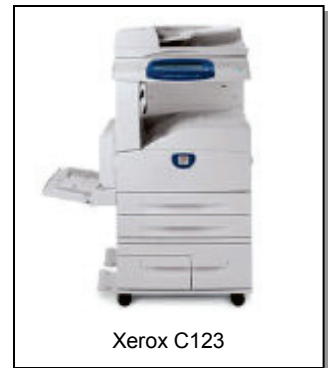


Introducing: Xerox C123 style... Introduction & Status Code Meanings for the Xerox CopyCentre C123, C128, & WorkCentre M123, M128, Pro123, Pro128.



Xerox C123

Last month we wrapped up a relatively quick look at the C118 style (C118, C118i, M118, M118i). This month we'll start a more in-depth look at a series of models which look at first to have a lot in common with the C118. In fact it turns out that they are far more different than expected. We'll do a bit of an introduction: contrasting them with the C118's and going over the machine's capabilities and supplies. Then it'll be time to go through the Status Codes to get some bearing on their meanings.

The model numbers which are in the C123 style include: CopyCentre C123, C128, 133, WorkCentre M123, M128, M133, Pro123, Pro128, and Pro133. I should mention that the 133 models are not mentioned in the 2004 release of the Service Manual which was used as the primary reference material for this article (available on Xerox's Documentation Website www.xdss.com under part number 701P26490 for \$388.87). Considering that they are a newer release which shares the same supply part numbers, it stands to reason that most of what is in this article will apply to the 133's.

The C123 style machines are being welcomed with more warmth than the C118's before them. Several technicians who are selling and servicing them reported them as being excellent machines. The opposite was said of the C118 machines. These newcomers, I am told, are workhorses which give very little in the way of problems. They are also rather technician friendly. The two types of machine share a similar appearance. They actually use the same part number



C123 style Toner Cartridge

for the drum cartridges... but that is where the similarities pretty much dry up. The Status Codes and Diagnostic Codes of the C123 are completely alien to the ones for the C118. Feed components are similar in some of the trays, but the Document Feeder parts are nothing alike. The Toner Cartridges look similar although the C123 is considerably larger and uses a different CRUM (Customer Replaceable Unit Monitors... the chips which track the count and identify the version of the cartridge). The same is true of the newest ones... the WC-5225 style. The C123 series machines are selling heavily out there.... So they'll be showing up in greater numbers than the C118's.



RF CRUM
Found on Toner & Drum Ctg's.

There is also a Phaser printer which is related to the C123. The Phaser 5500 is the same basic engine, with the main difference being that there is a simpler User Interface (no touchscreen) and no Scanner up top. Naturally with the different User Interface, the diagnostics will be quite different as well.



C123 style Drum Cartridge

The Supplies for the C123 style are very close to the C118. The Drum Cartridge is actually identical right down to the part number (13R589). It has a yield of 60K and sells for \$199.-. The Phaser 5500 version of the Drum Cartridge (113R670) will be different (probably just the CRUM will be different). The Toner Cartridge (6R1184) are physically different between the C118 (6R1179), & C123 (6R1184). The Phaser 5500 (113R668) & Phaser 5550 & the WC-5222/5225/5230 all have the same cartridge as the C123 but the CCRUM is unique on each so you can't freely interchange them. The CRUMS (Customer Replaceable Unit Monitors) used on both the Drum and Toner Cartridges on these machines are RF (Radio Frequency) types of chips... They never makes any physical electrical connection whatsoever. Instead the machine uses radio waves of some sort to read and write to the CRUM's chip.

The Developer station (yep, it's dual component, so it actually does have developer material) is spared as part of the Drum Cartridge. They call the Drum Cartridge the "Xero/Developer Cartridge" at times in the Service Manual. The Toner cartridges have a small bit of Developer material mixed into them so the material remains fresh in the machine throughout the life of the Drum Cartridge (Xero / Developer Ctg).

Now for the Status Codes. This list will have to be abbreviated somewhat because the Service Manual acknowledges over 600 Status Codes. The general meanings of all of the code prefixes will be represented as the first part of the code (the prefix), then a dash followed by "xxx" to represent the second half of the code (example 010-xxx). Those generalizations will be in bold text in the table to follow.

The book is littered with acronyms, and although there is a Glossary of Terms, many of the acronyms which I couldn't guess the meaning to, are not listed. It was getting frustrating till my wife suggested that I Google the acronyms... actually found quite a few of them. Good thinking Joann!

Status Codes / Indicators:

Code	Description
003-xxx	Communication Failures
003-942	Document size auto-detect failure
005-xxx	Document Feeder Problems
010-xxx	Fuser Problems
010-313	Fuser Control Thermistor failure (open Control Thermistor)
010-314	Fuser Side Thermistor failure (open Side Thermistor)
010-318	Fuser temperature did not rise quickly enough during heating cycle
010-320*	Fuser Overheat (must be reset from diagnostics by resetting NVM (Non Volatile Memory code 744-220 back to "0") *
010-327*	Fuser took too long to warm up (must be reset from diagnostics by resetting NVM (Non Volatile Memory code 744-220 back to "0") *
010-398	Fuser Fan failure
012-xxx	Finisher Problems
016-xxx	Fax Service Problems
021-xxx	Fax Problems
024-xxx	IOT (Image Output Terminal - print main logic board) - ESS (Electronic Switching System - Network Module) Communication Errors
024-910	Tray 1 paper size mismatch (length of paper is seen as different than what the paper size switch sees)
024-911	Tray 2 paper size mismatch (length of paper is seen as different than what the

- paper size switch sees)
- 024-912 Tray 3 paper size mismatch (length of paper is seen as different than what the paper size switch sees)
- 024-913 Tray 4 paper size mismatch (length of paper is seen as different than what the paper size switch sees)
- 024-919 Face Up Catch Tray closed during copy run when paper was sent to the Face Up Tray
- 024-946 Tray 1 - Tray not detected
- 024-947 Tray 2 - Tray not detected
- 024-948 Tray 3 - Tray not detected
- 024-949 Tray 4 - Tray not detected
- 024-950 Tray 1 empty
- 024-951 Tray 2 empty
- 024-952 Tray 3 empty
- 024-953 Tray 4 empty
- 024-954 MPT (Manual Paper Tray / Bypass Tray) empty
- 024-958 MPT (Manual Paper Tray) paper size failure
- 024-959 Tray 1 paper size not detected by the paper size sensor
- 024-960 Tray 2 paper size not detected by the paper size sensor
- 024-961 Tray 3 paper size not detected by the paper size sensor
- 024-962 Tray 4 paper size not detected by the paper size sensor
- 024-985 MPT (Manual Paper Tray / Bypass Tray) feed failure
- 025-xxx** Hard Drive Failures
- 027-xxx** Email Errors
- 033-xxx** Fax Control Errors
- 034-xxx** Fax Communication Problems
- 035-xxx** Fax Network Problems
- 036-xxx** Fax Parameters Problems
- 041-xxx** NVM (Non Volatile Memory) Errors
- 042-323 Drum Drive Motor Failure
- 042-325 Main Drive Motor Failure
- Options Communication Errors (Main Board to Duplex Module, Trays Module, Exit Module, Finisher, etc.
- 047-xxx**
- 047-211 / 212 Communication Failure with OCT (Oscillating Catch Tray)
- 047-213 Different Finisher detected
- 047-214 Communication Failure with Duplex Module (DM)
- 047-215 Communication Failure with Exit Board
- 047-216 Communication Failure with Finisher
- 047-218 Communication Failure with TM (Tray Module)
- 061-315 ROS (Raster Output Scanner - Laser Unit) laser intensity detected as being low.
- 061-321 ROS (Laser Unit) Motor Failure
- 061-333 ROS (Laser Unit) Fan Failure
- 062-xxx** Scanner Problems (IIT or Image Input Terminal)
- 062-277 Scanner to Document Feeder (DADF) Communication Failure
- 062-300 Platen Interlock is Open
- 062-310 Scanner Communication Error
- 062-360 Exposure Carriage Position Failure
- 062-371 Exposure Lamp Failure
- 062-380 / 386 Lens CCD (Charge Coupled Device... that is the piece which reads the image) Output Error

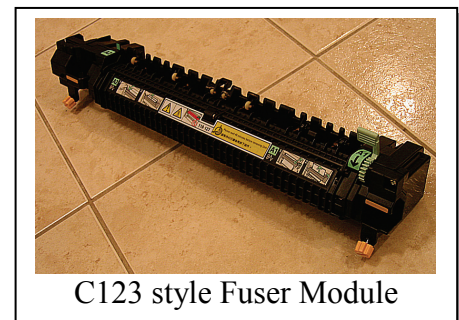
062-389 Exposure Carriage Overrun Failure
 062-392 / 393 Scanner Logic Board Failures
 071-105 Tray 1 Misfeed
 071-210 Tray 1 Lift Failure
 071-211 Tray 1 Paper Size Switch Failure
 072-101 Tray 2 Misfeed
 072-105 Paper Jam from Tray 2 (sheet did not reach Registration Sensor in time)
 072-210 Tray 2 Lift Failure
 072-211 Tray 2 Paper Size Switch Failure
 073-101 Tray 3 Misfeed
 073-102 Paper Jam from Tray 3 (sheet did not reach the Registration Sensor in time)
 073-105 Paper Jam from Tray 3 (sheet did not reach Tray 2 Takeaway Sensor in time)
 073-210 Tray 3 Lift Failure
 073-211 Tray 3 Paper Size Switch Failure
 074-101 Tray 4 Misfeed
 074-102 Paper Jam from Tray 4 (sheet did not reach Tray 2 Takeaway Sensor in time)
 074-103 Paper Jam from Tray 4 (sheet did not reach Tray 3 Takeaway Sensor in time)
 074-105 Paper Jam from Tray 4 (sheet did not reach Registration Sensor in time)
 074-210 Tray 3 Lift Failure
 074-211 Tray 3 Paper Size Switch Failure
 075-135 Bypass Misfeed (from the MPT (Manual Paper Tray))
077-xxx Paper Jams and Interlocks Open.
 077-101 Paper Jam, paper not seen leaving the Registration Sensor in time
 077-103 Paper Jam, paper not seen leaving the Exit Sensor in time
 077-104 Paper Jam, paper seen leaving Exit Sensor earlier than expected
 077-106 Paper Jam, paper not seen at Exit Sensor
 077-129 Paper Jam when duplexing
 077-130 Duplex Exit Sensor Jam
 077-131 Duplex Wait Sensor (Duplex Feed)
 077-300 Front Door Interlock Open
 077-301 Left Door Interlock Open
 077-305 Tray Module left hand cover interlock
 077-307 Duplex Cover Open
 077-308 Left Door (upper) Interlock Open.
 077-309 Left Door (lower) Intlock Open
 077-329 Main Motor remains on when it is supposed to be off
 077-900 Paper detected sitting on the Registration Sensor
 077-901 Paper detected sitting on the Fuser Exit Sensor
 077-902 Paper detected sitting on the Post Fuser Exit Sensor
 077-904 Paper detected sitting on the Tray 2 Takeaway Sensor
 077-905 Paper detected sitting on the Tray 3 Takeaway Sensor
 077-906 Paper detected sitting on the Tray 4 Feed Sensor
 077-907 Paper detected on the Duplex Sensor
 091-401 Drum is near end of life (the count is about to expire on the CRUM)
 091-912 Drum Cartridge is not present (or not seated properly)
 091-913 Drum Cartridge end of life (time to replace the cartridge or at least the CRUM)
 091-914 Drum Cartridge CRUM communication failure
 091-915 The machine failed to write to the Drum Cartridge CRUM
 091-916 Wrong Drum Cartridge type was detected (for example if you installed a European

	cartridge in a US machine)
092-910	ATC (Automatic Toner Concentration) Sensor Failure Toner dispense failure - density did not rise after the toner dispense motor turned on
093-312	Low Toner condition sensed (replace cartridge soon)
093-406	Toner Cartridge is empty
093-912	Toner Cartridge CRUM communication failure
093-924	The machine failed to write to the Toner Cartridge CRUM
093-925	Wrong Toner Cartridge type was detected (for example if you installed a C118 ctg in a C123 machine)
093-926	User Interface failures (some of them indicate failure to communicate with the ESS or Network Controller)
102-xxx	Printing Control Failures having mostly to do with the Hard Disk Drive, ESS (network controller) or software
116-xxx	Foreign Interface problems (communications with an external device such as a card reader or auditron)
121-xxx	Software problems
123-xxx	ROM / RAM failures
124-xxx	More Software related problems
127-xxx	More Fax Control Errors
133-xxx	Fax Card failures
134-xxx	Internal Timer failure
202-399	

As noted above, some of the fuser codes need to be reset from the diagnostic mode before the machine will attempt to warm up again. We'll be getting into the diagnostics in the next article, but I think that you should at least know how to use the diagnostics to get the fuser codes to reset... Don't want to leave you hanging!

*** Resetting Fuser Codes (010-320, & 010-327) :** (reset NVM code 744-220 to '0')

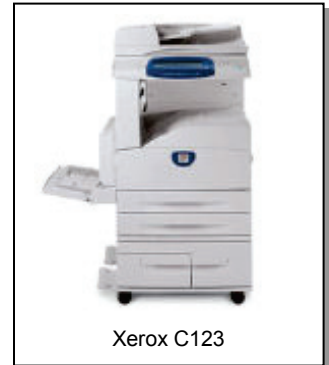
First enter UI (User Interface) Diagnostic Mode: Hold down the '0' button for 5 seconds and then press the 'Start' button while still holding the '0' button. The machine will prompt you for a Password. Enter the default Access Number: '6789' and press "Confirm". The colors on the display will be reversed to indicate that you are now in diagnostic mode. Next press the "Log In/Out" button on the Control Panel. Select 'System Settings', 'Common' Settings, followed by 'Maintenance / Diagnostics'. Now you will find the main menu includes one choice called "NVM Read / Write" (NVM is Non Volatile Memory)... Now you can enter your "Chain-Link" code (in this case 744-220) and press 'Confirm / Change'. The current value will appear (if the machine is in a fuser fault condition, the value will be set to "1"). Select the "New Value" column and input your new value ('0'). Select "Save" and the new number should now appear in the "Current Value" column. You can turn the power off and back on at this point. The machine will attempt to warm up the fuser again. If the condition which caused the fault in the first place is still happening, the Status Code will return after a few minutes of attempting to warm up.



That's a wrap. For this month anyhow... will delve into the diagnostics more in the next article. As these machines begin needing service, I think we'll all be ready. See you next month!

Introducing: Xerox C123 style... (Part II) Diagnostics, Adjustment Codes and Procedures for the Xerox CopyCentre C123, C128, & WorkCentre M123, M128, Pro123, Pro128.

Last month we got things started with the C123 style. We did an overview of the machine and took a peek at the Status Code meanings. This series is getting good reviews from the folks who have been placing and repairing them, so it seems that they will prove to be worth learning. This time, let's hit the diagnostic memory adjustment codes. This should be kind of interesting... I'll have to trim the list down a bit from a rather unwieldy 1000+ codes (give or take a few) to something which remains useful to the folks who are out there fixing them in the field.



The diagnostic entry process is the same as the C118 machines (we covered those in a previous article) but that's where the diagnostic similarities end. To get into "UI Diagnostic Mode" (UI stands for User Interface) from the powered on state, press and hold down the '0' key for 5 seconds, then press the 'Start' button while still holding the '0'. The screen will prompt you for a Password. Enter the default access number (6789) and press "Confirm". The colors on the display will reverse to show you that the machine is now in diagnostic mode.

To run a Service Report, you'll then press the "Machine Status" button on the control panel and then select the "Billing Meters / Print Reports" tab on the display. Then press "Print Reports / List" button followed by the "CE" button. You can print out the following reports:

- **HFSI Report** (High Frequency Service Items)
- **Jam Report**
- **Failure Report** (shows the # of times each fault occurred)
- **Shutdown Report** (this is the Fault History which will show which Status Codes have come up recently and when they occurred)

After running whatever reports you want to glean from the machine, turn the power off and back on to exit the diagnostic mode.

Now, for the rest of the Diagnostics, you'll enter Diagnostic Mode but this time, you'll press 'Log In/Out' on the control panel. You can then select "System Settings" followed by "Common Settings" and then "Maintenance / Diagnostics" which is basically the Main Menu for our purposes. Within that main menu you'll find:

- **NVM Read/Write:** Non Volatile Memory adjustments.
- **Component Control:** For testing sensors, motors, solenoids, etc.
- **Print Test Pattern**
- **Initialize NVM**

- **Adjustment / Others:** Includes: ‘Machine ID / Billing Data’, ‘Initialize the HFSI’ (High Frequency Service Items), ‘Adjust Toner Density’, and ‘Tray 5 (Bypass) guide adjustment’.

If you then choose “NVM Read / Write”, you’ll be able to get to the adjustments you need to keep the machine running right. Things like the registration, fuser temperature, etc. The codes are 6 digit numbers separated by a hyphen between what is called the “Chain” and the “Link” (742-027 for example). Enter the “Chain-Link” code you wish to view and select “Confirm/Change”. The current value of your selected code will appear in the “Current Value” column. To change the setting, you’ll then input a new number in the “New Value” column and press “Save”.

Here is an abbreviated list of the stuff we generally all want to know... I’ve left off anything which isn’t critical to regular maintenance and repairs (the fax codes for example are just too lengthy to get into). For the registration adjustments, the list below includes the ones which pertain to “plain paper” only, although the Service Manual lists multiple settings for different heavier weight paper for each tray (there are 32 codes in the book relating to registration and the list below shows only the 5 most commonly needed codes). The following list should suffice to get you through most service calls.

MEMORY ADJUSTMENTS (NVM Read / Write)

NVM Code	Description	Default	Range	1 count	Value meanings
700-089	HDD (Hard Disk Drive) Status	0	0-2		0=Installed, 1=Failed, 2=Not Installed
700-100	DHCP Mode	2			0=Manual, 4=BOOTP, 2=DHCP, 1=RARP
700-130	Sleep Mode Timer	2	1-240	1 minute	1-240 minutes to sleep mode
700-131	Sleep Mode Available	1	0-1		0=Disabled, 1=Enabled
700-171	Key Operator Tools Entry Password	11111			
700-399	Default unit of measure (mm / inch)	3			1 = millimeters, 3 = Inches
700-540	Auditron Mode	0	0-3		0=Off, 1=Internal Auditron, 2=Network Accounting
711-140	Document Feeder (DADF) Lead Edge Registration (side 1)	129	0-214	0.0458mm	
711-141	Document Feeder (DADF) Lead Edge Registration (side 2)	129	0-214	0.0458mm	
711-142	Document Feeder (DADF) Trail Edge (side 1)	129	0-214	0.0458mm	
711-143	Document Feeder (DADF) Trail Edge (side 2)	129	0-214	0.0458mm	
715-052	Platen type	2	0-2		0=Flat Top, 1=Doc Belt, 2=CVT
715-720	Copy Density Adjustment	128	0-256		
715-721	Copy High Density Adjustment (darker3 setting)	128	0-256		
715-722	Scan / Fax Density Adjustment	128	0-256		
715-723	Scan / Fax High Density Adjustment (darker3 setting)	128	0-256		

719-008	Market region	0	0-3		0=FX (Fuji Xerox), 1=AP (Asia / Pacific), XC (Xerox Canada), XE (Xerox Europe)
740-090	Output Configuration (where copies are set to be delivered)	0	0-4		0 = Face Down Tray#1, 1 = Face Down Tray #2, 3 = Finisher Bin1, 4 = Finisher Top Tray
741-001	Main and Drum Motor Speed	24	0-53	0.10%	0=-2.7%, 53=2.6%
742-009	Enable Tray 4	0	0-1		0=Disable Tray 4, 1=Disable Tray 4
742-027	Lead Edge Registration (all trays)	33	0-66	0.2175mm	0=-7.18mm, 33=0.0mm, 66=7.18mm
742-030	Invert timing (all trays)	33	0-66	0.435mm	0 = -14.96mm, 33 = 0mm, 66 = 14.96mm
742-098	Enable Face Down Tray #2	0	0-1		0 = Disable Tray, 1 = Enable Tray
742-099	Enable Face Up Tray	0	0-1		0 = Disable Tray, 1 = Enable Tray
744-006	Fuser Standby Lamp On temperature	45	0-99	1 degree C	default (45) = 175 degrees C
744-010	Fuser Standby Lamp Off temperature	20	0-99	1 degree C	default (20) = 180 degrees C
744-043	Fuser Ready temperature	35	0-70	1 degree C	default (35) = 165 degrees C
744-220	Fuser Overtemperature Reset (Resets 010-320 & 010-327 Status Codes)	0	0-5		0 = Reset, 1 - 5 = Fault condition
749-523	Side Normal Erase Adjustment	8	0-18	0.254mm	
749-524	Top Normal Erase Adjustment	9	0-18	0.217mm	
749-527	End Normal Erase Adjustment	9	0-18	0.217mm	
752-954	ATC (Auto Toner Concentration) Sensor	0	0-1		0 = Normal, 1 = Abnormal
760-001	Lead Edge Registration (Tray 1, Plain Paper)	33	0-66	0.2175mm	0=-7.18mm, 33=0.0mm, 66=7.18mm
760-002	Lead Edge Registration (Tray 2-4, HCF, Plain Paper)	33	0-66	0.2175mm	0=-7.18mm, 33=0.0mm, 66=7.18mm
760-003	Lead Edge Registration (Bypass / MPT Manual Paper Tray)	33	0-66	0.2175mm	0=-7.18mm, 33=0.0mm, 66=7.18mm
760-005	Lead Edge Registration (Duplex)	33	0-66	0.2175mm	0=-7.18mm, 33=0.0mm, 66=7.18mm
770-101	IP Address	0.0.0.0			
770-102	Subnet Mask	0.0.0.0			
770-103	Gateway Address	0.0.0.0			
770-190	Mail Service Start / Stop	1	0-1		0=Stop, 1=Start
770-191	Address of Mail Sender	NULL			enter email address (username@domain.name)
770-202	SMTP Mail Server IP Address	0.0.0.0			

770-286	POP Server User Name	NULL			
770-287	POP Server Password	NULL			
780-060	Tray 1 Priority	1	1-4		prioritize trays from 1 to 4
780-061	Tray 2 Priority	2	1-4		prioritize trays from 1 to 4
780-062	Tray 3 Priority	3	1-4		Prioritize trays from 1 to 4
780-063	Tray 4 Priority	4	1-4		prioritize trays from 1 to 4
780-085	Drum End of Life disable	1	0-1		1= Stop Printing, 0 = Do not stop printing
785-024	Adjust "100%" setting (98-102%) for Fast Scan	1000	980-1020	0.10%	980=98.0%, 1000=100.0%, 1020=102.0%
785-025	Adjust "100%" setting (98-102%) for Slow Scan	1000	980-1020	0.10%	980=98.0%, 1000=100.0%, 1020=102.0%
785-080	Edge Erase margin	5	0-10	1mm	0=0mm, 5=5mm, 10=10mm
790-094	Default Original Type	1	1-4		1=Text, 2=Text & Photo, 3=Photo, 4=Pencil Text
790-097	Default Background suppression	1	0-1		0=Off, 1=On
790-098	Default Density Adjustment	3	0-6		0=Lighter3, 1=Lighter2, 2=Lighter1, 3=Normal, 4=Darker1, 5=Darker2, 6=Darker3
790-099	Mixed Size Default	0	0-1		0=Off, 1=On
790-122	Default Sharpness	2	0-4		0=Sharper, 1=Sharp, 2=Normal, 3=Soft, 4=Softer
790-181	Default Duplex Setting	0	0-3		0=1 to 1 sided, 1= 1 to 2 sided, 2= 2 to 1 sided, 3= 2 to 2 sided
790-183	Default Exit Tray	0	0-3		0= Center Tray, 1= Side Tray, 2= Finisher Tray, 3= Center Tray2
790-223	Default Color Mode in Scan	1	0-3		0= Full Color, 1=Grayscale, 2=Text & Photo
790-225	Default Scanning Resolution in Scan	0	0-4		0=200dpi, 1=300dpi, 2=400dpi, 3=600dpi, 4=100dpi
790-230	Contrast Adjust in Scan	2	0-4		0=Higher, 1=High, 2=Standard, 3=Low, 4=Lower
790-288	Default Background suppression in Scan	0	0-1		0=Off, 1=On
790-301	Top Edge Erase in Copy	2	0-50	1mm	0 mm to 50mm in 1mm increments
790-302	Bottom Edge Erase in Copy	2	0-50	1mm	0 mm to 50mm in 1mm increments
790-303	Left Edge Erase in Copy	2	0-50	1mm	0 mm to 50mm in 1mm increments
790-304	Right Edge Erase in Copy	2	0-50	1mm	0 mm to 50mm in 1mm increments

Maintaining Serial Numbers in Diagnostics (clearing 124-315 codes): Maintaining a consistent machine Serial Number in the diagnostics is important if you are replacing either the Main Board (MCU NVM PWB) or the ESS Board (network controller). This procedure is designed to maintain the integrity of the serial number. The machine has a redundant system

for assuring that if the Memory gets corrupted on one system or board, the Serial Number remains the same for the machine after the board is replaced or re-initialized. If the boards in the machine don't agree about the Serial Number, the Fault Code "124-315" will show up and this procedure will become necessary to clear the Fault.

Here's the procedure... From the "Maintenance / Diagnostics" menu, choose "Adjustment / Others". Select "Machine ID / Billing Data". You can read the Billing Meters from here or the Serial Number as it is set on each board. To synchronize the Serial Number data, refer to the serial number plate on the machine and select the Board which has the right serial number (usually the one which was not replaced). Enter the Serial Number and push "Confirm" twice. The "Set Serial Number" button will become available. Touch that button and follow the on-screen instructions and pop-up windows to synchronize the boards' serial numbers.

Clearing HFSI (High Frequency Service Items) Counters (Fuser, Bias Transfer Roll, etc.). If you enter the "Initialize HFSI Counters" option from the "Adjustment / Others" menu, you can select individual HFSI's such as the Fuser and Bias Transfer Roll to reset their count in the machine's memory. To reset one of the items, enter the "Chain-Link" code as shown on the following table and then select "Reset Correct Value"... The screen will show "Diagnostic Routine Completed" and the HFSI counter you chose will be reset. Here's a list of the codes in the HFSI:

HFSI Chain-Link Codes:

HFSI Code	Description
954-807	Fuser Count
954-800	Tray 1 Feed Count
954-801	Tray 2 Feed Count
954-802	Tray 3 Feed Count
954-803	Tray 4 Feed Count
954-804	HCF (High Capacity Feeder) Feed Count
954-805	Bypass / MPT (Manual Paper Tray) Feed Count
954-808	Bias Transfer Roll
956-802	Scanner Count
956-803	Exposure Lamp On time in seconds, Lamp Life is expected at 2000 hours.
956-804	Exposure Lamp On Count (expected life is 6 million times)
956-808	Platen Opened / Closed (Platen models only)
955-806	Document Feed Count
955-807	Document Feed, single sided (simplex) Count
955-808	Document Feed, duplex mode Count
955-810	Platen Opened / Closed (Document Feeder models only)
955-829	Inverter Solenoid on Count
955-831	Document Stamp Solenoid Count

Adjust Toner Density: This function is also reachable from the "Adjustment / Others" menu. If you select "Adjust Toner Density" and select "Measure Sensor State" and then press 'Start', the ATC (Automatic Toner Concentration) values will show on the display including the ATC Target Value, ATC Output Value, ATC Result (ready or NG), and TC (Toner

Condition) Status (Normal, Low TC, or High TC). When “Low TC” is displayed, select “Adjust Toner Density” and use the “UP” button to increase the number. When “High TC” shows up, select the “DOWN” button. When the display shows “Normal” then the toner density in the developer unit is sensed as being correct and the procedure is a success. At that point press “Close” to exit the adjustment.

Tray 5 (Bypass) Width Guide Adjustment: This Bypass uses an analog input to recognize what size paper the Width Guide Adjustment is set to. If the machine gets confused about the paper size in the Bypass Tray, you can re-educate it. From the “Adjustment / Others” screen, select “Tray 5 / Bypass Guide Adjustment”. Set the Bypass Guide on the machine to the minimum position and select “Minimum Size Position” followed by “Start”. The display will show “OK” or “NG”. If “NG” shows up, repeat the procedure. Once it shows “OK”, set the Bypass Width Guide to the maximum width and then press “Maximum Position”. Again, you are looking to see that the display shows “OK” when the machine sets up properly.

Touchscreen alignment (aligns the display with the touch-sensitivity of the touchscreen). This is generally only needed if you replace the Touchscreen or the entire User Interface (control console). There is supposed to be a “Touch Pen” tool hidden under the removable panel which covers the numeric buttons on the control console, but you can use any pointed object if you are careful not to damage the delicate surface of the touchscreen. Hold down the ‘0’, ‘1’, and ‘3’ keys while powering on the machine. A grid with intersections labeled P1 to P9 will show on the display. Use the Touch Pen to touch the intersections of the up and down lines P1 to P9 in sequence. Stay on the intersections for about 1 second each. Once you do all 9 buttons, the machine will coordinate the array of values. Power the machine off and back on. The touchscreen should now be aligned properly.

That’ll be a wrap for this month. Next month we’ll be going through the Component Test codes and procedures to round out this series of articles which focus on the machine itself. Later on the fusers will need a looking-at, as will the Drum Cartridges... At that time, we’ll cover repair procedures and comparisons between different versions of the fuser modules in the C123’s, C118’s and Phaser5500’s. See you all next month!

Britt works for The Parts Drop, a company whose primary business is providing parts, supplies and information for Xerox brand copiers, printers and fax machines. You can find more information, including many of Britt’s past ENX articles on their website, www.partsdrop.com. If you’d like to read more about Xerox brand office equipment, there’s also a complete listing of past articles under contributing writers on the ENX website (www.ENXMAG.com).