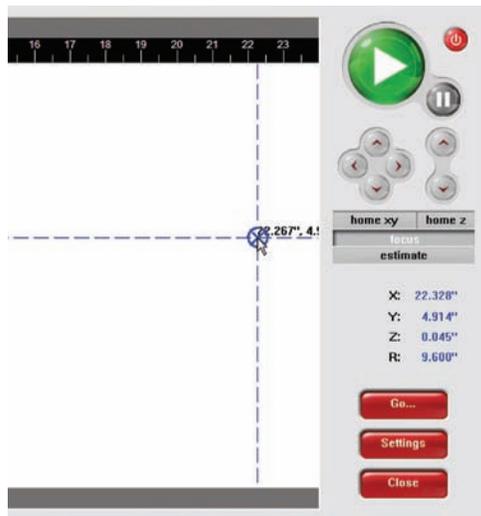


4. Remove the table by loosening the two captive thumbscrews (1). Insert your fingers into the two holes (2) and slowly lift the table out of the VersaLASER being careful not to bump it around

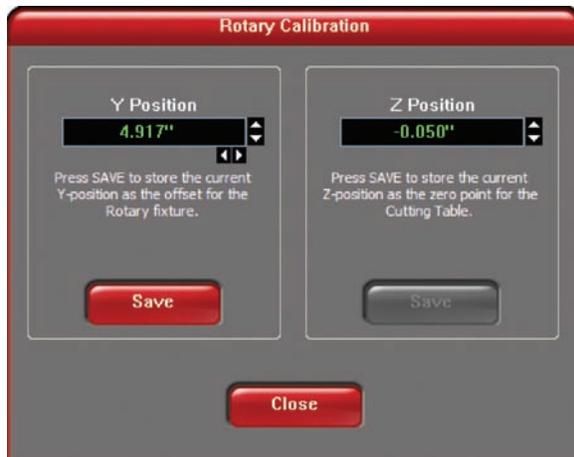


5. Inside the VersaLASER you will find the large recessed slot with a self-aligning electrical connector to the right side (1) and the two alignment pins (2)

6. Now raise the Z-axis platform as high as it will go by using the VLS keypad or UCP.



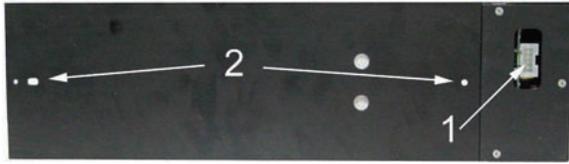
7. Proceed to the UCP and activate the focus feature on the right hand side of the Viewer Tab. Click within the focus feature and have the focus carriage move over the alignment pin as shown. Use the red LED to position the focus carriage over the pin properly. You can also use your computers keyboard to control the movement of the focus carriage when you are using the focus feature. **DO NOT** exit the focus feature yet.



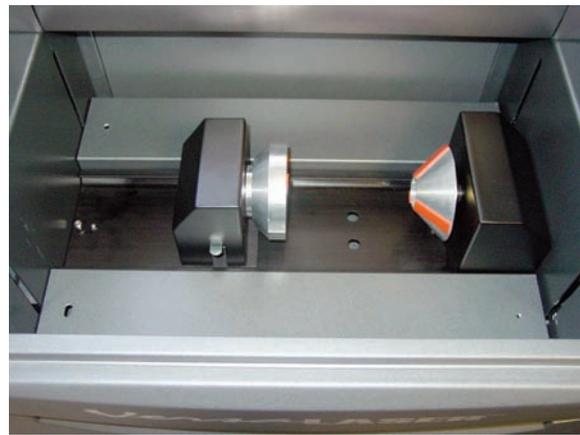
8. Next, proceed to the System Tab and click on the Rotary CALIBRATE button. The Rotary Calibration window appears. Click on the Y Position SAVE button. If it asks you to override the current position accept the new number. Once the Rotary Calibration window is closed the focus carriage will re-home.

9. Go back to the Viewer Tab and exit the focus feature.

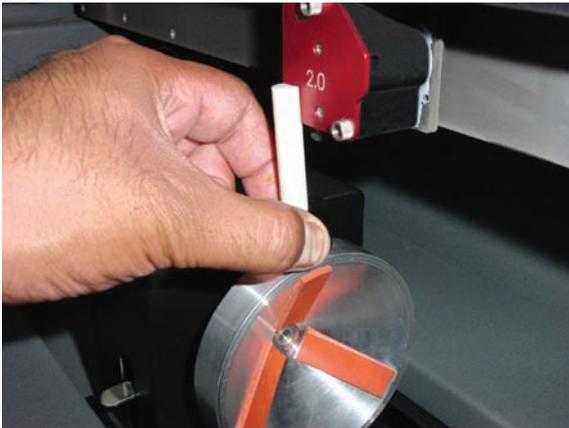
10. Lower the table all the way **DOWN** to the bottom of its travel.



11. On the underside of the CORA notice the self-aligning electrical connector (1) and two alignment holes (2).



12. Insert the CORA into the slot (OK to do with the power on because it is hot swappable) and move it around until the connector engages, the pins protrude through the alignment holes, and the fixture sits flat. It will indicate that it is installed properly by automatically rotating its cone slightly.



13. Using the same procedure in step 7 use the focus feature and move the focus carriage's red LED over the flat part of the metal concave fixture. Now use the focus tool and manually focus on top of the flat part of the metal concave fixture. **DO NOT** focus on top of the black metal cover normally located on the left hand side of the rotary.



14. Once you have manually focused proceed to the System Tab and click on the Rotary CALIBRATE button. The Rotary Calibration window appears. Click the SAVE button for the Z Position **ONLY**. If it asks you to override the current position accept the new number.

15. CORA calibration is now done. CORA calibration does not need to be done again unless the VLS's CPU is changed or calibration settings are changed.