Stoppage of Ink Flow



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Revision History

Revision	Description	Author	Date
1.0	Initial release.	Ray Larason – Author Member Technical Support Mike McCulty – Author/Editor Director of Customer Relations	November 30, 2010



Introduction

This document contains instructions on how to resolve a Stoppage of Ink Flow problem with your AnaJet printer. Your AnaJet printer has a stoppage of ink flow problem when a nozzle check indicates no ink flowing in one or more (up to 8) channels of the printhead.

Note of clarification: If the nozzle check indicates some nozzles are printing within every channel this does not represent a stoppage of ink flow but a restriction of ink flow. There is a different troubleshooting process to resolve a restriction of ink flow, please contact technical support for details.

Presentation

The data in this document is organized as a procedure to be followed in order. Do not skip any steps.

Step 1: Do this first ... Step 2: Do this second ... Step 3: ...

TIP: Not required but helpful.

WARNING: Give careful consideration to information in this section.

CAUTION: May not apply under specific circumstances; identifies areas of risk or concern.

FP-125 Only: Applies to users of FP-125 and NOT for SPRINT customers.

Scope

This document is intended for use only with AnaJet® SPRINT™ (Pre Rev. A) and FP– 125™ models.



Diagnosing Stoppage of Ink Flow

WARNING: AnaJet's patent closed loop ink delivery system is designed to prevent ink from drying on the printhead nozzle plate while the printhead is parked safely over the maintenance station. Therefore, during maintenance activities the printhead should not be left exposed to open air for more than 15 minutes.

A stoppage of ink flow will occur if there is a clog and/or damage to one or more of the following parts

-Ink Needle -Tubes - O-Ring -Damper -Printhead -Maintenance Station

In order to find where the clog or damaged part is located at, you will need a syringe with wing tip and needle like the one pictured below:



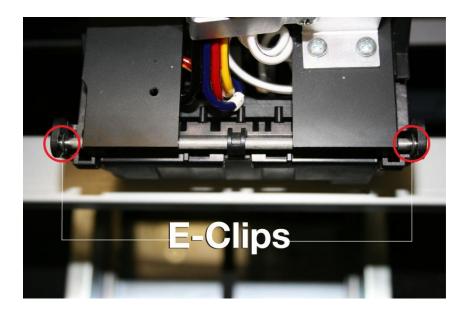
Step 1: Accessing the Dampers

In order to access the dampers, first power the printer off from the back. After that, remove the black ink cartridge and notice the flat head screw in the back of the channel. Using a flat head screw driver, turn this screw counter-clockwise until the printhead carriage is released. Slide the printhead carriage to the middle of the printer then turn the screw clockwise until the wiper blade in the maintenance station is in the up position.

CAUTION: Be careful not to overturn the screw or risk stripping the gears of the maintenance station.

Notice the two small e-clips on the metal rod holding the print carriage lid down.



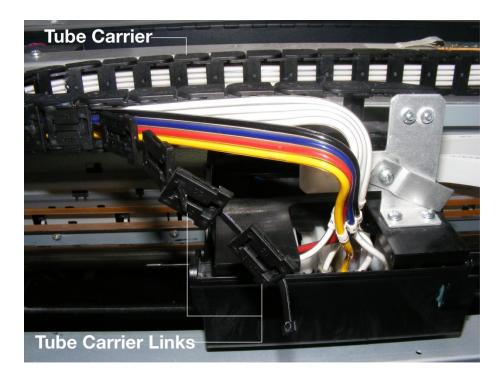


Remove both of the e-clips and slide the rod off the print carriage. Next, loosen the screw on the tube clamp to release the tubes.



Unclip 3 to 4 links from the tube carrier and take the print carriage lid off.





Now we can see the dampers. Make sure to put a paper towel in the right side of the printhead carriage to prevent any dripping onto the printhead cables.



Step 2: Drawing Ink at the Damper

Next, being careful NOT to puncture or apply pressure to the clear diaphragm on the side of the damper, remove the damper which corresponds to the non-working channel. Using the syringe, begin drawing ink through the damper. If you cannot draw ink at the damper,



continue to step 3. If you can pull ink at the damper, this means the damper, tube and ink needle are O.K. which means the clog is either in the printhead or maintenance station.



Step 3: Drawing Ink at the Tube

Remove the damper by loosening the nut connecting the tube to the damper. Once the damper is off, draw ink through the tube with the syringe.





Note: While the damper is off; inspect the o-ring for signs of damage or wear. Below is an image comparing a good o-ring to a worn out o-ring.



If you are not able to draw ink with the damper on but were successful with the damper off, the damper is damaged or clogged and will need to be replaced.

If you attempt to draw ink through the tube with the damper off and cannot, the tube and/or ink needle is clogged and will have to be replaced.

If you were successful at pulling ink through the tube and into the damper, we know that the ink needle, tube and damper are O.K. which means the Printhead and/or maintenance station is clogged or damaged. If this is the case, inspecting the maintenance station is our next step.

Step 4: Diagnosing the Maintenance Station

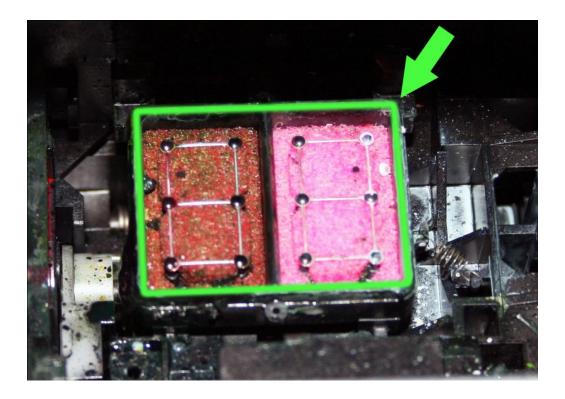
To find out if the maintenance station is damaged or clogged, power the machine down at the control panel. Once powered down, the control panel should say "AnaJet SPRINT or Model FP - 125 Press Power Key".

If the printhead carriage is not already released, remove the black ink cartridge and using a flat head screw driver, turn the screw clockwise until the printhead carriage is released. Slide the print carriage all the way to the left, exposing the maintenance station.

Using an eye dropper or a small measured amount of cleaning solution, fill the top of the maintenance station pads being very careful not to spill over the membrane (marked in green) around the top of the pads.

CAUTION: Overspill mixed with ink can fall into the gears under the maintenance station and cause permanent seizure of the mechanism.





Once the maintenance station is filled with cleaning solution, turn the screw in the black channel clockwise, draining the fluid out of the maintenance station. If the maintenance station is clogged or damaged one or both pads will remain filled with cleaning solution that does not drain.

If both pads drain, next inspect the membrane (green rectangle in the picture above) for any cracks, fraying or splitting, this membrane must be able to create a vacuum seal to the bottom of the printhead nozzle plate.

Note: When cleaning this membrane use only certified cleaning wands from the AnaJet cleaning kit and a gentle motion, do not scrub or use harsh materials. If the maintenance station is O.K. as well as the Ink Needle, Tube, Damper, and O-Ring then the Printhead is clogged or damaged and will need to be replaced.

At this point, with the tube, damper, and maintenance station all checking out, the printhead is likely clogged or damaged.

Even if the printhead appears to be clogged or damaged it can be made worse by long exposure to air. Therefore, reassemble the tubes, dampers (finger tight), and the carriage housing.

Tip: Keep the dampers straight when closing the carriage lid to reinsert the metal retaining rod. Excessive force here will irreparably crack the casing.

Next, power the control panel back up so the printer will go through its initialization and automatically park the carriage over the maintenance station and seal it from further exposure to air. Then run a nozzle check and if needed followed by a printhead clean to



see if the nozzles have improved. If the printhead is clogged or damaged, contact AnaJet Technical Support to obtain additional instructions or procedures which may help recover the printhead.