

# NeXT Color Printer Tips and Tricks

## *Disclaimer*

This file is authored by Glenn Parsons with DeepSpace Technologies. While we wish we could guarantee the following procedures to work for your NeXT color printer, we cannot. Neither DeepSpace Technologies, nor myself can accept any responsibility for harm or damage incurred to any persons or any machines as a result of following these procedures. The reader takes full responsibility for actions and consequences resulting from following any of the following procedures.

## **Background**

When I started working at DeepSpace Technologies in early 1998, we had a number of NeXT color printers that were defective or not quite printing well enough in one or more of the CMYK color scheme. I was hired as a technician to service and configure hardware. I had not seen a NeXT color printer, nor had I used any others bubble jet printers. A friend had a service manual for the NeXT 400 DPI Laser Printer, but had not seen a service manual for the color printer. I still have not met or contacted anyone with the manual. I had to figure out how to service the printer through trial and error. Fortunately, I made few errors.

I found the hardware disassembly quite simple. With no guidelines or manual to follow, It took a few machines (sorry, I did have to destroy 2 or 3) before I realized how to disassemble without glitches.

I have performed these procedures repeatedly and the majority successfully. The failures were due to other problems with the printers. I cannot guaranty that these procedures will work for you! I warn you that there are irreplaceable parts that can be broken. I will warn you during explanation of the procedure too. I believe, if carried out properly, you cannot harm your machine any worse by following these procedures.

## **Purpose**

This document is intended to help those loyal NeXT owners out there who already own a NeXT color printer. At this writing, we do not have any printers available for sale. I would, however, like to see all you owners of these printers enjoy them for as long as you can!

The NeXT color inkjet printer was manufactured by Canon for NeXT 1990. The 400 DPI Laser Printer was also manufactured by Canon for NeXT. Canon printed a full service manual for the Laser printer. I have seen it and have a .PDF on the web site. I assume that there was a manual available for the Color printer around, as well. Please contact me if you can provide the manual for the Color Printer, or if you have comments or improvements to suggest.

[glenn\\_parsons@prodigy.net](mailto:glenn_parsons@prodigy.net)

## **The Tricks**

First and foremost, procedures you should carry out are the *Test Print/Nozzle Check*, cleaning and flush cycles built into the printer ROM. WARNING: The cleaning and flush procedures will use quite a bit of your ink!

To access the ROM procedures; power up your printer. When the online, green light comes on, press the *ON LINE* button. Use the left and right arrows to navigate to test print and press enter. Use the left and right arrow keys to select *Nozzle Check* and press enter. This will give you a test print of the individual nozzles (jets) to help determine which jets are causing difficulties. Next use the exit button and select clean. Press enter and select *Cleaning A*. This is a short procedure. Next, select *Cleaning B*. This procedure takes approximately 5 minutes. Afterward, go back to *Nozzle Check* and see if this has improved the troublesome jet(s). If you have improved them to your satisfaction, tuck the rest of these procedures away for a rainy day. Congratulations! If you had some improvement, but not enough, try the two cleaning cycles again; these use much less ink than a flush will! If you had little or no improvement, perform a flush.

To perform a flush, power down your printer. While powering back up, press the left arrow, ENTER and ON LINE keys at the same time and continually until the LED reads *FLUSHING*. Be patient! This takes a while. The flushing procedure will take 15-20 minutes. Do not be surprised if you run out of ink during the flush. Following a flush, I would suggest you perform a Cleaning A and B. Then, perform a Nozzle Check.

If the preceding procedures have not worked, you will need to use the drastic measures outlined below. If the nozzles have cleared considerably, you may want to perform another Cleaning A and B cycle. Believe it or not, I have found repeated cleaning cycles to be effectual. Bear in mind, this does require a considerable amount of ink!

The most successful procedure I have found to restore the print quality is to manually flush the print heads (the jets). I will only outline this procedure, because all the other attempts at clearing the flow of ink were rarely, if ever, successful.

#### Materials Required

#2 Phillips screwdriver	syringe (needle not larger than .20 gauge)
Acetone	Cotton Swabs
Rubbing Alcohol (optional)	Rubber Gloves (optional)

1) Remove the paper tray and front cover. These will both remove without tools and without much force.



2) Remove the two screws from the top cover located at the rear of the machine with the #2 Phillips screwdriver. The two red arrows indicate the screw locations.



3) Lift the top plastic molding off the printer chassis. The cover will remove, with the front of the printer facing you, pull the back of the cover up and rotate it towards you. The red arrows in the picture indicate the direction to lift the molding.



4) The goal of this next procedure is to move the print head module to the center of the track that it rides on for convenient access to parts. Note: This picture was taken with the back of the printer facing you. You can easily see these parts while standing OVER the printer with the front facing you. Using an index finger or finger of your choice, push down on a plastic, spring mounted part located at the backside of the printer head

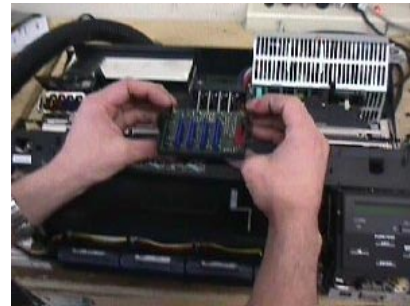


module. While holding this part down, slide the module toward the center of the printer. The two red arrows indicate the two motions you will have to perform. The yellow box surrounds the print head module that you are to move.

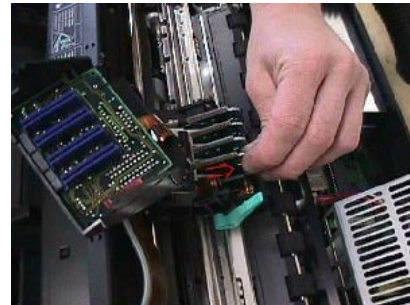
5) Now you need to get inside the print module. Use the photo as a guideline on where to place your hands. Get your fingertips up underneath the plastic casing at each side of the print head module. Pry outward as the two horizontal arrows indicate (not too hard! You can possibly break the molding.), and at the same time, pull upward. There is a circuit board mounted underneath the plastic housing attached by ribbon wiring. You do not need to remove the wiring or circuit board. Take care not to damage the wiring. It's pretty resilient, so don't worry too much.



This is what the assembly will look like when removed.



6) In this step you will remove the ink jet(s) you think are at fault. Use the Letter indicators on the top of the housing that you have already removed to determine which jet to pull. In the photo, I am pulling the black (K) jet. The jet cartridge slides out easily! Before pulling the jet, you may want to use rubber gloves; this is where it gets messy. By the way, The ink will wash right out of your clothes, but will stain your skin for days. Note the opening where the ink enters the jet. This is where you will insert the syringe to clear the jet.



7) Now to unclog the jet. Insert the syringe in the opening on the jet and force some acetone into it. You will, of course, need to do this over a trash can or container to catch the acetone and ink that will come off the jets. Watch carefully to see if a good stream comes out the jets at the end of the jet module. The jet is not cleared until the acetone is coming out the jets easily and in a good stream. If the jets do not clear quickly, put the jet in a cup of rubbing alcohol to soak for a while. You may be able to use acetone; I have not tried it. I would not suggest it! Acetone is highly destructive and may harm the jet module with extended exposure. The flushing action of the syringe and acetone is a



short exposure. After soaking the jet module, for at least an hour, flush it again with acetone. Repeat the process until you are satisfied with the results.

#### Reassembly

Reassembly is exactly the reverse disassembly. Before putting the plastic molding and covers on, test the printer. You can do this by placing the Clear plastic, front cover on the printer and turn it on. Do not even attempt to print until you have used both the Cleaning A and Cleaning B cycles built into the printer ROM. Use the *Test Print/Nozzle Check* to test for improvement. If the printer is printing well, congratulations! If the printer appears to have improved and is almost printing as well as you would like, either run the cleaning cycles again or run a flush cycle. **DO NOT** perform these cycles if you are not satisfied with an improvement. The cleaning cycles and especially the flush cycle will use a lot of your ink!!! Repeat the procedures above to clear the jets first!