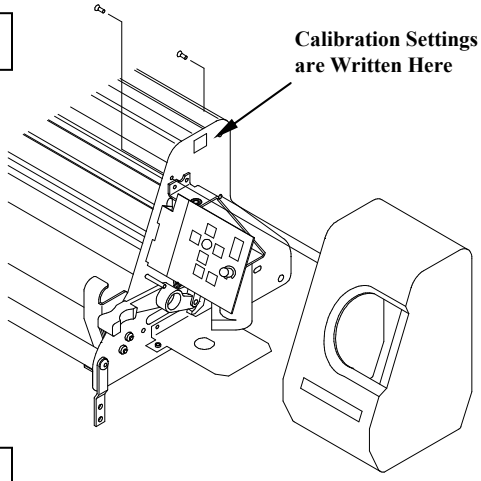
Ioline Plotter 600/28 Main Logic Board Replacement

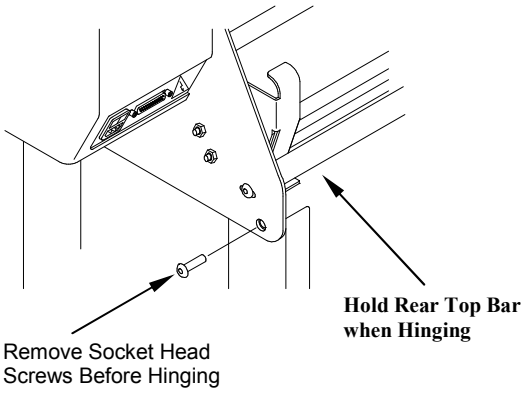
CAUTION: ***Do not hold the endplates or stand legs when rotating the plotter head for service. Serious injury could occur.***

IMPORTANT: ***Observe electrostatic discharge preventative measures during all assembly replacement procedures. Use the provided grounding wrist strap.***

A

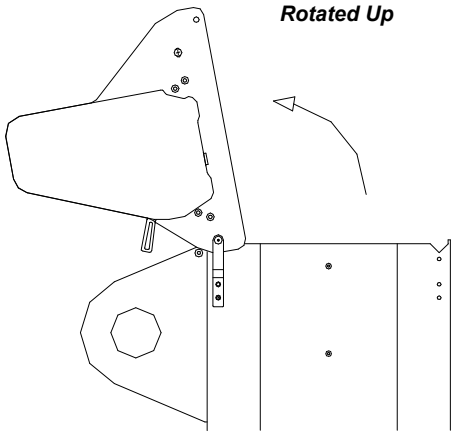


B



C

Warning: Keep Objects Clear of Endplates and Stand when Plotter is Rotated Up



Preparation

1. *Required Tools:* Phillips screwdriver, T-handle 5/32" hex wrench supplied with the plotter and logic board replacement kit. The Ioline Control Center software is also necessary to read and send plotter calibration information.
2. Remove the two black Phillips head screws on the right (keypad side) end plate to remove the right end cover (see Figure A). Record the X and Y calibration settings that are written on a small white sticker on the top of the endplate. Replace the cover.
3. Shut off the plotter and remove the power and serial cables from the rear panel.
4. If the take-up or feed shafts are loaded on the support blocks remove them and set them aside.

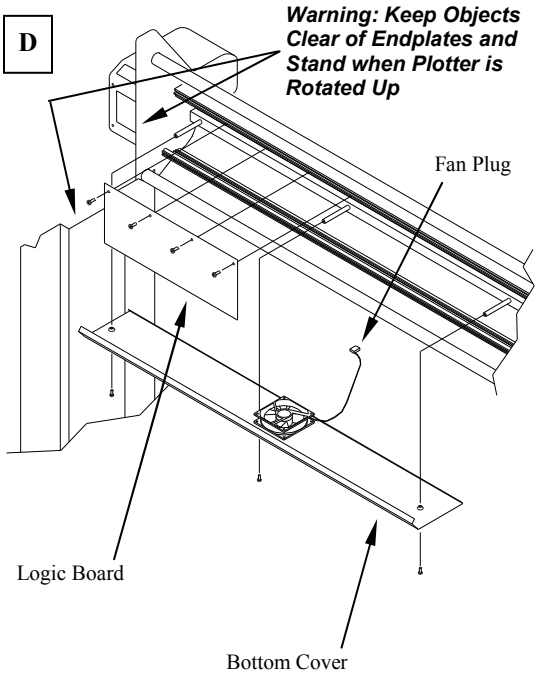
Disassembly

1. Remove the two socket head screws from the rear of each endplate (see Figure B).
2. The plotter is hinged, it is not necessary to remove it from the stand for service. Rotate the plotter on the stand by lifting up on the rear top bar (see Figures B and C).
3. Remove the three Phillips screws from the right (keypad side) bottom cover. Open the bottom cover part way and unplug the fan from the wire harness (see Figure D). Remove the bottom cover.
4. Attach the wrist strap to a conductive portion of the machine (i.e. the square shaft) and around your wrist. This will discharge any static electricity that has accumulated.
5. Mark all of the main logic board cables and connectors with a felt tip pen before disconnecting them. This will make it easier to correctly install the connectors after inserting the new logic board.
6. Remove the logic board by removing the four Phillips head screws and pulling the board out of the track in the platen (see Figure D).

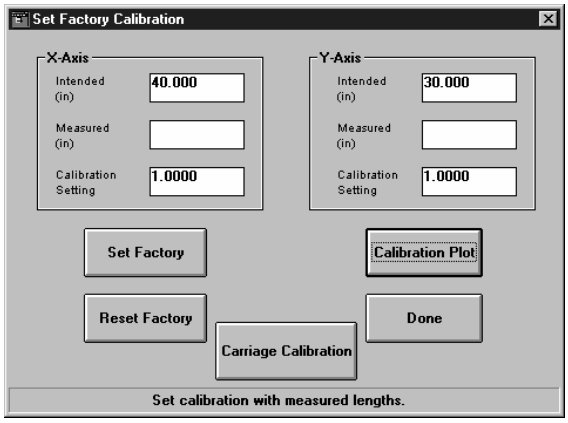
Replacing the Logic Board

1. Insert the new logic board making sure to insert the bottom edge into the support track in the platen. Holes in the top edge of the board must line up with the holes in the platen. Insert and tighten the four Phillips screws. If the fasteners are over tightened they can damage the logic board.
2. Insert all of the plugs into the correct connector on the logic board using the marks made earlier.
3. Reassemble the plotter in the reverse order that it was disassembled. Remember to plug in the fan and to install the socket head screws that hold the endplate to the stand leg (see Figures B and C).

D



E



4. Standing behind the machine, pull the rear top bar back so that the plotter flips over onto the stand into normal operating position. **CAUTION*: When rotating the plotter make sure all objects are clear of the endplates and legs (see Figure D).***
5. Connect the power cord and serial cable to the plotter.

Check/Change Motor Voltage

1. Examine the label on the motor attached to the carriage belt.
2. Look for an indication if the motor uses 12 volts (**12V**) or 24 volts (**24V**).
3. If the motor label indicates **24V**, ignore the rest of this section. The following steps are not required for 24V motors.
4. If the motor label indicates **12V**, follow these steps;
   a) Ensure that the plotter is connected to the PC by the serial or parallel port. Install the *Ioline Control Center* software if it is not already loaded on the PC.
   b) Power the plotter on and press the **Set Origin** button so that the keypad LED turns green.
   c) Start the *Ioline Control Center* software.
   d) After the main interface window appears, Click on *File>Send Cut/Plot File.*
   e) Use the file window to browse to the folder *C:\Ioline\config*.
   f) Double click the mouse pointer on *12_volt.plt.*
5. Click on **Done** in the **Send Cut File** window after the file is sent.
6. Click on the **Display** menu when the *Control Center* main window appears. Choose **Motor Voltage** from the menu that appears.
7. If the window shows, "**12V**," this process is complete. If the window shows, "**24V**," then repeat steps 4 through 7.

Calibration and Testing

1. Press and hold the up arrow key while turning the power switch on to clear the memory. Release the up arrow key when the keypad LED turns red. If the LED does not turn red, repeat the disassembly procedures above and check the logic board connections. Contact Ioline Customer Service if a problem persists.
2. Test all of the keypad functions.
3. Load paper in the plotter and set a *Start Point*. The LED should turn green when the plotter is finished. See the *600/28 User Guide* for details about loading paper and setting a *Start Point*.
4. Open the Control Center software and select *Calibrate*, *Calibrate Plotter* from the menu bar. Press and hold the <ALT> key then press <F>. The *Factory Calibration* window will appear (see Figure E). Enter the X and Y values recorded in *Preparation, Step 2* above. Select *Set Factory, Done*.
5. Perform test plots and verify that all systems are working.
6. If any problems arise contact Ioline Customer Service:

Ioline Customer Service
7:00am – 5:00pm PST
14140 NE 200th Street
Woodinville, WA 98072
Voice: (425) 398-8282
FAX: (425) 398-8383
Email: techsupport@ioline.com

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Approvals:

Chk .....

Engr .....

Matl .....

Mfg .....

QA .....

Mktg .....

Instructions:

1. Stock: 6 lb. Opaque Offset
2. Size: 8 1/2 x 11”
3. Copy: Single Side, High Speed Copier

Revision History:

Rev	ECO Number	Date
0	4130	10-30-98
1	5016	7-17-01