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| TITLE: | FAQ: Gerber Friction Plotters |
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| Summary: | This document provides answers to some of the most commonly asked questions regarding Gerber Friction plotters. |

Most Frequently Asked Questions for Gerber Friction Plotters

My unit gives me poor cut quality. What should I do?

- A. Check the amount of blade that is exposed for cutting. Set the blade depth to the minimum to cut through the substrate. It should be an absolute minimum, but sufficient to make it through the vinyl and just scratch the backing. Begin by adjusting the blade until it is flush with the tool holder. Then, bring the blade out slightly and test. Keep exposing more of the blade gradually until the material cuts clearly.
- B. Check the force setting. Too much force will cause less than desirable cut quality. If a new knife blade is being used and you are cutting 2 mil material, the force should be between 75 and 85 grams. As a general rule of thumb, use the minimum amount of force that will still allow acceptable weeding of the material.
- C. Check the offset setting. The factory default is .0220. If your knife blade is worn, or you are cutting thicker than 6 mil materials or thinner than 2 mil materials, you will need to adjust the offset setting of your tool to obtain crisp, square corners. This is done at the front panel. Refer to the Owners Manual.
- D. Check the knife blade itself. If it is worn, chipped or broken, we strongly recommend that you replace the knife blade.
- E. Check the tool holder. The tool holder should allow the knife blade to swivel freely with the slightest pressure. If it does not swivel freely, clean out the bearing with compressed air, making sure there is no residue obstructing the movement of the blade. If that does not improve the conditions, then replace the tool holder.

I have trouble with material tracking when cutting long jobs. What should I do?

- A. Check to make sure that the material is rolled properly and that neither end of the material roll is telescoping. You want each end of the material roll to be as straight as possible.
- B. We recommend 3-inch core flanges which fit into the core of your vinyl roll to further aid in tracking. When using flanges, make sure the material transport roller guides are positioned next to the material to keep it from migrating left or right. Be sure the guides do not touch the material roll.
- C. Make sure the material coming off the roll and through the material rollers is straight. This can be easily done. Before lowering the material hold-down lever, grip the front edge of the material in the middle. Then, pull the front edge of the material forward (about a foot) until there is an even tension across the entire width of the roll.

- D. Make sure the pinch wheels are positioned on the material. The material should extend 1/4" from the outer sides of the pinch wheels
- E. When cutting long jobs, we recommend you reduce the speed and acceleration settings for both the pen up and the knife. Also, make sure your plotter has at least 3 feet of empty space around it so the material can move freely and without any obstructions.

How do I pounce on my EmbossTrack™ Plotter?

- A. You must use release 6.0 or higher of GRAPHIX ADVANTAGE® Software or any other software package that supports the pouncing capability.
- B. Create your job as you would any job in Composer.
- C. Output the desired job to GAplot.
- D. Click on the device select icon (in GAplot).
- E. Select the desired EmbossTrack driver.
- F. Click in the box to select the POUNCE feature.
- G. Click OK.
- H. Go to your plotter and install the pounce tool in your desired location in the stocker (carousel).
- I. Select the tool (F3) from the "Ready to plot" screen on the plotter.
- J. Select the number of the position where the pounce tool is located.
- K. Return to your computer (you should still be in GAplot) and click on the knife icon. You should be well on your way to pouncing.

How do I pounce on my FasTrack™ Plotter?

You can set up your pounce tool from either your plotter or from you software.

- A. **From your FasTrack Plotter:**
 - 1. Make sure the FasTrack tool you will be using (Tool 1, Tool 2, Tool 3 or Tool 4 on your keypad) is set up as a pounce tool.
 - 2. Go to Step 8 (below).
- B. **From your software:**
 - 1. You must use release 6.0 or higher of GRAPHIX ADVANTAGE® Software, or any other software package that supports the pouncing capability.
 - 2. Create your job as you would any job in Composer.
 - 3. Output the desired job to GAplot.
 - 4. Click on the device deselect icon (in GAplot).
 - 5. Select the desired FasTrack driver.
 - 6. Click in the box to select the POUNCE feature.
 - 7. Click OK.

8. Go to your plotter and install the pounce tool in your carriage.
9. We recommend installing a pounce mat.
10. Make sure your plotter is on-line.
11. Return to your computer (you should still be in GAplot) and click on the knife icon. You should be well on your way to pouncing.

My Gerber Friction Plotter will not communicate with my computer. What should I do?

- A. Make sure you are using a standard RS232, 9- to 25-pin, cable. (Note: You cannot use the cable supplied with your HS or GS plotters.)
- B. Make sure the 9-pin end of the cable is plugged into the computer communications port that is selected in the GSP Setup menu for your EmbossTrack or FasTrack.
- C. Make sure the 25-pin end of the cable is plugged into the plotter.
- D. If you're using an EmbossTrack, make sure it is on and the LCD screen says Ready to Start. If you're using a FasTrack, make sure it is on-line.
- E. Make sure the cover is down (the plotter will not run when the cover is up — this is a safety feature of this machine).
- F. Make sure the pinch wheels are in the down position and the material is loaded (the plotter will not run if the pinch wheels are in the up position).
- G. When using GRAPHIX ADVANTAGE Software, make sure you have chosen the proper plotter and communications port in the GAplot device select screen.
- H. Make sure you are clicking on the proper icon (knife or pen) when you are sending a job to cut or plot.

What kinds of pens can I use with my Gerber Friction Plotter?

- A. HP-compatible plotting tools will fit the EmbossTrack or FasTrack plotters.

What software packages, other than Gerber's GRAPHIX ADVANTAGE, will drive Gerber Friction plotters?

- A. The EmbossTrack and FasTrack plotters are HP-GL and HP-GL2 compatible, and will support most of today's popular design software packages available. (Note: The software package you choose must be HP-GL compatible.) Some software packages may require changing the plotter setup for compatibility. GA requires Page Mode 2; most others require Page Mode 1.

Is my Macintosh Computer compatible with EmbossTrack and FasTrack plotters?

- A. Yes. You must use a Miniature Male Din 8 to Male DB 25 Serial **Printer** Cable between the computer and plotter (a modem cable will not work). In addition, the software package you are using with your Mac must be able to output using an HP-GL command set, and have a driver for either an EmbossTrack, FasTrack or Mutoh plotter.

What maintenance, if any, should I do to my Gerber Friction plotter?

- A. All material transport areas should be kept clean of dust and debris at all times. Take an anti-static cleaning solution and a cloth, and wipe the unit down, especially the bars and sensing devices. This should be done periodically. The grit roller can be kept clean by taking masking tape, and pinching it between the grit roller and pinch rollers, then pulling it out by hand. The pinch rollers can be cleaned off with isopropyl alcohol and should be left in the up position when the plotter is not in use. If the pinch wheel becomes sticky or difficult to move, take the covers off and lubricate the hexagonal lifter bar, which extends the length of the unit connecting the pinch wheel assemblies. Lithium- or silicon-based lubricants are recommended.

How Do I Cut 3M™ Scotchlite™ Series 3800 High Intensity Grade Reflective Material on My Gerber Friction Plotter?

There are two equally effective methods for cutting this material. One uses transfer tape on the face of the material. The other uses the material as is. Which one you use is a matter of personal choice.

A. Cutting the material with transfer tape:

(Note: Be certain to reverse the image *prior* to cutting the job.)

1. Apply transfer tape to the top reflective surface. (Be sure to eliminate all bubbles and creases when applying the transfer tape.)
2. Load the material into the plotter upside down, so the backing is facing up.
3. Load a 60° blade into the knife holder.
4. Set the Knife Cutting Speed and Pen Up Speed to 20 inches/second.
5. Set the Knife Cutting Acceleration and Pen Up Acceleration to 2 g.
6. Set the Tool Force to at least 200 grams.
7. Set the depth of the knife blade so it cuts completely through the backing and the vinyl, but scores the transfer tape only lightly.
8. Perform a test cut to determine if this force and depth of cut are correct for the material you are using. If not, adjust Steps 6 and 7.

B. Cutting the material as is:

1. Load a 60° blade into the knife holder.
2. Set the Knife Cutting Speed and Pen Up Speeds to 4 inches/second.
3. Set the Knife Cutting Acceleration and Pen Up Acceleration to 1g.
4. Set the Tool Force to at least 200 grams.
5. Set the depth of the knife blade to cut completely through the vinyl, but only score the material backing.
6. Perform a test cut to determine if this force and depth of cut are correct for the material you are using. If not, adjust Steps 4 and 5.