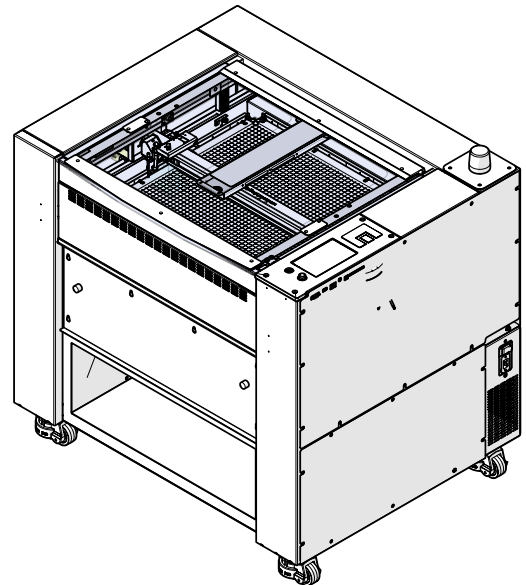
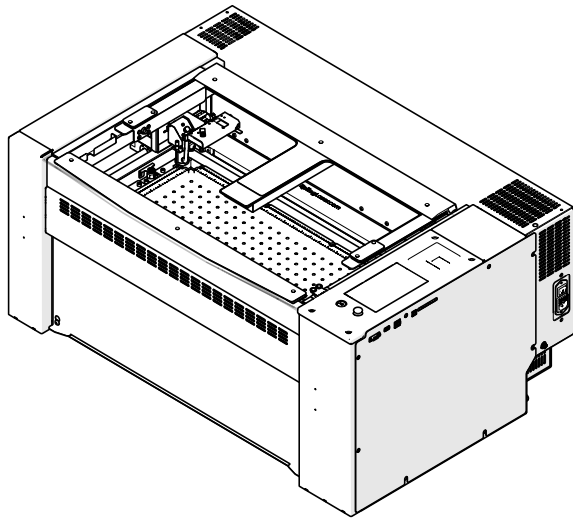


## X-Axis Belt Replacement

Fusion Edge 12, 24 & 36 - Fusion Pro 24 & 36



### Parts Required

- LC0435 - Belt, X-Axis, 24
- LC0725 - Belt, X-Axis, 36

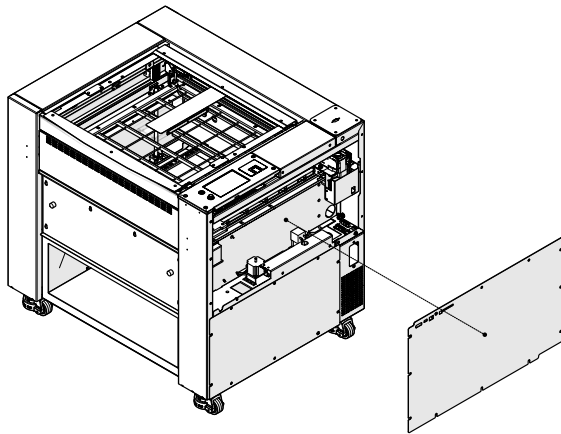
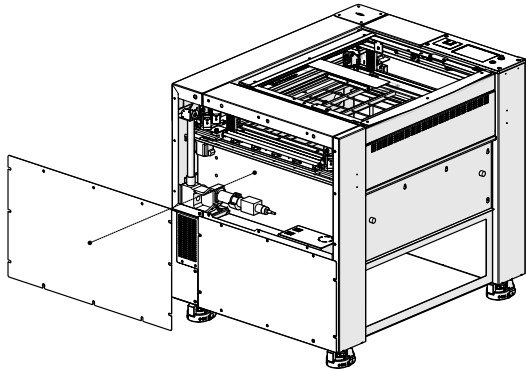
### Tools Required

- 3/32" Allen wrench
- 5/32" Allen wrench
- 7/64" Allen wrench
- Heavy-duty tape

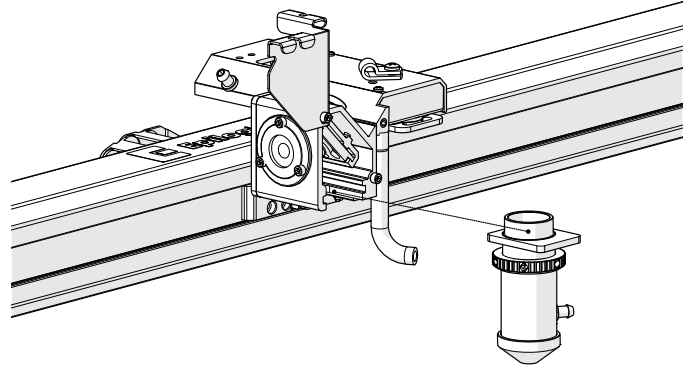
# EDGE X-AXIS BELT REPLACEMENT

## X-Axis Belt Replacement

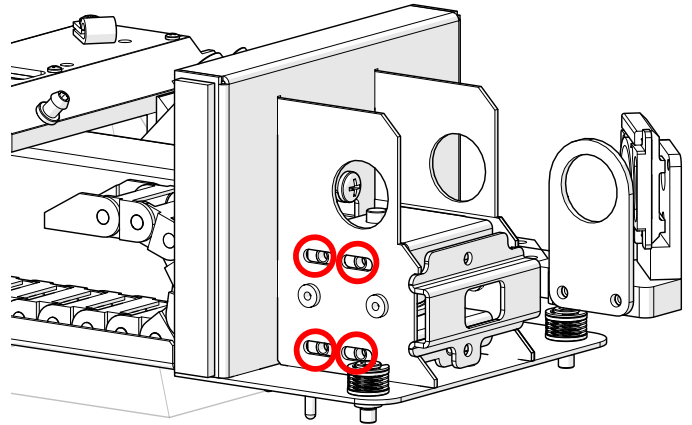
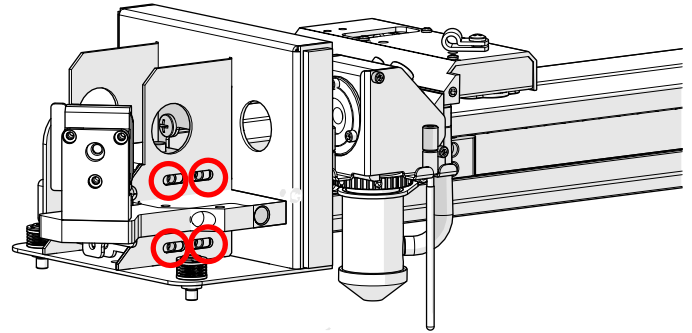
1. Turn off the engraver.
2. Disconnect engraver from power source.
3. Remove the left and right panel of the engraver:



4. Loosen and remove the lens tube assembly from the x-axis assembly:

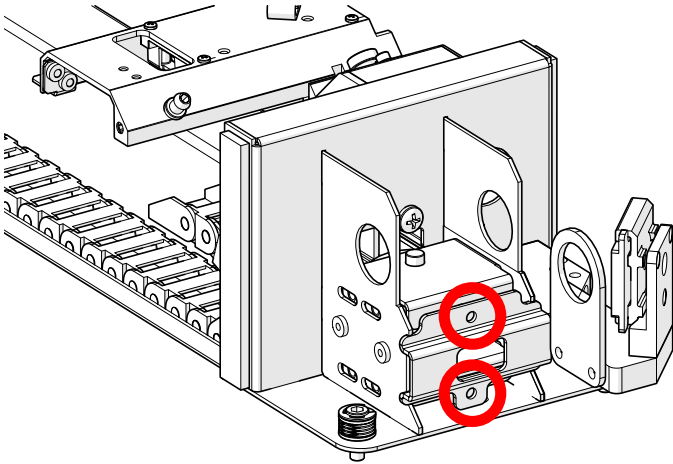


5. Loosen, but do not remove the eight (8) 7/64" Allen screws on the x-axis idler assembly:

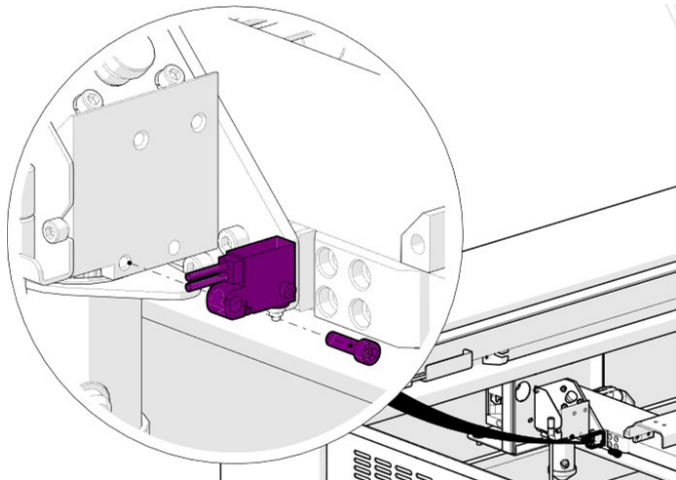


## EDGE X-AXIS BELT REPLACEMENT

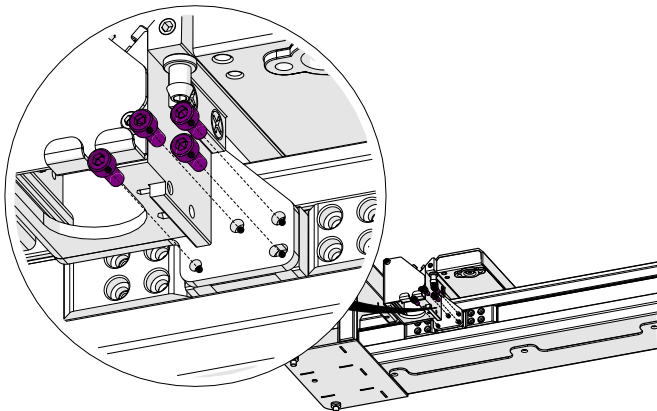
6. Loosen, but do not remove the two (2) 7/64" Allen screws on the x-axis belt tensioner bracket:



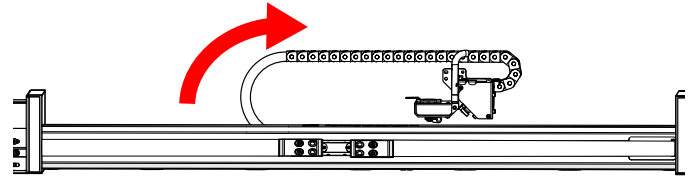
7. Loosen and remove the 3/32" Allen screw that secure the autofocus switch to the carriage assembly:



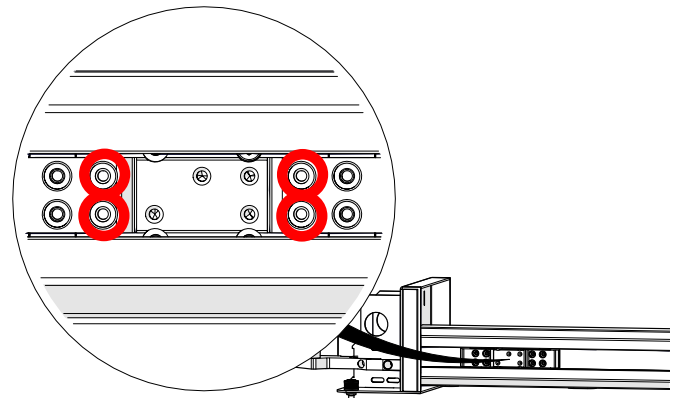
8. Loosen and remove the four (4) 3/32" Allen screws that secure the carriage assembly to the carriage assembly mounting plate:



9. Move the carriage assembly to the side:



10. Loosen and remove the four (4) 3/32" screws that secure the x-axis belt clamps to the linear guide slider block:

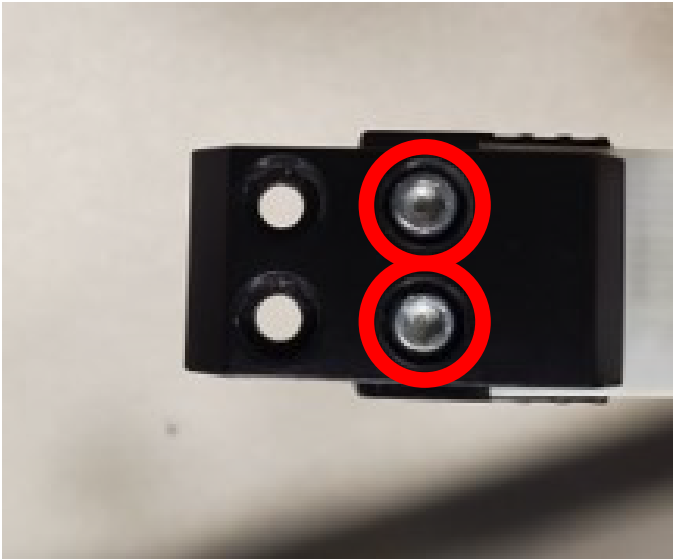


11. Remove the left and right belt clamps from the x-axis assembly:

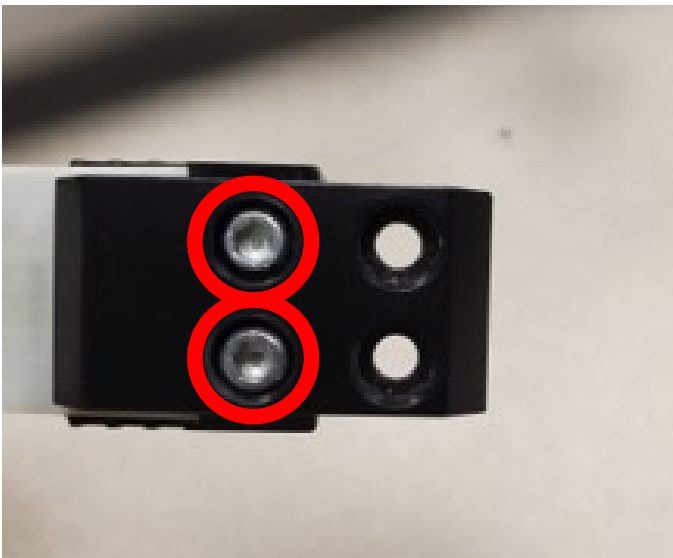


## EDGE X-AXIS BELT REPLACEMENT

12. Loosen and remove the two (2) 3/32" Allen screws that secure the x-axis belt to the right x-axis belt clamp:



13. Loosen and remove the two (2) 3/32" Allen screws that secure the x-axis belt to the left x-axis belt clamp:



14. Pull the right side of the belt away from the lens assembly and place it next to the replacement belt end-to-end. Using Duct Tape, or a similar, heavy duty tape, connect the old and new belts together by placing a strip of tape on the outer (smooth) sides:



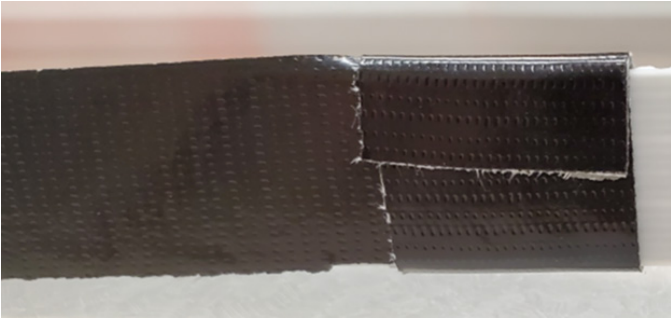
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Before connecting the old and new belts together, ensure that the orientation of the teeth match. The teeth of the belt should face towards the rear of the engraver, while the smooth side should face the front of the engraver.

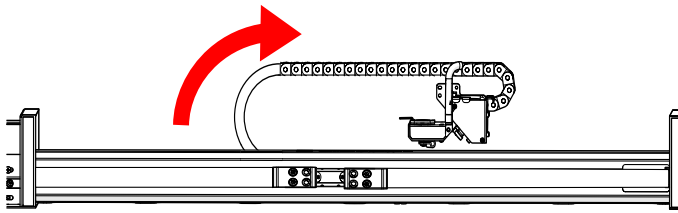
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## EDGE X-AXIS BELT REPLACEMENT

15. Place an additional piece of tape around the connection point of the new and old belts:



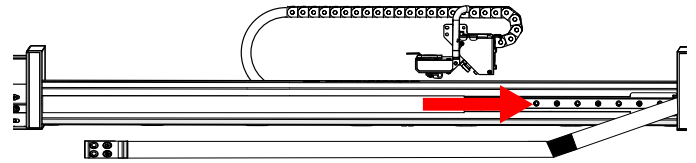
16. Once the new and old belts have been taped together, install the right side belt clamp to the untaped side of the replacement belt. This will prevent the replacement belt from being pulled into the reducer housing:



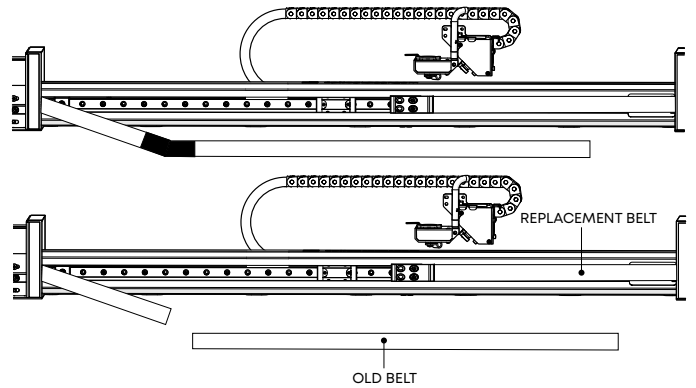
17. Ensure that the belt clamp is centered on the belt before tightening the clamp:



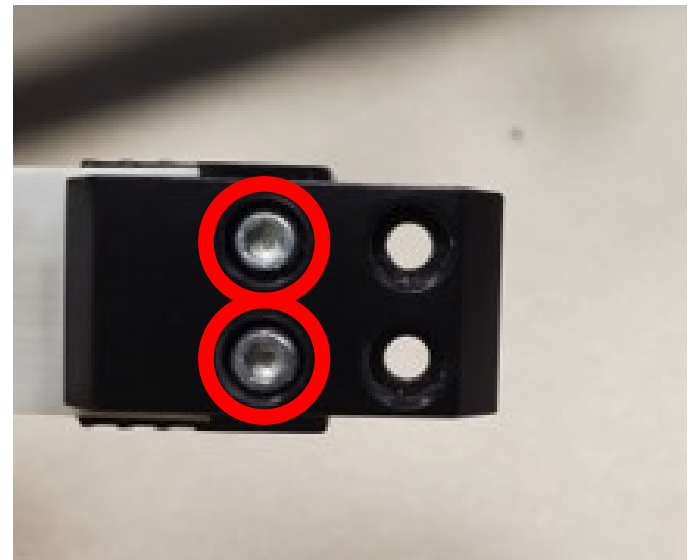
18. Slowly pull on the left side of the old belt to remove it while also threading the new belt through the x-axis assembly:



19. Once the connection point between the new and old belts has exited the idler assembly on the left side of the x-axis assembly, disconnect the belts:



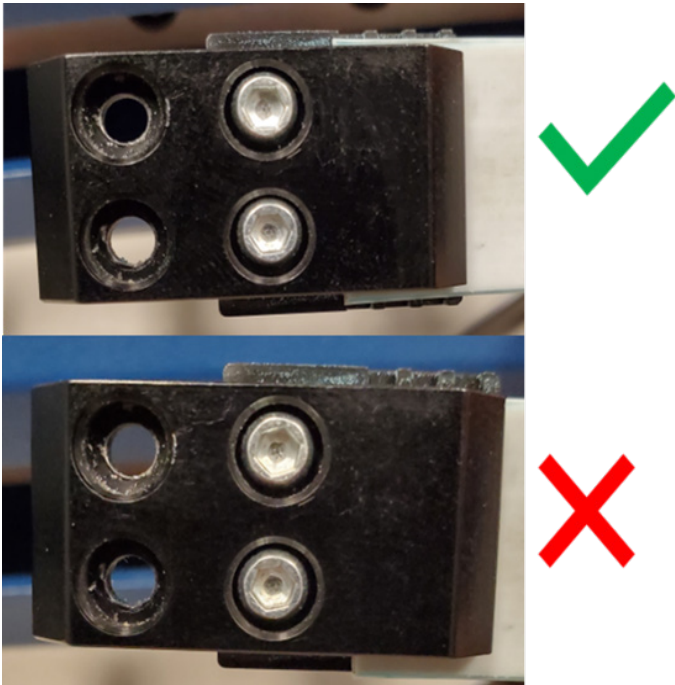
20. Install the left side belt clamp to the left side of the replacement belt:



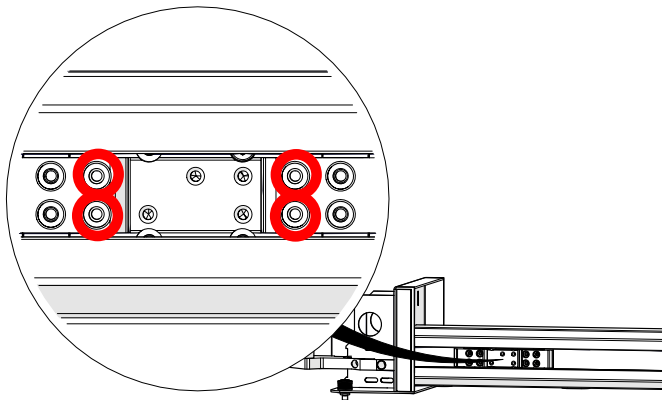


## EDGE X-AXIS BELT REPLACEMENT

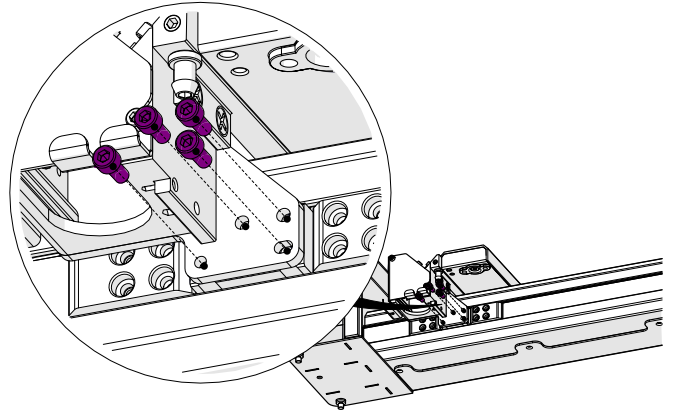
21. Ensure that the belt clamp is centered on the belt before tightening the clamp:



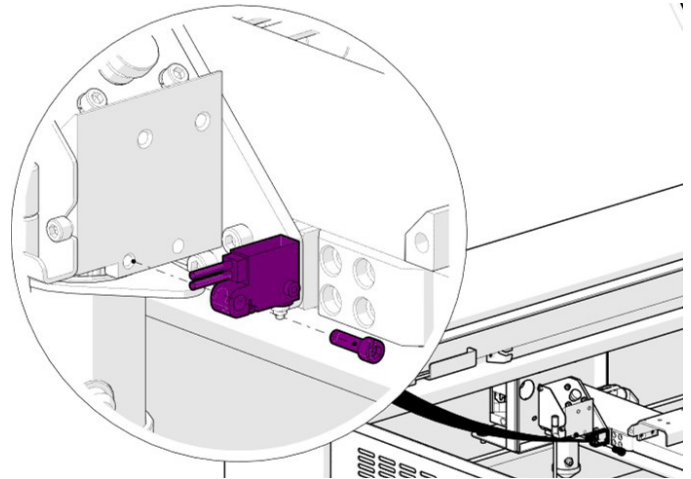
22. Position the belt clamps in the x-axis assembly and install and tighten the four (4) screws that secures them to the linear guide slider block:



23. Place the carriage assembly into position and install and tighten the four (4) 3/32" Allen screws that secures it to the carriage assembly mounting plate:

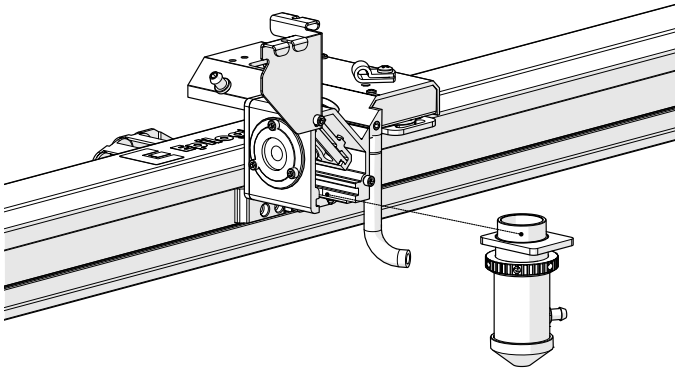


24. Place the autofocus switch into position and install and tighten the 3/32" Allen screw that secures it to the carriage assembly:

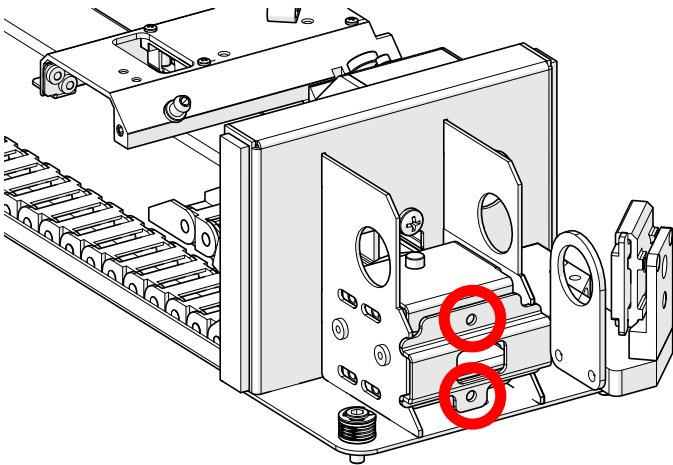


## EDGE X-AXIS BELT REPLACEMENT

25. Install and tighten the lens tube assembly:



26. Tighten the two (2) 7/64" Allen screws on the x-axis belt tensioner bracket to remove excess slack from the x-axis belt:



27. Once the slack is removed, reconnect to power and turn on the engraver.

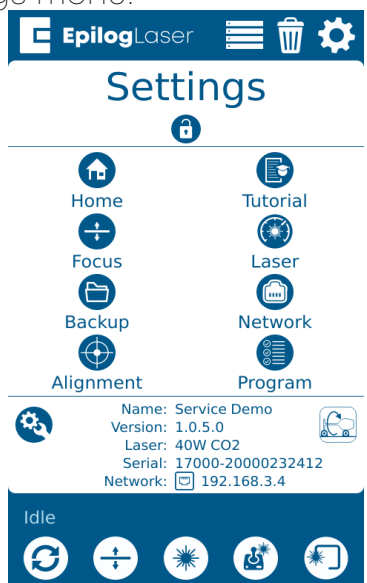
## Tensioning the X-Axis Belt

1. Open your preferred illustrating program and create a black, raster box on an artboard that is:
  - For Edge/Pro 12/24: 22" or 560mm wide
  - For Edge/Pro 36: 34" or 860mm wide
  - Roughly 4" or 100mm tall
2. Set the speed to 100%.
3. Power is unimportant, as the machine will be run with the lid open for the procedure.
4. Send the job to the engraver and start the job.
5. At the display panel, press the gear icon in the upper right-hand corner of the display to open the Settings menu:



## EDGE X-AXIS BELT REPLACEMENT

6. Press and hold the word “Settings” that appears at the touch of the touchpad to gain access to the Advanced Settings menu:

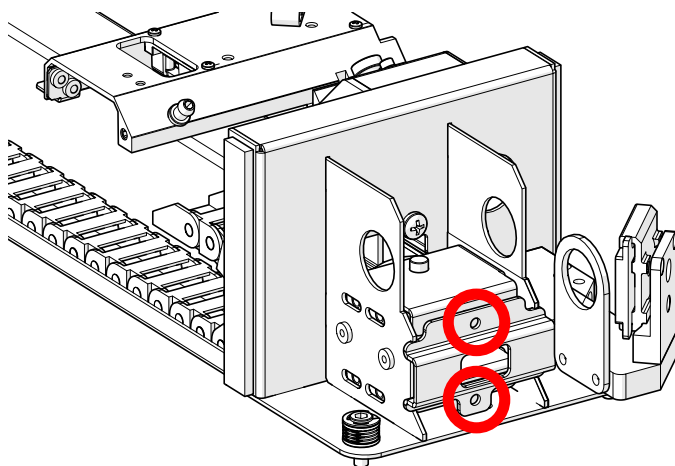


7. Once in the Advanced Settings menu, enter the Diagnostics menu and locate the RMS Current reading for the X-Axis Motor/Drive:

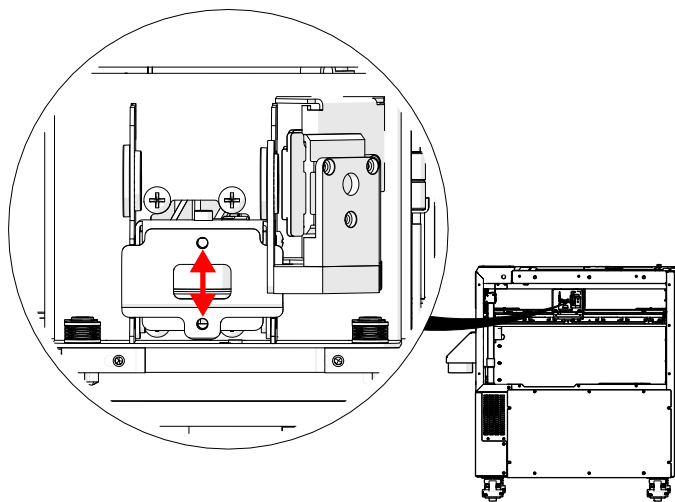


8. During the job, the x-axis motor RMS current should be between 4.0 - 5.1 A, depending on the model of engraver.

- If the RMS current is lower than this, increase the tension on the x-axis belt by tightening the two (2) 7/64" tensioner screws on the x-axis idler assembly.
- If the RMS current is higher than this, decrease the tension on the x-axis belt by loosening the two (2) 7/64" tensioner screws on the x-axis idler assembly.



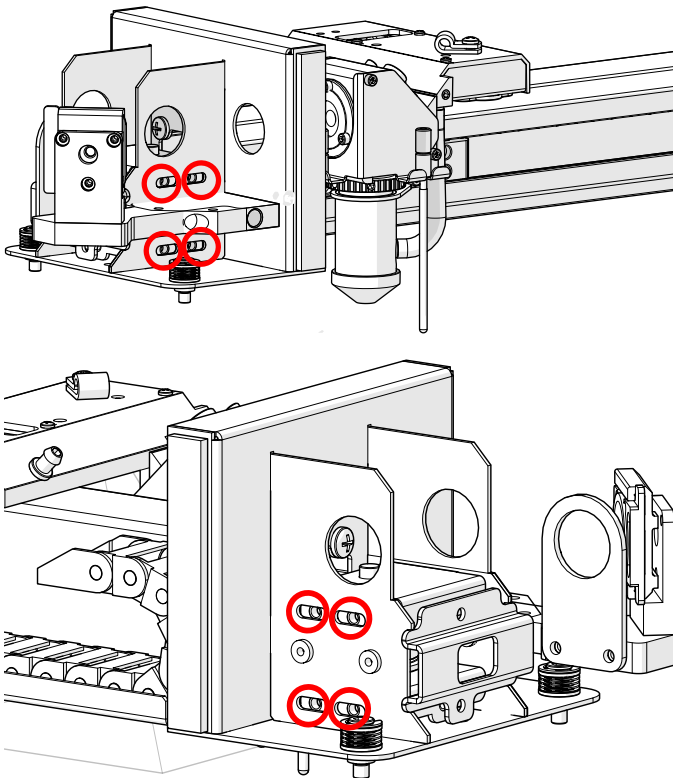
9. After tensioning the x-axis belt, ensure that the belt remains as centered as possible on the idler pulley when in motion:





## EDGE X-AXIS BELT REPLACEMENT

10. If the x-axis belt is riding against the idler pulley flange, make equal but opposite adjustments to the two (2)  $\frac{7}{64}$ " tensioner screws.
  - If the x-axis belt is too high:
    - Tighten the top screw  $\frac{1}{4}$  turn
    - Loosen the bottom screw  $\frac{1}{4}$  turn
  - If the x-axis belt is too low:
    - Loosen the top screw  $\frac{1}{4}$  turn
    - Tighten the bottom screw  $\frac{1}{4}$  turn
11. Repeat step 10 until the x-axis belt remains as centered as possible on the idler pulley when in motion.
12. Once the x-axis belt is centered and the optimal RMS current value has been achieved, tighten the eight (8)  $\frac{7}{64}$ " idler mounting screws located on the left side of the x-axis assembly:



13. Replace the left and right side panels of the engraver.

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