

TITLE: How to Achieve Optimal Cutting of 3M™ Scotchcal Series 220 Premium Vinyl on Your EmbossTrack™ Plotter

Category: Plotters / Service-Support

Gerber FastFact #: 5251

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Summary: This document provides some suggestions that will optimize the performance of vinyl cutting on your EmbossTrack plotter

Underlined text indicates change from the previous document.

To achieve optimal cutting performance on 3M™ Scotchcal™ Series 220 Premium Vinyl (or any medium), it is necessary to use the correct blade and set the parameters correctly for the job. To cut 3M Scotchcal Series 220 Premium Vinyl, Gerber recommends the following:

- Use a 30° EmbossTrack Swivel Blade.
- Set the knife blade so that it protrudes from the tool holder.
 1. Place a scrap piece of vinyl on the table.
 2. Manually drag the tool holder across the vinyl.
 3. Adjust the blade so that the blade cuts the vinyl and leaves a scrape in the backing paper.
 4. The tool holder should be readjusted for different vinyls.
- For firmware revision 1.40 and 1.42 do the following: set the knife offset to between .0196 and .0224 for square corners. To cut a test square on the vinyl, choose Test on the Knife Parameters screen of your EmbossTrack plotter. Inspect the corners for square ness and adjust as needed. For firmware revision 1.59 do the following: press offset (in the Knife Parameter menu) the plotter will start cutting 10 squares and position the tool over the center square which is an offset of .0220. Insect the 10 squares and choose the square with the best corners and cut. Using the right and left arrow keys, position the tool over the square you have chosen and press enter. You have now recorded the offset you have chosen.
- Set the maximum knife speed between 16 and 18 inches per second.
- Set the knife force to about 80 grams. If a test cut does not weed cleanly, increase the force to 85 grams.
- Set the knife acceleration below 3 g in the Pen Parameters Menu of your EmbossTrack plotter

If you are still not satisfied with your cut, verify that the knife blade is protruding only 3mm.

Note: Too much blade can cause corners to lift, and too little blade can cause poor weeding.