

Applicable Models: AE-60, AE-102, AE-122

Replacing the Y Axis Motor

- Step 1:** Remove the right side cover (refer to the instructions on Removing the Left and Right-Side Covers).
- Step 2:** Disconnect the y-axis encoder cable on the main PCB. (See figure 1).
- Step 3:** Locate the y-axis motor cable and the location of the + and - terminals on the y-axis motor. Note or label the x-axis motor power cable before disconnecting (See figure 2).

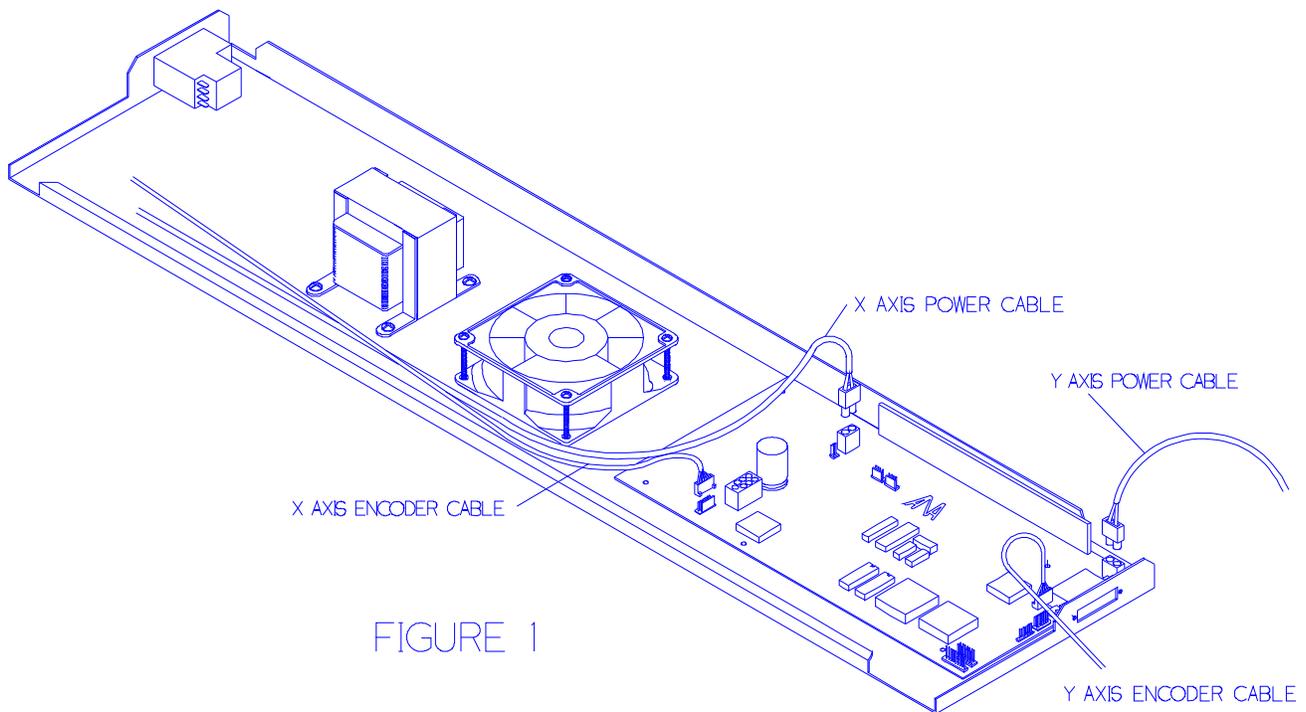


FIGURE 1

- Step 3:** Remove the (2) allen head screws on the bottom of the right side cover that holding the cover to the right side chassis cover (refer to the instructions for Removing the Left and Right Cover).
- Step 4:** Tip the plotter forward until the plotter is resting upright with the bottom pan inserted into its normal position in the bottom of the front and rear chassis.

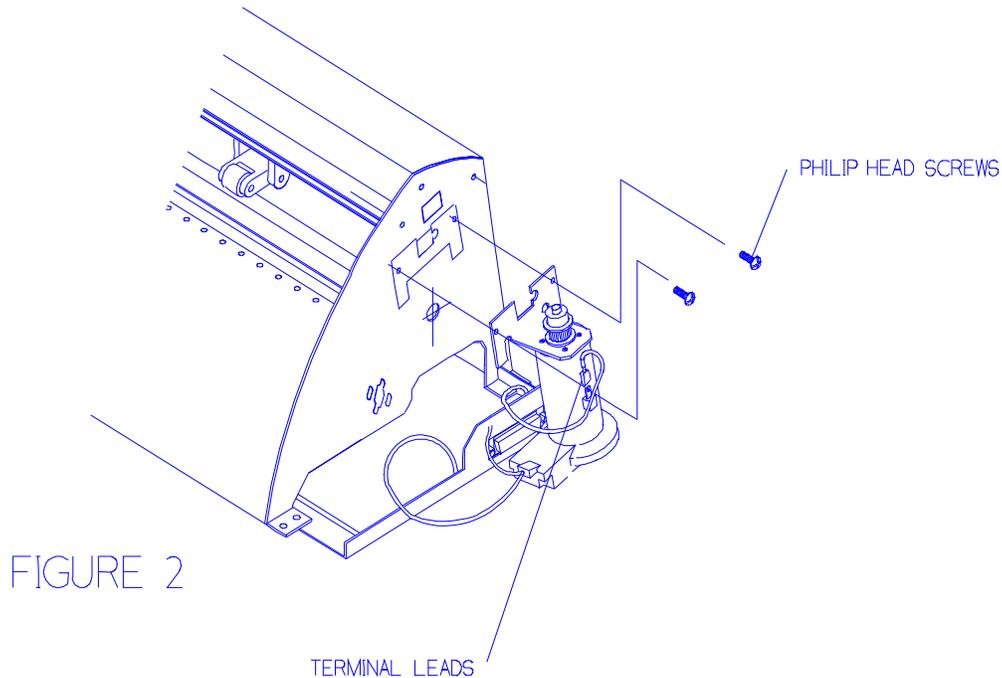
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- Step 4:** Tip the plotter forward until the plotter is resting upright with the bottom pan inserted into its normal position in the bottom of the front and rear chassis.
- Step 5:** Remove the screws on the inside of the right side chassis that hold the cover to the chassis (refer to the instructions for Removing the Left and Right Cover).
- Step 6:** Lift the right side cover slightly and slide the right side cover off to expose the y-axis motor and motor mounting bracket.
- Step 7:** Locate the y-axis motor cable and the location of the + and - terminals on the y-axis motor. Note or label the y-axis motor power cable before disconnecting (see figure 2).
- Step 8:** Disconnect the y-axis motor power cable at the y-axis motor (see figure 2).
- Step 9:** Remove the the (2) allen head screws that attach the y-axis motor to the motor mounting bracket and remove the motor (see figure 2).

Applicable Models: AE-70, AE-101, AE120

Replacing the Y Axis Motor



- Step 10:** Attach the new y-axis motor to the y-axis motor bracket using the (2) allen head screws and washers (see firgure 2).
- Step 11:** Loosen (1) of the allen head screw slightly and turn the motor to adjust the y-motor backlash. A tight backlash setting will produce good cutting quality, but it will cause the noise is will cause the setting is also excessive motor bearing wear and gear noise. The best setting is achieved when backlash is set tight and then backed off a small amount at a time until the gear reduced as the head is moved back and forth manually. Too loose a setting cutting quality to suffer and the gear noise will increase also. The best usually the quietest setting.
- Step 12:** Tighten the (2) allen head screws and washers after the backlash adjustment.

Replacing the Y Axis Motor

- Step 13:** Attach the y-axis motor power cable to the the terminals on the y-axis motor. Make sure that the polarity is correct. If the y-axis runs away upon booting up the plotter, you will need to switch the polarity of the cable connection.
- Step 14:** Push the y-axis encoder cable through the slot in the right side chassis .
- Step 15:** Slide the right side cover onto the right side chassis. Be careful to rout the cables so that they clear the x-axis and y-axis motors and gears.
- Step 16:** Attach the right side cover to the right side chassis using the (2) allen head screws (refer to the instructions for Removing the Left and Right Cover).
- Step 17:** Tip the plotter onto its back to expose the bottom pan and the main circuit board.
- Step 18:** Attach the right side cover to the bottom of the right side chassis using the (2) allen head screws and feet (refer to the instructions for Removing the Left and Right Cover).
- Step 19:** Plug in the y-axis encoder cable (see figure 1).
- Step 20:** Attach the bottom pan to the left and right side chassis (refer to the instructions on Removing the Bottom Pan). Be carefull to rout the cables so that they do not interfere with the fan. Use tie wraps to hold the cables out of the way if necessary.