

Carriage Calibration/SmarTrac

The purpose of carriage calibration is to reduce any bouncing, skipping or piercing problems by adjusting the initial pulse force output of the carriage voice coil via software.

To calibrate the carriage on the SmarTrac Signcutter:

- 1. Turn on the SmarTrac Signcutter.
- 2. Install a piece of vinyl at least 5" X 20" to accommodate the carriage calibration plot which is 1" X 15.75".
- 3. Using the arrow keys on the keypad, orient the blade holder about 1/2" from the right edge of the material.
- 4. Remove the blade holder w/adjustable foot from the carriage jaw (*Fig 1*). Turn the adjustable foot clockwise until the blade is fully exposed and insert the blade holder back into the carriage jaw.



- 5. Adjust the force properly for the type of media used for this procedure.
- 6. Press "Set Origin" on the SmarTrac keypad.
- 7. Open the Ioline Control Center.
- 8. From the menu bar at the top of the window select "Calibrate" then "Calibrate Plotter". The "Set Calibration" window should appear (*Fig 2*).

Fig 2

ntended 40.000 in)	(in) Intended
leasured	Measured (in)
alibration 1.0000 etting	Calibration 1.0000 Setting
Set Calibration	Calibration Plot
Reset Calibration	Done

9. On your computer keyboard hold down the "Alt" key and then press the "F" key 1 time, release the "Alt" key. The "Carriage Calibration" button should appear in the window (*Fig 3*).

Intended (in)	40.000	Intended (in)	20.000
Measured (in)		Measured (in)	
Calibration Setting	1.0000	Calibration Setting	1.0000
Set	Calibration	Calibr	ation Plot
Besel	Calibration		Done

Fig 3

10. Click on the "Carriage Calibration" button to display the "Carriage Calibration" window (*Fig 4*).

arriage Calibration	
Carriage Calibration	
Force 100 (grams)	Set Factory
Duration 12 (msec)	Reset Factory
Coast Force 80 (PWM cnts)	Calibration Plot
Coast time 5	Done

- 11. Click on "Reset Calibration" to reset the values to factory default settings.
- 12. Click on "Calibration Plot" and then "OK". The plotter will then cut a series of 11 test cuts from right to left (*Fig 5*).

Fig 5



- 13. When the plot is complete, you should see 11 test cuts from right to left. Starting with the first test cut on the right, visually examine each test cut for piercing and skipping on the initial down stroke. There should be a range of 3 or 4 test cuts that exhibit a clean cut. Weed each one and examine the backing paper for an even scoring of the X and circle. Select the test cut exhibiting the most even scoring of the backing paper with no piercing or skipping.
- 14. Once you have selected the best test cut, use (*Fig 4*) to find the calibration number, which co-relates to the test cut you have selected.
- 15. Enter the calibration number in the field labeled "Coast Force" (factory default is 80).
- 16. Click the "Set Factory" button then click "Done".
- 17. Carriage calibration is complete.