



EPILOG LASER

16371 Table Mountain Parkway
Golden, Colorado 80403
Phone 303-215-9171
FAX 303-277-9669
www.epiloglaser.com

Laser Tube Replacement

For the Epilog Fusion (CO2)

10/9/2013

Requirements:

Tools:

- 5/32" Allen Wrench
- #1 Phillips Screw Driver
- Masking Tape
- Alignment Target
- Safety Glasses

Parts:

- New CO² laser tube

Overview:

The following outlines the procedure to replace the laser tube in an Epilog Fusion CO2 Laser. Before beginning this procedure, be sure that you can access all sides of the engraver.

SAFETY WARNING:



WARNING:

While performing the laser alignment **all persons present** in the room during the performance of this procedure **must be equipped with adequate eye protection** (Lexan safety glasses, eyeglasses or goggles), and that no one looks or places any part of his or her body into the path of the laser beam.

WARNING:

This procedure requires that the laser be operated with the machines **door safety interlocks defeated** and **with protective covers removed**. While the laser power levels are reduced from those of normal operation, they are sufficient to inflict **eye injury** or **burns**.

Procedure A: Remove the old laser tube

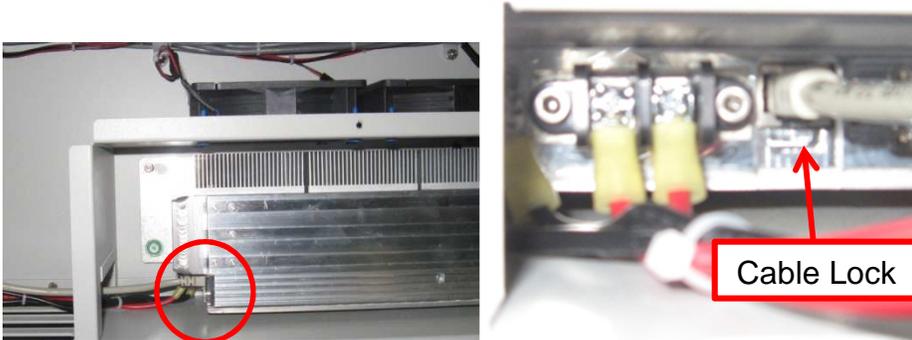
Step 1: Remove rear panel

With the engraver off and power disconnected from the wall locate the eight (8) 5/32" Allen screws which secure the lower rear panel to the engraver.



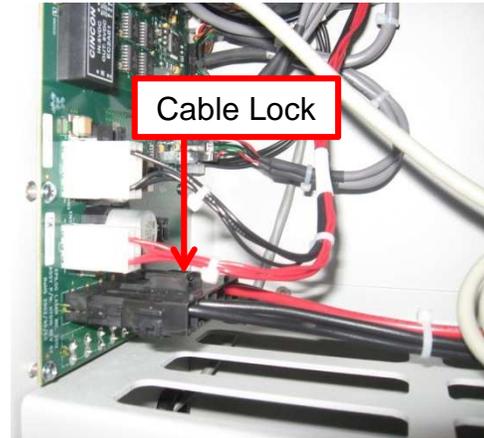
Step 2: Disconnect data cable

From the rear of the engraver, locate the grey data cable which plugs into the left side of the laser tube. Squeeze the end of the cable at the bottom to release the lock and then pull the plug from its socket.



Step 3: Disconnect power harness

Locate the red and black wires coming out of the bottom of the laser tube. Follow the wires back to the Fan Control Circuit Board. Depress the lock at the top of the connector disconnect the black connector from the circuit board.



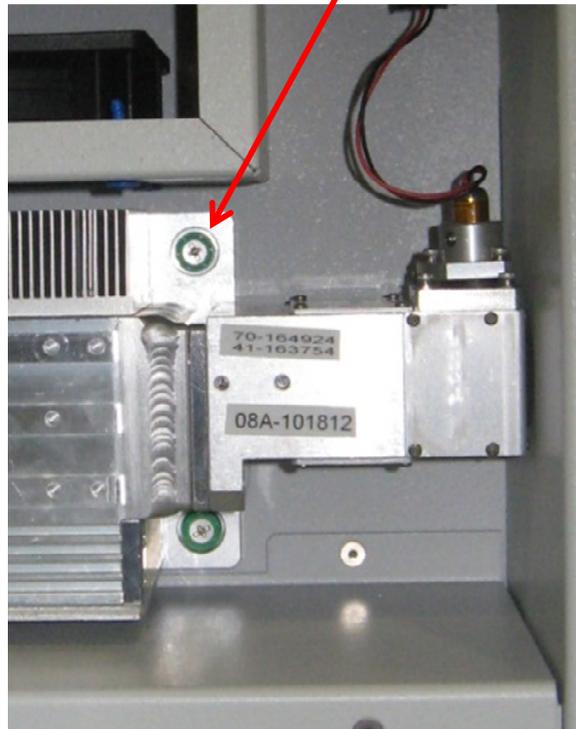
Step 4: Disconnect red dot

On the right hand side of the laser tube located the Red Dot Pointer. Follow the thin red and black wires from the laser tube to the black connector. Squeeze the cable lock on the black connector and disconnect it.



Step 5: Remove the laser tube

Locate the green screws on either side of the laser tube. Using a Philips Head Screwdriver loosen the green screws until they spin freely. The screws are captured and will not come free of the bracket.



Step 6: Remove the laser tube

Slide the laser tube ½” to the right.



Step 7: Remove the laser tube

Lift the tube out of the engraver and place it on a flat surface.

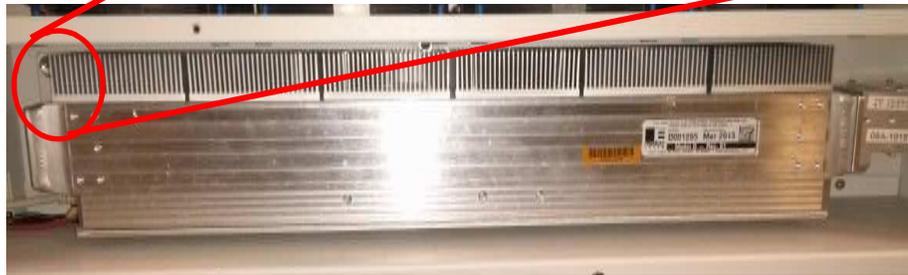
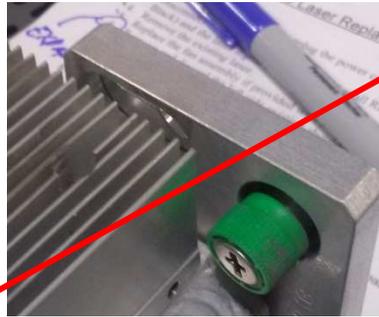
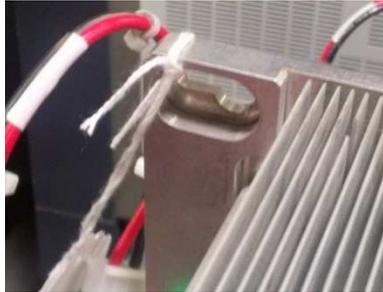
CAUTION:

The laser tube can weigh between 10 and 20 lbs. (4.5 to 9 kg). Please take proper precautions when lifting heavy objects.

Procedure B: Install the New Laser Tube

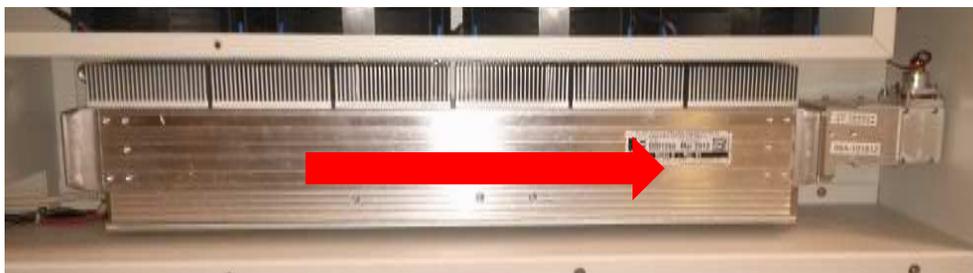
Step 1: Mount the tube

Align the slots on the mounting bracket of the laser tube, with the shoulder screws on the chasses of the engraver. Hang the laser tube on the shoulder screws.



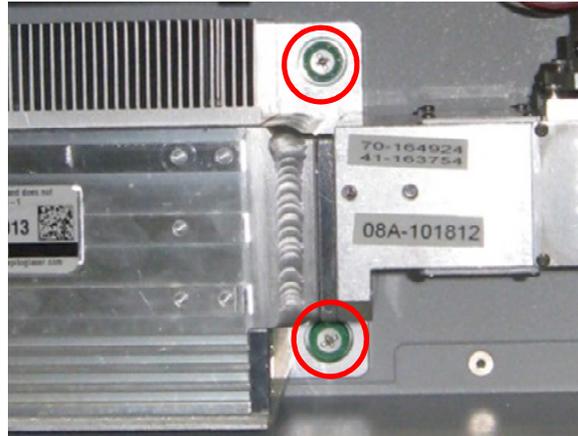
Step 2: Mount the tube

Slide the laser tube to the Right. The entire unit will slide up to a half an inch (12mm).



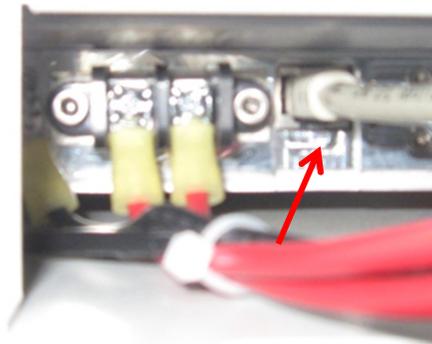
Step 3: Mount the tube

Locate the green screws on either side of the laser tube. Using a Philips Head Screwdriver, tighten the green screws to secure the laser tube to the chassis of the engraver.



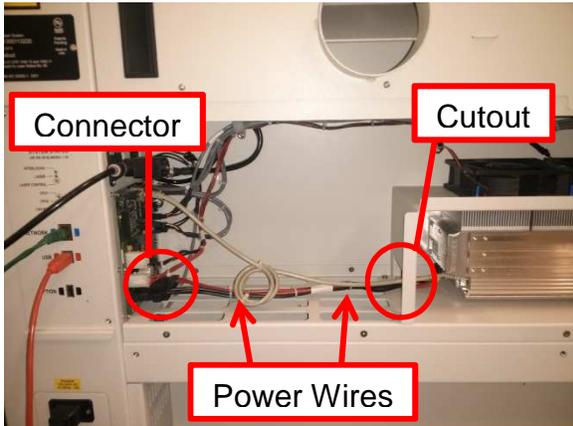
Step 4: Reconnect data cable

From the rear of the engraver, locate the grey data cable and reconnect it to the left side of the new tube. The cable will click into place insuring that it's secure.



Step 3: Reconnect power harness

Locate the red and black wires coming out of the bottom left side of the laser tube. Pass it through the cutout in the dividing wall and connect it to the bottom black socket on the Fan Control Circuit Board. The harness will click into place insuring that it is secure.



Step 4: Reconnect red dot

On the right hand side of the laser tube located the Red Dot Pointer. Follow the thin red and black wires from the laser tube to the black connector. Attach the black connector to the matching socket coming from the top of the laser tube bay.



Step 5: Replace rear panel

Tuck any loose wires neatly back in to the engraver and proceed to replace the Rear Panel.



Conclusion

You have now completed the installation of your new laser tube. Before attempting to use the laser you must complete the Alignment Procedure. If you need a written copy of the procedure or encounter any problems with this or any other process please contact Epilog Tech Support at (303) 215-9171.