

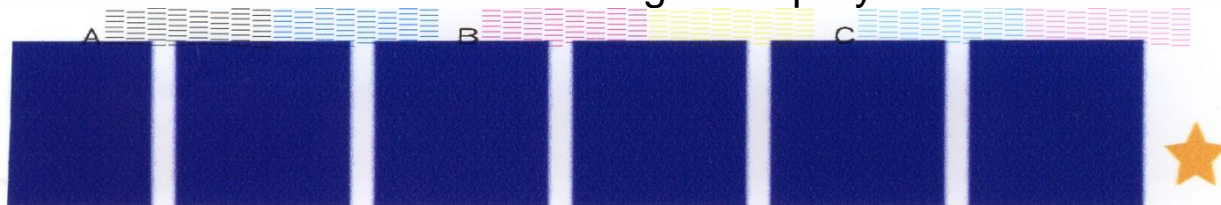
# PASSPORT



## Service Bulletin

8/27/2007

### Trouble Shooting Overspray



Overspray, also known as misting, can be caused by a variety of reasons. In the sample print notice the slight haze around the edge of the blue blocks, this is the overspray. Also check the platen and all around the inside of the machine near the print area. If there is a haze present or the machine has a fine misted ink that has settled on the interior there is an issue with overspray.

Follow these steps to reduce overspray.

1. Perform a test print (nozzle check) Is nozzle deflection present? Large nozzle deflection can cause overspray.
2. Look at test prints to determine which print heads are giving the overspray. Use a loop to get the detail you will need. How many print heads are seeing the overspray? Best to check along the straight edge of a vector based graphic for optimum sharpness. Print a thin black line if needed. Black uses all colors when printed so overspray should show with this test. Use this to determine which print heads you will focus on. Always perform test prints from Versaworks to insure accurate results
3. Print a service report and check the shot counts for any overages; do the overages correspond to the heads which are giving overspray? If so these print heads could have reached the end of their life cycle. Print heads that are damaged from head strikes will overspray due to nozzle deflection so be sure to make end users aware of this issue since head strikes are not covered under warranty.
4. Check the head height setting. Improper head height can cause overspray.
5. Check media type, some 3rd party media have a polyester liner which can cause static build up, use Roland Media for testing purposes to insure accuracy.
6. Check all print head alignments and calibrations. A head crash can throw a print head off dramatically



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7. Confirm all ribbon cables connections are clean, clean with alcohol if need be. Check for ink drips on the ribbon cables, ink can degrade ribbon cables over time.
8. Clean the encoder scale and the encoder sensor. Remove the encoder scale to thoroughly clean if overspray is present. Clean with alcohol as water will not remove ink build up.
9. Check the humidity level, under 20% humidity can cause a static charge that will cause overspray. If a static charge is present third party solutions are available to reduce static amounts. Check [www.stopstatic.com](http://www.stopstatic.com) or consider introducing a humidifier in the environment.
10. Check the Gap from the bottom of the print head to the platen. A severe head strike can twist the print carriage causing head alignment issues. Using feeler gauges or a precision shim plate verify the gap between the print head frame and print platen surface. Remove media before checking the gap. Set head height lever to the lowest position. Best to check 4 points, Left head #1, front and rear corner, Right most head-front and rear corner.  
SP/VP-300 should read 2.2mm  
Pro 2 should read low 1.2mm, middle 2.2mm, high 3.2mm  
Pro 3 and SP/VP-540 should read middle 2.2mm and high 3.2mm
11. Test print in both uni directional and bi directional, does the result change?
12. It can be difficult to tell the difference between cyan and light cyan, magenta and light magenta. To isolate specific heads with the power off you can remove ribbon cables from the head carriage and the print head and perform the test prints again.
13. If overspray is isolated to a certain print head replace it.
14. If overspray can not be isolated to a certain print head and appears in several print heads, replace the head driver board. This board is easy to install and if it does not solve the issue it can be removed quickly without causing print heads to be wasted.
15. It is possible and has occurred where multiple print heads need to be replaced. Be aware that seeing overspray in several print heads does not always mean that a head driver board will need to be replaced.

