**DC220 style…The Printer end of things…
Xerox Docuprint N24/32/40, N3225/4025**
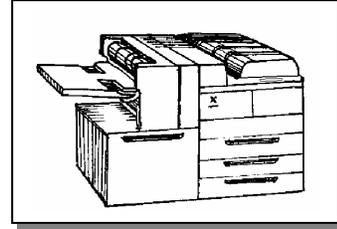
A little over a year ago (October 2002), ENX published an article which covered the Document Centre 220/230/420 and the Document Centre 332/340/425/432/440. These models were all marketed as Digital Copiers. At the same time, Xerox was also offering a series of Network Laser Printers, which are built around the same Fuji Xerox engine. These printer models are the N24/32/40, N3225 & N4025. I personally had always kept to the copier end of things, but nowadays, there is little difference between the digital copiers and the printers… so learning about the printers has become kind of inevitable.

The primary physical difference between the DC's and the N's is that the N's don't have the scanning bed, Document Feeder, or the fancy Control Console. The N's do have a console but it's extremely simple compared to the touchscreen found on the DC models. The parts are similar in many cases, but there are plenty of exceptions. For one thing, the N's use different feed rollers (although they look very similar at first glance). The Fuser Assembly follows the one in the DC332/340/420/432/440 (different from the DC220/230/420).

So, what else is similar? The Exit assembly, the BTR Roller, the Multisheet Bypass assembly parts are very similar (they appear to be interchangeable)… also the parts from the Optional Accessories such as the Duplex Module, & Finisher. The Print Cartridges are very similar, but not interchangeable (no thanks to the connector on the rear of the cartridge). The parts in the cartridge vary a bit from one another, so watch out if you're planning on refilling these cartridges.

<u>Now as for Status Codes</u>… some are familiar, others are a little bit different.

- **C codes:** misfeeds (C1-3 means clear Area A for example)
- **E codes:** registration and fuser jams
- **J1-2 code:** indicates that it's time to replace the Print Cartridge
- **J8 codes:** wrong cartridge type, or connector problem (the DC's used a J7 for the same sort of troubles)
- **U4 codes:** fuser problems
- **U6 codes:** indicates various memory failures

For using the Diagnostics, you'll need to learn a new trick or two (quite different from the DC copiers)… There are two modes available. The first one we'll touch on is the Menu Mode, which allows you to run some test prints and also change some of the basic settings. The other is the Diagnostic Mode, which is used to test components and change NVM (Non Volatile Memory) settings.

The **Menu Mode** is accessed from the Ready State by pressing the [1] "Menu" button once. The use of the # keys will make a lot more sense if you refer to the illustration of the Console below when you read the procedures.

N24/32/40 Control Console
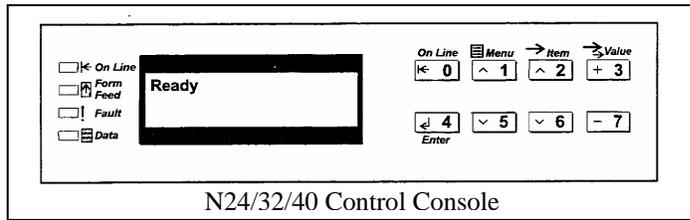
Generally, once you are in the Menu Mode, you'll press the [1] and [5] buttons to scroll up & down through the Major Menus, then once the Major Menu you want is shown, you use the [2] and [6] buttons to scroll through the submenu options until the one you want to change is displayed. Then the [3] and [7] buttons allow you to scroll through the options within that submenu. Finally, you'll press the [4] button to save or "enter" your new setting. Pressing the [0] button will get you back to the Ready state.

Following are a list of "Major Menus" available from Menu Mode.

MAJOR MENUS (in Menu Mode):

- **Job:** Cancel a job, Form Feed, Restart Printer
- **Password:** sets Password if the printer is equipped with a Hard Drive
- **Tray:** change paper size in each tray individually
- **PCL:** sets font, orientation, etc.
- **System:** sets language, paper size / type, etc.
- **Parallel:** enable / disable the Parallel port, etc.
- **Serial:** enable / disable the serial port, set the baud rate, etc.
- **USB:** enable / disable the USB port, etc.
- **Ethernet:** set various Ethernet options
- **Token Ring:** only available if the Token Ring option is installed…
- **Novell:** set Novell options including enable / disable Novell
- **Print:** run a configuration sheet, test print, menu map, etc.
- **Reset:** reset various memory settings to defaults, and delete jobs

Probably, the most useful thing for us techs in the Menu Mode is the Print Menu, which allows you to run a Test Print and also a Configuration Sheet (a good idea would be to make a habit of running a Configuration Sheet on any machine you service and keep the sheet on file). To run a Configuration Sheet, press [1] from Ready state, then use the [1] or [4] buttons to scroll through the Major Menu to the 'Print Menu', then use the [2] or [6] buttons to scroll to "Config Sheet" and press [4] to get the Configuration Sheet to print out.

The **Diagnostic Mode** is accessible from the powered off state. To access Diagnostic Mode, hold down the [2], and [6] buttons while turning on the power. When the Control Panel says "IOT", release the buttons. Then, within 5 seconds press either the [4] button (if you want to run a Test Pattern), or the [7] button (to test components). To exit Diagnostic Mode after you're done, you'll turn the power off.

Here's how to run a Test Print from Diagnostics… enter Diagnostic Mode and within 5 seconds press [4], then wait for the machine to say "Ready to Print/Test Print(s) 00". Then press [4] again and the printer will make a grid pattern Test Print from Tray 1.

To test components, go into Diagnostic Mode and press [7] within 5 seconds. Then use the [1] or [5] buttons to scroll through the 3 major menu items:

- **"Service Output Tests"** (for motors, solenoids, lamps, etc.)
- **"Service Sensor H/L Input Tests"** (for sensors which switch between High and Low such as paper path sensors)
- **"Service Sensor A/D Input Tests"** (for paper size detection, thermistor readings & such).

When you see the Service Test menu displayed which you want to access, press [4] to select that set of tests, then use the [1] or [5] buttons to scroll through the list of component tests available. When you see the one you want, press [4] again to run the test. For an Output Test, the motor or fan will run for 2 minutes… other items such as solenoids will energize for 2 seconds. Some components such as feed clutches will energize and remain energized until power off. To test a switch, go into the H/L Input Tests and select the sensor you want… once you press [4], go and toggle the actuator to see if the display changes from H (high) to L (low).

The final set of Diagnostics is the **NVM or memory settings** & adjustments. To get into this part of the Diagnostics, you'll hold down the [2] and [6] buttons, then once the display says "IOT", let go of the buttons. Next press [4] and [7] down at the same time, then release the [7] while holding the [4] until the console counts up to "3". Then release the [4] button. Now you can use the [1] and [5] buttons to scroll through the Menu selections. Within some of the Menu selections, there will also be submenus which you can scroll through using the [2] and [6] buttons. When you see the setting you want to change, use the [3] or [7] buttons to scroll through possible settings… press [4] to lock in the new setting. You'll find things like Lead Edge Registration Adjustments overall and from each tray, also Trail Edge deletion, Side Edge Registration, Fuser Temperature, etc. as well as a bunch of Read Only settings such as Drum Revolutions, Print Cartridge # of prints made, etc.

That should do it! Parts are increasingly available and now you know enough about using the diagnostics to approach one of these things without fear. Next month, we'll return to the Pro412 style digital copiers once again to learn more about the machine (we covered the toner cartridge reconditioning and the drum count reset in last month's article).