

Replacing the X Axis Belt

For the Epilog Zing Laser Engraver

Revision 8/11/2017

Overview

This Document is designed to guide you through replacing the X axis belt on your Epilog Zing laser Engraver.

Requirements:

Tools:

- Phillips Head Screw Drivers, #1 and #2
- Sharp Scissors

Parts:

- Replacement X Axis Belt
 - Part Number (RC051-A or RC051-B)

Before We Begin

In order to have the best experience possible, collect the tools listed above and be sure that you have all of the parts that you need before starting this procedure. If you run into any problems or have questions, please contact Epilog Tech Support at [303-215-9171](tel:303-215-9171) or Tech@EpilogLaser.com. For fastest service, please have your serial number available.

Safety

When working on and maintaining a Laser engraver, it is likely that the side covers of the machine will be removed. Be sure that when doing maintenance in this way, that everyone in the room has eye protection on. Standard Polycarbonate Safety glasses or even glass spectacles will protect your eyes from the CO2 laser.

Energized electronics can spark, shock or cause motors to move suddenly. When working on electronics or near mechanical parts, be sure that the machine is powered off.

Verify Correct Parts

Locate the sticker on the new belt's packaging and take note of the part number.



i Example Part Number

Verify that the correct part has been received using the following table.

Zing X Axis Belts	
Zing 16	RC0051-A
Zing 24	RC0051-B

If the part number is not correct, Please contact Tech Support at 303-215-9171.

Remove Old Belt:

Locate and Remove the Control Module

On the Right hand side of the engraver, locate the control module. Using a #2 Phillips Head Screwdriver, loosen the two silver captive screws until they spin freely.



The Captive screws will not come away from the control module. Pull on the Two Captive screws until the Control Module disconnects and slides out from the Control Module Bay. Place the Control Module safely aside.



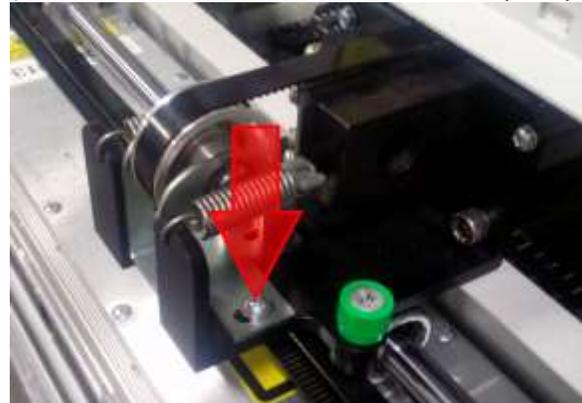
Remove the Side Panels

Locate and remove the remaining Panel Screws on both the Left and Right sides of the engraver. Once removed the side panels can be removed from the engraver.



Relieve Belt Tension

On the left hand side of the X Axis Rail, Locate the Belt Tensioner Pulley and loosen (do not remove) the two Philips Head Tensioner screws. (Note, there is one on each side of the pulley.)

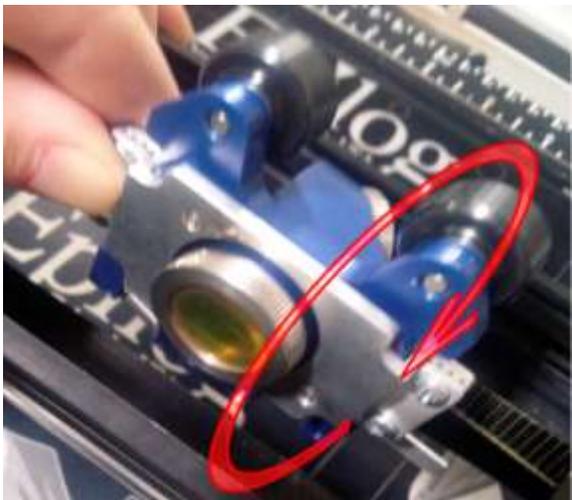
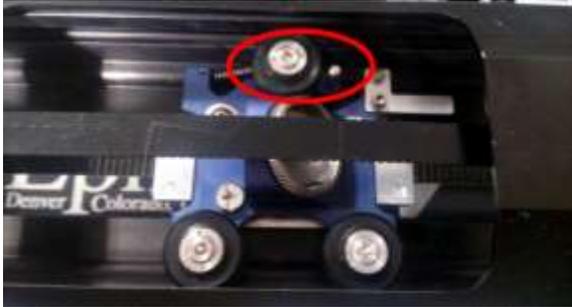


Push the Belt Tensioner Pulley towards the center of the engraver. When the belt goes slack, use a screwdriver to retighten two screws.



Disconnect Belt from Lens Carriage

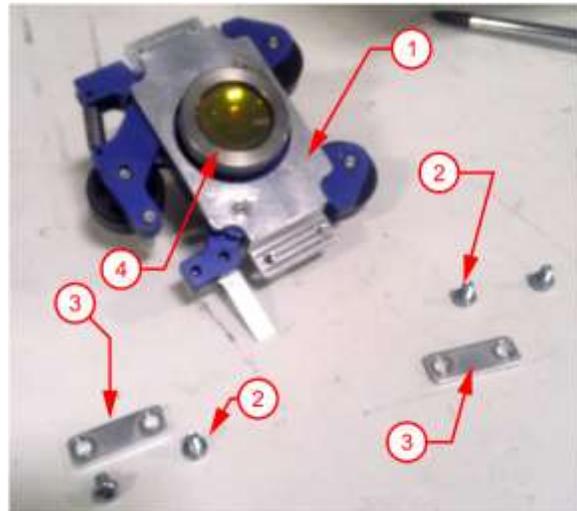
Pull the lever on the spring loaded wheel and pull the lens carriage up and out of the track on the X axis gantry. Flip the carriage upside down to expose the screws that hold the belt in place.



Once exposed, use a #1 Phillips Head screwdriver to remove the Belt Clamp Screws and Clamping Plate from both sides of the lens carriage.



Pull on one end of the belt to free it from the engraver. Do not discard the old belt at this time. Remove the Lens Carriage from the engraver and set it, along with the screws and clamping plates in a safe place for reassembly later. Do not allow the Carriage to rest on the Lens.



Belt Clamp Parts	
1	Lens Carriage
2	Clamp Screws
3	Clamp Plates
4	Lens

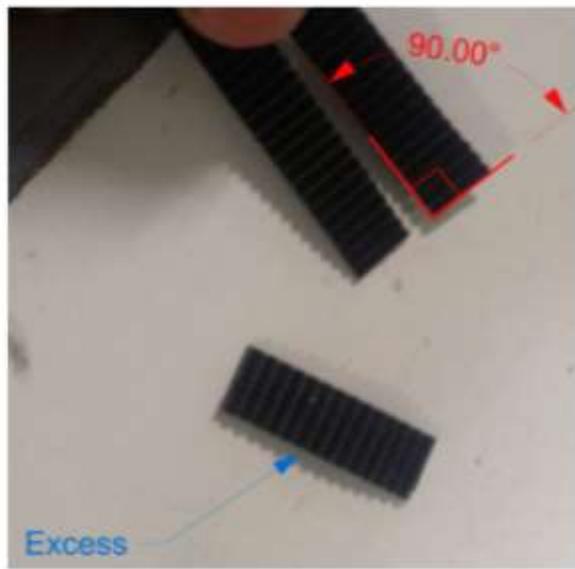
Install New Belt

Trim

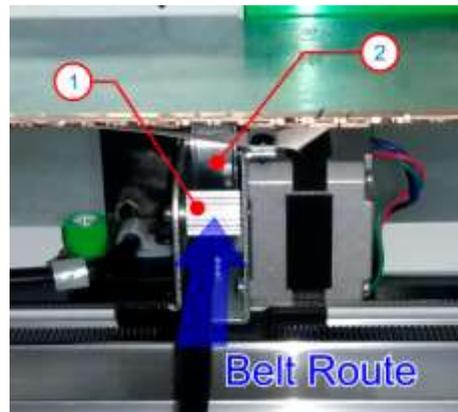
Remove the new belt from its packaging and lay it out next to the old belt. You will notice that the New Belt is longer than the old one.

Using a pair of sharp scissors trim the new belt so that it is about 1/8th to 1/4 inch (3-6mm) longer than the old belt). Attempt to cut straight across so that the cut edge is perpendicular to

the belt's length

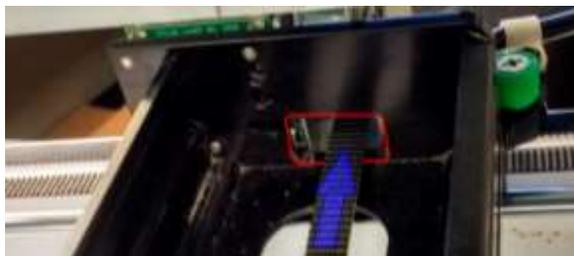


From the right side of the gantry, loop the end of the belt around both the Motor Pulley and the Large Idler Pulley.

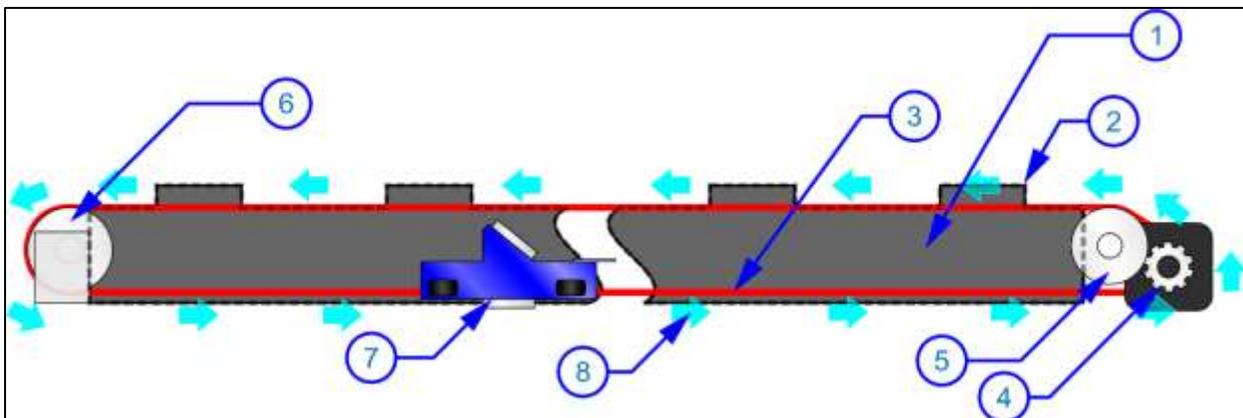


Route Belt

Begin by feeding the belt, teeth facing up, through the hole on the right side of the X Axis rail. Continue feeding belt through until you see the end comes out from the right side.



Route the belt across the Gantry, beneath the gantry cross members. When the left side has been reached route the belt over the left end of the Gantry, around and under the Tensioner Pulley.



ii Part Callouts, 1- Gantry, 2-Cross Member, 3-Belt, 4- Motor Pulley, 5-Idler, 6- Tensioner, 7-Carrage, 8-Routing Direction

Attach Lens Carriage

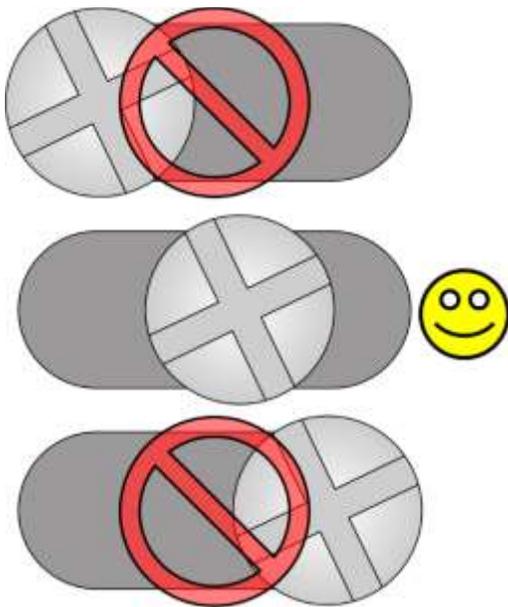
Connect the Left and Right ends of the lens carriage to the ends of the new belt. Place the end of the belt - with the teeth facing the lens carriage – into the belt clamp (the teeth will not match the friction ridges). Place the Clamp Plate on top and tighten with the Clamp Screws.



Flip the lens carriage to its normal orientation and pull on the spring loaded wheel and place the carriage back into its track in the gantry.

Apply Tension and Check

Go to the tensioner pulley on the left. Loosen the two mounting screws which are holding the tensioner loose and allow the springs to take up the slack in the system. Look at the mounting screws inside of their slots.



Correct Tension

The screws should be near the center of the slotted hole, and not to one side or the other.

Tension Too Loose

When standing at the front of the engraver, if the screw is to the Right end of the slot the belt will need to be trimmed further. Remove the belt from one side of the carriage and trim off one or two teeth, re-attach and re-check tension.

Tension Too Tight

If the screw is to the left end of the slot, the belt is too tight. You may need another belt if trimmed too far. Contact Epilog Tech Support for assistance and a replacement belt.

Final Steps

Once tension has been verified, tighten both of the tensioner mounting screws to set the tension. You may now replace the Side Panels and Control Panel. Make sure to run a test before returning to production work..

Complete