

Using dark media

When using dark colored media on a Summa DC5 series printer/cutter, you may consider the following issues:

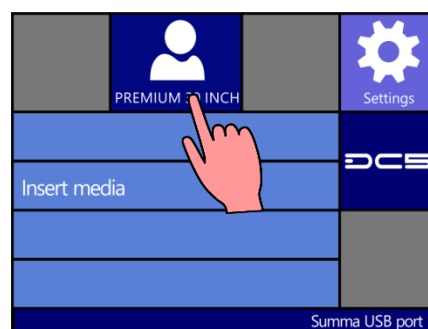
- Media edge could not be detected
- Media cannot be set straight in the machine
- OptiTrac lines could not be read
- Incorrect media feed
- Printed colors are incorrect

To overcome above described problems, the printer and RIP needs to be configured for the media used.

Change configuration

When using a different media, then it is best to change to another “Configuration”, as all configurations and settings will be stored in the selected “Configuration”. By doing so, it is not necessary to always repeat the calibrations if the same media is being used again.

Click on the configuration button, and select the appropriate configuration you like to use for this kind of media. You can change the name of the selected configuration from Summa Printer Control to easy identify the configuration setting to use when using this kind of media again.

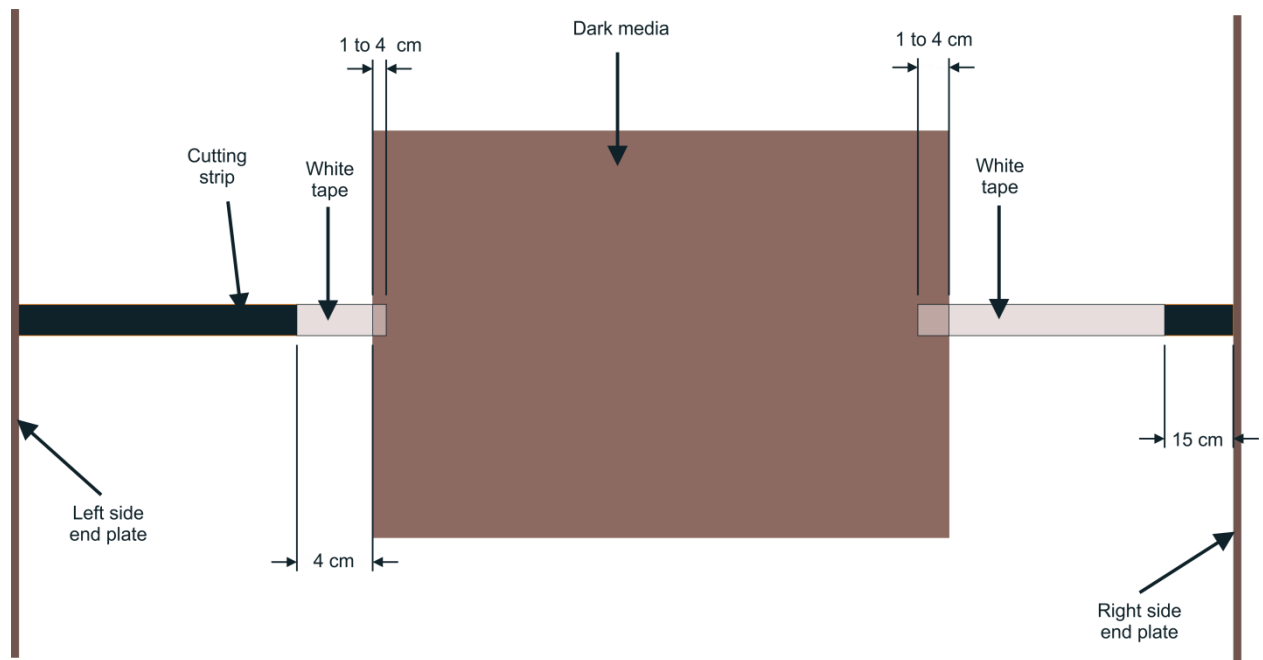


Cutting strip color

The color of the cutting strip may not have enough contrast with the colored media used. Due to this, the OptiTrac sensor is unable to detect the edges of the media, resulting in not being able to find the width of the media, and being unable to load the media straight in the machine. The color of the cutting strip needs to be changed. Apply some white vinyl on top of the cutting strip. This white vinyl needs to be partially covered by the media (1 to 4 cm) on both sides, and needs to be long enough for the OptiTrac sensor to correctly scan the media: on the left side of the media, at least 4 cm of white vinyl should be visible. On the

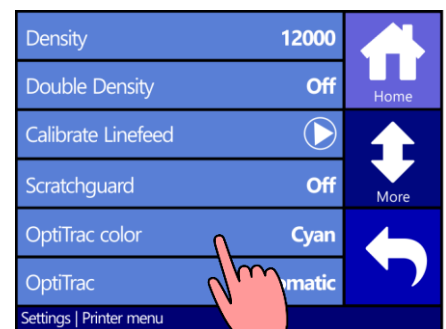
right side, the white vinyl needs to be visible up to 2 cm over the start point where the OptiTrac sensor starts scanning for the right side of the media edge, which results in the white vinyl to be taped up to 15 cm from the right side end plate.

Load the dark colored media in the machine. Most likely the machine will incorrectly detect the width of the media. This will change later on after configuring the parameters.



OptiTrac color

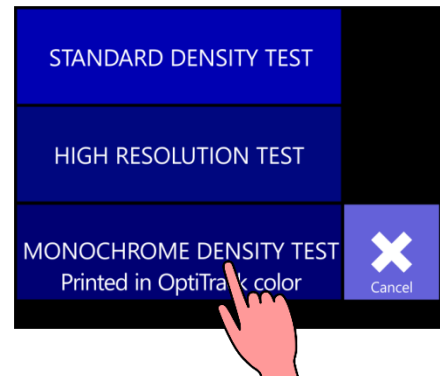
The printer prints on the edges of the media the OptiTrac lines. Those lines are used to determine how much the media needs to be fed to print the second band. To be able to detect those OptiTrac lines, there must be enough contrast between the media and the OptiTrac lines. By default, the color used is cyan or black. As those colors do have insufficient contrast with the dark media, it has to be changed. A good choice is to use a white ribbon (DC3-608, color ID 9).



To set the OptiTrac color, click “Settings”, “Printer menu”, “OptiTrac color”, and select the color having enough contrast with the media used.

Print quality

Depending on the film and backing of the media, some parameters need to be adjusted to have a good transfer of the ribbon ink to the media. Run the “Density”-test, change the density to have a good coverage of the printed media. To print the density test pattern, click “Settings”, then “Printer menu” followed by “Density”. You are presented a selection of test patterns. Choose the last option “Monochrome density test”, as this test uses the OptiTrac color chosen, and should have a good contrast with the media used.



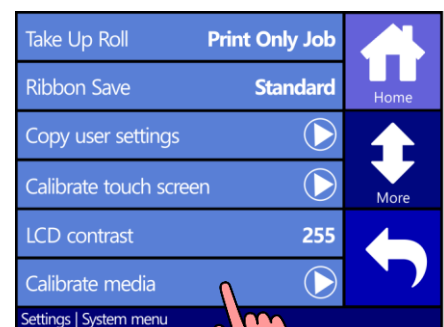
In case unprinted spots are visible, activate the option “Double Density”, and run the density test again.

Media calibration

The OptiTrac sensor parameters need to be defined for the media used. Those parameters are set by running the media calibration test. This test prints a test pattern in the color set as the OptiTrac color. This test pattern is then scanned by the OptiTrac sensor.



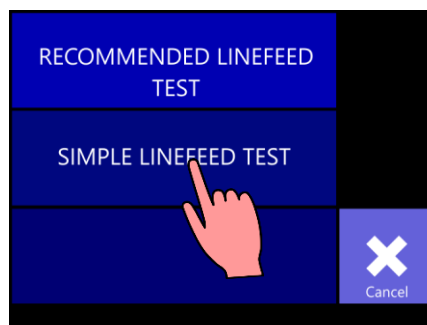
To calibrate the OptiTrac sensor, click “Settings”, then “System menu” and finally “Media calibration”. While the OptiTrac sensor scans the printed test pattern, some values are displayed. You may have to note those values when the machine has problems calibrating the OptiTrac sensor to report those values to a Summa certified service engineer.



When the calibration is finished, click the clamp button. This will raise the pinch rollers and clamps. Click the clamp button again. This forces the machine to detect the media width again. As the OptiTrac sensor was calibrated, it will correctly recognize the media edges to find the media size.

Line feed calibration

When using another kind of media, then the line feed needs to be calibrated to compensate for the media thickness. To start this calibration, click “Settings”, then “Printer menu”, and choose “Calibrate linefeed”. You are then presented the option to perform the “Recommended linefeed”, or the “Simple linefeed test”. Select the “Simple linefeed test”, as the media is already calibrated in previous step. The linefeed test is printed in the OptiTrac color selected previously (e.g. white).



Head alignment





Due to different media parameters (difference in media roll up tension, thickness of media) there might also be a need for an extra calibration in the direction of the movement of the head. This test will make vertical lines to match between multiple printed bands.

To start this test, click “Settings”, then “Printer menu”. Advance to the next page: click “More”. Click “Head alignment”. You will be presented two options: “Manual test” and “Automatic test”. Use the “Automatic test”. A test pattern will be printed in the OptiTrac color, and then this pattern is scanned by the OptiTrac sensor to configure the head alignment parameter.

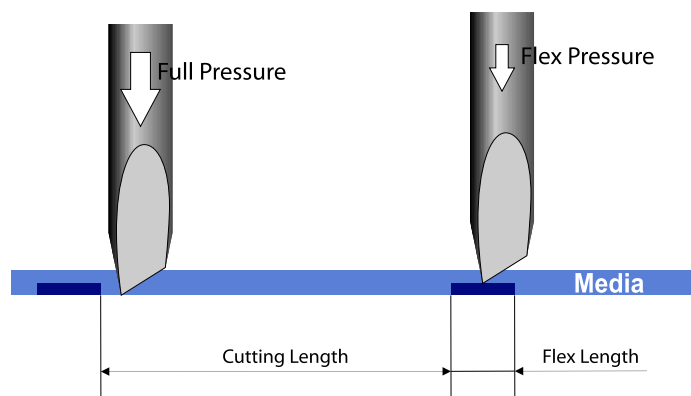


Knife parameters

Set the knife pressure and knife offset of the knife. The knife offset is a knife depended parameter. The knife pressure is a media depended parameter. Each time the media is changed, the knife pressure needs to be checked and eventually adjusted. To adjust the knife settings, click “Settings”, then “Cutter menu”, finally select the parameter to change, and verify the result by clicking the “Test”-button.












Knife pressure	75 gr	
Knife offset	0.43 mm	
Velocity	500 mm/s	
Overcut	0.2mm	
FlexCut	...	
Calibrate Print&Cut		
Settings Cutter menu		


In case the cutting through functionality (FlexCut) is to be used, then set those parameters correct.



Print and cut alignment

The print head and the cutting head each have their own origin point. This may change depending on the media width. Perform this test to have a correct match of the contour to the printed design. To start this test, click “Settings”, then “Printer menu”. Advance to the next page by clicking on “More”. Click “Calibrate Print&Cut” to start the test: a test pattern is printed, and then another pattern is cut on top of the printed test pattern. Check for the squares where the cut line is situated just above the printed line. Use those values to insert via the control panel. If the values were too far off, then redo the test.

SET 1	SET 2	SET 3	SET 4	SET 5	SET 6	SET 7
						
0	0	0	0	0	0	0
						


 Apply

ColorControl settings

When printing on colored media, the resulting color will differ from when printing on white media. E.g. when printing yellow on a blue colored media, the resulting color will be green. For this, it may be necessary to print a white layer under the design to have a correct reproduction of the color. To accomplish this, you can make use of two different methods: “Color Mask” or “Primer Dot”. When using one of these methods, there is the option to select up to 3 colors to be printed under the design.



Standard



Color Mask



Primer Dot