

# Calibration

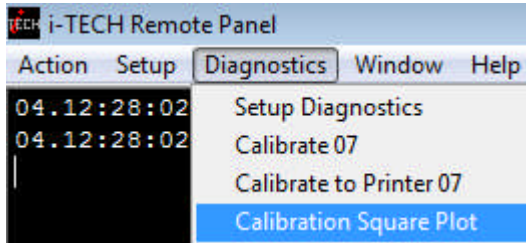
Technical Support Bulletin

## Calibration of Cutter

Last Update October 4, 2007

Abstract: This TSB is written to help users calibrate the size of objects printed to be the same as indicated by the computer cad program.

Start the Allen Remote Panel or Hyper Terminal (See Communications Dead [Web Site Copy](#) / [CD Copy](#)). Turn on Cutter and load media. We will use the Calibration Square Plot Diagnostic



to draw a rectangle of a known size. There are 1016 plotter units/ inch or 400 plotter units per cm. Use the ruler of your choice as the procedure calibrates to your ruler.

**The x-axis of the cutter is the media movement direction.**

**The y-axis of the cutter is the carriage or rail movement direction.**

- 1) Start the Remote Panel program and select Diagnostic -> Calibration Square Plot to send a rectangle of a specific dimension. Enter the x dimension and click on OK then enter the y dimension and enter OK.

NOTE: The longer the rectangle in the X direction, the more accurate your final calibration will be over length.

- 2) Measure the rectangle as accurately as possible.

Convert your measurements from fractions to decimals.

Eg.  $20 \frac{1}{16} = 20.0625$

Click on Diagnostics -> Calibrate 07



Enter the X Drawn dimension in the top window of the calibration diagnostic menu, using 3 decimal places. In this case, a 20-inch rectangle would be entered as 20.000.

Enter the X measured dimension as you measured it. Say it measures 19 7/8", this would be entered as 19.875.

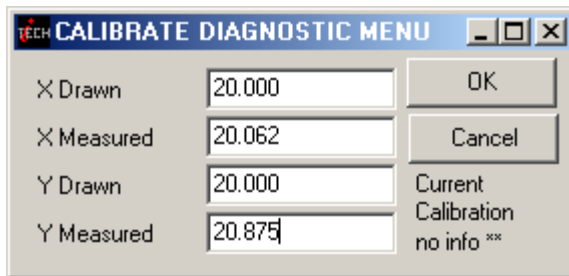
If the Y dimension measures fine, then no entries are needed for the Y drawn and measured dimensions, they can be left at 19.

Hit OK if that is the case. If not, proceed to next step.

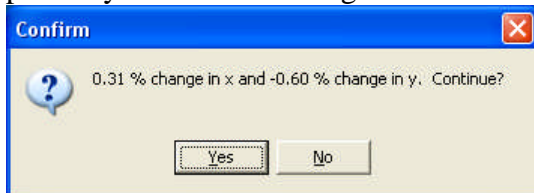
Enter the Y drawn dimension as you did with the X drawn.

Enter the Y measured dimension as you did with the X measured dimension.

Assume your measured rectangle was 20 1/16" in the x direction and 20 7/8" in y. You would enter 20.000 in X drawn, 20.062 in x measured. Enter 20.000 in Y drawn, and 20.875 in Y measured. Hit OK when entries are completed.



The program will respond with a confirmation message indicating the amount that the calibration will change in each axis. If you get a % change in calibration > 3 % you probably entered the wrong values. Click no and start again.



You can also run the diagnostic from the older 24-button cutter front panel by entering the following key sequence for the same number above.

Function, 3 (D flashes)

0, 7, enter. Cutter displays 000.

2, 0, 0, 0, 0, 0, enter. Cutter displays zero

2, 0, 0, 6, 2, 5, enter. Cutter displays zero.

2, 0, 0, 0, 0, enter. Cutter displays zero.

2, 0, 8, 7, 5, enter. Cutter displays flashing D.

Hit 9,9 enter to reinitialize cutter.

After cutter calibration is complete. Power cutter off and repeat procedure to verify proper calibration.