Y-AXIS TRANSMISSION ASSEMBLY REPLACEMENT

Follow this procedure to replace the Y-Axis transmission assembly.
Note: Electro-static discharge preventative measures must be adhered to during all assembly replacement procedures.

1) Turn off the Studio7 and disconnect the power cord.
2) Disconnect any interface cables.
3) Lift up the dust cover.
4) Unscrew the three screws on the left end cap on the Studio7 and remove it.
5) Using the 9/66" hex wrench, loosen the tool carriage belt tensioner.
6) Use a small flat head screwdriver to remove the four e-clips on the backing plate on the tool carriage.
7) Remove the backing plate.
8) Put a piece of tape on the ribbon cable to prevent it from retracting into the plotter. **Important** - Do not let the ribbon cable slip back into the housing.
9) Disengage the cable connector on the carriage and remove the ribbon cable from the carriage.
10) Pull the top of the carriage from the upper traverse rod and then pull the bottom of the carriage away from the lower traverse rod.
11) Unscrew the carriage belt retaining screw on the back of the carriage.
12) To prevent damage to the tool carriage, carefully set the top tool carriage wheels onto the upper traverse rod, then gently snap the lower tool carriage wheels onto the lower traverse rod and slide the tool carriage all the way to the left, against the left end plate.
13) Unscrew and remove the three screws that hold the right end cap to the Studio7 and remove the right end cap.
14) Remove all the bottom pan screws, and remove the bottom pan.
15) Remove the four screws and washers that hold the Y-Axis transmission assembly to the right end plate of the Studio7.
16) Pull out the Y-Axis transmission assembly.
17) Disconnect the power cables (the black and white twisted pair)
18) Carefully check the route of the gray encoder cable from the Y-Axis transmission assembly to the connector on the main logic board.
19) Cut all the cable ties and discard them.
20) Disconnect the gray encoder cable from the connector on the main logic board.
21) Connect the DC power cables (the black and white twisted pair) to the new Y-Axis transmission assembly. Plug the white cable onto the post labeled + and the black cable to the post labeled -. **Important** - These connections must not be reversed, or damage to the plotter could result.

22)Hold the new Y-Axis transmission assembly against the right end plate of the Studio7.
23)Use the four screws and the washers to attach the new Y-Axis transmission assembly to the right end plate of the Studio7.
24)Route the gray encoder cable from the new Y-Axis transmission assembly to the connector on the main logic board and plug it in.
25)Use cable ties to secure the gray encoder cable and the DC motor power cables.
26)Pull the two ends of the tool carriage belt together to make sure that the belt hasn't snagged or twisted. Make sure the belt teeth are facing the inside of the Studio7.
27)Make sure all cables and wiring are secured and re-install the bottom pan on the Studio7.
28)Pull the top of the tool cartridge off the upper traverse rod and then pull the bottom of the tool carriage away from the lower traverse rod.
30)Use the tool carriage belt retaining screw to attach the ends of the tool carriage belt to the back of the tool carriage assembly.
31)Carefully set the top tool carriage wheels on the upper traverse rod, then gently snap the lower tool carriage wheels onto the lower traverse rod.
32)Gently pull on the tool carriage belt (flex it away from the Studio7). Then slide the backing plate under the belt and attach it to the new tool carriage assembly. Make sure the belt is on the outside of the backing plate.
33)Use needle nose pliers to reattach the four e-clips.
34)Make sure the tool carriage belt tensioner bracket is securely seated to the left end plate of the Studio7 and then use a 9/64" hex wrench to tighten the tool carriage belt tension screw.
35)Gently slide the tool carriage to either the far right or the far left position of the traverse assembly, as far as it will go.
36)Gently pull on the middle of the tool carriage belt. Exert 300 to 420 grams (10.5 to 14.8 ounces) of pressure to the belt. The belt should deflect about 1/2 inch. Adjust the belt tension screw until you achieve 1/2 inch belt deflection.
37)Re-install the left and right end caps, lower the dust cover, and reconnect the power cable and interface cables.