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

Fan Assembly Upgrade

For the Epilog Mini / Helix

2/21/2013

Requirements:

Tools:

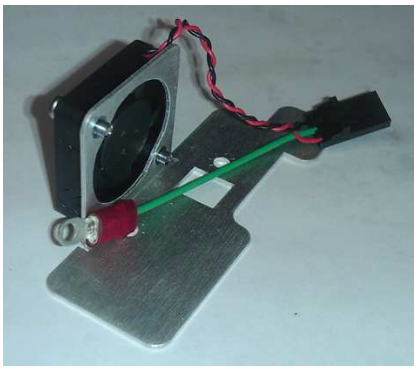
- Phillips Head Screwdriver
- Flathead Screwdriver
- 3/16” Nut Driver or Socket Wrench
- Wire Snips

Parts:

- MT314 – Motor Fan Kit Upgrade
- (or) MT315 – Motor Fan Kit Upgrade w/ AS07000ATT-03-M-02 X Motor

Overview:

This procedure will cover installing the fan assembly for the X axis motor.



Procedure A: Removing the Old Motor

Step 1

Unplug the engraver from its power source

Step 2

Remove both side panels.

Step 3

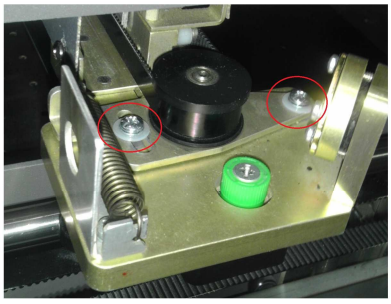
Remove cover on I-Beam.

Step 4

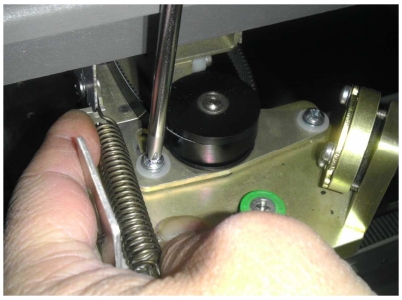
Loosen the X axis belt as follows.

1. On the left side of the I-Beam, locate the idler pulley that the Belt wraps around. It is mounted to a sliding plate which has two screws and a spring attached.
2. Loosen the two Philips screws that hold the sliding plate in place. (Do not remove the screws).
3. Push the pulley to the right hand side of the engraver. The pulley should slide with the plate towards the center of the machine forcing the spring to stretch.

4. While holding the pulley to the right hand side of the engraver, tighten the screw towards the rear of the engraver. This will hold the pulley in place.



Step 4-B



Step 4-C & 4-D

Step 5

Identify the Motor Assembly on the right side of the I-Beam. Locate the motor wires (red and Black twisted wire with a black quick disconnect at the end) and disconnect them by unplugging the black quick disconnect which is connected to the circuit board just to the rear of the motor.

Step 6

Identify and unscrew the Captive Screws which mount the motor to the I-Beam.

NOTE: The captive screws will not release from the Motor Bracket.

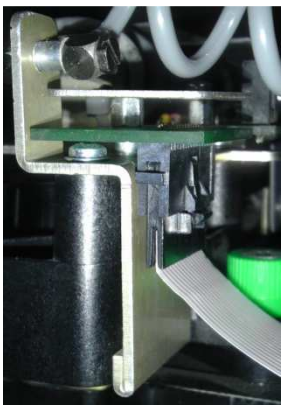
Step 7

Remove the motor by pulling it straight up. You may need to angle the motor slightly so that the belt falls from the drive pulley.

Procedure B: Removing the old PCB and Cover Plate

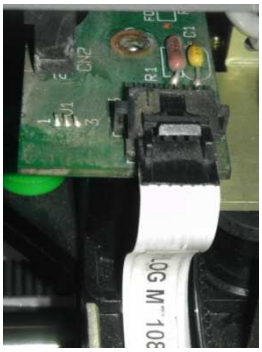
Step 1

Disconnect the Y Axis ribbon cable from the X/Y Interface PCB.



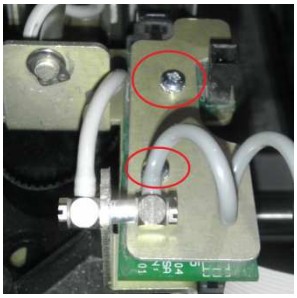
Step 2

Disconnect the X axis ribbon cable from the X/Y Interface PCB.



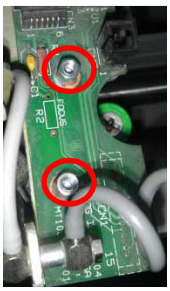
Step 3

Remove the screws on the top of the Cover Plate, remove and discard the cover plate.



Step 4

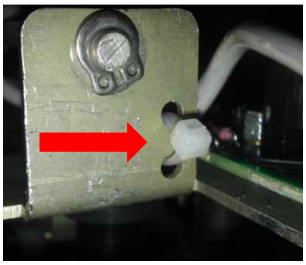
Using a 3/16 Nut Driver or Socket Wrench remove the standoffs from the X/Y Interface PCB. You may then remove and discard the PCB.



Procedure C: Installing the new PCB and Fan Assembly

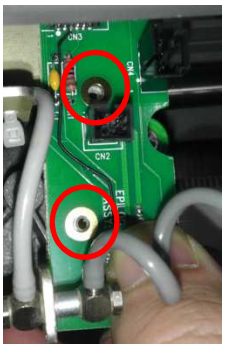
Step 1

Locate and cut the cable tie that holds the X-Axis Air Assist Coil Tube in place. Remove and discard the cable tie.



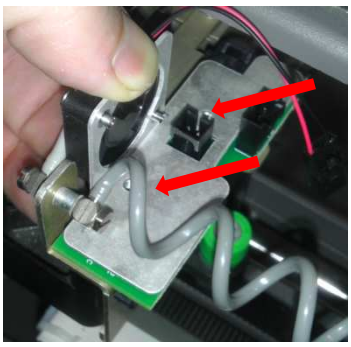
Step 2

Align the new PCB's mounting holes with the mounting studs on the I-beam and fasten it with the standoffs.



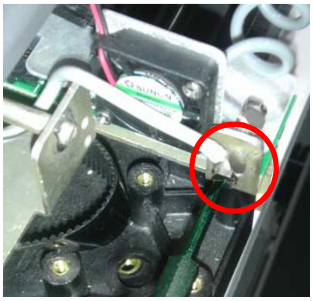
Step 3

Align the Fan Assembly's mounting holes with the standoffs on the PCB. Do not fasten the fan to the PCB yet. The Air Assist Tube will have to be moved out of the way.



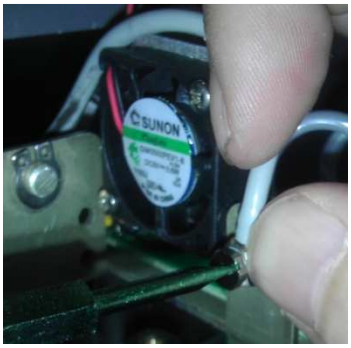
Step 4

Locate the fitting for the X-Axis Air Assist Coil Tube. Using a Flat head screw driver loosen the fitting. (Do not remove the screw.)



Step 5

Turn the fitting so that the tube goes up and over the Fan and retighten the fitting.

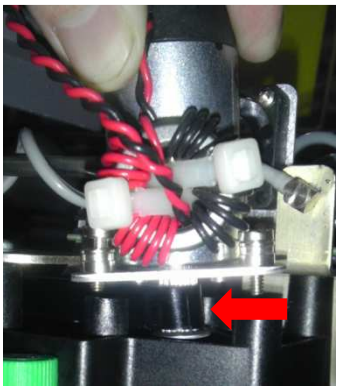


Step 6

Remove the fan assembly so that the motor can be remounted.

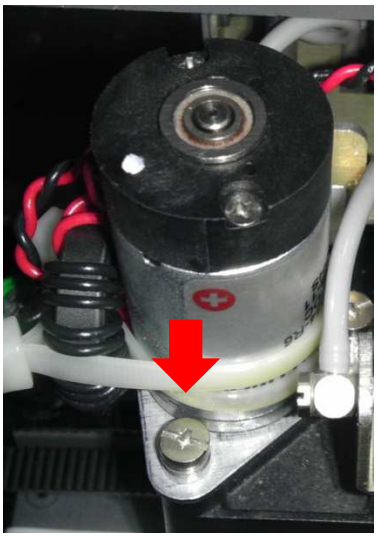
Step 7

Put the motor back in place, with your index finger, pull the belt and loop the belt around the silver pulley.



Step 9

Place the motor so that the captive screws are aligned with the mounting posts.

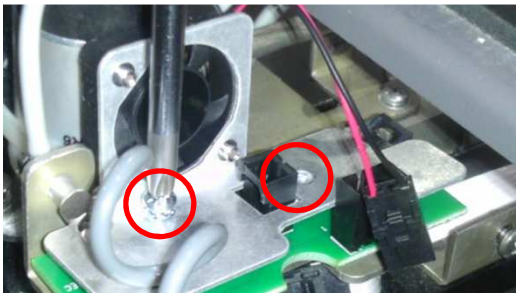


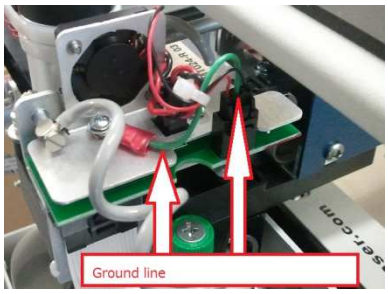
Step 10

Tighten the captive screws to hold the motor in place.

Step 11

Replace the Fan assembly over the circuit board. Fasten in place with the screws. Be sure that the Ground Line is connected to one of the screws.



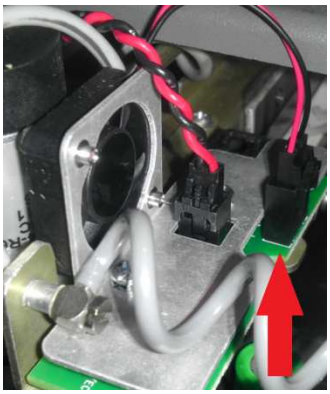


Step 12

Connect the motor wires (red and black twisted wire with a black quick disconnect at the end) by plugging the black quick disconnect in to the circuit board just to the rear of the motor.

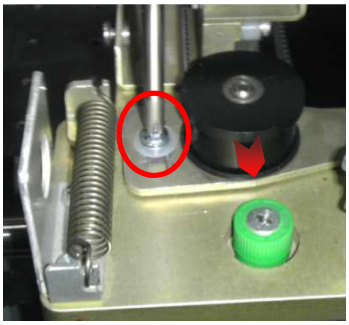
Step 13

Connect the Fan wires by plugging the black quick disconnect in to the circuit board just to the rear of the motor.



Step 14

On the left side of the I-beam locate the Pulley which the belt wraps around. (See Procedure A - Step 4.) Loosen the Philips screw holding the pulley in place. The spring will pull the belt tight. Retighten both Philips screws to keep the belt tight as the engraver operates.



Conclusion

Power on the engraver and check to see if the fan is spinning. You may then replace all of the covers on the machine. If you encounter any problems please contact Epilog Tech Support at (303) 215-9171.