

OPOS-X Offset Calibration

This procedure describes how to change the OPOS Calibration via the touch panel on the cutter. The procedure can be used when a shift between the contour and the design is out of tolerance.

Preliminary

It is necessary to load media in the cutter to perform the tests.

For this test **black vinyl** with a **white backing** is needed.

In case the cutter is equipped with a drag head, insert the knife holder into the rear of the dual head clamp.



Check knife depth (knife pressure) and knife offset before performing the tests.

Clean the sensor to remove dirt and dust from the optics, as the contamination may obstruct the light path.

Media Calibration

First of all the value determining black (vinyl) or white (backing) need to be set. To do so follow this procedure:

1. Turn on the cutter and load the vinyl.

2. Press  .
The main menu will appear on the screen.
3. Press  .
More menu items will appear on the screen.
4. Press  .
The different OPOS configuration menus will appear on screen.
5. Press  .
The cutter allows the user to choose to either measure the media or to fill in a previously recorded value.
6. Press  .
This displays the current sensitivity.
7. Use  or  to change the sensitivity, or use  to set the sensitivity to **60**.
8. Press  to confirm.

OPOS-X Offset Calibration

Now we can calibrate the offset between the knife and the OPOS sensor. This is described in the next procedure:

1. Turn on the cutter and load the vinyl.

2. Press  .
The main menu will appear on the screen.
3. Press  .
More menu items will appear on the screen.

4. Press  .

The different OPOS configuration menus will appear on screen.

5. Press  .

The cutter will cut out a square measuring approximately 9.5x9.5mm and move the square forward. “Weed out Rectangle” will appear on the display.

6. Carefully weed the square, making sure the edges stay intact. Press  .

7. The OPOS-sensor will read the edges of the square and calibrate itself accordingly.

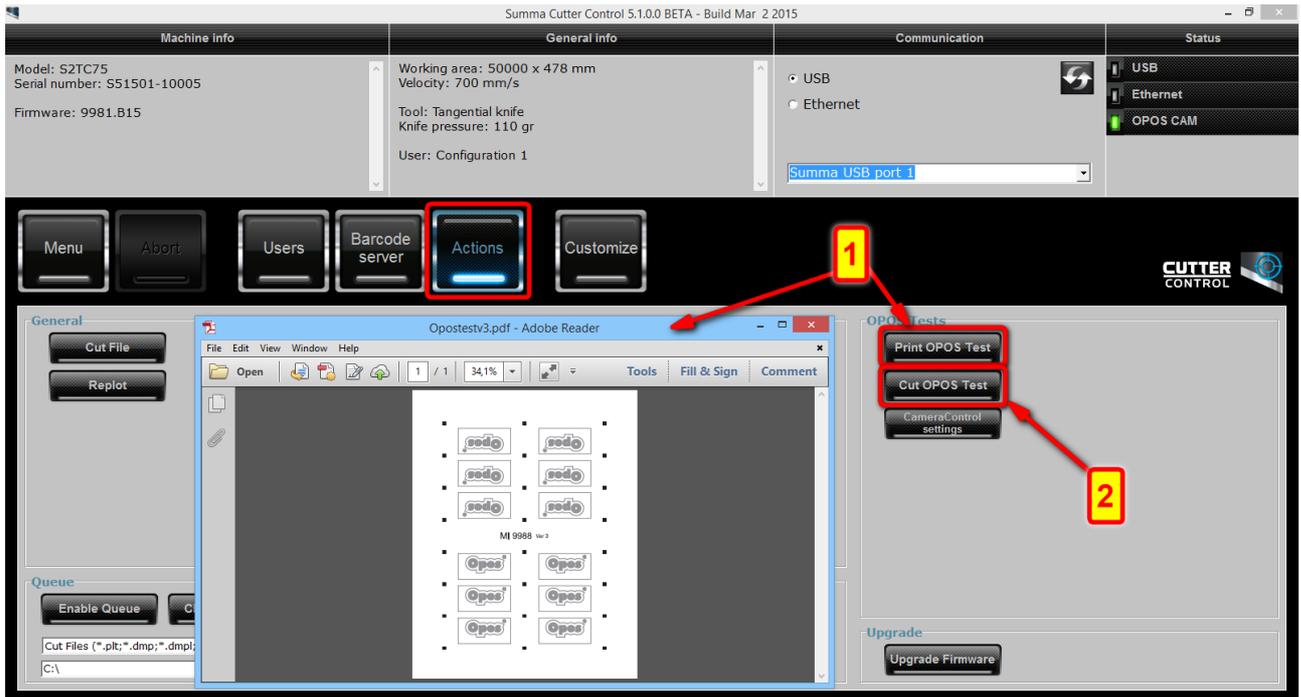
Now the calibration is finalized.

OPOS-X Offset Verification

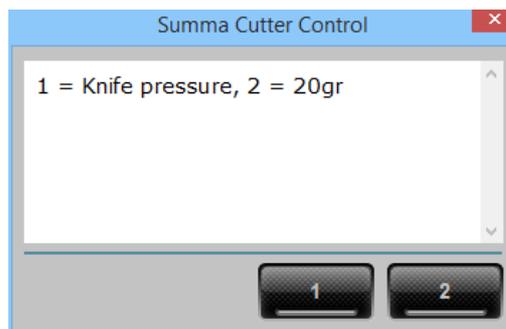
To verify above calibrations were performed successfully, a test can be made by cutting a contour from Summa Cutter Control. An A4 test sheet should be printed on paper using a desktop printer (laser printer or inkjet printer). This test sheet can then be loaded in the cutter, and the contour is then sent by Summa Cutter Control.

Follow the next procedure to verify the calibration:

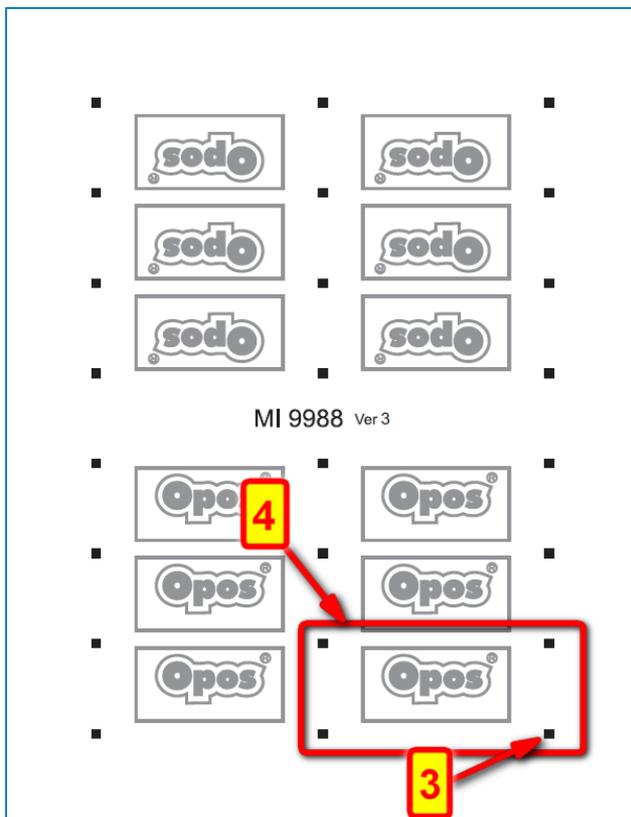
1. Start Summa Cutter Control.
2. Print the “OPOS Test Sheet” (1). This launches Adobe Acrobat Reader with the test sheet. Make sure the sheet is not printed to scale (select “Actual Size”)!



3. Load the sheet in the machine.
4. Press the OPOS Test button (2) in Summa Cutter Control
5. You are now offered the option to cut with a knife pressure as defined in the cutter (1), or to use a predefined pressure of 20 grams (2) to only scratch the printed media. In case the test was printed on 80 gram paper, then option 2 may be used.



- The cutter will ask you to set the knife above the first OPOS registration mark (3). Do so and press ENTER.

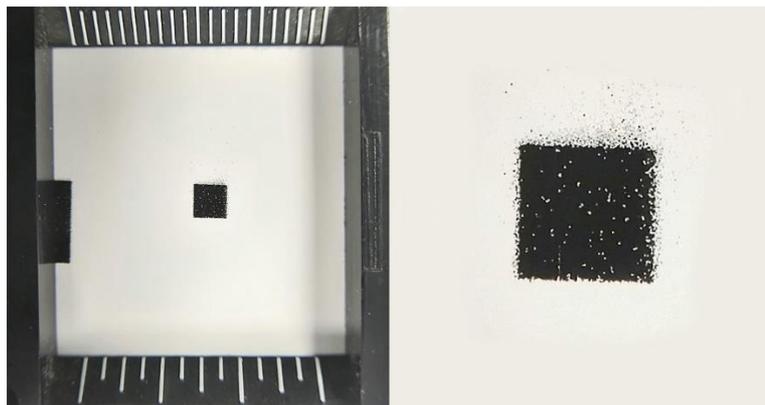


- The machine will cut out one OPOS test (4). Check if it is cut correctly. If not then you need to redo the OPOS calibration.

Design considerations

Despite a correct offset calibration, there may still be an offset visible in the final production jobs. This could be due to the following:

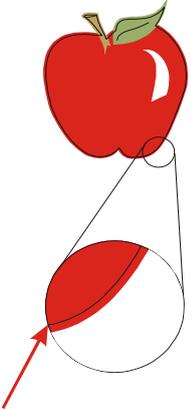
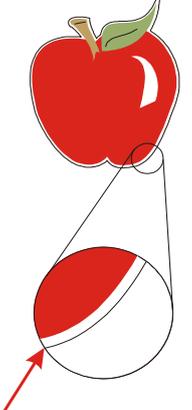
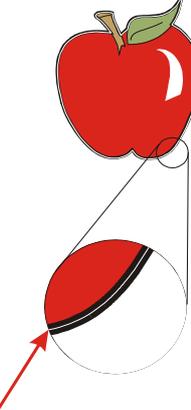
- The edges of the OPOS registration marks may be rough, causing the OPOS sensor being unable to determine the correct position of the registration marks.



- The contour line may have been put on the edge of the design. The slightest movement in the media may then result in an unsatisfactory cut.

Take the potential shift of the contour in account in the design. Use one of the following techniques:

- Place contour lines just inside the graphics (recommended) (1).
- Place contour lines outside the graphics (2).
- Create thick borders around graphics and place contour lines inside these borders (3).

(1) contour line inside graphic recommended	(2) contour line outside graphic	(3) contour line inside a thick border	Contour line on edge of graphic
			

Revised October 22, 2020