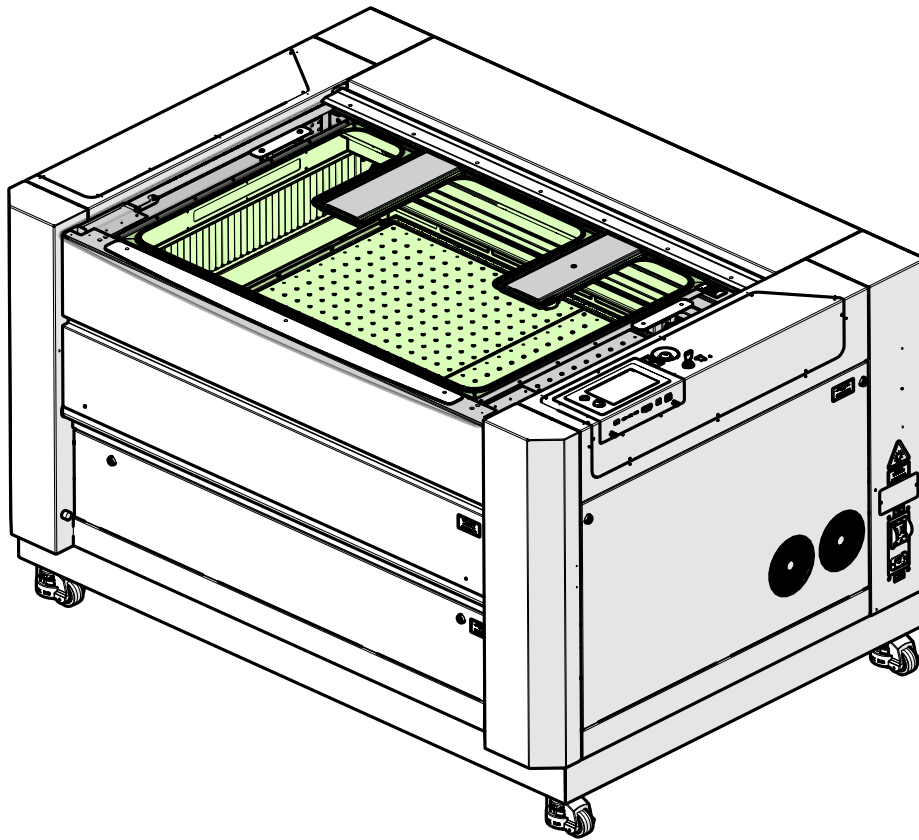


Leveling the Table Fusion Pro 32 & 48



Tools Required

- 5/32" Allen wrench

Leveling the Fusion Pro Table

Table level should be checked periodically to ensure that all areas of the table are the same distance from the focusing lens. If all areas of the table are not the same distance from the focusing lens, loss of laser power and inconsistent engraving and cutting marks can occur.

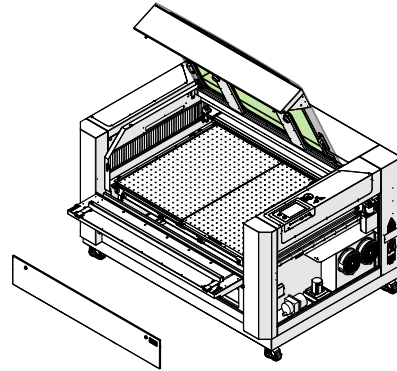
Complete this procedure if any of the following behaviors are observed.

- Laser power appears weak in certain areas of the table.
- The engraver is unable to cut through materials at or around the recommended settings in certain areas of the table.
- If the engraver has been moved to a new location.

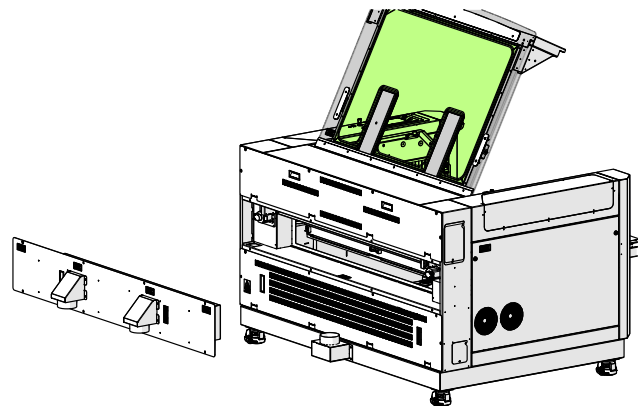
Leveling the Table Tub

1. Turn on the engraver, and let it complete the startup process.
2. Ensure that the engraving tables are installed in the engraver.
3. Lower the manual focus gauge.
4. Use the Focus menu to raise the table up enough to make contact with the manual focus gauge.
5. Use the Jog menu and move the lens carriage to each corner of the table to determine which corner or corners are lower than another. On a level table, the manual focus gauge will touch the table at each table corner.

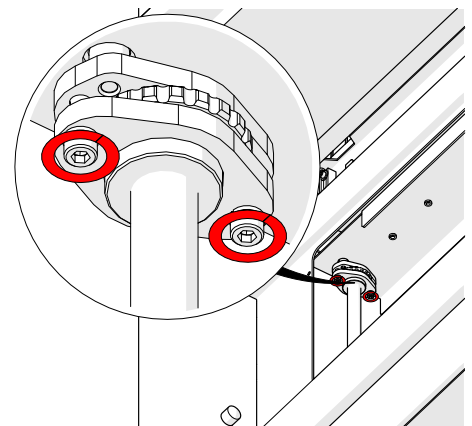
6. If a front corner appears to be lower than the others, remove the front access panel of the engraver:



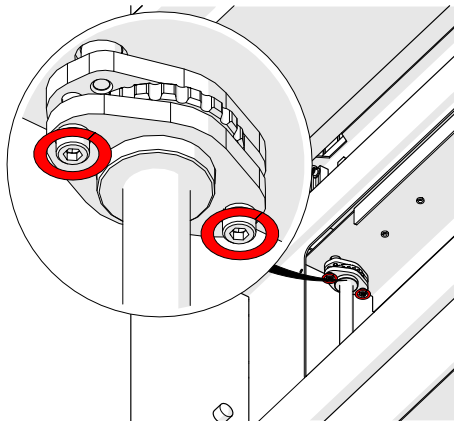
7. If a rear corner appears to be lower than the others, remove the exhaust plenum:



At each corner of the table are the table lead screws table levelers:



8. To adjust the table levelers, loosen the two (2) Allen screws on either side of the lead screw and twist the lead screw nut:



9. Turn the lead screw nut until the table corner is in contact with the manual focus gauge.
10. Once the table has been adjusted the appropriate amount, tighten the two (2) Allen screws on either side of the lead screw to lock in the table leveler.
11. Use the Jog menu to move the lens carriage to each corner of the table to ensure that each corner is level. The manual focus gauge should touch the table at each table corner.

Leveling and Fine Tuning the Engraving Table Inserts

Before beginning this procedure, remove the engraving table and ensure that there is no damage to the table, especially to the edges of the table. A damaged or warped engraving table can prevent you from completing this procedure. After inspection, place the engraving table back into the engraver.

While this procedure can be used to level the engraving tables in both the Fusion Pro 32 and Fusion Pro 48 engravers, there are slight differences.

The Fusion Pro 32 allows for adjustments in four (4) locations.

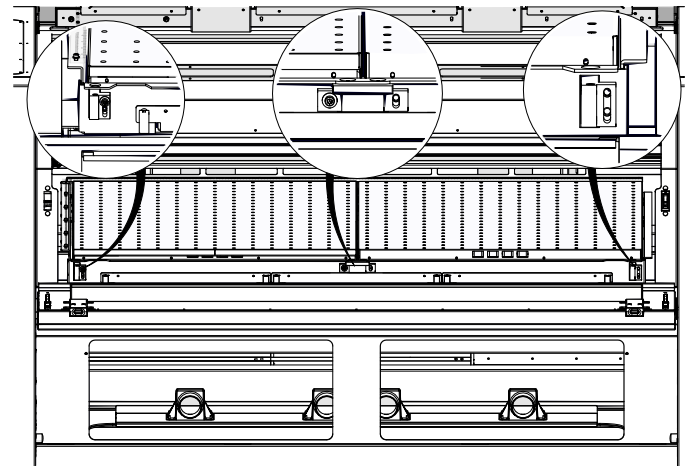
The Fusion Pro 48 allows for adjustments in eight (8) locations. This is due to the modular table assembly design in the Fusion Pro 48 engraver.

Adjustment screws are located under the front access panel and the exhaust plenum.

The procedure shown here contains images and certain instructions specific to the Fusion Pro 48; however, the concepts are directly applicable to the Fusion Pro 32 engraver.

There are eight (8) leveling points at both the front and rear of the Fusion Pro 48 engraver.

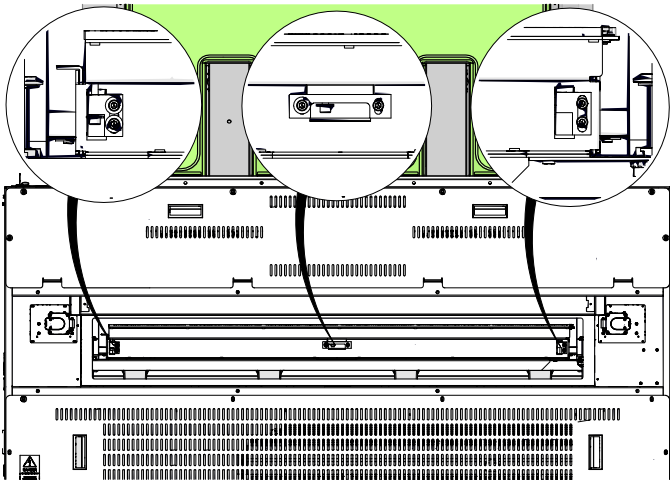
Front Table Adjustment Screws



While facing the leveling adjustment points at the front of the engraver:

- The left screws adjust the left side of the left table.
- The center screws adjust the right side of the left table and the left side of the right table.
- The right screws adjust the right side of the right table.

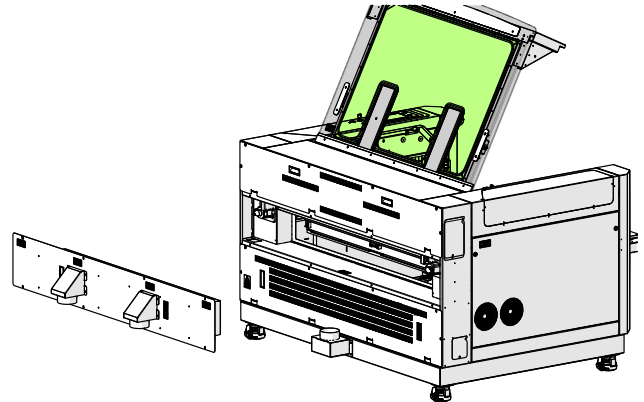
Rear Table Adjustment Screws



While facing the leveling adjustment points at the rear of the engraver:

- The left screws adjust the right side of the right table.
- The center screws adjust the right side of the left table and the left side of the right table.
- The right screws adjust the left side of the left table.

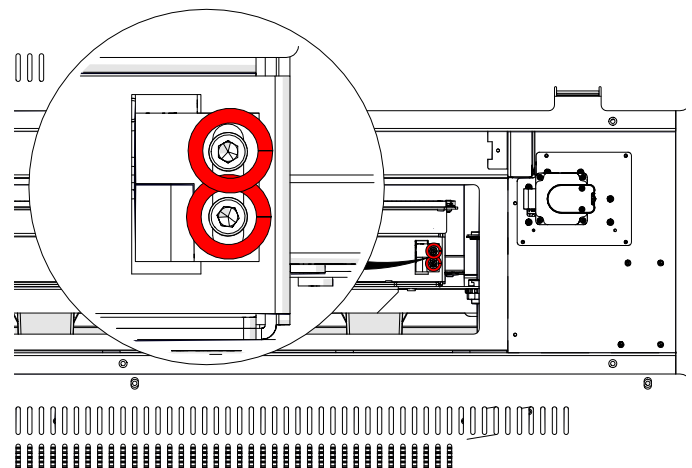
6. Remove the exhaust plenum:



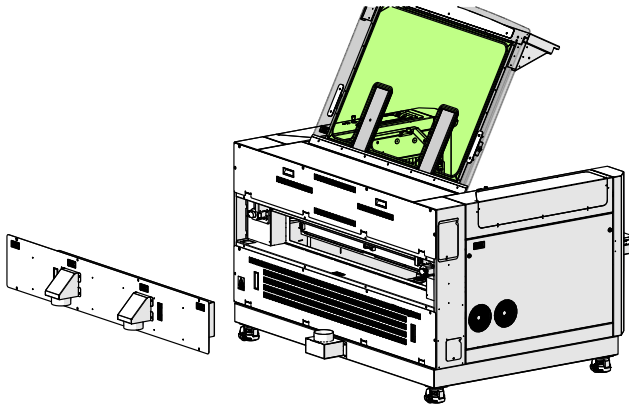
7. While standing at the rear of the machine and with the focus gauge in contact with the table, move the lens carriage between positions 1 and 2. Observe the focus gauge to confirm that it remains in contact with the engraving table.

8. If adjustments are needed to this area of the table, loosen the table clamp locking screws for positions 1 and 2:

Table Clamp Locking Screws Position 1



6. Remove the exhaust plenum:



7. While standing at the rear of the machine and with the focus gauge in contact with the table, move the lens carriage between positions 1 and 2. Observe the focus gauge to confirm that it remains in contact with the engraving table.
8. If adjustments are needed to this area of the table, loosen the table clamp locking screws for positions 1 and 2:

Table Clamp Locking Screws Position 1

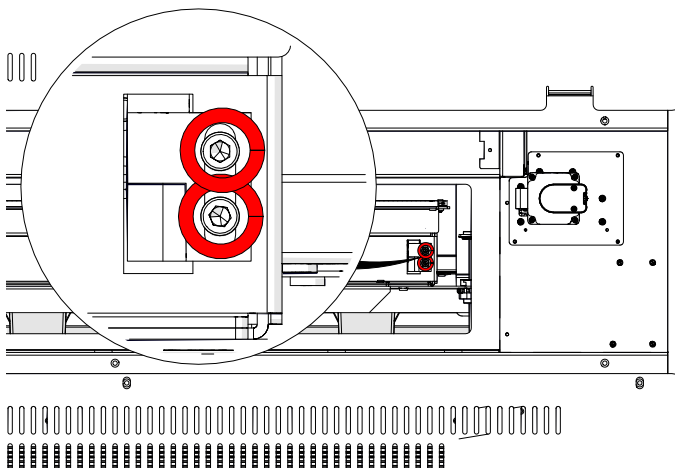
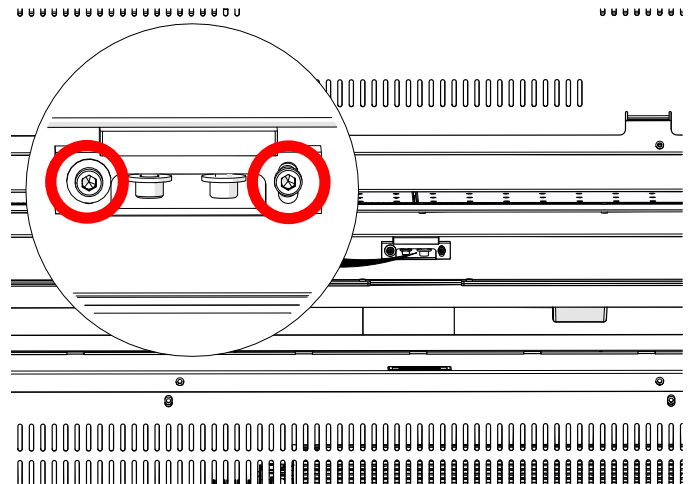


Table Clamp Locking Screws Position 2



9. Once the table clamp locking screws are loosened, the table can be raised or lowered using the Allen head leveling screws shown below. Tightening the screws will lower the table and loosening the screws will raise the table:

Table Leveling Screw Position 1

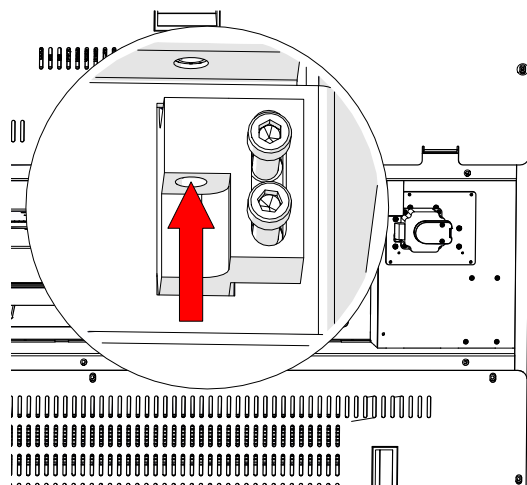
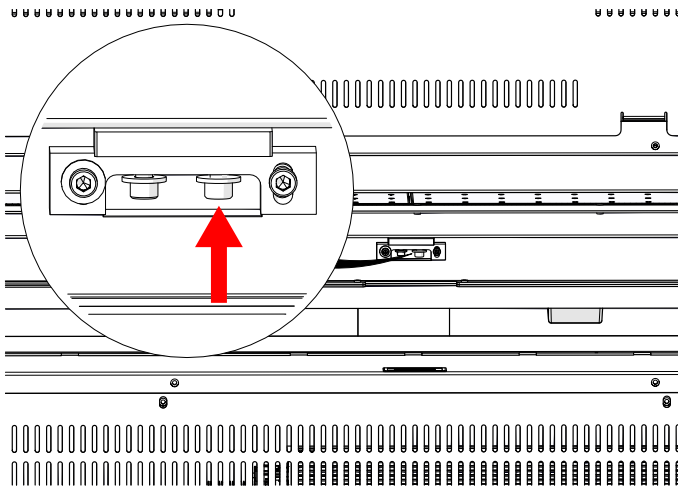


Table Leveling Screw Position 2



10. Adjust the table height until the tip of the manual focus gauge is in contact with the surface of the engraving table when moving between positions.
11. Once the appropriate adjustments have been made, tighten the table clamp locking screws.
12. Move the lens carriage between positions 3 and 4. Observe the focus gauge to confirm that it remains in contact with the engraving table.

14. If adjustments are needed to this area of the table, repeat the table height adjustment process outlined above to level positions 3 and 4 using the table clamp and leveling screws shown below:

Table Clamp Locking Screws Position 3

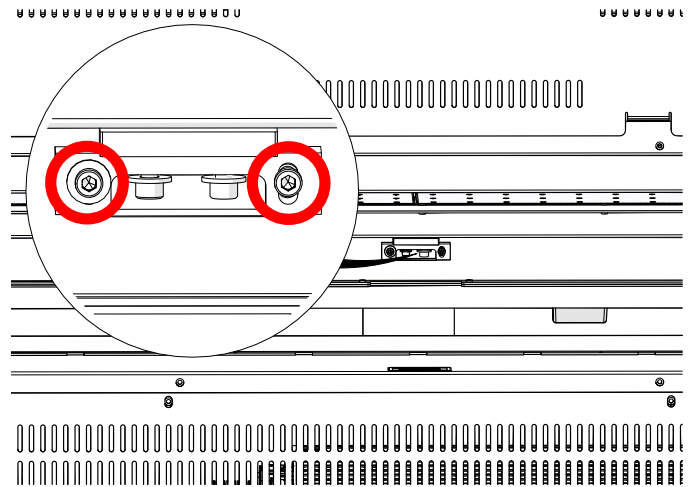


Table Level Adjustment Screw Position 3

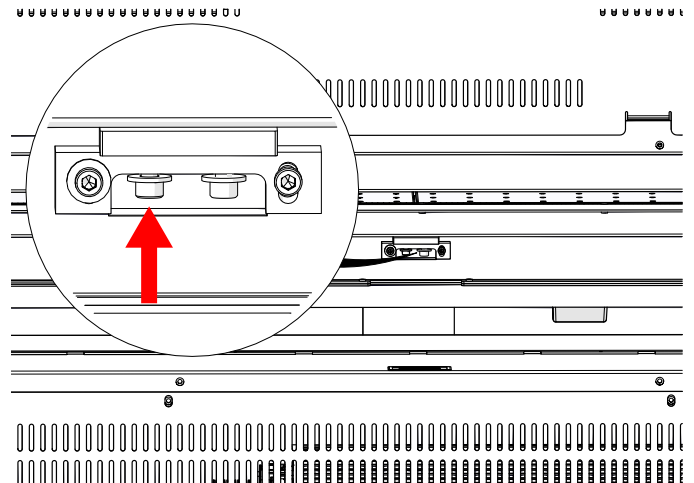


Table Clamp Locking Screws Position 4

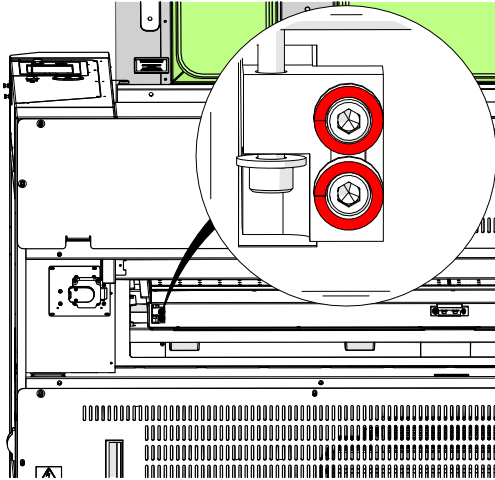
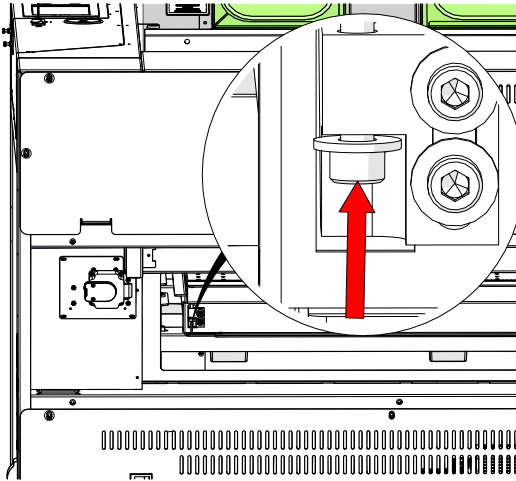


Table Level Adjustment Screw Position 4



15. Once the rear of the table is level between positions 1,2,3, and 4, move to the front of the engraver.
16. While standing at the front of the machine move the lens carriage between positions 5 and 6. Observe the focus gauge to confirm that it remains in contact with the engraving table.

17. If adjustments are needed to this area of the table, repeat the table height adjustment process outlined above to level positions 5 and 6 using the table clamp and leveling screws shown below:

The table adjustment screws in the front of the engraver work the opposite of the table adjustment screws in the rear of the engraver. Tightening the screws will raise the table and loosening the screws will lower the table.

Table Clamp Locking Screws Position 5

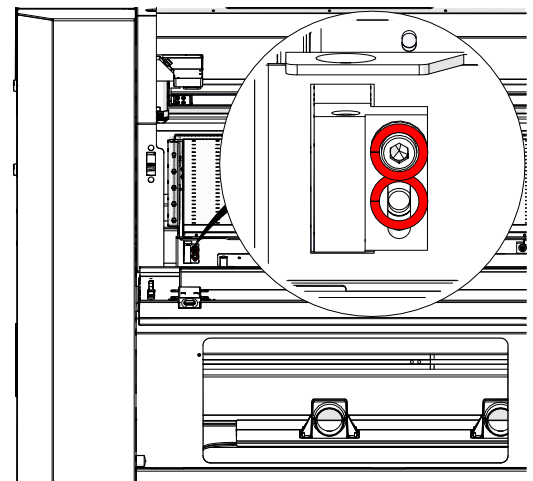


Table Adjustment Screws Position 5

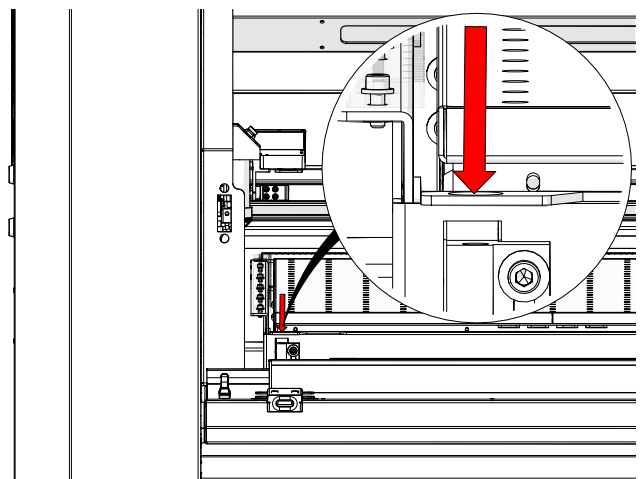


Table Clamp Locking Screws Position 6

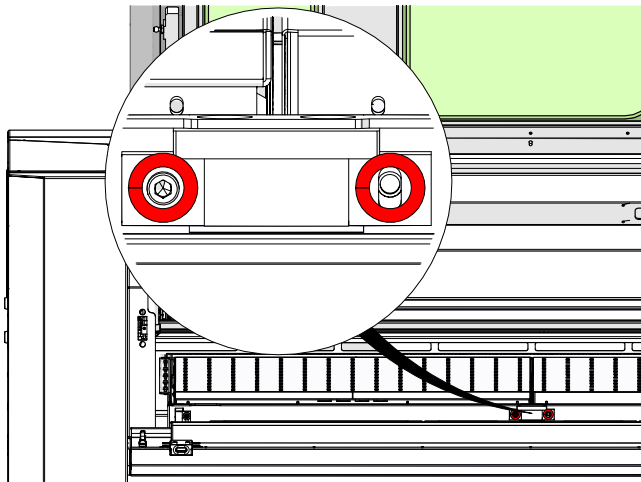
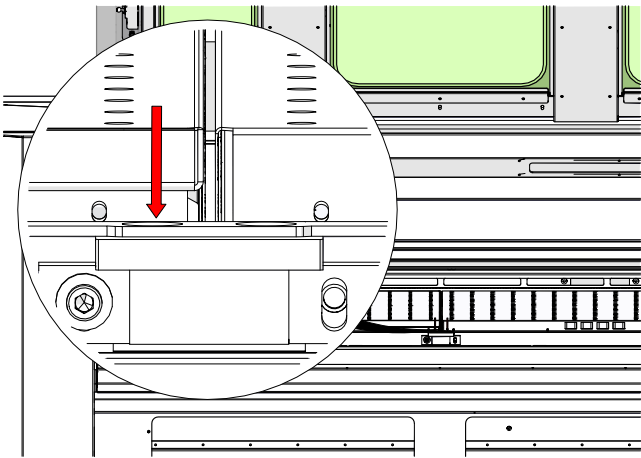


Table Level Adjustment Screw Position 6



18. Once the appropriate adjustments have been made, tighten the table clamp locking screws.
19. Move the lens carriage between positions 7 and 8. Observe the focus gauge to confirm that it remains in contact with the engraving table.

20. If adjustments are needed to this area of the table, repeat the table height adjustment process outlined above to level positions 5 and 6 using the table clamp and leveling screws shown below:

The table adjustment screws in the front of the engraver work the opposite of the table adjustment screws in the rear of the engraver. Tightening the screws will raise the table and loosening the screws will lower the table.

Table Clamp Locking Screws Position 7

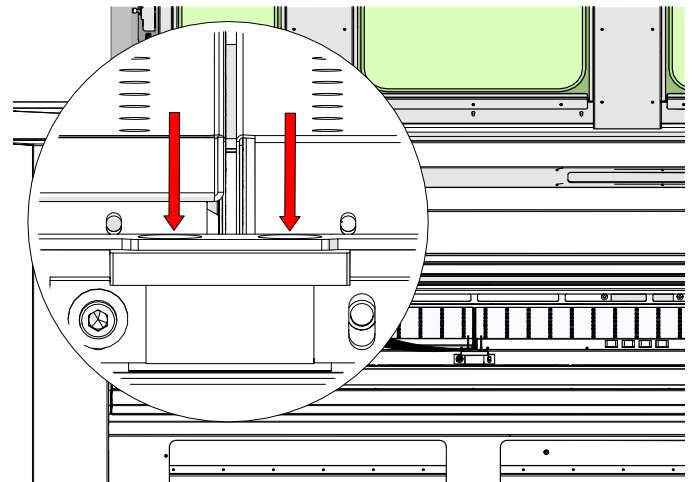


Table Level Adjustment Screw Position 7

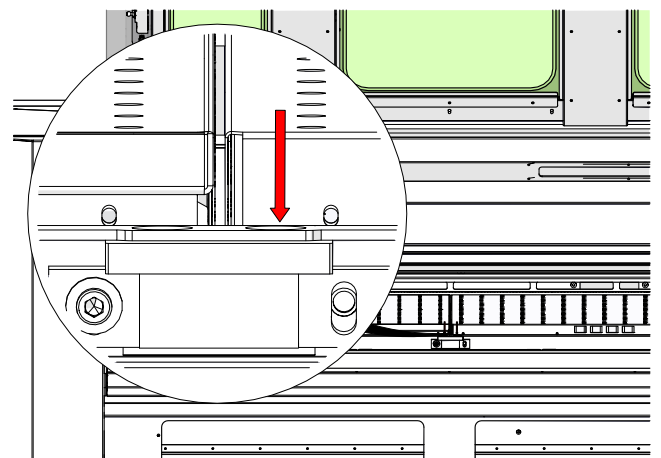


Table Clamp Locking Screw Position 8

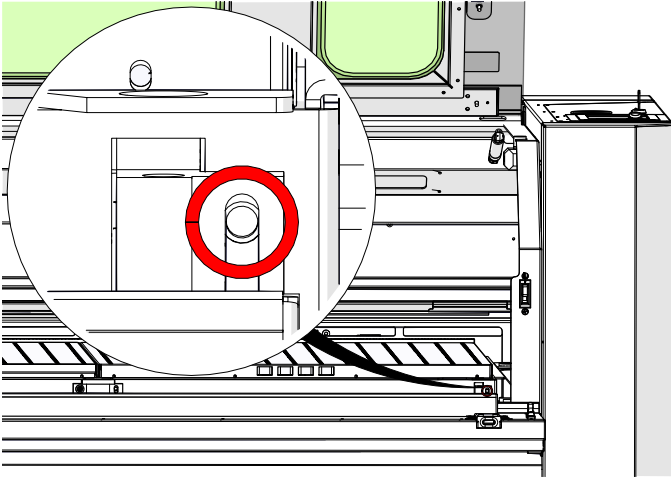
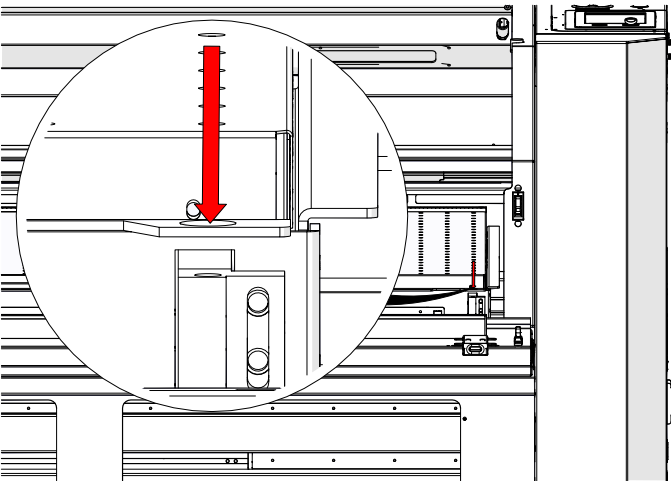


Table Level Adjustment Screw Position 8



Further Fine Tuning the Table Level

1. The autofocus can be used to confirm the quality of the table level.
2. Using the same table locations described above, jog the lens carriage to the desired location on the table and initiate an autofocus command via the Focus menu.
3. Compare the value returned from each location. If all locations are within ± 0.010 , the table level is within specifications.

If further assistance is required, please contact Epilog Laser Tech Support by phone at 303-215-9171, or by email at tech@epiloglaser.com.

21. Once the appropriate adjustments have been made, tighten the table clamp locking screws.
22. Test both engraving tables by pressing down on each corner of the inserts to ensure that they do not rock up and down. If rocking is observed, the leveling procedure may need to be repeated.