

# Xerox Production Systems Fault Code Reference Book IV

The purpose of this Best Practices is to provide a quick reference for the service representative. It does not replace E-DOC or other Xerox supplied reference materials.



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Changes are periodically made to this document. Changes, technical inaccuracies, and typographic errors will be corrected in subsequent editions.

Previous editions of the DT61xx Fault Code Reference Book were created and published by RXUK National Technical specialists (Jo Oliphant, Dave Benstead, Ken Farrell, Ian Heaford). Fault Code Reference Book II updated for US June 2007, coordinated by Kim Pendelberry and Ron Sosinski.

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# Introduction

## **DT61xx Fault Code Reference Book**

This book has been written to help you resolve some of the problems encountered in the field with the DT61xx product, in the most time & cost effective manner possible. This document is intended to supplement the Service Documentation, and is not intended to replace it.

**Note: There are General Procedure references throughout this document. The reference format is in the form “GPxxx.” The user of this document can find these General Procedures in E-DOC.**

## Unix Commands

UNIX is the operating system used on SUN platforms for the 61xx. Many commands are available within this operating system and this section has been written to assist the engineer in the use of these commands. The Solaris Open Windows environment is the default GUI interface that the DocuSP software automatically loads upon boot up, and is a much more user friendly environment than the base UNIX shell. All the commands within this section are based upon the assumption that Open Windows is running, and a Command Tool has been enabled.

To enable a Command Tool from the Open Windows environment, click on the right mouse button within the Solaris workspace, select **[Programs]**, then **[Command Tool]**. After a short delay the Command tool window will appear at the % prompt. To enter as root, type

**SU**

(super user) press **<Enter>** and then type the root password. Accurate symbology and syntax entries for the UNIX commands are absolutely necessary and are dependent upon character sensitivity (upper or lower case), and correct spacing. To minimize any confusion in this area, the following code of practice is used throughout this booklet:

**1. Menu selections are shown in bold and square brackets**

e.g. Select **[Log In]** from the system pull down menu.

or

Select **[System Power Off]** from the pull down menu.

**2. Screen messages are in bold italics**

e.g. Open console window and look for the message  
*System Error : C03-224: Can't read Mode File*

**3. Command lines are always shown in bold and a larger font followed by an <Enter>**

e.g. From a UNIX command tool type:  
**boot -r <Enter>** (where **<Enter>** means press the Return key)

**4. ok symbolizes the prom diagnostics ok prompt** (Not available on the X86 controllers, PDSI and W1100Z)

**5. <> Indicates a keyboard selection**

e.g. Press **<Stop>A** to access the **ok** prompt. (Not available on the X86 controllers, PDSI and W1100Z)

**6. Files are listed in large bold type**

e.g. From a Command tool, edit **hosts.equiv** file

Examples are given for all of the referenced commands listed in table on the next page.

---

**Reference list**

<b>Command</b>	<b>Function</b>
<b>admintool&amp;</b>	Admin. Manager Tool (Removed from DocuSP 42.X.X and Greater)
<b>arp</b>	Display the Hostname
<b>cat</b>	Display the contents of a file
<b>cd</b>	Change directory
<b>chmod</b>	Set permissions
<b>cp</b>	Copy a file
<b>date</b>	Show/edit current date and time
<b>df</b>	File system disk space info.
<b>eject</b>	Eject removable media
<b>format</b>	Format utility
<b>file</b>	File type query
<b>find</b>	Find a file
<b>fsck</b>	Check and repair a file system
<b>last</b>	Lists history of system boots
<b>ls</b>	List files
<b>man</b>	Display manual help / options
<b>mkdir</b>	Create new directory
<b>more</b>	Display file 1 page at a time
<b>pwd</b>	Display current directory
<b>ping</b>	Check Network connection
<b>rm</b>	Delete/remove a file
<b>rmdir</b>	Delete/remove a directory
<b>showrev</b>	Show revision information
<b>swmtool&amp;</b>	Software Manager Tool (Removed from DocuSP 42.X.X and Greater)
<b>tar</b>	Copy to one disk only
<b>vi</b>	Edit or create a new file
<b>who</b>	List the current user names

**vi** *Edits an existing file or creates a new file if filename does not exist. Enter the vi command in the directory where the file is located / required.*

e.g. *To create a file called **Testfile1** type:*

**vi Testfile1 <Enter>**

*A vi edit screen will appear with the filename at the foot of the display. There are two important modes within the vi editor.*

**i = Input Mode = Ability to enter text (IM)**

**<Escape> = Command Mode = Edits and functions (CM)**

Input mode *allows the insertion of text as you enter it.*

Command Mode *accepts keystrokes as keyboard commands. You cannot enter text in Command Mode*

*-There is no visual display of character/text entry when in Command Mode. Use the arrow keys to move cursor.*

To insert text press **i** (IM)  
(After pressing **i** you can then enter text)

To enter Command Mode **<Escape>**

To delete text press **x** (CM)  
which deletes characters under the cursor.

To delete a line **dd**

To append text after cursor **a** (CM)

Open a line below cursor **o** (CM)

Open a line above cursor **O** (CM)

To quit and save file **:wq <Enter>** (CM)

or  
**<Shift>ZZ** (CM)

To quit without saving **:q! <Enter>** (CM)

Frequent changes between modes whilst editing a document is usual.

This section is designed to give you an overview only of the vi editor and assist you with very basic commands.

Further information is available in the Service Documentation.

**man** Displays reference manual pages  
e.g. **man pwd <Enter>**  
Lists manual pages for selected command - in this case **pwd**

**pwd** Display current directory

**ls** Display the file contents of the current directory. Does not list files that begin with a full stop, e.g. **.profile**

e.g. **ls -la <Enter>**  
Lists ALL files. Shows links, permissions, and paths i.e.  
**drwxrwxrwx** or **lrwxrwxrwx**  
where **d**=directory **l**=linked file **r**=readable **w**=writable **x**=executable

**chmod** Changes permission attributes of a file. To check the current attributes of a file use.

**ls -la <Enter>** (as above)

e.g. Assume you have created a file called **Testfile1**, (See vi section. List the directory containing **Testfile 1** with the

**ls -la** command, within the displayed list will be information similar to the following:

```
-rw-rw-rw 1 root other 112 Apr 22 09:22 Testfile1
```

**rw** within the attribute list signifies that the file is both readable and writable. To change these attributes you use **chmod**

<b>+ r</b>	enables file read privileges
<b>-r</b>	disables file read privileges
<b>+ w</b>	enables file write privileges
<b>-w</b>	disables file write privileges
<b>+ x</b>	enables file execute
<b>-x</b>	disables file execute

e.g.1 To remove read rights, type:

```
chmod -r Testfile1 <Enter>
```

-verify with **ls -la**

e.g.2 To add read rights, type:

```
chmod +r Testfile1 <Enter>
```

-verify with **ls -la ....cont**

**Note:** The same syntax applies for write and executable

To facilitate administration, root-user can still access files even when attributes are removed

**mkdir** Creates a new directory

e.g. **mkdir Test <Enter>**  
Where Test is the new directory  
-verify with **ls**

**cd** Change directory

e.g. **cd Test <Enter>**  
Changes to the Test directory  
-verify with **pwd**

**cat** Display the contents of a file

e.g. **cat /etc/hosts <Enter>** Displays the contents of the **/etc/hosts** file

**cp** Copies a file

e.g. **cp Testfile1 Testfile1.bak <Enter>** Copies the file **Testfile1** and calls it **Testfile1.bak**

**rm** *Deletes/removes a file*

e.g. **rm Testfile1 <Enter>**  
or

**rm \* <Enter>**  
*Removes all files from current directory -verify with ls*

**rm -r** *-This will remove a directory and it's contents: **use with caution!***

.....

**rmdir** *Deletes/removes a directory*

e.g. **rmdir Test <Enter>** *Removes selected directory(only if it is empty of files)  
-verify with ls*

.....

**more** *Display the file 1 page at a time*

e.g. From */var/adm* directory, type: **more messages <Enter>**  
*Displays the contents of the file, one page at a time - scroll to the next page using the  
<Space-bar>*

.....

**find** *Finds a file*

*To search the complete file structure from root, you must log on as root user. You do need to be in the root directory to begin the search.*

e.g. **find . -name "messages" -print then <Enter>**  
*(where the double quotes must be used for the filename)*

*Searches from the root directory through all directories for the **messages** file and once found, displays the path-name : in this case:  
**./var/adm/messages***

*If the search is unsuccessful, the display reverts to the hash prompt # ( if root user).*

.....

**date** *Displays the current date and time as perceived by the system.*

e.g. **Mon Apr 22 10:35:23 BST 1996** *To edit the date and/or time, you need to be logged on as root user. At the prompt, type*

**date nnddhhmmyy <Enter>**

*where:*

**nn** = month number (01 = January, etc.)

**dd** = day, from 01 to 31

**hh** = hour (24 hour clock)

**mm** = minute

**yy** = last two digits of the year.

e.g. *To set the date and time to April 22nd, 1996 at 10.35 AM., type:*

**date 0422103596<Enter>**

*-verify with **date***

.....

**file** *File type query. Classifies files according to their contents. To demonstrate, take the following example (from the root directory):*

e.g.1 **file /var/adm/messages<Enter>**  
displays the following information  
**/var/adm/messages: ascii text**

e.g.2 **file etc<Enter>**  
*displays the following information..*  
**etc: directory**  
*(Assuming a file called etc is not present)*

.....  
**showrev** *Shows current SunOS release version and other general information*

e.g. **showrev <Enter>**  
*displays information similar to the following (host dependent)...*

**Hostname: Docuprint6135**  
**Hostid: 7271b2e4 Release:**  
**5.3 Kernel architecture: sun4m**  
**Application architecture: sparc**  
**Hardware provider: Sun\_Microsystems**  
**Domain:**  
**Kernelversion: SunOS 5.3 Generic 101318-7 May1995**

.....  
**who** *Display the names of users currently logged in, together with their terminal device numbers, the times they logged in, and other information.*

e.g. **who<Enter>**  
*Displays the users currently logged in: typically shown as below if only root user is logged on*

**rxusr pts/1 Apr 22 09:19 ( )**  
**rxusr pts/2 Apr 22 09:22 ( )**

.....  
**who -b** *Displays the time that the system was last booted.*

.....  
**who -t** *Displays the time that the system clock was last changed.*

.....  
**who am i** *Displays the login name of the user who is logged in at the terminal the command is given on.*

.....  
**last** *Displays the history of system boots.*

e.g. **last<Enter>** *Typical list is as follows:*

**reboot system boot Mon Apr 22 09:18**  
**reboot system boot Fri Apr 19 08:08**  
**reboot system boot Wed Apr 17 11:47**  
**reboot system boot Tue Apr 16 09:03**

*reboot                      system boot                      Mon Apr 08 09:35*

.....

**df -k**                      *Displays the amount of available disk space*

e.g.     **df -k** Lists filesystem name, size(Kb), used and available space(Kb), capacity (%), and mounted directory

.....

**arp**                      *Display the Hostname*

e.g.     **arp -a <Enter>**  
 List Host IP address(Hostname), Mask address, & Physical address(Hex)  
**arp hostname <Enter>**  
 Lists IP address of hostname

.....

**format**                      *The format utility enables format, labeling repair, and analysis of disks on the system.(You must be logged on as root to perform this utility).*

**e.g.1**                      *To format the floppy drive, type:*  
**fdformat<Enter>**  
*You will be prompted to confirm the format activity and once formatting is complete, the display will indicate that the format has been successful.*

**e.g.2**                      *To format the hard drive, boot the system into single user mode from Solaris 2.5.1 CDRom using command; boot cdrom -s (this will give you a # root prompt) and then type:*  
**format<Enter>**

*You will be asked to enter the disk number you wish to format (ensure that an integer is used, e.g. 0 or 1 or 2, etc...). Upon disk selection, a menu will appear as below for all of the various options and utilities available: (nb. You need only type the first two letters of each selection)*

- |                  |                                       |
|------------------|---------------------------------------|
| <b>disk</b>      | - select a disk                       |
| <b>type</b>      | - select (define) a disk type         |
| <b>partition</b> | - select(define) a partition table    |
| <b>current</b>   | - describe the current disk           |
| <b>format</b>    | - format and analyze the disk         |
| <b>repair</b>    | - repair a defective sector           |
| <b>label</b>     | - write label to the disk             |
| <b>analyze</b>   | - surface analysis                    |
| <b>defect</b>    | - defect list management              |
| <b>backup</b>    | - search for backup labels            |
| <b>verify</b>    | - read and display labels             |
| <b>save</b>      | - save new disk/partition definitions |
| <b>inquiry</b>   | - show vendor, product, and revision  |
| <b>volname</b>   | - set 8-character volume name         |
| <b>quit</b>      |                                       |

**Caution must be undertaken when using the format utility. Use only with reference to the Service documentation, or in consultation with Support**

**Note:** If after installing a new hard drive, a message “No magic label” appears, the drive will need formatting.

**eject** Ejects removable media

**e.g.1** **eject floppy<Enter>** Ejects floppy disk from floppy drive  
 .....

**e.g.2** **eject cdrom<Enter>** Ejects CDROM from CDROM drive  
 .....

**e.g.3** **eject<Enter>** Ejects media from drive in the sequence of floppy drive first, then CDROM drive.(separate commands of **eject** need to be entered for each action)  
 .....

**ping** Utility for checking network connection by sending ICMP ECHO\_Request packets to network hosts.(Root user only)

**e.g.1** To check host integrity, a global reserved network IP address can be used as an internal loopback test. This address is  
**127.0.0.1 localhost**  
 To check the Docuprint network integrity, type:  
**ping 127.0.0.1<Enter>**  
 (127.0.0.1 is alive will be displayed if the test is successful)  
 or  
**ping localhost<Enter>**  
 (localhost is alive will be displayed if the test is successful)

**e.g.2** To ping to a remote machine, repeat the above commands substituting the relevant IP address or hostname. As an example, below are the commands necessary to check network communications to a remote machine on IP address **13.203.10.20** called **exercise**  
**ping 13.203.10.20<Enter>**  
 (13.203.10.20 is alive will be displayed if the test is successful)  
 or  
**ping exercise <Enter>**  
 (exercise is alive will be displayed if the test is successful)

**Note:** To make the ping test repeat automatically at 1 second intervals you can use the **-s** option. Type:  
**ping -s 13.203.10.20<Enter>**

A series of responses will be displayed at 1 second intervals in packets of 64 bytes. To terminate the test select **<Controller>C**

The number of packets transmitted and received with a % packet loss result will be displayed. It is desirable to have no packet loss.

**admintool (Replaced in DocuSP 42.X.X and above by Solaris Management Console or smc)**

System Administration tool with a graphical user interface

**e.g.** **admintool &<Enter>** Initially displayed is a UNIX-specific id. number, shortly followed by a GUI window titled "Administration Tool", offering a range of utilities as follows:

**Database Manager - Serial Port Manager Printer ManagerHost Manager - User Account Manager**

Restricted access to administrative tasks are appropriate where unauthorized users will have read-only permissions. See Customer and Service Documentation for more information specific to your requirement.

**swmtool** The Software Manager (swmtool) is a GUI window application that installs, upgrades, and removes software packages on a local or remote system. Once logged in you may also examine the packages currently loaded on your local system. You must be logged in as root user to access swmtool.

e.g. **swmtool <Enter>** Initially displayed is a UNIX-specific id. number, shortly followed by a GUI window titled "Software Manager". Procedures for installing, upgrading, and removing software packages should be strictly followed from appropriate Service Documentation/Instruction sets. (swmtool is no longer available in DocuSP 42.X.X and above)

**fsck** This utility verifies the integrity of a file system and reports on any problems it finds.

e.g. **fsck<Enter>**

For each problem reported you will be prompted for confirmation to fix, or ignore the problem. The file system to be checked should not be mounted, and the root file system, (which cannot be unmounted), must be quiescent. To ensure quiescence, bring the system down to single-user mode: From the **ok** prompt, type:

**boot -s <Enter>**

Command for X86 controllers would be in a terminal window logged in as root enter  
**sync;sync;reboot -- -s**

and enter the root password when requested. Upon completion of the file system check, at the UNIX prompt type:

**halt <Enter>**

At the **ok** prompt type:

**boot -r <Enter>**

**Note:** This utility should only be run upon instruction from the Service Documentation or advice from Support.

**tar** This utility can create, add to, list, and retrieve files from/to an archive file : usually stored on tape or floppy disk. The **tar** command is usually followed by a series of "keys" to indicate what type of action you want **tar** to take. You can modify the action of the key by following it with one or more options. The key and options do not require a leading hyphen.

Key	Action
<b>c</b> (create)	<b>Creates the archive file, destroying any files that were previously written.</b>
<b>t</b> (table)	<b>Displays a table of contents of tar files on the tape/floppy</b>
<b>v</b> (verbose)	<b>Lists each file as tar reads or writes it and indicates activity</b>
<b>x</b> (extract)	<b>Reads/extracts file from tape/floppy</b>
<b>f</b> (file)	<b>Names file on to tape/floppy</b>

**Note:** Ensure there is a UNIX formatted floppy in the drive before attempting the following examples

e.g.1 To **create** an archive of the file **Testfile1** to floppy, then from the directory that the file resides, type:

**tar cvf /dev/fd0 Testfile1 <Enter>**

The following should be displayed: **a Testfile1 1K** (where 1K is the file size)

To **list** archive file on floppy, type:

**tar tvf /dev/fd0 <Enter>**

Blocksize, attributes, filesize, date of creation, and filename will be displayed.

To **extract** the file from floppy to the current host working directory, type

**tar xvf /dev/fd0 Testfile1 <Enter>** Verify with **ls -la**

e.g.2 To **create** an archive of **all** files within a directory to floppy, then from the directory that the files reside, type:

**tar cvf /dev/fd0 \* <Enter>**

The following should be displayed:

**a Testfile1 1K** (where 1K is the file size)

**a Testfile2 1K** (where 1K is the file size)

**a Testfile3 1K** (where 1K is the file size) etc.....

To *list* archive file on floppy, type:

**tar tvf /dev/fd0 <Enter>**

*Blocksize, attributes, filesize, date of creation, and filename will be displayed.*

To *extract* the files from floppy to the current host working directory, type

**tar xvf /dev/fd0 <Enter>**

*Verify with ls -la*

**Note:** *Archived files that are extracted are not moved. The original archive files remain on the floppy and can be extracted many times*

.....  
**<Ctrl> c**        **Suspends activity and reverts back to the current UNIX command prompt**  
.....

**<Ctrl> d**        **logs out of root back to log-in (%)**  
.....

To execute the Open Windows environment from the base UNIX shell prompt, type:

**/usr/openwin/bin/openwin <Enter>**

# PROM Diagnostics (This Section does not apply to X86 Controllers)

To access the Prom Diagnostics (ok prompt), there are various methods:

**File System damage can result if <Stop>A is not used in the correct manner!**

Please ensure that the correct methods are used as follows:

## 1) During Initial Booting

Select **<Stop>A** as soon as possible after Power-On,(usually on Banner display), before file-system checks begin.

## 2) From DocuSP GUI

a) Logon as a "Trusted User", or "System Administrator" and perform a System Shutdown using [Shutdown] in the main Print Services GUI window (or type halt in a Command Tool) to gracefully shutdown the system to the **ok** prompt.(You must have root access to halt the system)

b) Type in the command:- sync<Enter> (Memory pages will then be written back to the hard disk and the system will be reset). The operating system will then reboot and a message similar to the one below will appear:

**Rebooting with Command:**

**Boot device: /iommu/sbus.....(etc.)**

c) At this point immediately select **<Stop>A** to return to the Prom diagnostic level ok prompt. (Using the sync command ensures that if memory tests and / or the test-all utility is run, the results can be considered as valid).

## 3) From DocuSP Service Diagnostics

a) Select **[Controller Diagnostics]**, then **[System Power Off]** from the pull down menu, and **[Yes]** to confirm. When the system reaches the **ok** prompt.

b) Type in the command **sync<Enter>** (Memory pages will then be written back to the hard disk and the system will be reset). The operating system will then reboot and a message similar to the one below will appear:

**Rebooting with Command:**

**Boot device: /iommu/sbus.....(etc.)**

c) At this point immediately select **<Stop>A** to return to the Prom diagnostic level **ok** prompt. (Using the sync command ensures that if memory tests and / or the test-all utility is run, the results can be considered as valid.)

# Prom Diagnostic Commands

-----  
All Commands entered at the **ok** prompt  
Press **<Enter>** after each Command  
-----

**Command**      **Function**

**test-all**

*Tests all devices in the system which have a built-in test program (Hard disks, Tapes, and CD ROM's are not tested).*

*Note: Use **setenv** to set **diag-switch?** parameter to true to enable full memory test*

.....

**test-memory**

*Tests the system main memory*

*Note: Use **setenv** to set **diag-switch?** parameter to true to enable full memory test or set: **self-test-#megs** to desired value.(Default is 1)*

.....

**test-screen**

*Tests the system video graphics hardware and monitor*

*Note: Use **setenv** to set **diag-switch?** NVRAM parameter to true*

.....

**test floppy**

*Tests the internal diskette drives ability to respond to commands.*

**Testing floppy disk system.**  
**A formatted disk should be in the drive.**  
**Test succeeded ... message will be displayed**

*Note: A formatted diskette must be in the drive.*

.....

**test keyboard**

*This test executes the keyboard self-test. The four LED's on the keyboard should flash once, and the message, **Keyboard Present** is displayed.*

.....

**test net**

*Performs an internal and external loopback test on the Ethernet Interface*

*Note: A cable must be attached to the system and to an Ethernet tap or hub or the external Loopback test will fail.*

.....  
**test net-aur**

*Performs an internal and external loopback test on the AUI (Thick) Ethernet interface*

*Note: A cable must be attached to the system AUI Ethernet port and to an Ethernet tap or the test will fail the external loopback phase.*

.....  
**test net-tpe**

*Performs an internal and external loopback test on the TPE interface*

*Note: A cable must be attached to the system TPE port and to TPE hub or the test will fail the external loopback phase. If the **tpe-link-test?** parameter is set to false (NVRAM), i.e. disabled, the external loopback test will appear to pass even if a cable is not connected.*

.....  
**test scsi**

*Tests the SCSI interface logic on the system board*

*Note: Use **setenv** to set **diag-switch?** parameter-must be set to true.*

.....  
**test cdrom**

*Performs a self-test diagnostic on the CDROM drive*

*Note: The CD-ROM must be set to SCSI address 6 and have a CD inserted or the test will fail A successful test will not display a message. After a couple of seconds, a successful test will return to the **ok** prompt*

.....  
**test devalias**

*Devices can also be tested using the physical device address.. At the **ok** prompt type:*

**devalias <Enter>**

*to list devalias e.g. /iommu/sbus/..etc....*

*e.g. To test floppy drive using devalias, type:*

**test /obioSUNW,fdtwo**

*The same test as **test floppy** is performed*

.....

**probe-scsi** - see note\*

*Shows attached SCSI devices (internal and external) connected to the built-in SCSI port. Devices must be connected to the system's SCSI bus and must be powered on. Displays similar to following:*

e.g. **probe-scsi <Enter>**

**ok probe-scsi**

Target 1	Disk	CONNER CFP 1080E SUN1.0549495QQ9
Unit 0		
Target 3	Disk	CONNER CFP 1080E SUN1.0549496B52
Unit 0		
Target 6		
Unit 0	Removable Read Only device	Toshiba M4101TASUNSLCD175506/24/95

**probe-scsi-all**

e.g. **probe-scsi-all <Enter>**

*Shows attached SCSI devices (internal and external) connected to all SCSI ports, (i.e., both the built-in SCSI port and any additional SCSI host adapter cards). Devices must be connected to the system's SCSI bus and must be powered on. Displays similar to the above.*

**module-info**

e.g. **module-info <Enter>**

*Identifies installed Mbus module type(s) and clock speed - identifies installed Sbus clock speed.*

**Note\*: Probe-SCSI on Ultra II & 30**

*For the Ultra II & 30, perform stop while the memory is initializing, (denoted by a spinning / below the Banner display) otherwise the probe-scsi command will cause the Sun to lock up.*

## NVRAM (This Section does not apply to X86 Controllers)

*NVRAM (Non-Volatile Ram) environment variables control critical aspects of the SUN SPARC 20 workstation. Various parameters within NVRAM can be edited to support different customer and engineer functions e.g., memory testing, automatic booting, keyboard click option etc..*

It is important that any changes made to NVRAM parameters during diagnostic activities are noted and reset to their original values upon completion of service activities

*Access to NVRAM settings is via the **ok** prompt. At the **ok** prompt, type:*

**printenv <Enter>**

*to display the NVRAM parameter variables.*

*To edit the values at the **ok** prompt type*

**setenv parameter name value <Enter>**

*Parameter name must be written exactly as seen*

*As a typical example, to test all system memory, the parameter, diag-switch? needs to be set from false, (default), to true. To accomplish this Type the following:*

**setenv diag-switch? true <Enter>**

*This will be confirmed with a message,*

**diag-switch? = true**

*To revert to original value, type*

**setenv diag-switch? false <Enter>**

*This will also be confirmed with the appropriate message*

### To reset NVRAM parameters to Default

1) Type **set-defaults <Enter>** at the **ok** prompt

or

2) **<Stop>N** whilst powering on.

The actual default values are shown on the following table

<b>ok printenv Parameter Name</b>	<b>Value</b>	<b>Default Value</b>
tpe-link-test?	true	true
output-device	screen	screen
input-device	keyboard	keyboard
keyboard-click?	false	false
keymap		
ttyb-rts-dtr-off	false	false
ttyb-ignore-cd	true	true
ttya-rts-dtr-off	false	false
ttya-ignore-cd	true	true
ttyb-mode	9600,8,n,1,	9600,8,n,1,
ttya-mode	9600,8,n,1,	9600,8,n,1,
fcode-debug	false	false
local-mac-address?	false	false
screen-#columns	80	80
screen-#rows	34	34
selftest-#megs	1	1
scsi-initiator-id	7	7
sbus-probe-list	fe0123	fe0123
auto-boot?	true	true
watchdog-reboot?	false	false
diag-file		
diag-device	net	net
boot-file		
boot-device	disk	disk net
silent-mode?	false	false
use-nvramrc?	false	false
nvramrc		
sunmon-compat?	false	false
security-mode	none	none
security-password		
security-#badlogins	0	<no default>
oem-logo		<no default>
oem-logo?	false	false
oem-banner		<no default>
oem-banner?	false	false
hardware-revision		<no default>
last-hardware-update		<no default>
testarea	255	0
mfg-switch?	false	false
diag-switch?	false	false

### ***NVRAM Current Settings and Defaults***

# Boot Commands (This Section does not apply to X86 Controllers)

**boot** *Instigates File download and boot. Various options, entered from the **ok** prompt, are available as listed:*

**boot <Enter>**  
*Boots kernel from default device. Factory default is to boot from **disk** if present - if not from **net***

.....

**boot -a <Enter>**  
*Boots kernel in step mode. Confirmation for each stage of the boot process is required. If edits of boot files/file systems are made, this utility can run those files at the appropriate time-(always copy original file before editing!). Also useful for determining specific interval of boot problems Similar to F8 key when booting DOS on a Personal Computer*

.....

**boot -r <Enter>**  
*Reconfigures devices upon boot.*

.....

**boot -s <Enter>**  
*Boots in Single-user mode, which is the most basic boot. Root password is required to enter System Maintenance mode for administrator activities from the base UNIX shell. Other functions e.g., NFS are not loaded.*

.....

**boot net <Enter>**  
*Boots kernel from network using auto-selected interface.*

.....

**boot net-tpe <Enter>**  
*Boots kernel from network using TPE interface.*

.....

**boot net-ai <Enter>**  
*Boots kernel from network using AI interface.*

.....

**boot cdrom <Enter>**  
*Boots kernel from CDROM*

**boot cdrom -s <Enter>**  
*Boots from Solaris CDROM into single user mode with Superuser rights*

**boot tape <Enter>**  
*Boot default file from tape, if installed.*

.....

**boot net-ai <Enter>**  
*Boots kernel from network using AI interface.*

## Sys-Unconfig Utility

*In order to change/replace the host IP address, it is not possible to just edit the **/etc/hosts***

*file, because other Solaris configuration parameters will have been mapped to the original number.*

*Consequently, rather than re-load the Solaris software to amend the IP address, the “Sys-Unconfig” utility can be used.*

1) *Boot into single user mode, logon as root and give the root password when prompted.*

2) *Type:*

***/usr/sbin/sys-unconfig <Enter>** and answer **y** when prompted. Allow approximately 5 minutes for the system to configure.*

3) *The system should halt Note: **Do not power the system off***

4) *When the system shuts down to the **ok** prompt, type:*  
**boot -r <Enter> (Sparc Only)**

*The system will prompt you for the configuration information as per a normal Solaris install from CDROM.*

6) *Upon completion of information input, the Solaris/DocuSP will come up newly configured.*

7) *Enable printing from a command tool window logged on as superuser Type:*  
**cd /export/home/ftphome/SUN4**

8) *verify the directory enter: **pwd***

9) *Add execution rights to install script, type:*  
**chmod +x instsun5**

10) *Execute install script, type:*  
**./instsun5 <hostname>**

11) *Create a print queue and add local printer see “DocuSP Controller Installation Guide.”*

### **Note for Ultra 30 platform**

*This sys-unconfig utility for the Ultra 30 platform is run from the root directory.*

*To use this utility simply type **sys-unconfig** at the # prompt in single user mode.*

# Print Commands

The ability to print golden jobs within the Xerox DocuSp software can be a very useful utility for fault analysis, fault replication and golden job printing. The following section lists various options, with the appropriate command line syntax to enable this utility to it's maximum potential.

To access the **golden jobs** either from the root directory (in a Command tool window - method 1) or from the "Print From File" dialog pathway. – method 2.

## **Method 1: From a command tool window type:**

```
cd /opt/XRXnps/XRXdiag/jobs/AuJobs
```

To list the available golden jobs - type:

```
ls <Enter>
```

The display should be similar to the following:

```
golden.hp golden.ps golden60.tif
```

In each of the examples listed in this section, we will use the golden job, **golden.ps** and assume a queue has been created called **Queue** with the settings of one copy, single-sided, no finishing, and no image shift. All the following examples are entered at the command prompt in the **AuJobs** directory (see above).

```
<QueueName> = tom
file to be printed = golden.ps
```

Syntax:

```
print -p <queueName> <options>Δfilename<Enter>
```

In some of the option commands, it is not necessary to type the full word. Abbreviations are allowed and the enclosed list uses these abbreviations. The abbreviations are derived as follows:

**-cop = copyCount** (number of copies 1>9999)

**-unc = uncollated.** (To enable the stitching and finishing options for only 1 page, i.e. golden.ps, the uncollated option must be used). The default is collated

**-sti = stitched** (options of single, double, portrait or landscape are available)

**-x = -xImageShift** (where the horizontal[portrait page] image is shifted). Values of image shift can be in inches or millimeters where the point of origin is the lower left corner of the portrait page - metric range is -432 to +170

**-y = -yImageShift** (where the vertical[portrait page] image is shifted). Values of image shift can be in inches or mm where the point of origin is the lower left corner of the portrait page - metric range is -372 to +372

**Command line print options**

Single Copy into top tray

**print -p queue golden.ps <Enter>**

Multiple e.g. 20) copies into top tray

**print -p queue -cop 20 golden.ps <Enter>**

Multiple (e.g. 20) copies uncollated with single portrait stitch

**print -p queue -cop 20 -unc -sti singlePortrait golden.ps <Enter>**

*(All one line)*

Multiple (e.g. 20) copies uncollated with single landscape stitch

**print -p queue -cop 20 -unc -sti singleLandscape golden.ps <Enter>**

*(All one line)*

Multiple (e.g. 20) copies uncollated with double stitch

**print -p queue -cop 20 -unc -sti dualLandscape golden.ps <Enter>**

*(All one line)*

Multiple (e.g. 20) copies uncollated and bound

**print -p queue -cop 20 -unc -binding left golden.ps <Enter>**

*(All one line)*

Single Copy into top tray with 50mm image shift (l/r - portrait)

**print -p queue -x 50 mm golden.ps <Enter>**

Single Copy into top tray with 50mm image shift (f/b - portrait)

**print -p queue -y 50 mm golden.ps <Enter>**

.....

*For further options, refer to the "Using the print command" section in the booklet entitled:*

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.....

**Method 2: from the Print From File pathway .**

*This allows a simpler method of both access and use.*

In the walk-up greeting dialog frame:

- Select the "Print From File" pathway along the left edge of the walk-up greeting dialog frame.**
- Select the "Browse" button on the main "Print From File" window.**
- In the "Look In" selection field, select the "SampleJobs" item from the enumerated selection list.**
- Print the desired golden job from the available job listing.**

# Chain C03: System Control

## **C03-220 Xerox Application Fails To Start**

### **Description**

Fault Code C03-220 indicates that the system booted into the windowing system, but the Xerox application failed to appear or to completely initialize. One or more of the Xerox system configuration files (for example: *server.config*, *printSvc.config*, or *printerColl.config*) located in the directory */opt/XRXnps/configuration* is missing, damaged or missing necessary information. Refer to [GP 415](#) for more information on the various configuration files.

### NOTE:

In some cases, the Xerox applications fails to appear, and the Fault Code is displayed in the Console window only.

### **Procedure A - Xerox Application is Running**

1. The Xerox Application is running and Diagnostics Mode can be entered:
  - a. Perform the Restore procedure described in [GP 603](#) to restore the system configuration files from backup.
  - b. Reboot the controller from Diagnostics Mode. Go to [GP 431](#).
2. Check the */opt/XRXnps/log* directory for an *errorLogs* directory. Also in the log directory, check for an *accounting\_log* directory. If this exists, enter the *accounting\_log* directory and check for the existence of an entries directory. If any of these are missing, create them with the command **mkdir <name>**. Reboot.
3. If the */opt/XRXnps/configuration* directory contains a backup file *printerColl.config.backup* with a different date and time stamp than the file *printerColl.config*, replace *printerColl.config* with *printerColl.config.backup*, with the command **mv printerColl.config.backup printerColl.config** and reboot the system. If the dates are the same, continue with the procedures listed below.
4. Check for a missing */opt/XRXnps/bin/jc* file, or if the *jc* is not running. This can be done by entering **ps -ef | grep jc** at a command prompt. If this file has become corrupted and it does not start, or it is missing, a C03-220 is generated. Reload *XRXpsrv* if this file is found to be missing. (go to [GP 510](#) Software Package Re-Install).
5. If files can be submitted and printed from clients other than Macintosh, the *papd* may be missing. Reload the AppleTalk package (go to [GP 510](#) Software Package Re-Install).
6. Some *config* files are linked to other directories. One such file is *marker.config* which is actually found in */opt/XRXnps/configuration/marker.config*. This file could be damaged, or the link to the file could be broken. Go to [GP 510](#) to reload the <XRXdXXXX> package.
7. Check the */opt/XRXnps/log/ep\_exception\_log* for a C17-340 or C17-302 code. If either is seen, follow [C17-340](#) or [C17-302](#), respectively.
8. If the fault code is still shown, it could be a problem with the database files, or the

*/XRXpserv/bin/jpm* executable has become corrupted. Go to [C17-340](#) for database file faults.

9. If none of these actions correct the fault, re-install the Xerox software. Go to [GP 500](#), Xerox Software Re-Install.

### **Procedure B - Xerox Application is not Running**

1. The Xerox Application is **not** running and Diagnostics Mode **cannot** be entered:
  - a. Perform the Restore procedure described in [GP 603](#) to restore the system configuration files from backup.
  - b. Reboot the system by entering the command **reboot** from a UNIX terminal window.

NOTE: You must have root access to perform a reboot of the system.

### **C03-221 Missing/Corrupted Device Driver**

**Description** Fault Code C03-221 indicates that the Xerox application failed to locate one or more device drivers during initialization.

#### **Procedure**

1. Perform a reconfiguration boot from Diagnostics Mode. Go to [GP 431](#).

If the problem persists, continue with the next step.

2. Reboot the controller. Once the system is backed up, enter Diagnostics Mode. Select **Diagnostics**. Select **Controller dC340**. Go to [GP 130](#) for instructions on running the **dC340** Test. Utilize each Xerox PWB test to determine if a failure exists. If a failure is detected, replace the Xerox PWBs referenced in the message shown at the bottom of the **Diagnostics** window.

### **C03-222 System Restart Threshold Exceeded**

#### **Description**

Fault Code C03-222 indicates that the Xerox application exceeded the maximum number of system-initiated restarts within a specified period of time. This fault is raised by System Control Manager (SCM), which uses two parameters located in the *System Control Manager* section of the *server.config* file in the */opt/XRXnps/configuration* directory.

- The default number of restarts is defined by the variable *maxRestarts* (default is 4 restarts)
- The default time of restarts is defined by the variable *maxRestartTime* (default is 480 seconds)

#### **Procedure**

1. Examine the Controller's Fault History for the period of time leading up to the C03-222 Fault Code, and try to determine potential causes of the restarts. (Go to [GP 110](#) or go to [GP 115](#).)
2. Determine whether any third-party applications were running on the Controller at the time of the system-initiated restarts. If so, have the Customer remove/disable third-party applications on the Controller.
3. Have the Customer provide any other relevant information about the state of the system prior to the appearance of the C03-222 Fault Code, and escalate the call through normal channels.

### **C03-223 Unable to Write to Persistent Restart File**

#### **Description**

Fault Code C03-223 indicates that the Xerox application was unable to open and write information to the *persistent restart* file. This fault is raised by System Control Manager (SCM), which tries to update the persistent restart file each time a system-initiated restart is performed. The location of the *persistent restart* file is defined by the variable *PersistentRestartFile* in the *System Control Manager* section of the file */opt/XRXnps/configuration/server.config*. The default name and location for the *persistent restart* file is */tmp/SCMRestart.txt*.

#### **Procedure**

1. Open a terminal window and become the super user.
2. Change to the *tmp* directory by entering the command **cd /tmp** in a terminal window.
3. Check for the existence of the *SCMRestart.txt* file by entering **ls -al SMCRestart.txt** into that window.
4. If the file is found, erase it by entering the command **rm -r SMCRestart.txt** in that window.
5. If the file is not found, or you have just deleted it, create it by entering **touch SMCRestart.txt** in that window.
6. Restart DocuSP.

### **C03-224 Mode File Missing/Corrupted**

#### **Description**

Fault Code C03-224 indicates that the system operating mode file was missing or corrupted at the time Xerox software was restarted. The Xerox software records and updates the current operating mode (normal operation, service diagnostics, operator diagnostics) of the system in the file `/opt/XXnps/XXsyscnt/configuration/SCMPrivate.txt`, so that the current mode is preserved across system restarts. If this file is missing or corrupted at the time the system is restarted, the Xerox software starts up in Diagnostic mode by default. A C03-224 Fault Code is displayed in the Console window and recorded in the system fault log.

#### **Procedure**

1. Open the Console window and look for the following message:

**System Error C03-224 Can't read mode file. Log into Diagnostics and exit Diagnostics to recreate file.**

2. Log into Diagnostics Mode and perform a "Call Closeout" to exit Diagnostics. The mode file `SCMPrivate.txt` should be created automatically when Diagnostic mode is exited.
3. If the problem persists, check the permissions of the `SCMPrivate.txt` file.
  - a. Enter `cd /opt/XXnps/XXsyscnt/configuration` in a terminal window.
  - b. Enter `ls -l SCMPrivate.txt` to determine the permissions of the file. If the permissions are NOT `rw-r--r--` obtain root access and remove the `SCMPrivate.txt` file. Use the command `rm -r SCMPrivate.txt` and repeat step 2 of this procedure.
  - c. Restart the Xerox DocuSP software. Go to [GP 105](#) for more information on how to restart the DocuSP software

### **C03-225 Missing Start-Up Value in Configuration File**

#### **Description**

Fault Code C03-225 indicates that the system booted into Solaris, but the Xerox application failed to appear. This Fault Code occurs when a system configuration file is missing process start-up values.

#### **NOTE:**

In some cases, the Xerox application fails to appear, and the Fault Code is displayed in the Console window only.

#### **Procedure**

1. If the Xerox Application is running and Diagnostics Mode can be entered:
  - a. Perform the Restore procedure in [GP 603](#) to restore the system configuration files from backup.
  - b. Reboot the controller from Diagnostics Mode. Go to [GP 431](#).
2. If the Xerox Application is **not** running, or Diagnostics Mode can **not** be entered
  - a. Perform one of the Restore procedures of [GP 603](#) to restore the system configuration files from backup (The specific procedure to be used depends on which type of media was used to backup the configuration files).
  - b. Reboot the system by entering **reboot** from a UNIX terminal window.

#### **NOTE:**

(You must have root access to perform a reboot of the system).

### **C03-226 Invalid/Expiring Software License**

#### **Description**

Fault Code C03-226 indicates that the license for the DocuSP software is invalid or is about to expire. This Fault Code occurs when SCM verifies the DocuSP license at each start-up (or every 24 hours after the successful initialization of the DocuSP software).

#### **NOTE:**

The Xerox applications fail to appear, and the Fault Code is displayed in the "Console" window only.

#### **Procedure**

1. Check the system time and date by entering the command **date** into a terminal window, and the system will return the current time and date. If necessary, you can also change the date by using this command. Refer to the man pages by entering **man date** for detailed directions or see the ETI document entitled "How To Change Solaris Time And Date".

2. If the date is accurate, it is possible that it had been edited in the past and that may also have invalidated the license.
3. Refer to [GP 420](#) for information on installing a new license.

### **C03-300 Out of Memory**

#### **Description**

Fault Code C03-300 indicates that the system is out of memory.

#### **Procedure**

1. Reboot the controller from Diagnostics Mode. Go to [GP 431](#).
2. If the problem persists, reboot the controller and check the banner display for the amount of installed memory.
  - Sunfire 880 ( iGen3 )  
Openboot X.XX 4096 MB memory installed
  - SunBlade 150 (DT 90 series)  
UltraSPARC-III 650Mhz  
OpenBoot X.XX 512 MB memory installed
  - Ultra 60 (61XX series)  
(2x UltraSPARC-II) 450MHZ  
Openboot X.XX 512MB of memory installed
  - Sun Blade 1000 (DocuColor 2000 Series)  
UltraSPARC-III 900Mhz  
OpenBoot X.XX 1024 MB memory installed
  - Sun Blade 1000 (61XX Series)  
UltraSPARC-III  
OpenBoot 4.XX 2048 MB
  - Sun Blade 2500, Keyboard Present (Nuvera Series)  
OpenBoot 4.9.4 1024 MB memory installed, Serial #55368635  
Ethernet address 0:3:ba:4c:db:bb, Host ID: 834cdbbb
  - XIP650, Sun Keyboard (Nuvera Series)  
UltraSPARC-III 648HMz  
PDSI, XIP Board Series  
OpenBoot 4.0 1024 MB memory installed, Serial #50730218  
Ethernet address 0:c0:7:6:14:ea, Host ID: 830614ea

#### **NOTE:**

For the Nuvera series, the serial numbers, ethernet addresses, and host id numbers may vary from one system to the next.

3. If this information is not correct, continue with the platform documentation to resolve the problem.
4. Reboot the Controller.
5. If the problem persists, continue with the appropriate action for the system condition listed.
  - a. **Fault Code C03-300 is displayed during Customer operations.**  
A "memory leak" (memory allocation/de-allocation problem) may exist in the Xerox Application software or in a third-party application package that the Customer has installed. Perform the following steps:
    - Have the Customer remove/disable third-party applications. If the problem persists, continue with the next step.
    - Have the Customer contact the local customer support center to determine if a problem exists that could cause a memory leak with the Xerox Application being utilized. If there is no problem with the Xerox Application, escalate the call through normal channels.

### **C03-301 No Processes Available**

#### **Description**

Fault Code C03-301 indicates that no processes are available. This may occur when a process could not connect to another process, or a process could not launch a child process. This condition can also occur due to the presence of third-party applications.

## Initial Action

**If this fault is displayed while logging into Diagnostics, one of two things could be true.**

1. A configuration file could be missing or corrupted. If you try to log into DocuSP and receive the message "Failed to read package configuration information," you know this to be the case. Go to [C03-220](#) to continue troubleshooting. Otherwise, continue:
2. A library file found at `/opt/XRXnps/XRXdiag/lib` could be damaged or missing. Go to [GP 510](#) Software Package Re-Install and follow the procedure for re-installing software. When prompted, enter **Y** at reloading Diagnostics. Then check to see if the fault returns the next time you try to open Diagnostics. If so, follow the procedure:

## Procedure

1. Enter the following command from a terminal window `/opt/XRXnps/bin/Prochk` Go to [GP 290](#) for more information.
2. From the output of the **Prochk** command, look for a large number of stopped processes. Also look for a large number of processes of the same type (some software modules spawn child processes for each job, and the number of processes can grow over a period time). Record any processes that are stopped, or any processes which appear to be repeated many times.
3. Check for the existence of any third-party applications running on the Controller. If so, disable the third-party applications and reboot the system. Otherwise, continue with the next step.
4. If the fault persists, enter the following command from a terminal window:  
`/opt/XRXnps/bin/Prochk`
5. Examine the output of the **Prochk** command and record relevant process information as in Step 2, then escalate the call.

## C03-302 Out of Swap Space

### Description

Fault Code C03-302 indicates that the system has run out of swap space. Swap is used when the Operating System moves a process from main memory to the disk, or vice versa.

### Procedure

1. Enter the following command from a terminal window:  
`/opt/XRXnps/bin/Prochk`  
From the output of the Prochk command, note any processes which are stopped.
2. Restart the Xerox Software.
3. If the problem persists, reboot the controller from Diagnostics Mode. Go to [GP 431](#).
4. If the problem persists, check the amount of available and installed swap space on the Controller by entering the command `swap -s` in a terminal window.  
NOTE:  
You must be logged in as root to use the swap command.
5. Next, check available disk space with the `df -k` command. This will return the free space on each partition. If a partition is found to be near capacity, have the customer free up space by removing files from the controller.
6. Reboot the Controller. If the problem persists, continue with the next step.
7. Continue with the appropriate action for the system condition listed.
  - a. **Fault Code C03-302 is displayed during Customer operations.**  
A "memory leak" (memory allocation/de-allocation problem) may exist in the Xerox Application software or in a third-party application package that the Customer has installed. Perform the following steps
    - Have the Customer remove/disable third-party applications. If the problem persists, continue with the next step.
    - Have the Customer contact the local customer support center to determine if a problem exists that could cause a memory leak with the Xerox Application being utilized. If there is no problem with the Xerox Application, escalate the call through normal channels.

## C03-303 Can't Open File

**Description**

Fault Code C03-303 indicates that the system was unable to open a required file.

**Procedure**

1. Restart the Xerox Application. If Fault Code C03-303 is still displayed, continue with step 2.
2. Perform a reconfiguration boot from Diagnostics Mode. Go to [GP 431](#).
3. Open the console window and check for an error that would indicate the file name that could not be opened. If a file name is listed, record the file name and path.
4. Re-install Xerox Software. Perform the [GP 500](#) to reload the Xerox software application.
5. If the problem persists, re-install the Solaris Operating System and Xerox software. Refer to the *DocuSP Software Installation* instructions supplied with the software kit.

**C03-305 Too Many Open Files****Description**

Fault Code C03-305 indicates that the Xerox Software could not respond because of too many open files. This fault can occur when the Xerox Software reaches one of two possible open-file limits

- The software could reach the system-wide limit. This typically occurs when third-party applications are run on the DocuSP Controller.
- The software could reach the per-process limit. This typically occurs when individual processes within the Xerox Software have been restarted several times, and open files are not cleaned up after the restarts.

**Procedure**

1. Restart the Xerox Software.
2. Reboot the controller from Diagnostics Mode. Go to [GP 431](#).
3. If the problem persists, check for the presence of third-party applications running on the Controller. If so, disable the third-party applications and reboot the system. If not, continue with the next step.
4. If the problem persists, go to [C03-750](#).

**C03-306 No Such File Or Directory****Description**

Fault Code C03-306 indicates that the Xerox Software could not find a file or directory.

**Procedure**

1. Restart the Xerox Software.
2. Reboot the controller from Diagnostics Mode. Go to [GP 431](#).
3. If the problem persists, go to [C03-750](#).

**C03-307 Missing Diagnostics File****Description**

Fault Code C03-307 is raised only when dC340 is run and unable to find a software file needed for running.

**Procedure**

1. Reinstall diagnostics. Go to [GP 520](#) for information on reinstalling diagnostics.

**C03-308 Internal State Failure****Description**

Fault Code C03-308 indicates that the Xerox Software encountered some type of unrecoverable internal state error. This Fault Code is raised by Process Collection Manager (PCM) when it detects the failure and exit of a software module which experienced the internal state error.

**NOTE:**

If other fault codes are generated in addition to C03-308, go to the appropriate RAP associated with each fault code before executing the steps in this procedure. Any additional fault codes might point to the condition that caused the internal state error.

**Procedure**

1. Restart the Xerox Software.
2. Perform a reconfiguration boot from Diagnostics Mode. Go to [GP 431](#).
3. If the problem persists, try to determine if any other faults are displayed. Open the Console window, and scroll through the window looking for a Fault Code. If a Controller fault code is present, go to [SFA2](#) and perform the appropriate recovery actions. Otherwise, continue with the next step.
4. If the problem persists, try to determine if any other faults or messages are logged.
  - a. If the Xerox Application is running and Diagnostics Mode can be entered
    - Examine the System Fault Log and System Event Log using dc110. Go to [GP 110](#) for information on dc110. Note that you may be able to obtain more information about the condition that raised the C03-308 by correlating the time the C03-308 fault occurred with messages in the System Event Log.
    - If any Controller fault codes (CXX-XXX) are recorded just before the C03-308 Fault Code, go to [SFA2](#) and perform the appropriate recovery actions. Otherwise, continue with the next step.
  - b. If the Xerox Application is **not** running or Diagnostics Mode can **not** be entered:
    - Open a terminal window. Examine the fault log ( `/opt/XRXnps/log/ep_exception_log`) in the terminal window. Go to [GP 115](#) for information on the fault log.
    - If any Controller fault codes (CXX-XXX) are recorded just before the C03-308 Fault Code, go to [SFA2](#) and perform the appropriate recovery actions. Otherwise, continue with the next step.
5. If the problem persists, try to determine from the Customer if the C03-308 fault occurs when a particular job is attempted. If so, try to recreate the fault by re-submitting the same job. If the problem can be recreated, have the Customer work with the local customer support center to resolve the problem.
6. If the problem persists, one or more of the Xerox Application's configuration files may be missing/corrupted. Attempt to restore the configuration files from backup
  - a. If the Xerox Application is running and Diagnostics Mode can be entered
    - Perform the Restore procedure of the [GP 603](#) to restore the system configuration files from backup.
    - Reboot the system. Go to [GP 105](#).
  - b. If the Xerox Application is **not** running or Diagnostics Mode can **not** be entered
    - Perform the Restore procedure of the [GP 603](#) to restore the system configuration files from backup (The specific procedure to be used depends on which type of media was used to backup the configuration files).
    - Reboot the system by entering the command **reboot** from a UNIX terminal window

**NOTE:**

You must have root access to perform a reboot of the system.

7. If a restart is performed and a C03-220 is raised which becomes a C03-308, the cause is a missing or corrupted `/opt/XRXnps/configuration/DecompServ.device_config` file. Follow the [C03-220](#) RAP if this file is missing or if corruption of this file is suspected.
8. If a C03-308 fault is shown in the fault window and the message "Marker is shutting down because of a C03-220 config file couldn't be opened," then the fault is with the `marker.config` file. If backups of the config files exist, use them to restore the values (go to [GP 603](#)). If backups are not available, reload XRXdxxxx (where xxxx is the product you are servicing, DC60, 61XX, etc) . Go to [GP 510](#) to reload the XRXdXXXX package.
9. If the controller hangs for several minutes with the status message "Printer device inactive" and then ultimately shows the C03-308 message, the problem could be a missing module exception table. Go to [GP 510](#) and reload the XRXmbmark package.
10. If the customer complains that a C03-308 appears but they can still print, ask that they try XDS Plus submission, if they use it. If XDS plus can not see the printer the http server is not starting properly. Go to [GP 510](#) and reload the XRXhttp package.
11. Sometimes a C03-308 will be seen and on a reboot, the system will hang. In this case, check the file `/opt/XRXnps/log/system_log` for the line "Marker- Marker is shutting down because ALDM has died". If this is seen, use the **su** command to become the super user and check for the existence of the `/opt/XRXnps/log/accounting_log/entries` directory. If it is not present, create it with the command **mkdir /opt/XRXnps/log/accounting\_log/entries** Restart the Xerox software.
12. If the problem persists and does not appear to be caused by a particular job, go to [C03-750](#) Diagnostics

**C03-309 System Could Not Be Quiesced****Description**

Fault Code C03-309 indicates that the system could not be quiesced (i.e., some software module(s) could not be halted). This Fault Code is raised in Diagnostic Mode.

**Procedure**

## WARNING

**Software module(s) may be active. Sudden Printer cycle up is possible. Before performing any maintenance/repair activity on the Printer, ensure that Printer power is OFF, using the rocker switch on the printer, if available.**

1. Restart the Xerox Software.
2. Reboot the controller from Diagnostics Mode. Go to [GP 431](#).
3. If the problem persists, go to [C03-750](#).

**C03-310 System Could Not Be Placed In Diagnostics Mode****Description**

Fault Code C03-310 indicates that the system could not be placed in the Diagnostics Mode.

**Procedure**

## WARNING

**Software module(s) may be active. Sudden Printer cycle up is possible. Before performing any maintenance/repair activity on the Printer, ensure that Printer power is OFF, using the rocker switch on the printer, if available.**

1. Restart the Xerox Software.
2. If the problem persists, reboot the system by entering the command **reboot** from a UNIX terminal window

## NOTE:

You must have root access to perform a reboot of the system.

3. If the problem persists, delete Xerox diagnostics and re-install the diagnostics packages. Go to [GP 520](#).
4. If the problem persists, go to [C03-750](#).

**C03-311 System Could Not Be Activated****Description**

Fault Code C03-311 indicates that the Diagnostic Controller could not reactivate the system after the system had been quiesced.

**Procedure**

## WARNING

**Do not perform repair activities with the power on or electrical power supplied to the machine. Sudden Printer cycle up is possible, and may result in serious personal injury. Before performing any maintenance/repair activity on the Printer, ensure that Printer power is OFF using the rocker switch on the printer.**

Ne pas effectuer des activités de maintenance avec l'équipement sur Marche ou avec le cordon d'alimentation branché. L'imprimante peut démarrer brusquement et causer de graves blessures. Avant toute intervention sur l'imprimante, s'assurer que l'alimentation de celle-ci est COUPÉE en utilisant l'interrupteur à bascule sur la machine.

1. Restart the Xerox Software.

2. Reboot the controller from Diagnostics Mode. Go to [GP 431](#).
3. If the problem persists, go to [C03-750](#).

### **C03-312 Failed To Register With Process Collection**

#### **Description**

Fault Code C03-312 indicates that Xerox Billing failed to register with Process Collection Manager (PCM) during initialization.

#### **Procedure**

1. Restart the Xerox Software.
2. Reboot the controller from Diagnostics Mode. Go to [GP 431](#).
3. If the problem persists, go to [C03-750](#).

### **C03-313 Failed To Register With Print Service**

#### **Description**

Fault Code C03-313 indicates that the Xerox Billing was unable to register with the Print Service Manager. (Billing meters can be viewed but billing reports cannot be printed).

#### **Procedure**

1. Restart the Xerox Software.
2. Reboot the controller from Diagnostics Mode. Go to [GP 431](#).
3. If the problem persists, go to [C03-750](#).

### **C03-314 Admin Service Initialization Problem**

#### **Description**

Fault Code C03-314 indicates that the Xerox software was unable to initialize the Admin Pages Service. The Admin Pages Service was unable to access template or localization files

#### **Procedure**

1. Restart the Xerox Software.
2. Reboot the controller from Diagnostics Mode. Go to [GP 431](#).
3. If the problem persists, reload the software. Go to [GP 500](#), but answer N to every question after the Initial Controller selection.
4. If the problem persists, go to [C03-750](#).

### **C03-315 Error Retrieving Product Name**

#### **Description**

Fault Code C03-315 indicates that a valid product name could not be obtained from the device object for the billing report. ***The billing report will print without the product name.***

#### **Procedure**

1. Restart the Xerox Software.
2. Reboot the controller from Diagnostics Mode. Go to [GP 431](#).
3. If the problem persists, go to [C03-750](#).

### **C03-316 Error Retrieving Configuration Information RAP**

#### **Description**

Fault Code C03-316 indicates that the billing service received an error when attempting to retrieve configuration information for a billing report (***the report will print with missing information***).

#### **Procedure**

1. Restart the Xerox Software.

2. Reboot the controller from Diagnostics Mode. Go to [GP 431](#).
3. If the problem persists, go to [C03-750](#).

**C03-317 Billing Memory Allocation Error****Description**

Fault Code C03-317 indicates that Xerox Billing could not allocate the necessary memory resources to perform billing processes.

**Procedure**

1. Restart the Xerox Software.
2. Reboot the controller from Diagnostics Mode. Go to [GP 431](#).
3. If the problem persists, go to [C03-750](#).

**C03-318 Memory Allocation Error For Billing File****Description**

Fault Code C03-318 indicates that Xerox Billing experienced a memory allocation problem.

**Procedure**

1. Restart the Xerox Software.
2. Reboot the controller from Diagnostics Mode. Go to [GP 431](#).
3. If the problem persists, go to [C03-750](#).

### **C03-319 Can't Create A Thread**

#### **Description**

Fault Code C03-319 indicates that a software process was unable to continue execution.

#### **Procedure**

1. Restart the Xerox Software.
2. Reboot the controller from Diagnostics Mode. Go to [GP 431](#).
3. If the problem persists, go to [C03-750](#).

### **C03-322 Can't Register RPC Server With OS**

#### **Description**

Fault Code C03-322 indicates that the system couldn't register the RPC (Remote Procedure Call) server with the Operating System (OS). This fault may occur when a process fails to de-register with the RPC service during the course of several system restarts, causing the same process to fail to register during initialization.

#### **Procedure**

1. Reboot the controller from Diagnostics Mode. Refer to [GP 431](#).
2. If the problem persists, it could be due to a missing `/opt/XRXnps/XRXsysdec/etc/ps/psserver` file. Go to [GP 510](#) and reload the XRXsysdec package when prompted.
3. If the problem persists, verify the operating system level and installed patch list by entering the command **showrev -p** in a UNIX terminal window. [To redirect the output of this command to a file, enter the command **showrev -p > filename** This file can then be examined to determine if the system is at the correct OS and patch level.]
4. Record the system configuration and contact the Hotline.

### **C03-325 Can't Delete File**

#### **Description**

Fault Code C03-325 indicates that system was unable to delete a file.

This fault will be raised primarily when a DigiPath Client is connected to one of the DocuSP Print Queues. This is caused by the DigiPath Client filling up the `/var/spool/XRXnps/var/spool/data/xdms` directory.

#### **Procedure**

1. Restart the Xerox Software.
2. If the problem persists, examine the `/var/spool/XRXnps/var/spool/data/xdms` directory. Have the Customer/System Administrator delete old job ticket files to clear up space in the directory, then restart the Xerox Software.
3. If the problem persists, go to [C03-750](#).

### **C03-326 Can't Create A File Or Directory**

#### **Description**

Fault Code C03-326 indicates that the system was unable to create a file or directory. This Fault Code will be raised if a problem is encountered while attempting to create a *Customer Accounting export* file.

#### **Procedure**

1. Restart the Xerox Software.
2. Reboot the controller from Diagnostics Mode. Go to [GP 431](#).
3. If the problem persists, got to [C03-750](#).

### **C03-328 Out of Disk Space**

#### **Description**

Fault Code C03-328 indicates that one of the system's disk partitions reached full capacity.

**Initial Action**

- Ask the Customer/System Administrator if any software was recently installed on the Server.
- To identify directories with large files, in a terminal window enter the command  
**du -d / | sort -nr | more**

This command should be entered within in the directory you want to check. Directories with the largest disk usage will be displayed in descending order.

**Procedure**

1. Open the console window. Look for an error indication of *"directory file system full"*. In a terminal window, enter the command **df -k** to determine the disk partition and mount point which is at 100% capacity. Go to [GP 405](#) to see the Disk Partition Tables for typical partitions and capacities for the various DFEs.
2. Have the Customer/System Administrator search for and remove any unnecessary files/directories contained in the full disk partition.
3. Restart the Xerox Software.

**C03-329 Software Component Initialization Failure****Description**

Fault Code C03-329 indicates that one of the software components fails to initialize during start-up.

**Procedure**

1. Restart the Xerox Software.
2. If the problem persists, go to [C03-750](#).

**C03-330 OA Call Failure****Description**

Fault Code C03-330 indicates that the system detected an OA (Object Access) call failure.

**Procedure**

1. Restart the Xerox Software.
2. Reboot the controller from Diagnostics Mode. Go to [GP 431](#).
3. If the problem persists, examine the Controller's Fault History to determine if other software modules exited just before this Fault Code was raised (go to [GP 110](#) or go to [GP 115](#)). Record any faults which immediately preceded the C03-330 Fault Code, and escalate the call through normal channels

**C03-331 Invalid Software State****Description**

Fault Code C03-331 indicates that the system has experienced an invalid software state.

**Procedure**

1. Restart the Xerox Software.
2. From within a terminal window, enter the command **more /opt/XRXnps/log/ep\_exception\_log** and examine the end of this file. If you see a 104 before the C03-331 near the bottom, the XRXsave or the XRXcdfib package could be corrupted. Reload each package one at a time, the second if the first does not fix the problem. Go to [GP 510](#) for information about reloading a single package.
3. Reboot the controller from Diagnostics Mode. Go to [GP 431](#).
4. If the problem persists, examine the Controller's Fault History to determine which software module raised this Fault Code (go to [GP 110](#) go to [GP 115](#) ), and escalate the call through normal channels.

**C03-332 XEIB Error In Xerox User Interface or Fatal System Error****Description**

On all DocuSP configurations, Fault Code C03-332 indicates that the Xerox Application failed to open the display. This is caused by an XEIB error which can occur when the User Interface (UI) is launched on the controller.

For the Nuvera 100/120 Digital Copier/Printer configurations running DocuSP4.x or later versions, Fault Code C03-332 can also indicate that the communications interface is down between DocuSP and one or more modules (i.e., print engine, scanner, Mark Facility Controller, PSIP). This fault can be raised by the marker, scan facility, or buffer manager to indicate a particular interface communications failure.

**NOTE:**

If the Xerox User Interface fails to start, fault messages will be displayed in the "Console" window. If Solaris also fails to start, the fault messages will be displayed on the system console.

**Procedure**

1. If the DocuSP user interface is up and running, and the problem appears to be a communications problem between DocuSP and other system modules, follow the instructions in the C03-332 fault window to shutdown the system. Once the system is fully powered off, press the main power button to power on the system.
2. If the DocuSP user interface is not running, open a terminal window and enter the command **power off** to reboot the system.

**NOTE:**

(You must have root access to perform a reboot of the system). If Solaris has not started, use the system console.

3. If the problem persists, re-install Xerox Software. Go to [GP 500](#).
4. If the problem persists, re-install Solaris operating system and Xerox Software. Refer to the *DocuSP Software Installation* instructions supplied with the software kit.

**C03-333 Facility Timeout Occurred****Description**

Fault Code C03-333 indicates that the system has exceeded the prescribed maximum amount of time to launch facilities. The timeout period is defined by the variable "*FacilityTO*" (default is 480 seconds) contained in */opt/XRXnps/configuration/server.config*.

**Procedure**

1. Restart the Xerox Software.

**NOTE:** Fault occurs during a crash recovery, the system may need to be restarted up to 3 times consecutively in order to bypass the job retry threshold.

2. If the problem persists, a library file may be damaged. Reload the XRXcgapi library. Go to [GP 510](#) for information on reloading a package.
3. If the problem persists, one or more of the DocuSP system configuration files may be missing/corrupted. Go to [C03-220](#).
4. If the problem persists, the timeout value may need to be increased beyond the default value of 480 seconds. Escalate the call through normal channels.

**C03-334 Unknown Process Requested****Description**

Fault Code C03-334 indicates that an invalid RPC procedure number was requested via the Xerox User Interface. This Fault Code is logged in the system fault log by the Billing Service if an operator request for a billing report times out.

**Procedure**

1. Restart the Xerox Software.
2. Reboot the controller from Diagnostics Mode. Go to [GP 431](#).
3. If the problem persists, re-install Xerox Software. Go to [GP 500](#)

**C03-335 Exception Handling Service Communications Error****Description**

Fault Code C03-335 indicates that the Xerox software's User Interface was unable to retrieve fault information from the Exception Handling Service. This Fault Code is raised if the Exception Handling Service is stopped and the operator attempts to display information on a system fault.

**Procedure**

1. Restart the Xerox Software.
2. Reboot the controller from Diagnostics Mode. Go to [GP 431](#).
3. If the problem persists, go to [C03-750](#).

### **C03-336 Billing Problem**

#### **Description**

Fault Code C03-336 indicates that the Billing Service experienced one of the following failures:

- Unable to retrieve data from its *Module Exception Table* (MET) file.
- Unable to localize text properly.
- Core Print Service Job Selection method failure (can't print billing report).
- FIFO creation failed, unable to submit report for printing.
- Job not received by Core Print Service.

#### **Procedure**

1. If fault was due to inability to print a billing report, re-try the print job. If fault was due to inability to retrieve data from the Billing Service *Module Exception Table* (MET) file, verify that the MET file ( `/opt/XRXnps/XRXbill/etc/22.MET`) exists and is readable.
2. If the problem persists, restart Xerox Software.
3. If the problem persists, go to [GP 510](#) Software Package Re-Install, and reload the XRXbill package when prompted to enter the name of the package you wish to reload.
4. If the problem persists, re-install Xerox Software. Go to [GP 500](#).

### **C03-337 Data Sent By Non-Running Diagnostics Routine**

#### **Description**

Fault Code C03-337 indicates that a non-running diagnostic routine tried to send information to the Xerox User Interface. This is an internal software error within Xerox Diagnostics. The Fault will be displayed in the Diagnostics GUI and recorded in the system fault log.

#### **Procedure**

1. Reboot the controller from Diagnostics Mode. Go to [GP 431](#).

### **C03-338 Diagnostics Routine Disappeared From Active List**

#### **Description**

Fault Code C03-338 indicates that a diagnostic routine disappeared from the list of active routines maintained by Xerox Diagnostics. This is an internal software error within Xerox Diagnostics. It will be recorded in the system fault log.

#### **Procedure**

1. Reboot the controller from Diagnostics Mode. Go to [GP 431](#).

### **C03-339 Invalid Data Sent To Xerox Diagnostics**

#### **Description**

Fault Code C03-339 indicates that a corrupted or incorrect data was sent to the Xerox Diagnostics. This is usually an internal software error within Xerox Diagnostics but may also be caused by a third-party software package inadvertently sending data to Xerox Diagnostics.

#### **Procedure**

1. Reboot the controller from Diagnostics Mode. Go to [GP 431](#).
2. If the problem persists, check for the presence of third-party applications running on the Controller. If so, disable the third-party applications and reboot the system as in Step 1.

### **C03-340 Missing/Corrupted Diagnostic Configuration File**

**Description**

Fault Code C03-340 indicates that the diagnostic configuration file is missing/damaged upon entering diagnostics or executing a diagnostic routine.

Typical symptoms of this Fault include

- Entries in the **Call For Assistance** frame are filled with XXXXXX or YYYYYY.
- Attempts to perform dC routines in Diagnostics Mode either fail or hang.

**Procedure**

1. Go to [GP 603](#) to restore the system configuration files from backup.
2. Reboot the system by entering the command **reboot** from a UNIX terminal window

**NOTE:**

You must have root access to perform a reboot of the system.

3. If the problem persists, reload Xerox Diagnostics. Go to [GP 520](#).
4. Escalate the call to have the **configdoctor** utility run remotely (if possible). This is necessary to ensure the validity of the new *diag.config* file. If the utility cannot be run remotely, escalate the call.
5. Reboot the system by entering the command **reboot** from a UNIX terminal window

**NOTE:**

You must be logged in as **root** to perform a reboot of the system.

**C03-360 Unable To Open, Close, Or Release Device Driver File****Description**

Fault Code C03-360 indicates that the system failed to communicate with a Device Driver. This Fault Code will only be raised when the system is in Diagnostics Mode and dC340 is run.

**Procedure**

1. Restart the Xerox Software. If the fault persists continue with the next step.
2. Perform a reconfiguration boot from Diagnostics Mode. Go to [GP 431](#).
3. If the problem persists, reseal the Xerox PWBs.
4. If the problem persists, replace the Xerox PWBs compression/decompression. Refer to [GP 131](#) for further hardware replacement strategies.
5. If the problem persists, re-install Solaris operating system and Xerox Software. Refer to the *DocuSP Software Installation* instructions supplied with the software kit.

**C03-361 Missing/Corrupted Diagnostics Test Data****Description**

Fault Code C03-361 indicates that Diagnostics test data has been corrupted or missing.

**Procedure**

1. Reboot the controller from Diagnostics Mode. Go to [GP 431](#).
2. If the problem persists, remove and then reload the Xerox Diagnostic Service software package (XRXdIag). To re-install the XRXdIag software package, go to [GP 520](#).

**C03-362 Unable To Read, Write, Or Register Device Driver File****Description**

Fault Code C03-362 indicates that the system detects a communication problem with the Xerox PWB. This Fault Code will only be raised when the system is in Diagnostics Mode and dC340 is run.

**Procedure**

1. Restart Xerox Software.
2. Perform a reconfiguration boot from Diagnostics Mode. Go to [GP 431](#).
3. If the problem persists, reload Xerox diagnostics software and try re-running dC340.
4. If the problem persists, replace the Xerox PWBs compression/decompression. Refer to [GP 131](#) for hardware replacement strategies.

**C03-363 Software Error****Description**

Fault Code C03-363 indicates that an internal software error has occurred in the dC340 diagnostic routine. This Fault Code will only be raised when the system is in Diagnostics Mode and dC340 is run.

**Procedure**

1. Perform a reconfiguration boot from Diagnostics Mode. Go to [GP 431](#).
2. If the problem persists, reinstall Xerox diagnostics. Go to [GP 520](#).
3. If the problem persists, replace the Xerox PWBs compression/decompression. Refer to [GP 131](#) for further hardware replacement strategies.

**C03-364 SDLC Loopback Test Error****Description**

Fault Code C03-364 indicates that the system has detected an error while running the SDLC Loopback Test from the **dC340 Xerox PWB Integrity Test** menu. This Fault Code will only be raised when the system is in Diagnostics Mode and dC340 is run.

**Procedure**

1. Ensure that the SDLC Loopback Tool ( [Figure 1](#) ) is present and attached correctly. Refer to [GP 152](#) for instructions on the proper placement and use of the SDLC Loopback Tool.
2. Verify that pin 4 is connected to pin 36, and pin 5 is connected to pin 37 inside the SDLC Loopback Tool (Xerox Part Number 600T80145).
3. If the SDLC Loopback Tool is wired and attached correctly, retry the SDLC Loopback Test from the **dC340 Xerox PWB Integrity Test** menu.
4. If the problem persists, reseal the Xerox PWB(s).
5. If the problem persists, replace the existing Xerox PWB(s)

**C03-365 Xerox PWB Register Test Failure****Description**

Fault Code C03-365 indicates that the system has detected a failure while running the “All Other Test” selection or the “Compression Test” selection from the dC340 Xerox PWB Integrity Test menu. This Fault Code will only be raised when the system is in Diagnostics Mode and dC340 is run.

**Procedure**

1. Perform a reconfiguration boot. Go to [GP 431](#).
2. For the DocuColor (240/250, 5000, 7000/8000) and the IGen3 with PDSI Config4 server, verify the XIIM PWB amber LED (D3) indicates activity
  - a. Remove the side cover from the server and locate the XIIM PWB. The XIIM PWB is not present on the DC 7000/8000 SPARC platform.
  - b. Wait for the DocuSP application to appear.
  - c. If the amber LED (D3) on the XIIM is flashing the XIIM PWB has been initialized and is communicating with printer, proceed to step 3
  - d. If the red Initialization LED (D2) is lit, perform a system shutdown and reseal the XIIM PWB. Power on the server. The red LED should illuminate while booting and turn off once DocuSP appears. Replace the XIIM PWB if the red LED remains lit after DocuSP starts.
  - e. If the amber LED (D3) is lit but not flashing, check the IOT cables and Printer Power

**NOTE:**

LEDs D2 and D3 are located on the component side of the XIIM PWB in the upper right corner near jumper J10

3. If XCM3E Compression or XCDM Compression/Decompression PWBs are present, ensure that the green Power Indicator LED (CR2) is illuminated during boot. If CR2 is not illuminated on a XCM3E PWB, power off and reseal the board. Replace the PWB if LED CR2 fails to illuminate.

**NOTE:**

LEDs CR2 through CR6 are located next to the mounting bracket on the component side of the XCM3E/XCDM PWB. Power Indicator CR2 is located furthest from the mounting bracket.

4. If XCM3E or XCDM PWBs are present, ensure that all green LEDs (CR2 through CR6) are illuminated after the DocuSP application has initialized. Replace any XCM3E or XCDM PWB that does not have all 5 green LEDs illuminated.
5. Rerun dC340. If the problem persists, replace the Xerox PWBs compression/decompression one at a time. Then perform a reconfiguration boot after each replacement. Refer to [GP 105](#) for more information on reconfiguration boots. Rerun dC340.
6. If the problem persists, reload Xerox Diagnostics software and rerun the dC340 test.

**C03-366 Xerox PWB Compression/Decompression Test Failure****Description**

Fault Code C03-366 indicates that the system has detected a failure while running the “All Other Test” selection or the “Compression Test” selection from the dC340 Xerox PWB Integrity Test menu. This Fault Code will only be raised when the system is in Diagnostics Mode and dC340 is run.

**Procedure**

1. Perform a reconfiguration boot from Diagnostics Mode. Go to [GP 431](#).
2. If XCM3E Compression PWBs are present, ensure that the green Power Indicator LED (CR2) is illuminated during boot. If CR2 is not illuminated on a XCM3E PWB, power off and reseal the board. Replace the PWB if LED CR2 fails to illuminate.

**NOTE:**

LEDs CR2 through CR6 are located next to the mounting bracket on the component side of the XCM3E Compression PWB. Power Indicator CR2 is located furthest from the mounting bracket.

3. If XCM3E Compression PWBs are present, ensure that all green LEDs (CR2 through CR6) are illuminated after the DocuSP application has initialized. Replace any XCM3E Compression PWB that does not have all 5 green LEDs illuminated.
4. Rerun dC340. If the problem persists, replace the Xerox Compression/Decompression PWBs. Refer to [GP 131](#) for further hardware replacement strategies.
5. If all boards have been replaced and this error is still reported, reinstall diagnostics and re-run the dC340 test. The test utilizes several files that are installed with diagnostics, feeding in a sample to be compressed/decompressed, and comparing the output to a known result. If these files are damaged, this fault can be reported. Go to [GP 510](#) for information on reinstalling diagnostics.

**C03-367 Bad/Missing Printer Cable****Description**

Fault Code C03-367 indicates that the system has detected a failure while running the “All Other Test” selection from the dC340 Xerox PWB Integrity Test menu. This Fault Code will only be raised when the system is in Diagnostics Mode and dC340 is run.

**Procedure A: For servicing iGen3 Print Engine**

1. Check each Controller-Printer Interface fiber optic cable (total of 4) at both ends for a loose or faulty connection. Reconnect or replace the cable if necessary.
2. Rerun dC340 Xerox PWB tests, and refer to [GP 131](#) for hardware failure/replacement strategies.

**Procedure B: For Servicing Other Print Engines**

1. Shutdown the system (go to [GP 105](#)). Ensure that the Controller and Printer are powered off before continuing
2. Check each Controller-Printer Interface Cable at both ends for a loose or faulty connection. Inspect the cable connections for loose or damaged pins. Repair, reconnect or replace the cable as necessary.
3. If the problem persists, check each of the Controller-Printer Interface Cables for continuity. Replace the Controller-Printer Interface Cable if continuity cannot be measured.
4. If the problem persists, check the PWB boards.
5. If the problem persists, an element inside the Printer (e.g., Remote PWB, Main Control PWB, internal cabling) may be damaged.
  - o Go to the XXXX **Series Service Manual** to continue troubleshooting the problem, where XXXX is the printer you are servicing.

**C03-368 Xerox PWB Video Loopback Test Failure****Description**

Fault Code C03-368 indicates that the system has detected a failure while running the “All Other Test” selection from the dC340 Xerox PWB Integrity Test menu. This Fault Code will only be raised when the system is in Diagnostics Mode and dC340 is run.

**Procedure**

1. Reseat the Xerox PWB(s) and re-run the dC340 Test.
2. If the problem persists, replace the Xerox PWBs compression/decompression. Refer to [GP 131](#) for further hardware replacement strategies.

3. When the system is powered on again, perform a reconfiguration boot from Diagnostics Mode. Go to [GP 431](#).

### **C03-369 Xerox PWB Printer Power On/Off Test Failure**

#### **Description**

Fault Code C03-369 indicates that the system has detected a failure while running the “Printer Power On/Off” test selection from the dC340 Xerox PWB Integrity Test menu. This Fault Code will only be raised when the system is in Diagnostics Mode and dC340 is run.

#### **Procedure**

#### **CAUTION**

Do not connect or disconnect the Printer Cable or Transition Cable when the system power is on. Ensure that both the Controller and Printer have been powered down in an orderly fashion before connecting or disconnecting any cables.

1. Reseat the Xerox PWB(s) and re-run the dC340 Test.
2. If the problem persists, replace the existing Xerox PWB(s).
3. When the system is powered on again, perform a reconfiguration boot from Diagnostics Mode. Go to [GP 431](#).
4. Re-run the dC340 test. If the problem persists, perform the following steps to check the cabling:
  - a. Select **Diagnostics**. Select **Power Off** from the pull-down menu.
  - b. Turn off the power on the Controller (this will also power down the Printer). Ensure that the Controller and Printer are powered off before continuing.
  - c. Check the Controller-Printer Interface Cable at both ends for a loose or faulty connection. Inspect the cable connections for loose or damaged pins. Repair, reconnect or replace the cable as necessary.
  - d. If the problem persists, check the Transition Cable (if present) at both ends for a loose or faulty connection. Inspect the cable connections for loose or damaged pins. Repair, reconnect or replace the cable as necessary.
5. If the problem persists, an element inside the Printer (e.g., Power Control Relay, EDN board, internal cabling) may be damaged. Determine the type of input AC power used by the Printer and go to the appropriate Printer RAP to continue troubleshooting the problem:
  - For DocuTech 6180 or 6155 systems using 60 Hz AC power, go to RAP P01-703 in the 6180/6155 Printer Service Manual.
  - For DocuTech 6180 or 6155 systems using 50 Hz AC (DELTA or WYE) power, go to RAP P01-710 in the 6180/6155 Printer Service Manual.
  - For DocuTech 6100, 6115, or 6135 systems using 60 Hz AC power, go to the RAP P01-703 6135 in the DT135/6100/6115/6135 Printer Service Manual.
  - For DocuTech 6100, 6115, or 6135 systems using 50 Hz AC (DELTA or WYE) power, go to the RAP P01-710 6135 in the DT135/6100/6115/6135 Printer Service Manual.

### **C03-370 Xerox PWB Test Unknown Hardware Failure**

#### **Description**

Fault Code C03-370 indicates that the system has detected a failure while running the “All Other Test” selection from the dC340 Xerox PWB Integrity Test menu. This Fault Code will only be raised when the system is in Diagnostics Mode and dC340 is run.

#### **Procedure**

1. Shut down the controller.
2. Reseat the Xerox PWB and all cables between printer and DFE, and re-run the dC340 Test.
3. If the problem persists, refer to [GP 131](#) for further hardware/replacement strategies.

### **C03-371 Xerox PWB is Missing or is an Unknown Type**

#### **Description**

Fault Code C03-371 indicates that the system has detected a failure while running the “All Other Test” selection from the dC340 Xerox PWB Integrity Test menu. This Fault Code can be caused by either a bad/missing Xerox

PWB or damaged software. This Fault Code will only be raised when the system is in Diagnostics Mode and dC340 is run.

**Procedure**

1. Verify visually that all Xerox PWBs are physically installed in the Controller, and that they are in the correct PCI slots. For iGen3 PCI slot information, refer to [Figure 7](#) in Section 7, "Wiring Data." If no boards can be seen, power off the system (refer to [GP 105](#)) and install the Xerox PWBs.
2. If the problem persists or a Fault Code such as C16-335 or C16-354 is raised, perform a reconfiguration boot from Diagnostics Mode. Go to [GP 431](#).
3. If the problem persists, reseal the Xerox PWBs.
4. If the problem persists, refer to [GP 131](#) for further hardware replacement strategies.
5. If the problem persists, re-install Xerox Software. Go to [GP 500](#).

**C03-380 Problems With Remote Connectivity****Description**

Fault Code C03-380 indicates that the system has detected that critical files associated with enabling/disabling Remote Connectivity are missing on the Controller. **This fault code will only be raised when the system is in Diagnostics Mode and Remote Connectivity is enabled or disabled using dC105 in the Diagnostics.**

**NOTE:**

Check the console window to see if any errors related to missing files are generated to determine if the procedure in this RAP should be executed.

**NOTE:**

If problems with Remote Connectivity are due to the PWS, go to [GP 300](#) to troubleshoot the problem.

**Procedure**

1. Ensure that there is no active remote session between the Controller and the PWS. If a remote session appears to be established as indicated by the LEDs on the modem (i.e. the SD (send) and/or RD (receive) LEDs should be flashing), power down the modem. This will allow the system to cleanly disable Remote Connectivity.
2. Disable Remote Connectivity.
  - a. If a C03-380 fault code is generated, continue with step 4 of this procedure.
  - b. If **NO** C03-380 fault code is generated, continue with the next step of this procedure.
3. Enable Remote Connectivity.
  - a. If a C03-380 fault code is generated, continue with step 4 of this procedure.
  - b. If **NO** C03-380 fault code is generated, establish a Remote Connection between the Controller and the PWS at the customer site to verify that the problem has been resolved. If the problem persists, go to [GP 300](#) to ensure that there is no problem with the PWS and then continue with the next step of this procedure.
4. Reload the Xerox Remote Diagnostics set-up software package ( XRXpppset). To re-install the XRXpppset software package, go to [GP 510](#).

**C03-392 Object Library Initialization Error****Description**

Fault Code C03-392 indicates that the Xerox application experienced an Object Access error.

**NOTE:**

In some cases the Xerox application fails to appear, and the Fault Code is displayed in the "Console" window only, or only in the ep\_exception\_log.

**Procedure**

1. Check to see if any other Fault Codes were generated just before or after the C03-392 Fault Code. If another Fault Code is displayed, perform the appropriate RAP.
  - a. Enter Xerox Diagnostics and examine the system fault logs. Go to [GP 110](#).
  - b. If Xerox Diagnostics are not available, enter the command **more /var/spool/XRXnps/log/ep\_exception\_log** in the terminal window. Go to [GP 115](#).
2. If you see the splash screen and a "connecting to printer" or a "Connected to printer <name> waiting for printer to initialize" message and DocuSP is hung there, or you do not see the splash screen at all, reload the XRXuiXXXX (where XXXX is the product you are servicing. 61XX, etc) package. Go to [GP 510](#) for information on reloading packages.
3. Check to see if any messages were generated that might clarify the problem.

- a. Enter Xerox Diagnostics and examine system event logs. Go to [GP 110](#).
  - b. Enter the command **more /var/spool/XXnps/log/system\_log** in the terminal window. Go to [GP 115](#).
4. If you see the message “Unable to launch : mediumMgr,” the file: `/opt/XXnps/bin/mediumMgr` has become corrupted or is missing. Go to [GP 510](#) and reload the `XXpltfm` package when prompted.
5. Restart the Xerox Software.
  6. If the problem persists, perform a reconfiguration boot. Go to [GP 431](#) for more information on performing a reconfiguration boot.
- During a Reconfiguration Boot, the system probes all attached hardware devices and assigns nodes in the file system to represent each device actually found. The system then updates the entries in the physical namespace (the `/devices` directory) and logical namespace (the `/dev` directory), as well as the file `/etc/path_to_inst`. Refer to [GP 105](#) for more information on Reconfiguration Boots.
7. Check to see if the `/opt/XXnps/log` directory exists. If it exists, check for the presence of an `errorLogs` directory. The full path would be `/opt/XXnps/log/errorLogs`. If this directory is damaged or missing, it can raise the C03-220 fault. Try recreating the `errorLogs` directory by entering **rmdir errorLogs** followed by **mkdir errorLogs**. Then restart DocuSP. If the `log` directory does not exist, create it by entering **mkdir log** followed by **mkdir log/errorLogs**. This directory is the only thing that can not be created by DocuSP if the `log` directory is recreated. Restart the DocuSP software.
  8. If you still see the C03-392, an executable may be corrupt. Go to [GP 510](#) Software Package Re-Install, and reload the `XXsyscnt` package when prompted.
  9. If this does not correct the C03-392, follow the 5490 same procedure and reload the `XXexhand` package.
  10. If this does not correct the C03-392, follow the same procedure and reload the `XXcdflib` package.
  11. If the fault is still shown, reload all of DocuSP, following [GP 500](#).

### **C03-500 Accounting Log At Or Near Capacity**

#### **Description**

Fault Code C03-500 indicates that the accounting log is at (~100%) or near (≥80%) full capacity. If the log is at full capacity, each new entry will overwrite the oldest entry in the log.

The main User Interface will show one of the following messages

*Accounting Log near capacity*

*Accounting Log full*

#### **Procedure**

1. Print an Accounting Report, and purge the Customer Accounting Log.
2. To prevent the Accounting log from reaching near 80% full capacity in the future, perform one or more of the following:
  - a. Size the Accounting Log to the maximum number of entries. (The Accounting log can be sized between 400 and 1000 entries). Setting the number of entries to the maximum will increase the amount of time it takes for the log to fill up before the log faults begin to display.
  - b. If the customer does not require or wish to keep the accounting information, disable the accounting function completely.
  - c. It is recommended that the customer perform the following manual tasks to prevent the Accounting log from reaching maximum capacity in the future:
    - Configure the Auto Export function that automatically exports and purges the Accounting Log when it reaches 80% of capacity. This will prevent the C03-500 faults from displaying as long as the mounted directory/drive does not run out of space to export the files.
    - Manually export the Log and then purge to keep the number of entries below 80% of capacity
    - Monitor the available drive space, and remove any old export files that are not needed in the Accounting Log. The amount of effort to perform this task will depend how many jobs are run. Keep in mind that for each job that is held in the queue and then released, two Accounting Log entries are made. If the customer has a large number of held queues and a lot of printing, the log will be filled at a much faster rate.

### **C03-501 Password File Recreated**

**Description**

Fault Code C03-501 indicates that the Xerox application determined that the Xerox password file was missing or corrupted. The Xerox password file was recreated automatically, and the System Administrator and Trusted User passwords have been reset to their default values and should be changed.

**NOTE:**

This Fault is only for the Xerox software password file. It does not cover the occurrence of a missing/corrupted UNIX password file or Xerox Diagnostics password file, refer to [GP 504](#).

**Procedure**

1. The Trusted User and System Administrator passwords have been reset to the default passwords included in the initial Xerox software installation. Contact the System Administrator to assign new passwords for Trusted User and System Administrator

**C03-700 Controller Will Not Boot****Description**

Fault code C03-700 indicates that the controller will not boot. Typical boot problems include a blank screen, a repeating boot sequence (panic), or failure of the Xerox application to start.

**Procedures**

To resolve boot problems on a Sun SPARC platform (Sun Blade 1000, Sun Blade 2000, Sun Blade 2500, Sun Fire 880, and Sun Fire 890), go to Procedure A. To resolve boot problems on an x86 platform (Sun W1100z and Sun W2100z, Config 2a, Config 2b, Config 2c, Config 2d, and Config 4), go to Procedure B.

- Procedure A - Resolving Boot Problems on a Sun SPARC Platform
- Procedure B - Resolving Boot Problems on an x86 Platform

**Procedure A - Resolving Boot Problems on a Sun SPARC Platform**

Determine which of the symptoms listed below is apparent, and perform the specified actions.

**CONDITION 1**

**The system is constantly cycling through an automatic reboot sequence, or the system is hung and can not be halted in an orderly manner. The system may be experiencing a repeating series of “panic” reboots with no operator intervention.**

1. Note the last message displayed on the screen. Halt the Controller and power it off.
2. If XCM3E Compression PWBs are present, ensure that the green Power Indicator LED (CR2) is illuminated during boot. If CR2 is not illuminated on a XCM3E PWB, power off and reset the board. Replace the PWB if LED CR2 fails to illuminate.

**NOTE:**

LEDs CR2 through CR6 are located next to the mounting bracket on the component side of the XCM3E Compression PWB. Power Indicator CR2 is located furthest from the mounting bracket.

3. Perform a reconfiguration boot. Refer to [GP 431](#) for more information about reconfiguration boots.
4. Power down the system.
5. Remove all Xerox PWBs from the Controller backplane, and boot the system.
6. If the system boots successfully and the panic crashes stop, install the Xerox PWBs one at a time until the problem occurs again. Replace the defective Xerox PWB and continue until all PWBs are installed, and the system reboots successfully.

**CONDITION 2**

**The screen remains blank after the power is applied.**

This indicates that a problem has occurred during the POST (Power On Self Test), such that the boot process could not continue. (For non usa keyboards, one or more of the keyboard LEDs will be lit.)

1. Ensure the monitor is plugged in and connected to the controller.
2. Power off the system and remove the Xerox PWB(s). Power on the system without the Xerox PWB(s). If the blank screen persists, refer to the third-party platform documentation to isolate the cause. Otherwise, continue with the next step.
3. Power off the system. Replace the Xerox PWBs one at a time. Power on the controller after each PWB replacement. If the blank screen returns, replace the faulty PWB. If booting problems are still observed after PWB verification, continue with the next step.

4. Power off the system. Open the controller chassis and inspect all internal assemblies and wiring. Check for any loose or damaged cables/connectors, and reconnect/replace as required. Check for any other obvious signs of damage on all PWBs, motherboard, power supplies, etc. Replace any damaged items as required.
5. If the blank screen persists, refer to the third-party platform documentation to isolate the cause.

**CONDITION 3****Memory test fails or the system stops during the memory test.**

The test indicator stops or a failure message is displayed.

**NOTE:**

While Memory Test is displayed on the screen, other high level tests are being run. A failure may or may not be related to memory.

If a failure occurs during the memory test, or if the correct amount of memory is not displayed in the banner display, refer to the appropriate platform diagnostic and documentation (Sun OpenBoot PROM Diagnostics, Sun Service Manual).

**CONDITION 4****System stops at the # prompt or prompts for the single-user password.**

This condition typically occurs during the SCSI disk checks with a message containing instructions to run **fsck**.

1. If prompted for the single-user password, contact the Customer/System Administrator for the root password.
2. Follow the directions on the screen to run the **fsck** recovery procedure (if additional information is required, refer to the platform service/training documentation for **fsck**). Enter the command exactly as prompted by the system: **fsck -F ufs**
3. Utilize the SUN Open Boot PROM Diagnostics to troubleshoot any possible disk problems. If a failure is detected, go to the platform documentation to resolve the problem.

**This condition can also occur if the mouse is not connected properly.**

The Controller may have booted to single user mode (boot -s). But, when attempting to boot from hard drives to Solaris desktop or when booting from the CD-ROM to the install script, the Controller would abort loading the Common Desktop Environment and drop back to the pound (#) prompt. Ensure that the mouse and all other cables are connected securely, and reboot the system.

**CONDITION 5****System stops at the OK prompt for any other reason. A message about the problem may or may not be displayed.**

The System may also stop at the **PROM Password**. If this occurs, contact the Customer/System Administrator for assistance.

1. Utilize the SUN Open Boot PROM Diagnostics and the platform documentation to troubleshoot the problem. If a failure is detected, go to the platform documentation to resolve the problem.
2. Enter the command **boot** at the **OK** prompt to boot the system. When the system stops at the **OK** prompt during the boot, follow the directions on the screen to resolve the problem. If directions do not appear on the screen, continue with step 3.
3. Refer to the platform documentation to resolve the problem.

**CONDITION 6****A message appears at the OK prompt to sync the disks.**

If the system was brought down without allowing the system to sync the file systems and the system is then booted, instructions may appear on the user interface during the operating system boot process.

1. If a crash or hang led to this problem, utilize the SUN Open Boot PROM Diagnostics and the platform documentation or SUNDIAG to troubleshoot the problem. If a failure is detected, refer to the platform documentation to resolve the problem.
2. Enter the command **boot** at the **OK** prompt to boot the system. When the system stops at the **OK** prompt during the boot, follow the directions on the screen to resolve the problem.

**CONDITION 7****The boot halts at the system prompt "hostname% ".**

This problem is the result of a damaged or corrupted script file.

1. At the prompt **hostname%**, enter the command **/usr/dt/bin/Xsession**
2. Determine which of the following conditions exists:

- a. **Solaris Common Desktop Environment (CDE) does not run.** A plain white screen displays with text messages scrolling across. The operating system software may need to be reloaded. Refer to the *DocuSP Software Installation* instructions supplied with the software kit.
- b. **Solaris CDE runs and the desktop displays, but the Xerox applications do not start.** Continue with "CONDITION 8 " in this RAP.

**CONDITION 8****Solaris runs, but the Xerox applications do not start.**

A UNIX Console window may or may not be displayed. The Controller boot process reaches the typical "blue" Solaris background display, but no Xerox applications are displayed.

1. If the Console window is available, scroll through the window looking for a **Cxx-xxx** Fault Code. If a fault code is present, go to [SFA2](#) and perform the appropriate recovery actions. Otherwise, continue with the next step.
2. The `/export/home/xrxusr/.openwin-init` file may be corrupted. Perform the following actions:
  - a. Open a UNIX terminal window and enter the following command to delete the `.openwin-init` file:

```
rm /export/home/xrxusr/.openwin-init
```

- b. Go to [GP 105](#) and reboot the DocuSP Controller. The DocuSP Software initialization process will automatically recreate the `.openwin-init` file with the correct contents.
3. If the problem persists, open a UNIX terminal window and enter the following command

```
/opt/XXnps/bin/Prochk
```

- a. If all the processes are stopped, enter the command:

```
/opt/XXnps/bin/execstartscm
```

and observe whether or not the Xerox Application starts. If the application fails to start, reload the Xerox software. Refer to [GP 500](#). If the problem continues, escalate the call through normal channels.

- b. If some of the processes are running, continue with "CONDITION 9" in this RAP.

**CONDITION 9****System Control Manager (SCM) fails to start. The system boots into Solaris, but the Xerox application fails to start.**

In the Console Window, a Fault Code may be displayed.

1. Open the Console window. Scroll through the window looking for a **C03-2xx** Fault Code. If a fault code is present, go to [SFA2](#) and perform the appropriate recovery actions. Otherwise, continue with the next step.
2. If the problem persists, examine the fault log (`/opt/XXnps/log/ep_exception_log`) in a UNIX terminal window. Go to [GP 115](#) for information on the fault log. If any **C03-2xx** Fault Codes are recorded at the end of the fault log, go to [SFA2](#) and perform the appropriate recovery actions. Otherwise, continue with the next step.
3. Go to [GP 603](#) to restore the system configuration files from backup.
4. Reboot the system by entering the command **poweroff** from a UNIX terminal window.

**NOTE:**

You must have root access to perform a reboot of the system.

5. If the problem persists, one of the script files that is utilized to start SCM has probably been damaged. Reload the Xerox software. Go to [GP 500](#). If the problem continues, escalate the call through normal channels.

**CONDITION 10****The system boots into Solaris, but SCM does not launch PCM, PTM, TOM, FOM, and/or PSM.**

1. Open the Console window. Scroll through the window looking for a **C03-2xx** Fault Code. If a fault code is present, go to [SFA2](#) and perform the appropriate recovery actions. Otherwise, continue with the next step.
2. If the problem persists, examine the fault log (`/opt/XXnps/log/ep_exception_log`) in a UNIX terminal window. Go to [GP 115](#) for information on the fault log. If any **C03-2xx** Fault Codes are recorded at the end of the fault log, go to [SFA2](#) and perform the appropriate recovery actions. Otherwise, continue with the next step.
3. Go to [GP 603](#) to restore the system configuration files from backup.
4. Reboot the system by entering the command **poweroff** from a UNIX terminal window

**NOTE:**

(You must have root access to perform a reboot of the system).

5. If the problem persists, reload the Xerox software. Go to [GP 500](#). Then, if the problem continues, escalate the call through normal channels.

**CONDITION 11**

**The system boots into Solaris, but one or more of the following problems are observed**

- In the Console Window, there is no sign of the Xerox Software coming up (i.e., no messages).
- The system hangs at the splash screen, or at “Waiting for printer” with only half the GUI displayed.

**There may be a problem with Xerox hardware.**

1. Attempt to enter the Diagnostic Mode. Determine which of the following conditions exists, and perform the specified actions

- a. **Diagnostic Mode can be entered.**

Enter Controller **dC340**. Go to [GP 130](#) for instructions on running the **dC340** Test. Utilize each Xerox PWB test to determine if a failure exists. If a failure is detected, replace the failed component (i.e., Xerox PWB, Printer Interface Cable).

- b. **Diagnostic Mode cannot be entered.**

If XCM3E Compression PWBs are present, check LEDs (CR2 through CR6). At a minimum, Power Indicator CR2 must be illuminated on each PWB. CR3, CR4, CR5 and CR6 are illuminated after specific PWB self-tests have been completed. If all five LEDs are illuminated, the PWB has initialized successfully. However, if the boot sequences was interrupted by an unrelated cause before the XCM3E PWB(s) completed initialization, some or all of LEDs CR3 through CR6 may not be illuminated.

NOTE:

LEDs CR2 through CR6 are located next to the mounting bracket on the component side of the XCM3E Compression PWB. Power Indicator CR2 is located furthest from the mounting bracket. CR6 is located closest to the bracket.

Halt the Controller by entering the command **halt** from a UNIX terminal window.

Replace the Xerox PWB and/or Printer Interface Cable.

**CONDITION 12**

**You have just replaced the controller hard drive:**

1. Follow the install instructions to reload Solaris and DocuSP.

**Procedure B - Resolving Boot Problems on an x86 Platform****CAUTION**

Do not attempt to boot the Sun W2100z controller without an XCDM PWB in slot 2. Removing an XCDM PWB from slot 2 will cause the boot process to fail because the SCSI hard disc can not be accessed .

Determine which of the symptoms listed below is apparent, and perform the specified actions.

**CONDITION 1**

**The system is constantly cycling through an automatic reboot sequence, or the system is hung and can not be halted in an orderly manner. The system may be experiencing a repeating series of “panic” reboots with no operator intervention.**

1. Note the last message displayed on the screen. Halt the Controller and power it off.
2. Perform a reconfiguration boot. Refer to [GP 431](#) for more information about reconfiguration boots.
3. If XCM3E Compression PWBs are present, ensure that the green Power Indicator LED (CR2) is illuminated during boot. If CR2 is not illuminated on a XCM3E PWB, power off and reseat the board. Replace the PWB if LED CR2 fails to illuminate.

NOTE:

LEDs CR2 through CR6 are located next to the mounting bracket on the component side of the XCM3E Compression PWB. Power Indicator CR2 is located furthest from the mounting bracket.

4. Power down the system.
5. For the Sun W1100z, Config 2a-d and Config 4 controllers, proceed with step 5a. If the system is a Sun W2100z controller, skip to step 6.
  - a. Remove all Xerox PWBs from the Controller backplane, and perform a reconfiguration boot. Go to [GP 431](#).
  - b. If the system boots successfully and the panic crashes stop, install the Xerox PWBs one at a time until the problem occurs again. Perform a reconfiguration boot after each PWB is installed. Replace the defective Xerox PWB and continue until all PWBs are installed, and the system reboots successfully. If the system does not boot with all the Xerox PWBs removed, then proceed to step 7.
6. For the Sun W2100z controller, perform the following:

- a. Leave the XCDM PWB in slot 2. Remove all the other Xerox PWBs from the controller and boot the system.
  - b. If the system does not boot with the XCDM PWB in slot 2:
    - i. Replace it with the XCDM PWB that was removed from slot 4.
    - ii. If the system still does not boot successfully, then remove the XCDM in slot 2 and replace it with a known good XCDM PWB.
    - iii. If the system does not boot with a known good XCDM PWB in slot 2 and all other Xerox PWBs removed, then proceed to step 7.
    - iv. Once the system boots successfully with all Xerox PWBs removed except for the XCDM in slot 2, install all the other Xerox PWBs and boot the system.
    - v. If the system does not boot successfully with all the Xerox PWBs including a known good XCDM in slot 2, then leave the XCDM PWB in slot 2. Then remove all the other Xerox PWBs and proceed to step 6c.
  - c. Install the Xerox PWBs one at a time and reboot. Perform a reconfiguration boot after each PWB is installed. If a problem occurs, replace the defective Xerox PWB and continue until all PWBs are installed and the system boots successfully.
7. Locate the third-party service documentation (SUN Service Manual or PDSi Manual for Config 2a-d and Config 4 Workstations). Follow the instructions listed in the troubleshooting and diagnostic sections. Use PC Check Diagnostic procedures to diagnose and solve issues. Third-party service documentation is typically located on the Service Documentation CD in the software kit

## CONDITION 2

### The screen remains blank after the power is applied.

This indicates that a problem has occurred during the POST (Power On Self Test), such that the boot process could not continue. (For non USB keyboards, one or more of the keyboard LEDs will be lit.)

1. Ensure the monitor is plugged in and connected to the controller.
2. For a Sun W1100z and PDSI Config 2/4 controller, proceed to step 2a. If the system is a Sun W2100z controller, skip to step 3.
  - a. Power off the system and remove the Xerox PWB(s). Power on the system without the Xerox PWB(s). If the blank screen persists, refer to the third-party platform documentation to isolate the cause. Otherwise, continue with the next step.
  - b. Power off the system. Replace the Xerox PWBs one at a time. Power on the controller after each PWB replacement. If the blank screen returns, replace the faulty PWB. If booting problems are still observed after PWB verification, skip to step 4.
3. For a Sun W2100z controller, perform the following:
  - a. Leave the XCDM PWB in slot 2. Remove all the other Xerox PWBs from the controller and boot the system.
  - b. If the blank screen persists, replace the XCDM PWB in slot 2 with the XCDM that was removed from slot 4, and boot the system.
  - c. If the blank screen persists, then remove the XCDM in slot 2 and replace it with a known good XCDM PWB.
  - d. If the blank screen persists, refer to third-party documentation to isolate the cause. Otherwise, continue with the next step.
  - e. Once the screen is functioning properly with all Xerox PWBs removed except for the XCDM in slot 2, power off the system. Install all the other Xerox PWBs and boot the system.
  - f. If the blank screen persists, then leave the XCDM in slot 2. Remove all of the other Xerox PWBs and boot the system.
  - g. Power down, install the Xerox PWBs one at a time and reboot. If the blank screen returns, replace the faulty PWB. If booting problems are still observed after PWB verification, continue with step 4.
4. Power off the system. Open the controller chassis and inspect all internal assemblies and wiring. Check for any loose or damaged cables/connectors, and reconnect/replace as required. Check for any other obvious signs of damage on all PWBs, motherboard, power supplies, etc. Replace any damaged items as required.
5. If the blank screen persists, refer to the third-party platform documentation to isolate the cause.

## CONDITION 3

### Memory test fails or the system stops during the memory test.

The test indicator stops or a failure message is displayed.

**NOTE:**

While Memory Test is displayed on the screen, other high level tests are being run. A failure may or may not be related to memory.

If a failure occurs during the memory test, or if the correct amount of memory is not displayed in the banner display, refer to the appropriate platform diagnostic and documentation (PC-CDROM, Section 3 of the Sun W1100z Workstation User Guide).

**CONDITION 4**

**The system stops after the Memory and Hard Disk detection checks pass. The amber System Fault LED on the Front Panel flashes.**

This condition occurs when an upper temperature limit or overvoltage condition has been detected indicating that the system fan is either turning too slowly or not turning at all.

1. Press the Power Switch on the front panel to power off the system.
2. Power on the system.
3. For the Sun W1100/2100Z, perform the following:
  - a. Press the <F2> key during boot. The **Phoenix Bios Setup Utility** displays.
  - b. Use the <Tab> key to select **Advanced** and press <Enter>. The **Advanced Setup** screen displays.
  - c. Use the <Tab> key to select **DMI** and press <Enter>.
  - d. Use the <Tab> key to select **View DMI Event Log** and press <Enter>.
4. For the PDSI Config 2/4, perform the following:
  - a. Press <Del> during boot to enter the **BIOS Setup Utility**.
  - b. Use the <Tab> key to select **Advanced** and press <Enter>.
  - c. Select **Event Log Configuration** and then **View Event Log**.
5. View the information in the Event log to identify the fault condition. Replace the system fan if warnings indicate fan speed or temperature problems. Refer to third-party documentation to replace failed items.

**CONDITION 5 (For Sun W2100z ONLY)**

**The boot halts after displaying the boot path in the Solaris Booting System white screen (see example output below). The system becomes unresponsive and may display an illegal divide by zero error. This condition occurs after a functioning XCDM PWB is removed from PCI slot 2.**

Solaris Booting System

Running Configuration Assistant...Autobooting from path: /pci@4,0/pci1022,7450@4/pci108e,534d@4/sd@0,0:a  
If the system hardware has changed, or to boot from a different Device, interrupt the autoboot process by pressing ESC.

Initializing systemPlease wait...

```
<<< Current Boot Parameters >>>Boot path: /pci@4,0/pci1022, 7450@4/pci108e,534d@4sd@0,0:a
***** Generic Error Message *****
```

This problem is caused by a software defect that fails to respond properly to a PWB removed from PCI slot 2 resulting in a failure to access the SCSI hard drive. The recovery action is a subsequent reboot with a functioning XCDM PWB in PCI slot 2.

1. Press the power button to power off the controller.
2. Reseat the XCDM PWB in PCI slot 2, and then power on the controller.
3. If the boot problem persists, press the power button to power off the controller.
4. Remove and swap the XCDM PWBs from slot 2 and slot 4. Power on the controller.
5. If the problem persists, power off the controller, remove the XCDM PWB from slot 2 and replace it with a known good XCDM PWB.

**CONDITION 6 The boot halts at the system prompt "hostname%"**

This problem is the result of a damaged or corrupted script file.

1. At the prompt **hostname%**, enter the command **/usr/dt/bin/Xsession**
2. Determine which of the following conditions exists:
  - a. **Solaris Common Desktop Environment (CDE) does not run.** A plain white screen displays with text messages scrolling across. The operating system software may need to be reloaded. Refer to the *DocuSP Software Installation* instructions supplied with the software kit.
  - b. **Solaris CDE runs and the desktop displays, but the Xerox applications do not start.** Continue with "CONDITION 7 " in this RAP.

**CONDITION 7****Solaris runs, but the Xerox applications do not start.**

A UNIX Console window may or may not be displayed. The Controller boot process reaches the typical “blue” Solaris background display, but no Xerox applications are displayed.

1. If the Console window is available, scroll through the window looking for a **Cxx-xxx** Fault Code. If a fault code is present, go to [SFA2](#) and perform the appropriate recovery actions. Otherwise, continue with the next step.
2. The `/export/home/xrxusr/.openwin-init` file may be corrupted. Perform the following actions:
  - a. Open a UNIX terminal window and enter the following command to delete the `.openwin-init` file:
3. If the problem persists, open a UNIX terminal window and enter the following command

**`/opt/XRXnps/bin/Prochk`**

- a. If all the processes are stopped, enter the command:

**`/opt/XRXnps/bin/execstartscm`**

and observe whether or not the Xerox Application starts. If the application fails to start, reload the Xerox software. Refer to [GP 500](#). If the problem continues, escalate the call through normal channels.

- b. If some of the processes are running, continue with “CONDITION 8” in this RAP.

**CONDITION 8**

**System Control Manager (SCM) fails to start. The system boots into Solaris, but the Xerox application fails to start.**

In the Console Window, a Fault Code may be displayed.

1. Open the Console window. Scroll through the window looking for a **C03-2xx** Fault Code. If a fault code is present, go to [SFA2](#) and perform the appropriate recovery actions. Otherwise, continue with the next step.
2. If the problem persists, examine the fault log ( */opt/XRXnps/log/ep\_exception\_log*) in a UNIX terminal window. Go to [GP 115](#) for information on the fault log. If any **C03-2xx** Fault Codes are recorded at the end of the fault log, go to [SFA2](#) and perform the appropriate recovery actions. Otherwise, continue with the next step.
3. Go to [GP 603](#) to restore the system configuration files from backup.
4. Reboot the system by entering the command **poweroff** from a UNIX terminal window.

**NOTE:**

You must have root access to perform a reboot of the system.

5. If the problem persists, one of the script files that is utilized to start SCM has probably been damaged. Reload the Xerox software. Go to [GP 500](#). If the problem continues, escalate the call through normal channels.

**CONDITION 9**

**The system boots into Solaris, but SCM does not launch PCM, PTM, TOM, FOM, and/or PSM.**

1. Open the Console window. Scroll through the window looking for a **C03-2xx** Fault Code. If a fault code is present, go to [SFA2](#) and perform the appropriate recovery actions. Otherwise, continue with the next step.
2. If the problem persists, examine the fault log ( */opt/XRXnps/log/ep\_exception\_log*) in a UNIX terminal window. Go to [GP 115](#) for information on the fault log. If any **C03-2xx** Fault Codes are recorded at the end of the fault log, go to [SFA2](#) and perform the appropriate recovery actions. Otherwise, continue with the next step.
3. Go to [GP 603](#) to restore the system configuration files from backup.
4. Reboot the system by entering the command **poweroff** from a UNIX terminal window

**NOTE:**

(You must have root access to perform a reboot of the system).

5. If the problem persists, reload the Xerox software. Go to [GP 500](#). Then, if the problem continues, escalate the call through normal channels.

**CONDITION 10**

**The system boots into Solaris, but one or more of the following problems are observed**

- In the Console Window, there is no sign of the Xerox Software coming up (i.e., no messages).
- The system hangs at the splash screen, or at "Waiting for printer" with only half the GUI displayed.

**There may be a problem with Xerox hardware.**

1. Attempt to enter the Diagnostic Mode. Determine which of the following conditions exists, and perform the specified actions
  - a. **Diagnostic Mode can be entered.**

Enter Controller **dC340**. Go to [GP 130](#) for instructions on running the **dC340** Test. Utilize each Xerox PWB test to determine if a failure exists. If a failure is detected, replace the failed component (i.e., Xerox PWB, Printer Interface Cable).

- b. **Diagnostic Mode cannot be entered.**

If XCM3E Compression PWBs are present, check LEDs (CR2 through CR6). At a minimum, Power Indicator CR2 must be illuminated on each PWB. CR3, CR4, CR5 and CR6 are illuminated after specific PWB self-tests have been completed. If all five LEDs are illuminated, the PWB has initialized successfully. However, if the boot sequences was interrupted by an unrelated cause before the XCM3E PWB(s) completed initialization, some or all of LEDs CR3 through CR6 may not be illuminated.

**NOTE:**

LEDs CR2 through CR6 are located next to the mounting bracket on the component side of the XCM3E Compression PWB. Power Indicator CR2 is located furthest from the mounting bracket. CR6 is located closest to the bracket.

Halt the Controller by entering the command **sync;sync;halt** from a UNIX terminal window.

Replace the Xerox PWB and/or Printer Interface Cable.

**CONDITION 11**

**You have just replaced the controller hard drive:**

1. Follow the install instructions to reload Solaris and DocuSP.

**C03-701 Controller Lockup****Description**

The steps required to recover from and diagnose a controller lockup condition are outlined in this procedure.

**Procedure A**

Perform the applicable conditions in this procedure before continuing with Procedure B.

**CONDITION 1**

The mouse pointer moves, but the DocuSP icons do not respond when selected.

1. Open a terminal window and log in as super user.
2. Enter **sync;sync;halt**
3. Reboot the controller:

SPARC platforms: enter **boot** at the **OK** prompt.

Intel platforms: press any key at the **Hit any key to continue** prompt.

**CONDITION 2**

The system does not respond to either the mouse or keyboard.

1. If there is another system on the network running with the telnet utility available (Solaris, Windows NT/XP, Mac OS X, etc.), attempt to log into the controller remotely. Because remote login as super user is disabled by default, log in as another user, and switch to super user afterwards. Once logged on as super user, enter **halt**.

**NOTE:**

See the system administrator to determine if the super user login has been enabled, or there is a user that can log in to the machine. If super user access is enabled, just log in as super user to save yourself the trouble.

2. If remote login is not possible, press and release the controller's **Power Button** to initiate an orderly shutdown of the operating system.

**Procedure B**

1. Monitor the system to see whether the problem re-occurs upon reboot.
2. If possible, have the operator repeat the actions that immediately preceded the controller lockup.
3. Observe the console window for any apparent error messages.
4. Enter Diagnostics ( [GP 100](#)); go to dC110 System Logs and inspect the System Fault Log. Look for error codes that may have been logged at or near the time the lockup occurred.
5. If the problem is intermittent, enable debug logging and escalate the call through normal channels.

**C03-702 Controller Install Problem****Description**

While installing DocuSP software on the DocuSP Controller, a failure occurs.

**Initial Action**

If the auto install script was executed, a log is generated which includes the information that was previously displayed in the swmtool output window. Check this log to determine if any errors occurred during installation.

- Enter **cd /var/sadm/install\_data**
- Enter **more XRX\_install.log**

**Procedure**

1. Note the step in the installation at which the failure was first detected.
2. Record any messages which appeared when the installation failure occurred. Messages may appear within the Xerox Software's User Interface or in the Console window.
3. Review the steps in the installation which preceded the occurrence of the failure. Verify that every step of the Installation Procedure was followed in the correct order.

4. Verify that the correct version of the DocuSP Install Floppy (if provided), or Solaris CD, has been used (both are used to format/partition the system disks). Select the operating system, and select the version of DocuSP software. As some hardware configurations no longer ship with floppy drives, this information is taken from the Solaris CD. Ensure that the disks have been partitioned correctly for the DocuSP system. Go to [GP 405](#).
5. Determine if any third-party applications are running on the Controller. If so, disable the third-party applications.
6. From a UNIX terminal window, enter the command `/opt/XXnps/bin/Prochk` to view all the Xerox Application processes running on the Controller. Determine if any Xerox Software processes are stopped.
7. Go to [SFA1](#) and attempt to re-classify the problem, if possible.
8. Record any other information relating to the installation and escalate the call through normal channels.

### **C03-703 All Jobs Faulted**

#### **Description**

All Jobs submitted to the DocuSP Controller are displayed as faulted in the Job Manager window.

#### **Procedure**

1. Select **Shutdown** from the **System** menu.
2. Reboot the system.
3. Enter Diagnostics Mode. Select **Diagnostics**.
4. Select **Controller dC340**. Go to [GP 130](#) for instructions on running the **dC340** Test. If a failure is detected, replace the failed component (i.e., Xerox PWB, Printer Interface Cable). Otherwise, continue with the next step.

#### **CAUTION**

The following steps will remove all jobs on the system. Inform the Customer that any job that has been submitted for print will be deleted. All jobs will need to be resubmitted from the clients.

5. Have the System Administrator log into DocuSP Print Services and under the system menu, select **Reset Job ID**.
6. Restart Xerox Software.
7. Have the Customer resubmit new jobs. If new jobs display as Faulted, escalate the call through normal channels. If new jobs do not display as Faulted, continue with Step 8.
8. If new jobs complete successfully instead of reaching the Faulted state, observe the Customer actions that led up to the initial problem. If the problem can be recreated, have the Customer work with the local customer support center to resolve the problem.

### **C03-704 Job Continues To Process**

#### **Description**

When one or all Jobs are submitted to the system the Job(s) continue to process indefinitely.

#### **Procedure**

Determine which of the symptoms listed below is apparent, and perform the specified actions.

#### **CONDITION 1**

**All Jobs on the system continue to process indefinitely.**

1. Have the System Administrator login and hold any jobs that are in the print queue.
2. Perform a reconfiguration boot. Go to [GP 431](#).
3. If the problem persists, enter Diagnostics Mode. Select **Diagnostics**.
4. Select Controller **dC340**. [GP 130](#) for instructions on running the **dC340** test. Utilize each Xerox PWB test to determine if a failure exists. If a failure is detected, replace the failed component (i.e., Xerox PWB, Printer Interface Cable). Otherwise, continue with the next step.
5. Escalate the call through normal channels.

#### **CONDITION 2**

**The Jobs that continue to process indefinitely are of the same enter (i.e., PostScript, ASCII, TIFF, PCL).**

1. Submit a golden job that is the same format as the problem jobs (golden jobs are located in the `/opt/XXnps/XXdiag/jobs/AuJobs` subdirectory).
2. Monitor the status of the job to determine if it is processing indefinitely.

3. If the Job prints without a problem, have the customer escalate the call with the Customer Support Center. If the Job is displayed as **Processing** indefinitely, perform the following steps:
  - a. Enter Diagnostics Mode. Select **Diagnostics**.
  - b. Select Controller **dC340**. Go to [GP 130](#) for instructions on running the **dC340** test. Utilize each Xerox PWB test to determine if a failure exists. If a failure is detected, determine which of the components failed (i.e., Xerox PWB, Printer Interface Cable). Otherwise, continue with the next step.
4. If no hardware failures could be detected and the problem persists, or the golden Job printed without a problem, escalate the calls through normal channels.

**C03-705 System Processing Slowly**

**Description**

Customer complains that the system is running slowly. This may occur during any operation (i.e. booting, restarting modules, printing).

**Initial Action**

1. Check the Console Window for Error Messages or Fault Codes that might indicate system problems. If any Fault Codes are present refer to the appropriate RAP.
2. Enter Diagnostics. Select Network Diagnostics and verify that all Network Interfaces are up. Select the ifconfig mode to determine the status of the interfaces. If the interfaces are down select Up All Interfaces.
3. If Diagnostics can not be entered, in a UNIX terminal window enter **ifconfig -a up** to bring up all Network Interfaces.

**NOTE:**

UNIX root access is required for this command.

**Procedure**

1. Reboot the controller. Verify that the information displayed on the banner screen is appropriate for the system you are servicing.

In addition, check for the following information

- o Serial Number is displayed
- o Host ID is displayed

If any of this information is missing or incorrect, continue with the platform documentation to resolve the problem. If this information is correct, continue with the next step.

2. Reboot the system. Enter Diagnostics. Select **Diagnostics**. Select **Controller dC340**. Go to [GP 130](#) for instructions on running the **dC340** Test. Utilize each Xerox PWB test to determine if a failure exists. If a failure is detected, replace the failed component (i.e., Xerox PWB, Printer Interface Cable). Otherwise, continue with the next step.
3. Contact the system administrator to verify the system is not under attack by hackers or viruses.
4. If a platform/hardware problem cannot be found and problem persists, escalate the call through normal channels.

**C03-706 Job Problem Isolation**

**Description**

This RAP lists job messages along with a brief explanation of each job message that can occur within the Controller. Refer to [Table 1](#).

When a job is successfully submitted (with no errors or warnings), the following messages are raised during normal job flow: Nascent, Being Received, Processing, Printing, Successfully Completed.

Note that the job flow for the DocuSP Controller is as follows:

- A print-ready document is created
- The job is submitted to a print queue on the Controller
- The job is received and prepared for printing or saving
- The document is delivered to the destination (print/save)

To view the status of a job, observe the message areas located at the bottom of the Xerox Print Services window or open the Job Manager window and view all jobs. Several of the job messages are often displayed for only a second (for example, Nascent).

**Procedure**

JOB STATE	DESCRIPTION
Nascent	A job submission is being created. Data pertaining to this job has not been received by the Controller.
Being Received	Data pertaining to a job submission is being received by the Controller.
Received	Data pertaining to a job submission has been received by the Controller.
Pending	A job is ready and waiting to be processed at the system. No intervention is necessary

JOB STATE	DESCRIPTION
	<p>in order for the job to be processed by the system.</p> <p>If all jobs submitted remain in the pending state, the system may still be in Diagnostic Mode. If this occurs, perform a Call Closeout to exit Diagnostics Mode.</p>
Faulted	<p>A job is faulted at the Controller due to a fault condition.</p> <p>If all jobs reach the "Faulted" state, go to <a href="#">C03-703</a>.</p>
Ripping	<p>A job is currently being decomposed by the system.</p> <p>If a job stays in the "Ripping" state, go to <a href="#">C03-704</a>.</p>
Being Cancelled	<p>A job is in the process of being cancelled.</p>
Cancelled by User	<p>A Job has been cancelled by the User who submitted the Job.</p>
Cancelled by Operator	<p>A Job has been cancelled by a Trusted User or System Administrator.</p>
Ineligible	<p>A Job is Ineligible at the System due to the unavailability of resources requested by the Job.</p> <p>NOTE:</p> <p>If an install or re-install was just performed, reprogram the paper trays.</p> <p>1- This will prevent jobs submitted from the Controller of having the status of ineligible.</p> <p>2- This will prevent jobs submitted from Diagnostics Mode from disappearing.</p> <p>- If blank pages are printed several times before a job is declared "Ineligible," there may be a problem with the Xerox PWB. Go to <a href="#">C16-350</a>.</p>
Successfully Completed	<p>A Job has completed successfully.</p>
Completed with Warnings	<p>A Job has completed with errors or, warnings AND errors, which indicate an anomaly may have occurred during printing or processing.</p>
Completed with Errors	<p>A Job has completed with errors or, warnings AND errors, which indicate an anomaly may have occurred during printing or processing. Check the error pages for details, and check paper stock list. Wrong paper settings can be known to cause this fault.</p>
Save Completed	<p>A Job (save-only) has completed successfully.</p>
Save Completed with Warnings	<p>A Job (save-only) has completed with errors or, warnings AND errors, which indicate an anomaly may have occurred during processing or saving to disk.</p>
Save Completed with Errors	<p>A Job (save-only) has completed with errors or, warnings AND errors, which indicate an anomaly may have occurred during processing or saving to disk.</p>



**C03-707 Modem Problem**

**Description**

The C03-707 RAP is used when there is a problem establishing a Remote Connection to the DocuSP Controller due to the modem. For the instructions for installing the modem, refer to the Document Services Platform Modem Kit instructions.

NOTE:

*To exit a tip session, enter ~. (i.e., tilde period).*

NOTE:

If an “All Ports Busy” error message occurs when attempting a tip session, enter admintool as super user, select serial ports under the browse menu and deselect Service Enable to resolve the problem.

**Procedure**

Determine which of the symptoms listed below is apparent, and perform the specified actions.

**CONDITION 1**

**The modem does not respond with an OK to any AT commands sent during a tip communications session.**

1. Ensure that you have the correct modem (US Robotics Courier V.32 Bit W/ASL Modem, Part Number 1.014.425-C (subject to change for future releases) and the power is turned on.
2. If the problem persists, verify that the DIP switches on the bottom of the modem are set correctly ( [Table 1](#)).

**Table 1. Modem DIP Switch Settings**

DIP switch #	Function	DIP switch position
1	Data Terminal Ready Operations	UP
2	Verbal/Numeric Result Codes	UP
3	Result Code Display	DOWN
4	Command Mode Local Echo	UP
5	Auto Answer	UP
6	Carrier Detect Operations	UP
7	Auxiliary Switch (DIP SW 3 down)	DOWN
8	AT Command Set Recognition	DOWN
9	Escape Code (+++) Response	DOWN
10	Power-on & ATZ Reset Software Defaults	UP
quad sw	Send/Receive pin assignments, Computer/Modem interface	UP

3. NOTE:
4. Power off and power on the modem after changing DIP switch settings.
5. If the problem persists, verify that the RS-232 cable is securely connected to the modem.
6. If the problem persists, inspect the RS-232 cable for male end and corresponding female serial port connector for bent/broken pins.
7. If the problem persists, ensure that the telephone cable is connected to the modem and the wall jack. Check with the customer to verify that telephone service is established.
8. If the problem persists, ensure that the serial port jumpers on the system board in the Controller have the proper settings ( and ). Refer to the Document Services Platform Modem Kit instructions.  
[Figure 1. J3/J4 Settings](#)  
[Figure 2. J3/J4 Settings \(continued\)](#)
9. If the problem persists, enter Diagnostics Mode. Select **Diagnostics**. Select Controller **dc105 System Configuration Setup**.
10. Select **Remote Connectivity**, click on **Disabled** and click on **Apply** at the bottom of the window. If any errors occur a C03-380 fault code will be raised, go to [C03-380](#) to resolve the problem.
11. Select **Remote Connectivity**, click on **Enabled** and click on **Apply** at the bottom of the window. If any errors occur a C03-380 fault code will be raised, go to [C03-380](#) to resolve the problem.
12. If the problem persists, replace the modem.

**CONDITION 2**

**Unable to dial out to a nearby phone to verify modem operation.**

**Initial Action**

Use modem saver tool 600T2133 to verify that the communication line is an analog phone line.

1. See the System Administrator for the root password. In a terminal window enter the command **su root** and when prompted enter the root password.
2. Verify that the modem and computer are communicating. Enter the command **tip cuaa** in the terminal window. The word "*connected*" should appear indicating that the terminal window is in terminal mode. Then enter the command **at** in the terminal window. The word "*OK*" should be displayed. If the word "*connected*" is NOT displayed or the terminal window hangs after the word "*connected*" is displayed, follow the procedures in [CONDITION 1](#) in this RAP to resolve the problem. Otherwise, continue with the next step.
3. Verify modem dial tone. In the terminal window enter the command **atd**.

If you do not hear a dial tone, check the volume control on the modem. If there is still no dial tone, ensure that the telephone line is connected to the modem.

4. Verify dial out capabilities using a nearby telephone. Perform the appropriate action below for the type of telephone available
  - a. For touch tone telephones, enter the command **atdt <telephone number of nearby telephone>** in the terminal window.
  - b. For pulse telephones, enter the command **atdp <telephone number of nearby telephone>** in the terminal window.

If the telephone rings, press the **<Enter>** key to disconnect the call. If the telephone does not ring, follow the Repair Actions for [CONDITION 3](#) in this RAP.

**CONDITION 3**

**The CSE is unable to Dial into the customer site via Remote Diagnostics.**

**NOTE:**

Unfortunately, if the problem is due to the Controller, you must go to the customer site to correct it. First, ensure that the PWS is configured properly, go to [GP 300](#). If the PWS is configured correctly continue with this procedure at the Customer's site.

1. Enter Diagnostics, select **Controller dC105 (System Configuration Setup)**.
2. Select **Remote Connectivity**. Click the **Disabled** option, and then click **Apply** at the bottom of the window. If any errors occur, a C03-380 fault code will be raised. Go to [C03-380](#) to resolve the problem.
3. Select **Remote Connectivity**. Click the **Enabled** option, and then click **Apply** at the bottom of the window. If any errors occur, a C03-380 fault code will be raised. Go to [C03-380](#) to resolve the problem.
4. If the problem persists, ensure that you have an XRXsvc User Account. Refer to the Document Services Platform Modem Kit instructions for details. If the problem persists, follow the subsequent steps.
5. Power off the modem.
6. See the System Administrator for the root password. In a terminal window enter the command **su root** and when prompted, enter the root password.
7. Open a second terminal window to display the log file. Enter in the second terminal window **tail -f /var/adm/log/asppp.log**  
Ignore any messages displayed at this time.
8. In the first terminal window, unload the link manager daemon. Enter in the first terminal window **/etc/init.d/asppp stop**
9. In the first terminal window, reload the link manager daemon. Enter in the first terminal window **/etc/init.d/asppp start**

A message should appear in the second terminal window indicating that the link manager daemon has loaded successfully. There may be other messages in the second terminal window. Look for the message with the latest time stamp. For example,

**<time stamp> parse\_config\_file Successful configuration**

10. Power on the modem.
11. If the problem persists, follow the Repair Actions for [CONDITION 1](#) in this RAP.

**C03-708 Problem Entering /Exiting Diagnostics Mode****Description**

Fault Code C03-708 indicates that the system has had trouble entering and/or exiting diagnostics mode. If the system appears to be stuck in Diagnostic Mode, the CSE is unable perform a Call Closeout. Typically, jobs submitted to the system remain in the Pending state.

## Procedure

### Problems Entering Diagnostics Mode

1. If the Call For Assistance frame **does not** appear, try each of these steps in succession, restarting DocuSP between and restarting diagnostics:
  - a. Check for the existence of a `/tmp/SCMRestart.txt` file. If this file is missing, create it and write 999 to the file.
  - b. Reload Xerox Diagnostics from the Diagnostics CD. Go to [GP 520](#).
2. If the login entries are not selectable, check for a valid license. Go to [GP 420](#).
3. If the login entries are selectable, login as a Customer Service Engineer and check the console window and the bottom of the Call For Assistance frame for any fault codes and/or error messages. If a fault code appears, go to the corresponding RAP.

NOTE: When logging in to Diagnostics, ensure that the correct password is entered, and that the CAPS lock is off.

4. Ensure the volume management daemon is running. In a terminal window, enter the command:

**ps -ea | grep vold**

- o If the volume management daemon is running, an output similar to the following should appear:  
root 200 1 0 07:01:34 ? 0:01 /usr/sbin/vold
- o If the volume management daemon is not running, in a terminal window, log in as super user and enter the command: **/usr/sbin/vold**

5. Check the file `/opt/XRXnps/log/.ds_track` for any additional error messages.

In a terminal window, enter the following commands:

**cd /opt/XRXnps/log**

**cat .ds\_track**

NOTE: If there are any error messages related to the CDROM drive, verify the operability of the CDROM drive. Bring up **File Manager** and verify the existence of files on the CD. If the files can't be verified, there may be a problem with the CD itself, the drive, or the drivers. Try a different CD to narrow the problem to the drive or to the CD itself, and replace the CD-ROM drive if necessary. Refer to the appropriate third-party documentation.

6. If the problem persists, reload the XRXdiag software package. To re-install the XRXdiag software package, go to [GP 520](#).

### Problems Exiting Diagnostics Mode

1. The dCDialog process must be terminated manually. Open the Console window. Enter the command **ps -ae | grep dCDialog** at the UNIX prompt.
2. Terminate the dCDialog process by entering the command **kill -9 xxxx** (where xxxx is the process ID of the dCDialog process). Note you must have root access to terminate this process)
3. Restart the Xerox Software.
4. When the system has finished initializing, enter Diagnostics Mode and perform a Call Closeout. Refer to [GP 100](#)

## C03-750 Controller Diagnostic

### Description

Fault Code C03-750 indicates that the Controller has experienced an unrecoverable condition. A controller fault (Cxx-xxx) may or may not be raised by the system. These failures could be caused by damaged platform/Xerox hardware or software. Other causes may include incorrect permissions on a file required for system operation, missing/corrupted file or directory, or changed file names.

### Procedure

1. Perform a reconfiguration boot from Diagnostics Mode. Go to [GP 431](#).
2. Enter Diagnostics Mode. Select **Diagnostics**. Select **Controller dC340**. Go to [GP 130](#) for instructions on running the **dC340** test. Utilize each Xerox PWB test to determine if a failure exists. If a failure is detected a fault code will be raised in the dC340 window- go to that fault code and perform the steps listed there. Otherwise, if no failures are detected, continue with the next step.
3. While in diagnostics, run dC106, any test pattern. Because there are some failures that dC340 can't find, running dC106 will allow you to determine if the problem exists within DocuSP controller hardware. If you receive a message or fault that the job can not be completed, replace the component directly related to the failure (i.e., if the job fails a certain color, replace the boards related to that color).

4. If dC106 also passes, the hardware must be ok, and another cause should be suspected. Go to [GP 904](#) to see if any symptoms listed there match the symptoms of the system.
5. If the problem persists, escalate the call through normal channels.

## Chain C16: Image Output Control

### C16-201 Printer is Re-initializing

Fault Code C16-201 is a logged-only message which indicates that the marker facility responded to a metareset request from the printer.

- No further action is required

### C16-300 Fatal Marker Fault

The marker experienced an unrecoverable error.

- Restart the Xerox Software
- If the problem persists, perform the C03-750 Server Diagnostics RAP

### C16-301 Fatal Save Facility Fault -- restart required.

### C16-302 Save Facility Processing Error (i.e. invalid buffer ID, task ID or attribute).

### C16-332 Xerox PWB Operation Fault

The decomposer reported a problem with DCIM or SBRIC operation, probably due to a hardware failure.

- Enter Diagnostics Mode. Select [**Controller Diagnostics**], then [**dC340**]. Utilize each test to determine if a failure exists. If no faults are found, continue with the next step.
- Halt the Controller to the **ok** prompt from CSE Diagnostics Mode, (Select [**Controller Diagnostics**], then [**System Power Off**] from the pull-down menu. At the **ok** prompt, utilize the **OBPExec** DCIM test to troubleshoot any possible DCIM problems.

### C16-335 No Xerox PWB Detected

The decomposer was unable to detect the presence of a DCIM board in the Controller.

- Verify visually that a DCIM S-BRIC board is physically installed in the Controller. Install a DCIM SBRIC if none is detected.
- Halt the Controller to the **ok** prompt from CSE Diagnostics Mode. Select [**Controller Diagnostics**], then [**System Power Off**] from the pull-down menu.
- Perform a reconfiguration boot by typing  
**boot -r <Enter>**  
at the **ok** prompt. The reconfiguration boot probes all attached devices in the /devices and /dev directories and updates the file  
**/etc/path\_to\_inst**
- Enter CSE Diagnostics Mode. Select [**Controller Diagnostics**], then [**dC340**]. Utilize each test to determine if a failure exists. If no faults are found, continue with the next step.
- Halt the Controller to the **ok** prompt from CSE Diagnostics Mode, (Select [**Controller Diagnostics**], then [**System Power Off**] from the pull-down menu). At the **ok** prompt, utilize the **OBPExec** DCIM test to troubleshoot any possible DCIM S-BRIC problems.

### C16-350 Imaging Hardware Error

The imaging hardware returned an error due to a hardware problem or improperly formatted print data. This fault code is raised when the marker detects a DCIM board failure during image compression, or video transfer never completes.

- Resubmit the master
- If the problem persists, have the Customer submit a different master of the same type, preferably one which has previously been printed successfully. If problem persists, continue with the next step.
- Enter CSE Diagnostics Mode. Select [**Controller Diagnostics**], then [**dC340**]. Utilize each test to determine if a failure exists. If no faults are found, continue with the next step.
- If the problem persists, perform the C03-750 Server Diagnostic RAP.

**C16-351 Bad Printer Cable**

The DCIM/S-BRIC PWB detected a bad Printer Interface Cable. The DCIM polls the Printer to verify a valid communications link; if the DCIM is unable to communicate with the Printer, Fault Code C16-351 is raised.

- Halt the Controller to the **ok** prompt from CSE Diagnostics Mode. (Select [**Controller Diagnostics**], then [**System Power Off**] from the pull-down menu).
- Turn off power at both the Controller and Printer. Ensure that the Controller and Printer are powered off before continuing.
- Check the Controller-Printer Interface Cable at both ends for a loose or fault connection. Inspect the IOT (and S-BRIC Transition) cable/s connections for loose or damaged pins. Repair or reconnect the cable as necessary.
- If fault persists, utilize dC340 and perform DCIM tests.

**C16-352 Communications Failure**

Indicates the following problems may exist: -The DT61xx Printer may be powered off or the circuit breakers in the customers supply may have tripped. -The Printer Cable is damaged or not connected properly: -The SBRIC/DCIM board is missing, damaged or not connected properly:

- Check the Printer power switch to ensure that the Printer is powered on. If not, power on the Printer.
- If the printer is still not powered on, verify AC power is available at the Printer power cable. Perform the P01-700 / 725 RAPS in the DT61xx IOT Service Documentation EDOC
- If problem persists, utilize dC340 (Controller Diagnostics), and perform all DCIM tests.

**C16-353 Communications Failure**

Indicates that the following problems may exist: the DT61xx Printer may be powered off.

-the Printer Cable is damaged or not connected properly  
-the DCIM/S-BRIC board is missing, damaged or not connected properly.

- Check the Printer power switch to ensure that the Printer is powered on. If not, power on the Printer.
- If the printer is still not powered on, verify AC power is available at the Printer power cable. Perform the P01-700 / 725 RAPS in the DT 61xx IOT Service Documentation, EDOC
- If problem persists, utilize dC340 (Controller Diagnostics), and perform all DCIM tests.

**C16-354 Marker Fault**

Indicates that the marker experienced one of the following errors:

-Power on failed  
-DCIM open failed  
-Power off failed

- Enter CSE Diagnostics Mode. Select [**Controller Diagnostics**], then [**dC340**]. Utilize each

*test to determine if a failure exists. -If a failure is detected, replace the DCIM/S-BRIC board  
-If no failure is detected, continue with next step.*

- *Halt the Controller to the **ok** prompt from CSE Diagnostics Mode. (Select **[Controller Diagnostics]**, then **[System Power Off]** from the pull-down menu).*
- *At the **ok** prompt utilize the **OBPExec DCIM Test** (Section 6, General Procedures) to troubleshoot any possible DCIM/S-BRIC problems. --If a failure is detected, replace the DCIM/S-BRIC board*

**C16-432 Critical Printer Missing/Damaged**

*Indicates that the market has determined that the file  
**IOT.softload**  
is either missing or damaged.*

- *The file is critical for printer operation. Re-install Xerox Software.Refer to the “DocuSP Controller Installation Guide.”*

**C16-433 Printer NVM Files have been Re-Initialized**

*Fault Code C16-433 is a logged-only message which indicates that the marker determined that the 6135 Printer’s NVM (Non-Volatile Memory) file was missing and has been automatically recreated.*

- *No further action is required.*

**C16-501, 502, 503, 504, 505, 506, 507 & 508**

**Miscellaneous Operator Messages**

*Fault Codes C16-501 through C16-508 are messages to the Operator.*

- *No further action is required.*

*For reference:*

C16-501	Required Stock not loaded
C16-502	Waiting for the Decomposer
C16-503	Waiting for no more streams
	Waiting for streams to complete
C16-504	No source
C16-506	Transparency stock loaded in Tray 3
	Tab stock loaded in Tray 3
C16-507	Trays 1/2/3/4/5 stock does not match stock programmed.
C16-508	Trays 1/2/3 programming has been changed. Check Tray
	1/2/3/4/5 stocks

**C16-509 Set Tray Properties**

*Indicates that the marker determined that the tray properties need to be programmed. This Fault is typically raised immediately after installation of Xerox Software.*

*Note: This fault can be cleared by the System Administrator or Trusted User.*

*One or more of the following messages is displayed:*

- Tray 1 Stock needs programming**
- Tray 2 Stock needs programming**

***Tray 3 Stock needs programming***

- *Have the system Administrator or Trusted User open the Printer Manager (PM) window and perform the following actions:*
  - From the Trays menu select Paper Stock*
  - Select ok to confirm paper stock selections for each tray*

**C16-510, 511, 512, 513 & 514****Miscellaneous Operator Messages**

*Fault codes C16-510 through C16-514 are messages to the operator.*

- *No further action is required*
- **For reference:**
  - C16-510** *Job requires more spool space than is available on the system.*
    - *Crash retry threshold has been exceeded for the job.*
    - *Missing or invalid print task attributes have been detected.*
    - *Decomposition failed on Admin page.*
  - C16-511** *Miscellaneous job faults, e.g.:*
    - *Set too small for binding*
    - *Configuration does not support stitching*
    - *The printing of this job is incomplete.*
  - C16-512** *Admin facility can't open sink file for writing or can't open error log.*
  - C16-513** *Miscellaneous job faults, e.g.:*
    - *Job cancelled*
    - *Required font not available*
    - *Bad job attributes*

## Chain C17: Disk Operation

### **C17-300 Hard Disk Error**

*Indicates that the system has shutdown due to a Hard Disk error*

- *Shutdown the Xerox Software*
- *Perform the C03-750 Server Diagnostic RAP*

### **C17-301 Backup File Creation Error**

*Indicates that the system was unable to*  
1) *create a backup of a configuration file, or*  
2) *create a configuration file from its backup.*

*There are currently two configuration files located in*  
**lopt/XXNps/configuration**  
*for which the system creates a backup*

- **admin.config**  
*is backed up as*
  - **admin.config.backup**
- **printerColl.config**  
*is backed up as*
  - **printerColl.config.backup**

*If the original files become corrupted, the system attempts to restore the original files from their backup versions.*

### **C17-302 Error Accessing Spooling Directory**

*Indicates that the system was unable to access a spooling directory*

### **C17-303 Missing/Corrupted Diagnostic Password File**

*Indicates that the Diagnostic Password file is either missing or corrupted. The initial Call For Assistance display is available, but the System Administrator or CSE is unable to log into Diagnostics Mode. The following message appears at the bottom of the Diagnostic window :*  
***Diagnostic Job ID and Name cannot be retrieved***

- *Re-install the software package. Refer to the "DocuSP Controller Installation Guide."*

### **C17-340 Missing/Damaged Database** *The system encountered a problem with moving database files between directories.*

### **C17-341 The JPM database recovery failed.**

### **C17-350 Critical Xerox Billing files are missing or corrupted**

*Try to Enter Diagnostics Mode. Select [Controller Diagnostics] then [dC302] Critical File Creation. On the dC302 display select [Create Critical Files], then select [ok]*

*Check NVRAM chip is good. Look to see if Host id is good in Banner. If it is all "f"s or "0"s, then it is defective. Replace the NVRAM chip on motherboard. Note: you will need new license*

*strings.*

**C17-351 Failed to Configure Billing File**

*The Billing Service was unable to retrieve the configuration information needed to set the meter labels*

- *Re-install Xerox Software. Refer to the “DocuSP Controller Installation Guide.”*

**C17-352 Primary Billing File Corrupted**

*The primary billing file is corrupted*

- *Re-install Xerox Software. Refer to the “DocuSP Controller Installation Guide.”*

**C17-353 Error Obtaining Shared Memory Lock**

*The Billing Library Function could not obtain a shared memory lock.*

- *Reboot the system from CSE Diagnostics Mode. (Select [**Controller Diagnostics**], then [**System Power Off**] from the pull-down menu). After the system reaches the **ok** prompt, type the command  
**reset <Enter>**  
*This will reboot the system.**
- *If the fault persists, perform the C03-750 Server Diagnostics RAP*

**C17-354 Unable to Open or Read a Billing File**

*The Billing Service was unable to open or read a required file*

- *Re-install Xerox Software. Refer to the “DocuSP Controller Installation Guide.”*

**C17-356 Attempted to Create Billing Files**

*An attempt to create new Xerox Billing Files.*

- *No further action is required*

**C17-357 Billing Files Created**

*Indicates the creation of new Xerox Billing Files*

- *No further action is required*

**C17-370 Bad Database Version**

*The system encountered a problem with a database. In cases where the database files  
**/opt/XXnps/bin/jpm.\***  
were generated from an older version of the Raima Data Manager, the current version of the Job Pool Manager (JPM) program may be unable to read the database files.*

- *Re-install Xerox Software. Refer to the “DocuSP Controller Installation Guide.”*

*The database files (**jpm.\***) contained in  
**/opt/XXnps/bin**  
must be replaced with newer database files that have been generated from an updated version of the Raima Data Manager.*



**C17-401 Xerox User Interface Fails to Start**

*The Xerox Software's user interface (UI) failed to start due to missing/corrupted data or resource files.*

- *Re-install Xerox Software. Refer to the "DocuSP Controller Installation Guide."*

**C17-500 SWAP Space Critically Low**

*The available swap space is critically low.*

- *Restart the Xerox Software*
- *If problems persists, reboot the system from CSE Diagnostics Mode. Select **[Controller Diagnostics]**, then **[System Power Off]** from the pull-down menu. After the system reaches the **ok** prompt, type:  
**reset <Enter>**  
*This will reboot the system.**
- **Message – "No Magic Label"** *This occurs when an unformatted hard drive has been installed. Boot into single user mode using Solaris CDRom and format the drive.*

## Chain C18: Network Operation

### C18-350 Appletalk Gateway Configuration / Initialization Error

*Indicates that the Xerox Appletalk Gateway driver has been configured incorrectly or failed to initialize.*

- *Ensure that the queue has been created and is enabled to receive and releases jobs in the Queue Manager*
- *Restart the Xerox Software*
- *Open a command tool and login as su.*
- *Type:*  
**cd /opt/XRXnps/bin <Enter>**  
**./Prochk <Enter>**  
*and look for **atpd** and **atechod** in the list of processes*
- *Type:*  
**cat /var/spool/XRXnps/log/ep\_exception\_log <Enter>**  
*check log to see if only the C18-350 fault is displayed. If another fault code is displayed, review that fault code RAP.*
- *Refer to Service Documentation for more detailed information.*

### C18-351 Xerox Appletalk Gateway Software Error

*Indicates that there is a problem with the Appletalk Gateway at the Docuprint 61xx Controller. This fault will result in one of the following conditions:*

- The Appletalk Gateway is not visible to the client*
- The client can not establish a connection to the Appletalk Gateway*
- The DocuSP controller can not be seen in the client Mac's "Chooser"*

- *Restart the Xerox Software*
- *Type:*  
**cat /var/spool/XRXnps/log/ep\_exception\_log <Enter>**  
*check log to see if only the C18-350 fault is displayed. If another fault code is displayed, review that fault code RAP.*
- *Type:*  
**cat /var/spool/XRXnps/log/system\_log <Enter>**  
*check the log for messages that could add information regarding the problem (Refer to System\_Log Procedure, GP115, Section 6).*
- *Refer to Service Documentation for more detailed information.*

### C18-352 Appletalk Gateway External Error

*The Xerox Appletalk Gateway driver has detected a problem on the external network*

- *Restart the Xerox Software*
- *Type :*  
**cat /var/spool/XRXnps/log/ep\_exception\_log <Enter>**  
*check log to see if only the C18-350 fault is displayed. If another fault code is displayed, review that fault code RAP.*
- *Type:*

**cat /var/spool/XXnps/log/system\_log <Enter>**

check the log for messages that could add information regarding the problem (Refer to System\_Log Procedure, GP115, Section 6). Refer to Service Documentation for more detailed information.

### C18-355 QServer Gateway Configuration / Initialization Error

The QServer Gateway driver on the DocuSP has been configured incorrectly or failed to initialize.

- Ensure that the queue has been created and is enabled to receive and releases jobs in the Queue Manager
- Restart the Xerox Software
- Open a command too and login as su.
- Type:

**/opt/XXnps/bin/Prochk**

look for QServer in the list of processes. If the QServer is running the process number will be displayed. If the QServer is not running the screen will display that is has been stopped.

- To start QServer, type :
- **/opt/XXnps/XXnwqsgw/bin/Qserver &**

- Type:

**cat /var/spool/XXnps/log/ep\_exception\_log <Enter>**

check log to see if only the C18-355 fault is displayed. If another fault code is displayed, review that fault code RAP.

- Type:

**cat /var/spool/XXnps/log/ep\_exception\_log**

check the log for messages that could add information regarding the problem (Refer to System\_Log Procedure, GP115, Section 6). Refer to Service Documentation for more detailed information.

### C18-356 Xerox QServer Gateway Software Error

Indicates that there is a problem with the QServer Gateway at the DocuSP Controller.

- Restart the Xerox Software
- Type:

**cat /var/spool/XXnps/log/ep\_exception\_log <Enter>**

check log to see if only the C18-350 fault is displayed. If another fault code is displayed, review that fault code RAP.

- Type:

**cat /var/spool/XXnps/log/system\_log <Enter>**

check the log for messages that could add information regarding the problem (Refer to System\_Log Procedure, GP115, Section 6). Refer to Service Documentation for more detailed information.

### C18-357 QServer Gateway External Error

The Xerox QServer Gateway driver has detected a problem on the external network.

- Restart the Xerox Software
- Type

**cat /var/spool/XXnps/log/ep\_exception\_log <Enter>**

check log to see if only the C18-350 fault is displayed. If another fault code is displayed, review that fault code RAP.

- Type:

**cat /var/spool/XXnps/log/system\_log <Enter>**

check the log for messages that could add information regarding the problem (Refer to *System\_Log Procedure, GP115, Section 6*). Refer to *Service Documentation* for more detailed information.

### C18-360 Command-Line Gateway Configuration / Initialization Error

The Xerox Command Line Gateway driver has been configured incorrectly or failed to initialize.

- Go to the directory  
**/usr/xerox/nps/client**
- and verify that the file **printerqs** exists and has the proper permissions, i.e.

owner	<b>root</b>
group	<b>xrxgrp</b>
permissions	<b>rw-rw-rw-</b>

- In a UNIX command tool, type the command

**ls -la printerqs <Enter>**

If the **printerqs** file exists continue with next step.

- If the **printerqs** file exists but has the wrong owner, group or permissions, perform the following: (Note: you must be root to change owner, group or permissions)
  - For incorrect owner, type:  
**chown root printerqs <Enter>**
  - For incorrect group, type:  
**chgrp xrxgrp printerqs <Enter>**
  - For incorrect owner, type:  
**chmod 666 printerqs <Enter>**
- Restart the Xerox Software
- If problem persists, reboot the system by entering the command  
**reboot <Enter>**  
from a UNIX Command tool.
- If problem persists, perform the C18-750 Network Diagnostic RAP.

### C18-500 Duplicate Printer Name

Indicates that the Xerox applications Appletalk gateway process has detected what appears to be a duplicate printer name on the same AppleTalk zone.

- Recreate the queue with a different name and restart the software. If problem persists enter Controller Diagnostics dc110 and verify that the *Debug Logging* is set to "disabled"
- If "Logging" is set to "Enabled", select "Disabled"
- Go to the directory (must be in SU)  
**/opt/XXnps/bin**
- and search for a file named  
**atpservices**
- If this file exists, delete it by typing :  
**rm -f atpservices <Enter>**
- Restart the Xerox Software.

### C18-750 Network Production Print Appletalk Path Problem

To isolate a suspected Network-related Appletalk Protocol failure and provide a recommended recovery action. Customer cannot submit a job to the DocuSP Controller.

- *Ensure that the queue has been created and is enabled to receive and release jobs in the Queue Manager.*
- *Open a command tool, and login as su.*
- *Type:*  
`cat /var/spool/XRXnps/log/ep_exception_log <Enter>`  
*check log to see if only the C18-350 fault is displayed. If another fault code is displayed, review the fault code RAP*
- *Type:*  
`cat /var/spool/XRXnps/log/system_log <Enter>`
- *check log for any information regarding the problem. (Refer to the System\_Log Procedure, GP115, Section 6) Refer to Service Documentation for more detailed information.*

#### **C18-760 Network Production Print IPX/SPX Path Problem**

*The purpose of the C18-760 RAP is to isolate a suspected network communication problem when using the IPX/SPX protocol. Customer cannot submit a job to the DocuSP Controller.*

- *Ensure that the queue has been created and is enabled to receive and release jobs in the Queue Manager.*
- *Open a command tool, and login as su.*
- *Type :*  
`cat /var/spool/XRXnps/log/ep_exception_log <Enter>`  
*check log to see if only the C18-350 fault is displayed. If another fault code is displayed, review the fault code RAP*
- *Type:*  
`catD/var/spool/XRXnps/log/system_log <Enter>`  
*check log for any information regarding the problem. (Refer to the System\_Log Procedure, GP115, Section 6) Refer to Service Documentation for more detailed information.*

#### **C18-770 Network Production Print DigiPath Path Problem**

*The purpose of this RAP is to isolate a suspected network communication problem when using the XDOD Client. Customer cannot submit a job to the DocuSP Controller. (This RAP assumes that the client is sending the jobs TCP/IP. If the XDOD is sending jobs IPX/SPX to a Novell Server which then sends the jobs to DocuSP, go to the C18-760 RAP).*

- *Ensure that the queue has been created and is enabled to receive and release jobs in the Queue Manager.*

#### **C18-780 Network Production Print TCP/IP Path Problem**

*The purpose of the C18-780 RAP is to isolate a suspected network communication problem when using the TCP/IP Protocol. Customer cannot submit a job to the DocuSP Controller.*

- *Ensure that the queue has been created and is enabled to receive and release jobs in the Queue Manager.*
- *Open a command tool, and login as su.*
- *Type:*  
`cat /var/spool/XRXnps/log/ep_exception_log <Enter>`  
*check log to see if only the C18-350 fault is displayed. If another fault code is displayed, review the fault code RAP*
- *Type:*  
`cat /var/spool/XRXnps/log/system_log <Enter>`  
*check log for any information regarding the problem. (Refer to the System\_Log Procedure, GP115, Section 6) Refer to Service Documentation for more detailed information.*



## Chain C19: Job Decomposition

### **C19-300 Invalid Job File/Path**

*The decomposer has detected an invalid or empty job file or path.*

- *Examine the file which was sent for printing. Verify that the file is not empty and that the path to the file has been entered correctly for print submission.*
- *If the file is not empty and the path appears to be correct, re-submit the job*
- *If the problem persists, restart Xerox Software*

### **C19-301 Bad Font List Element**

*The decomposer is unable to process a job due to a font which is invalid or not loaded, or a bad font list*

- *Examine the fonts used in the job which faulted. Verify that all fonts are loaded and valid*
- *Examine list of fonts loaded on the system*
- *Re-submit the job*
- *If problem persists, restart Xerox Software*

### **C19-302 Bad/Missing Decomposer Attributes**

*The decomposer aborted a job due to bad or missing job attributes*

- *Examine the job ticket by selecting the faulted job from the Job Manager (JM) window in the Xerox UI. Verify that all attributes have been selected correctly.*
- *Examine the job ticket at the client, if possible. Verify that all attributes have been selected correctly. Verify that the attributes selected at the client match the attributes which reached the Job Manager.*
- *Re-submit the job*
- *If fault persists, restart Xerox Software*
- *If fault persists, turn on debugging to capture job attributes*

### **C19-303 Unsupported File Conversion Type**

*A job of an unsupported type has been rejected by the decomposer*

- *Re-submit job as a valid type*
- *If fault persists, restart Xerox Software*
- *If fault persists, turn on debugging to capture job attributes*

### **C19-304 Device not found**

*Indicates that a job could not be scheduled due to a missing device.*

- *Restart Xerox software.*
- *If fault persists reload Xerox software. Refer to "DocuSP Controller Installation Guide."*

### **C19-500 Unsupported Stock Size**

*A job was submitted which exceeds the allowable range of paper sizes for the DT61xx.*

- *Examine the job ticket. Verify that the selected stock size is within the limits of the DT61xx*
- *Re-submit job*
- *If fault persists, restart Xerox Software*
- *• If fault persists, turn on debugging to capture job attributes.*

## Chain C98/C99: Other

### **C98-000/999 Rap**

*An unidentified object fault, (i.e. a fault related to a job), exists in the system*

- *From a UNIX command tool, access the Exception log to determine which software module declared the fault. (Refer GP115 Manual Examination of System Logs in Section 6). Restart the Xerox Software*
- *If a fault code or message is displayed other than C98-000 or C98-999, go to the appropriate RAP. If no other fault code or message is displayed, perform the C03-750 Server Diagnostic RAP.*

### **C99-000/999 Rap**

*An unidentified function fault exists in the system*

- *From a UNIX command tool, access the Exception log to determine which software module declared the fault. (Refer to GP115 Manual Examination of System Logs in Section 6). Restart the Xerox Software*
- *If a fault code or message is displayed other than C98-000 or C98-999, go to the appropriate RAP. If no other fault code or message is displayed, perform the C03-750 Server Diagnostic RAP.*

## Chain P01: Standby Power

**P01-210 Processor Left Door Interlock switch S106 was opened in PRINT**

**P01-211 Processor Right Door Interlock switch S103 was opened in PRINT**

**P01-212 Processor Top Cover Interlock S104 was opened in PRINT**

**P01-214 Fuser Interlock, S1001 is deactivated while in PRINT**

**P01-220 Occurs when a failure in the processor interlock system is detected This occurs when +5 VDC status switches indicate that the Processor Left Door, Right Door, and Top Cover are closed and the +24 VDC sense circuit indicates that one of them is open**

- *Check the processor top cover latch and processor right door latch adjustment and also the processor top cover, right door and left door interlock adjustments.*
- *Use the interlock bypass to identify if there is a real problem with the interlocks, or if the problem actually lies elsewhere.*
- *If code clearance is only possible by POPO and/or 10-216 is also present, check the following:*
  - 1) *LVPS position led 5 on? - troubleshoot pos'n 5 PWB and associated wiring and components : check Finisher bins drive and scuffer clutches for internal s/c. (Disconnect and re-boot to check).*
  - 2) *LVPS position 7 led on? - troubleshoot pos'n 7 PWB and associated wiring and components*
  - 3) *LVPS position 8 led on? - troubleshoot pos'n 8 PWB and associated wiring and components: check for rotation and decking of Transfer Assist solenoids: see PTI.*
- *Remember, any component within the circuit of the relevant LVPS PWB that is short-circuited will probably cause an led to be lit on a LVPS PWB.*
- *Refer to DIO PWB outputs in NRD section of Service Manual.*
- *A Low voltage monitor tool is available in case of very intermittent problems from the ASE / ACE.*

**P01-221 Failure in the Processor Interlock System is detected- The 5 VDC status switches indicates that one or more of the Cover Doors is open -but the 24 VDC sense Circuit indicates that all the cover Doors are closed**

**P01-301/P06-367 Printer Card Cage overtemp**

*PO-PO to verify fault*

*Check condition of card cage fans ensure both are running and free from blockages to allow free air flow.*

**P01-302/P06-353 indicates one or more voltages are missing from ROS LVPS**

**P01-303/P06-358 +15VDC fault at the Pixel pwb**

**P01-504 indicates that Processor-interlock Bypass switch S103 is closed.**

## Chain P03: Machine Run Control

### **P03-2xx / 3xx Intermittent Communications faults**

*Random crashes,(in Print mode only) are usually due to EMI/RFI noise related problems.*

*Check the following:*

- *An open or poor ground,(earth) on the Fuser Metering roll assembly. Ensure continuity check is performed with multi-meter and NOT just visual.*
- *Also check earth continuity from Fuser plug and socket to machine frame: these connections can become suspect due to the constant removal of the Fuser Ram assemblies at SM's etc.*
- *Check for good earth connections at the Mains Isolator and machine cable entry area (prone to loosening with vibration). Check connector J256 on the inboard end of the Toner Dispenser is firmly secured.*
- *Check all wiring looms at rear of machine and cut tie-wraps wherever possible-disturb wires and re-secure fitting new tie wraps loosely.*
- *Check wiring looms around the MIN compressor area for chafing due to compressor vibration.*
- *Check the printer card cage fans are both operating and not obstructed.*
- *Check Finisher earth braid connection between Finisher frame (rear- right) and Processor, fitted normally at machine installation: this can sometimes inadvertently be left disconnected.*
- *Check +5VDC voltage is within specification.*

### **P03-2xx Constant Fault diagnosis.**

*The code displayed on the UI sometimes is not cause of the problem. Try isolating the Core pwb by disconnecting the output communication leads from both the other nodes plus the local Bus. You will often find that the Core pwb will go back on line, this will indicate the fault is elsewhere. If so, reconnect the local bus and check all local pwbs are back on line then connect the communication lead to the other Nodes.(Always use dc303) The fault can often be a communication lead on another Node. It is also possible to bypass a core pwb by joining the communication leads together to help diagnose the problem.*

### **P03-201 EDN System Bus communications failure with all other nodes. Power Interrupt may occur disabling the +24 VDC section of the LVPS**

- *Switch off the power, wait 15 seconds, then switch on the power in order to force a self test. If Fault Code P03-201, does not occur. the problem is corrected.*
- *Visually inspect all connectors on the EDN PWB for loose or improperly mated connectors.*
- *If this fault is clearable but continues to occur, go to P03-731, Intermittent Communications RAP*
- *Check that the System Bus connectors are connected properly by referring to the SYSTEM BUS CONNECTIONS TABLE.*
- *Check that the Shared Line Termination jumper on the Core PWBs are properly positioned by referring to the CORE TERMINATION JUMPER TABLE*

### **P03-203 MIN Core PWB failed to acknowledge a message from another Core PWB. This fault will cause a hard stop, and the machine will go into the Power Interrupt mode disabling the +24 VDC section of the LVPS.**

- *Visually inspect all connectors on the MIN Core PWB for loose or improperly mated connectors.*

- P03-204** PHN Core PWB failed to acknowledge a message from another Core PWB. This fault will cause a hard stop, and the machine will go into the Power Interrupt mode disabling the +24 VDC section of the LVPS.
- *Visually inspect all connectors on the PHN Core PWB for loose or improperly mated connectors.*
  - *Intermittent faults can be caused by PL J315/1 on the LVPS having high resistance on the +5V DC Line. When the voltage drops below 4.6V, the PHN Core PWB will shut down. The older style Core PWBs with the larger LED's will not shut down until the voltage drops below 4.2V.*
- P03-205** FBN Core PWB failed to acknowledge a message from another Core PWB. This fault will cause a hard stop, and the machine will go into the Power Interrupt mode disabling the +24 VDC section of the LVPS.
- *Visually inspect all connectors on the FBN Core PWB for loose or improperly mated connectors.*
  - *If this fault is clearable but continues to occur, go to the P03-371 Intermittent Communications RAP.*
  - *Visually inspect all connectors on the MIN and PHN Core pwb's for loose or improperly mated connectors*
- P03-206** IFN Core PWB failed to acknowledge a message from another CORE PWB
- For 61XX make sure Interposer power cord connected!*
- P03-208** EDN HDLC Transmitter / Receiver failed the self test or that the Printer tried to send a message and the Controller did not acknowledge receipt of the message.
- *This code will be seen on all systems at DT2.x and higher, it is caused by the IOT booting faster than the ESS, it is not a problem as it is only recorded in the Range Faults.*
- P03-230** MIN Core PWB cannot communicate with any board on its Local Bus. Power Interrupt may occur, disabling the +24VDC section of the LVPS.
- *If this fault is clearable but continues to occur, go to the P03-371 Intermittent Communications RAP*
- P03-231** MIN Core PWB cannot communicate with the MIN DIO PWB. Power Interrupt may occur, disabling the +24VDC section of the LVPS.
- *Check the QUEUED FAULTS on the SCP screen. If there are any system bus communication faults present P03-203/204/205, go to these RAPS*
  - *If this fault is clearable but continues to occur, go to the P03-371 Intermittent Communications RAP*
- P03-232** MIN Core PWB cannot communicate with the MIN ADA PWB #1. Power Interrupt may occur, disabling the +24VDC section of the LVPS.
- *Swap MIN ADA #1 with MIN ADA #2, if the fault changes to P03-233, replace MIN ADA #2.*
  - *See P03-231*
- P03-233** MIN Core PWB cannot communicate with the MIN ADA PWB #2. Power Interrupt may occur, disabling the +24VDC section of the LVPS.
- *Swap MIN ADA #1 with MIN ADA #2, if the fault changes to P03-233, replace MIN ADA #1.*
  - *See P03-231*

- P03-234** MIN Core PWB cannot communicate with the SLB / RDR PWB. Power Interrupt may occur, disabling the +24VDC section of the LVPS.
- See P03-231
- P03-240** PHN Core PWB cannot communicate with any board on its Local Bus. Power Interrupt may occur, disabling the +24VDC section of the LVPS.
- If this fault is clearable but continues to occur, go to the P03-371 Intermittent Communications RAP
- P03-241** PHN Core PWB cannot communicate with the PHN DIO PWB #1. Power Interrupt may occur, disabling the +24VDC section of the LVPS.
- Check the QUEUED FAULTS on the SCP screen. If there are any system bus communication faults present P03-202/203/204/205, go to these RAPS
  - If this fault is clearable but continues to occur, go to the P03-371 Intermittent Communications RAP
  - Ensure that the fuser ground wires are connected. There have been reported cases of random P03-241 and P03-xxx faults being caused when the ground wires on the Fuser RAM become disconnected. Be sure to check the ground wire that is connected to the Metering Roll.
- P03-242** PHN Core PWB cannot communicate with the PHN DIO PWB #2. This fault will disable the +24 VDC section of the LVPS and may also cause secondary fault codes that are related to the +24 VDC section of the LVPS.
- See P03-241
- P03-243** PHN Core PWB cannot communicate with the PHN DIO PWB #3. Power Interrupt may occur, disabling the +24VDC section of the LVPS.
- See P03-241
- P03-246** PHN Core PWB cannot communicate with the PHN DIO PWB #6. Power Interrupt may occur, disabling the +24VDC section of the LVPS.
- See P03-241
- P03-247** PHN Core PWB cannot communicate with the PHN Registration Servo PWB. Power Interrupt may occur, disabling the +24VDC section of the LVPS.
- See P03-241
- P03-250** FBN Core PWB cannot communicate with any board on its Local Bus. Power Interrupt may occur, disabling the +24VDC section of the LVPS.
- See P03-241
- P03-251** FBN Core PWB cannot communicate with the FBN DIO PWB #1. Power Interrupt may occur, disabling the +24VDC section of the LVPS.
- This fault is currently under investigation by engineering, obtain an old style Core PWB (with the large RED LEDs mounted on it) and install this in place of the new style Core PWB which is believed to be causing the problem. This problem has not been observed on

*systems connected to an external finishing device i.e. SBM.*

- *See P03-241*

**P03-252**      **FBN Core PWB cannot communicate with the FBN DIO PWB #2. Power Interrupt may occur, disabling the +24VDC section of the LVPS.**

- *Intermittent faults can be caused by a build up of static on the metal plate of the Bindexer door. If not already fitted, install the Bindexer Door ground kit 600K 25490. If already fitted check for earth continuity from metal door plate to known good earth point(ensure door is properly closed when performing check).*
- *Check Finisher earth braid connection between Finisher frame(rear- right) and Processor, normally fitted at machine installation; this can sometimes inadvertently be left disconnected.*
- *See P03-242*

**P03-253**      **FBN Core PWB cannot communicate with the FBN DIO PWB #3. Power Interrupt may occur, disabling the +24VDC section of the LVPS.**

- *See P03-241*

**P03-254**      **FBN Core PWB cannot communicate with the FBIOP PWB. Power Interrupt may occur, disabling the +24VDC section of the LVPS.**

- *See P03-241*

**P03-255**      **FBN Core PWB cannot communicate with the SMIOC PWB. Power Interrupt may occur, disabling the +24VDC section of the LVPS.**

**P03-258**      **FBN SMIOC PWB failed power up self test. Power Interrupt may occur, disabling the +24VDC section of the LVPS.**

**P03-259**      **Internal failure occurred within the FBN SMIOC PWB.**

**P03-260**      **IFN Core PWB cannot communicate with any board on it's local bus. Power Interrupt may occur, disabling the +24VDC section of the LVPS.**

**P03-261**      **IFN Core PWB cannot communicate with IFN DIO PWB #1, power Interrupt may occur, disabling the +24VDC section of the LVPS.**

**P03-262**      **IFN Core PWB cannot communicate with IFN DIO PWB #2, power Interrupt may occur, disabling the +24VDC section of the LVPS.**

**P03-263**      **IFN Core PWB cannot communicate with IFN DIO PWB #3, power Interrupt may occur, disabling the +24VDC section of the LVPS.**

**P03-300**      **EDN detected that MIN, PHN, IFN or FBN stopped requesting the job related control messages before the job has been completed.**

**P03-301**      **EDN detected that MIN requested more control messages than available for the job being processed.**

**P03-302**      **EDN detected that FBN requested more control messages than available for the job being processed.**

**P03-305**      **EDN detected an incorrect software state and cannot complete the programmed job.**

- P03-308** Start Print was selected and the EDN told all nodes to cycle up, but PHN did not send a message to MIN instructing it to start the main drive within 30 seconds after the Start Print was selected.
- P03-309** EDN sent a job related control message to MIN, PHN or FBN, and that message conflicted with another control message for the same job sent by the controller.
- P03-311** EDN detected that MIN is requesting job related control messages out of sequence.
- P03-313** MIN requested another job related control message when it did not receive previous control message requested from EDN.
- P03-314** PHN requested another job related control message, when it did not receive previous control message requested from EDN.
- P03-315** FBN requested another job related control message, when it did not receive previous control message requested from EDN.
- P03-325** FBN requested another job related control message, when it did not process previous control message received from EDN.
- P03-330** EDN requested a job related control message from the controller two consecutive times, and controller did not respond to either request in required time.
- P03-331** EDN received incorrect sequence of status messages from MIN, PHN, or FBN.
- P03-332** Printer cycled down without sending job to the finisher.
- P03-334** EDN requested imaging data for second side of duplex sheet from controller. Controller did not respond to request in required time.
- P03-336** EDN used wrong parameters for particular job and cannot recover correct information to complete the job.
- P03-340** MIN ADA PWB #1 turnaround test failed. Fault will cause the Printer to go into the Power Interrupt Mode and disable the +24 VDC section of the LVPS.
- P03-341** MIN ADA PWB #2 turnaround test failed. Fault will cause the Printer to go into the Power Interrupt Mode and disable the +24 VDC section of the LVPS.
- P03-342** Without Printer Tag P-209 installed: Turnaround test failure from SLB / RDR PWB to Pixel PWB. With Printer Tag P-209 installed: Turnaround test failure from SLB / RDR PWB to Pixel portion of PPMD PWB. Fault will cause the Printer to go into the Power Interrupt Mode and disable the +24 VDC section of the LVPS.
- P03-343** Turnaround test failure from SLB / RDR PWB to the ROS. Fault will cause the Printer to go into the Power Interrupt Mode and disable the +24 VDC section of the LVPS.
- P03-344** Without Printer Tag P-209 installed: Turnaround test failure from SLB / RDR PWB to EPMD PWB. With Printer Tag P-209 installed: Turnaround test failure from SLB / RDR PWB to EPMD portion of PPMD PWB. Fault will cause the Printer to go into the Power Interrupt Mode and disable the +24 VDC section of the LVPS.

- P03-360**      **FBN detected a sheet delivered to the bins out of order.**
- *This fault has been seen to be associated with a software problem specifically related to binding books with covers where the total number of pages is less than 36, typically the stacker unloads after the 13th set and the system cycles down with a P03-360.*
- P03-361**      **EDN Core PWB battery failed.**
- *If this code occurs after the EDN PWB has been replaced, ensure that there is actually 5 V at the printer card cage.*
  - *Ensure that there are no other printer problems (i.e. components / motors running unexpectedly in standby), conflicts have been seen to cause this code (sometimes in conjunction with C16-376).*
- P03-362**      **NVM values on the EDN Core PWB are not valid.**
- P03-363**      **FBN received a message from EDN instructing a finishing operation but did not receive message from PHN indicating sheet was being sent, or FBN received too many messages to process.**
- P03-364**      **FBN detected FBIOP PWB failed to respond to a tape feed, or read temperature command.**
- P03-365**      **FBN detected more bin unload commands than required to process a job.**
- P03-370**      **Internal failure in SLB / RDR PWB. Fault will cause the Printer to go into the Power Interrupt Mode and disable the +24 VDC section of the LVPS.**
- P03-371**      **Internal failure in EDN Core PWB. EDN Core PWB detected an error condition serious enough to initiate Printer shutdown.**
- P03-373**      **Internal failure in MIN Core PWB. MIN Core PWB detected an error condition serious enough to initiate Printer shutdown. Fault will cause the Printer to go into the Power Interrupt Mode and disable the +24 VDC section of the LVPS.**
- *Swap the Core PWB with another one in the system, if the fault moves, replace that Core PWB.*
- P03-374**      **Internal failure in PHN Core PWB. PHN Core PWB detected an error condition serious enough to initiate Printer shutdown. Fault will cause the Printer to go into the Power Interrupt Mode and disable the +24 VDC section of the LVPS.**
- *Swap the Core PWB with another one in the system, if the fault moves, replace that Core PWB.*
  - *Intermittent faults can be caused by PL J315/1 on the LVPS having high resistance on the +5V DC Line. When the voltage drops below 4.6V, the PHN Core PWB will shut down. The older style Core PWBs with the larger LED's will not shut down until the voltage drops below 4.2V.*
- P03-375**      **Internal failure in FBN Core PWB. FBN Core PWB detected an error condition serious enough to initiate Printer shutdown. Fault will cause the Printer to go into the Power Interrupt Mode and disable the +24 VDC section of the LVPS.**
- *Swap the Core PWB with another one in the system, if the fault moves, replace that Core PWB.*

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P03-376	Indicates internal failure in the IFN CORE PWB <i>this will disable +24VDC section of LVPS</i>
P03-378	<p>PHN received message from Controller software instructing sheet to be fed without identifying tray.</p> <ul style="list-style-type: none"><li>• <i>When the fault occurs, don't clear it, enter [dC330] and check all chains for any unexpected sensor readings - pay particular attention to the paper trays</i></li></ul>
P03-380	Download failure for the EDN Core PWB Boot ROM.
P03-381	EDN Core PWB download failure.
P03-383	Download failure in the MIN Core PWB, occurring when the MIN software cannot be copied from Controller Rigid Disk to MIN Core PWB memory. Fault will cause the Printer to go into the Power Interrupt Mode and disable the +24 VDC section of the LVPS.
P03-384	Download failure in the PHN Core PWB, occurring when the PHN software cannot be copied from Controller Rigid Disk to PHN Core PWB memory. Fault will cause the Printer to go into the Power Interrupt Mode and disable the +24 VDC section of the LVPS.
P03-385	Download failure in the FBN Core PWB, occurring when the FBN software cannot be copied from Controller Rigid Disk to FBN Core PWB memory. Fault will cause the Printer to go into the Power Interrupt Mode and disable the +24 VDC section of the LVPS.
P03-386	Download failure in the IFN Core PWB. Fault will cause the Printer to go into the Power Interrupt Mode and disable the +24 VDC section of the LVPS.
P03-390	<p>Type of printer connected to Controller does not match type of software loaded in machine.</p> <ul style="list-style-type: none"><li>▪ <i>If this is a new EDN PWB, it may have been installed in a DT90 system. Ignore the fault code until dC323 has been performed.</i></li><li>▪ <i>If this has occurred after a software load then it is likely that the printer configuration has either not been set at all, or has been set incorrectly.</i></li></ul>
P03-391	Version of Printer hardware and NVM are incompatible with version of software loaded in machine.
P03-408	Indicates that system controller temporarily did not acknowledge receipt of a data layer or client layer from EDN. <i>Check IOT cable for damage or poor connection.</i>
P03-413	Indicates that MIN Core PWB could not communicate with any PWB on it's local bus during system boot.
P03-414	Indicates that PHN Core PWB could not communicate with any PWB on it's local bus during system boot.
P03-415	Indicates that FBN Core PWB could not communicate with any PWB on it's local bus during system boot.
P03-416	Indicates that IFN Core PWB could not communicate with any PWB on it's local bus during system boot.
P03-480	Indicates job manager detected too many segments in job manager queue. <i>usually a software related problem. Ensure latest version of software is installed. Customer should</i>

*power off/on the Printer only if Reset does not work. Try to identify the circumstances and report through a SPAR.*

- P03-482**      **Indicates EDN PWB received an invalid profile from the ESS. If reset fails PO-PO Printer only**
- P03-485**      **same as for P03-482**
- P03-492**      **indicates MIN Core did not receive a main drive enable from PHN Core within 30 seconds after start was initiated. PO-PO Printer only.**

## Chain P04: Start Print Power

- P04- 201**      **Occurs when the control logic senses a Main Drive acceleration fault. There should be 20-150 machine clock counts in 150-160 ms after Start is initiated.**
- NOTE:** Use caution when performing service actions in the vicinity of the Toner Filter Blower Motor MOT 905. This motor is ON when the main drives are running
- *Pull out and reseal the photoreceptor module. if the fault clears then either lubricate or replace the photoreceptor drive coupling.*
  - *Inspect the photoreceptor drive coupling, if the sprung dog has backed down the shaft, either lubricate it or replace it. Don't forget to inspect the photoreceptor drive roll. For 6180: possible fault with Soft Start relay. Check relay is functioning correctly.*
- P04- 202**      **Occurs when the Control Logic senses a Main Drive acceleration fault (too many machine clock counts). The Control Logic performs a check at 250 and 470 machine clock counts for a maximum of 120 machine clock counts within 50-60 ms.**
- P04- 203**      **Occurs when the control logic senses a main drive acceleration fault (too few machine clock counts). The Control Logic performs a check at 250 and 470 machine clock counts for a minimum of 60 machine clock counts within 50-60 ms. During print, the machine clock is checked for 1590-1920 counts in 1 sec.**
- *See P04-201*
- P04-210**      **Machine clock signal missing at PHN Core PWB**
- P04-211**      **Registration Sync signal missing at PHN Core PWB**
- P04-212**      **Reg. Signal arrives at PHN Core unexpectedly**
- P04-213**      **Registration Sync signal missing at PHN Core PWB**
- P04-221**      *indicates +24 VDC missing from MIN module*

## Chain P06: Output Imaging

**P06-202 Polygon Motor Test Fault.**

*During self test Polygon motor interface is tested between Card cage and ROS. This code shows an error has occurred.*

**P06-203 Temperature problem with VLD (Visible Laser Diode)****P06-213 VLD is close to failure****P06-214 Shows a +15 VDC fault on the RCM PWB****P06-215 Shows a +5 VDC fault on the RCM PWB****P06-232 ROS not ready. Indicate RCM controller failed self test.****P06-233 VLD power fault****P06-234 Polygon motor speed fault. Polygon motor close to failure.****P06-236 ROS Profile chip error****P06-237 VLD not switched off in standby.****P06-240 RCM +25VDC Fault****P06-250 At least one Start of Scan signal not detected by SOS PWB.**

- *Check the machine for electrical noise, this fault is known to be caused by the stacker unloading. If this is the scenario, 6135/6100: check ROS HVPS for a filter piggybacked onto it, this is a field modification, if this is not present then fit a new power supply 105K10481 - this power supply has a built in filter.*
- *Check the voltage on the SOS sensor. Enter [dC] [Printer][dC330][Chain 6], and switch the laser on, measure the voltage at TH19 (SOS Voltage) on the distribution PWB (mounted at the top of the ROS assembly). It should be in the range 1.3 to 1.6V, compare this to the voltage measure at TH20 (EOS voltage) again this should be in the range 1.3 to 1.6V, if it is out of this range then either the LTA is weak or out of alignment.*
- *Check that the connector P256 at the back of the toner hopper (mounted on the frame) is secure, this has been seen to be loose and cause intermittent P06-250 / 251's.*
- *Check the wiring on the toner hopper connector, the wire loop forms the PR module interlock. If this is making intermittent contact, then P06-250's / P06251's will result.*
- *Check the printer card cage fans are both operating and are not obstructed, this can cause intermittent ROS faults, particularly after the machine has run for some time and the card cage is hot: but not hot enough to shut down the ROS LVPS*
- *Check the Finisher Interlock Relay (K1206) mounted behind tray 3, this can become contaminated causing electrical noise.*

**For 6180:** *VLD could be failing if P06-233 occurs at the same time*

**P06-251 At least one End of Scan signal not detected by EOS PWB.**

- *Initial actions - see P06-250*

- P06-252/3**      **An extra SOS or EOS signal was generated within normal timing for SOS or EOS.**
- *Check for electrical noise and intermittent connections.*
- P06-330**      **+28 VDC fault on RCM**
- P06-331**      **After the closed loop exposure adjustment the EOS and SOS PWBs detected Beam Intensity is still 0.2 volts out of range from value that was calculated during Xerographic setup.**
- P06-350**      **The Beam 1 and / or Beam 2 Intensity signals, sent from EPMD (without Tag P209) or PPMD PWB (with Tag P-209) to Modulation PWB, are less than 10 VDC or Laser Write signal was missing during print.**
- P06-351**      **Voltage Controlled Oscillator is out of range.**
- P06-352**      **Pixel Clock Output signals were missing for at least 30 microseconds (+/- microseconds).**
- P06-353**      **ROS LVPS fault**
- P06-354**      **Polygon Motor Phase 1 and / or Phase 2 voltages, sent from the EPMD PWB (without Tag P-209) to Polygon Motor are missing.**
- For 6180: Voltages from RCM to Polygon motor are missing or at incorrect frequency.*
- P06-355**      **+5 VDC is missing on the SOS PWB.**
- P06-356**      **+5 VDC is missing on the EOS PWB.**
- P06-357**      **Start of Scan Beam Intensity and End of Scan Beam Intensity signals, sent from the SOS and EOS PWBs to the SLB / RDR PWB are at least 50% out of range from the value calculated during the latest Xerographics setup.**
- *Check the ribbon cable is making good connection onto the shutter, apply shims as required (see Best Practices / ROS Adjustments if available)*
  - *See Fault code actions for P06-250.*
- P06-358**      **±15VDC missing at Pixel PWB**  
**P06-359**      **ROS Shutter cannot maintain proper laser beam intensity that was determined by the Exposure Control signal.**
- *Check the laser alignment.*
  - *Ensure that all leads and connectors are making good contact.*
  - *Inconsistent output voltage from the ROS high voltage power supply ( defective Power supply)*
  - *Replace the ROS high voltage power supply*
  - *Use laser tube checkout procedure from the ROS baseline series (Best Practices II)*
  - *With LCS disconnected, the EOS peak should be over 10 VDC.*
  - *An inconsistent laser tube or a defective shutter PWB can also cause this fault*
- P06-360**      **RCM -15 VDC fault**
- P06-363**      **Start of Scan Beam Intensity signal, sent from SOS PWB to the SLB / RDR PWB is less**

than 50% of value calculated during latest Xerographic Setup.

- See Fault code actions for P06-250

**P06-364** End of Scan Beam Intensity signal, sent from EOS PWB to the SLB / RDR PWB is less than 50% of value calculated during latest Xerographic Setup.

- See Fault Code actions for P06-250.

For 6180: RCM detected drift ofv the scan detector linearity.

**P06-365** Laser High Voltage Supply (HVPS) cannot provide enough voltage to operate the Laser Tube Assembly (LTA).

- If the power supply has to be replaced, order part no 105K10481, this is a modified power supply with an inbuilt filter.
- See Fault Code actions for P06-250.

**P06-366** -5VDC RCM fault

**P06-367** Card Cage temperature fault. Check cooling fans and airflow

## Chain P07: Paper Supply

- P07-211**      **The Tray 1 Elevator failed to actuate the Stack Height Sensor, Q711, within nine seconds after the Elevator Up signal switched on, or that the Elevator indexed on more than two consecutive feeds.**
- *Ensure that the Passive Latches hold Tray 1 in position so that the Lock Assembly can engage as the Elevator drives up. Ensure that the Tray maintains the locked position during operation.*
  - *Replace the Latches and adjust the Lock Assembly as required.*
  - *Ensure that the Feed Head rotates freely at the pivot without harness interference or seized bearings.*
  - *Check Paper plate parallelism.*
- P07-212**      **The Tray 1 Elevator failed to actuate the Tray 1 Down/Low Paper Sensor, Q714, within nine seconds after the Elevator Down signal switched on, or that the Elevator indexed on more than two consecutive feeds.**
- *Initial Action see P07-211*
- P07-214**      **The Tray 1 Interlock Switch, S710, was opened during the print mode. Tray 1 must be selected for this fault to occur.**
- *Ensure there is paper in the Tray.*
  - *If entering this RAP from OF-2 Faults with the Operator message Tray 1 not at the Feed Position go to Flag 9. Check the Tray 1 Interlock Switch for an open or a short circuit.*
- P07-221**      **The Tray 2 Elevator failed to actuate the Stack Height Sensor, Q721, within nine seconds after the Elevator Up signal was switched on, or that the Elevator indexed on more than two consecutive feeds.**
- *Initial Actions see P07-211*
- P07-222**      **The Tray 2 Elevator failed to actuate the Tray 2 Down/Low Paper Sensor, Q724, within nine seconds after the Elevator Down signal was switched on, or that the Elevator indexed on more than two consecutive feeds.**
- *Initial Action see P07-211*
- P07-224**      **The Tray 2 Interlock Switch, S720, was opened during the print mode. Tray 2 must be selected for this fault to occur.**
- *Ensure that there is paper in the tray.*
  - *If entering this RAP from OF-2 Faults with the Operator message 'Tray 2 not at the Feed Position, go to Flag 9. Check the Tray 2 Interlock Switch for an open or a short circuit.*
- P07-231**      **The Tray 3 Elevator failed to move up to the feed position. The Elevator failed to actuate either the Stack Height Sensor, Q735, or the Low Paper Sensor, Q738, within 16 seconds after the Elevator Up signal was switched on, or the Elevator indexed on more than two consecutive feeds.**
- *Check the condition of the paper in the Trays.*
  - *Ensure the Width Guide is positioned against the paper stack.*
  - *Ensure that the Stack Height sensor is mounted properly. Check for bent or broken*

*actuator. If the*

*Stack Height sensor cannot be actuated by the paper stack, replace the Width Guide.*

- *Check for deformed switch actuators. Check in Printer DC105 that line frequency is correct.*

**P07-232**      **The Tray 3 Elevator failed to move up to the Position B Sensor, Q731, when the tray was pulled out of the machine. This fault occurs if the Position A Sensor, Q732, is actuated before the Position B Sensor or the Position B Sensor is not actuated 16 seconds after the Elevator Motor is energized.**

- *If problem persists wait 15 mins for machine to cool down Transparencies use Tray 1 or 2.*
- *Check SCP Faults, if there is P07-231 faults indicated, go to the P07-231 RAP*

**P07-234**      **The Position A Sensor, Q732, or the Tray 3 Down Sensor, Q737, were not actuated within 3.5 seconds after the Tray 3 Elevator Down signal was switched on.**

- *If problem persists wait 15 mins for machine to cool down Transparencies use Tray 1 or 2.*
- *This problem can be caused by using very dense paper, i.e. a ream of dense 100gsm paper could be half as thick as a ream of normal 80gsm. It may be that the paper is simply not suited for use in the 5090 Family IOT, advise the customer.*
- *Check dC105 and ensure machine line frequency is set correctly.*
- *Initial Action - See P07-231 RAP*

**P07-238**      **The Tray 3 Closed Switch, S730, Detected Tray 3 unlatched during print.**

## Chain P08 Paper Feed

**P08-104/5** Indicates that the lead edge of a sheet fed from an Interposer did not arrive at Registration transport sensor Q861 within allotted clock counts

**P08-111** The lead edge of the sheet of paper failed to move from the top of the stack in Tray 1 to the Stack Relief Sensor, Q812, within specified clockcounts after the Feed Clutch, CL811, was energized.

- Check SCP HFSI due for **P08-801C** and **P08-802R**
- Check the condition of the paper in the tray, Transparencies must be loaded with the white strip at the Lead Edge. Clear the Feed Head of obstructions
- If the Tray is stuck in the overtravel position hand crank the tray away from the Overtravel Switch or force the latch down with a screwdriver.
- If the Length Guide moves away from the paper stack when the Tray is closed, adjust the Length Guide Tension
- if using edge reinforced drilled stock ensure that the Tray Plate Assembly is properly positioned
- If Tray 1 is empty when the fault is declared, check the Down / Low Paper Sensor adjustment.)
- If Tray 1 opens during print, check the Auto Latch adjustment.
- Ensure that the operator is not closing the tray with excessive force.

**P08-112** The lead edge of the sheet of paper fed from Tray 1 did not arrive at the Tray 1 Takeaway Roll Sensor, Q811, within specified clockcounts after the Tray 1 Feed Clutch, CL811, was energized. When this fault is declared the Takeaway Roll Sensor is blocked.

- Check SCP HFSI due for **P08-801C** and **P08-802R**
- Check the condition of the paper in the tray, Transparencies must be loaded with the white strip at the Lead Edge. Clear the Feed Head of obstructions
- If the Tray is stuck in the overtravel position hand crank the tray away from the overtravel switch.
- If the Length Guide moves away from the paper stack when the Tray is closed, adjust the Length Guide Tension.
- If Tray 1 is empty when the fault is declared, check the Down / Low Paper Sensor adjustment.
- If Tray 1 opens during print, check the Auto Latch adjustment.
- Check the Feed Clutch Belt adjustment.

**P08-113** The trail edge of the sheet of paper fed from Tray 1 failed to leave the Tray 1 Takeaway Roll Sensor, Q811, within specified clockcounts from the time the lead edge of the sheet arrived at that sensor, or the lead edge of a transparency was late to the Vertical Transport Sensor, Q851.

- Check SCP HFSI due for **P08-801C** and **P08-802R**
- Check for possible multi feeds due to excessive tray vibration resulting from drive coupling misalignment.
- Check the Feed Clutch Belt adjustment.
- Ensure that the Urethane sleeve is still bonded to the Take-away Roll

**P08-115** The lead edge of the sheet of paper fed from Tray 1, failed to arrive at the Vertical Transport Sensor, Q851, within specified clockcounts from the time the lead edge of that sheet of paper arrived at the Takeaway Roll Sensor, Q811. When this fault occurs

**the Takeaway Roll Sensor is not blocked.**

- Check SCP HFSI for P08-801C, **P08-802R**, P08-808k
- Check the condition of the paper in Tray 1.
- Check the PHM Drive Belt tension.
- Ensure that the Vertical Transport magnetic strips are properly positioned. Clear all paper from the Transport.
- Ensure that the Urethane sleeve is still bonded to the Take-away Roll

**P08-121** The lead edge of the sheet of paper failed to move from the top of the stack in Tray 2 to the Stack Relief Sensor, Q822, within specified clockcounts after the Feed Clutch, CL821, was energized.

- Check SCP HFSI due for **P08-803C** and **P08-804k**
- Check the condition of the paper in the tray, Clear the Feed Head of obstructions. Transparencies must be loaded with the white strip at the load edge.
- If the Tray is stuck in the overtravel position hand crank the tray away from the Overtravel Switch.
- If the Length Guide moves away from the paper stack when the Tray is closed, adjust the Length Guide Tension.
- If using reinforced drilled stock, ensure that the Tray Plate Assembly is properly positioned.
- If Tray 2 is empty when the fault is declared, check the Down / Low Paper Sensor adjustment.
- If Tray 2 opens during print, check the Auto Latch adjustment.

**P08-122** The lead edge of the sheet of paper fed from Tray 2 did not arrive at the Tray 2 Takeaway Roll Sensor, Q821, within specified clockcounts after the Tray 2 Feed Clutch, CL821, energized. When this fault is declared the Takeaway Roll Sensor is blocked.

- Initial Action See **P08-121**
- Check the Feed Clutch belt adjustment.

**P08-123** The trail edge of the sheet of paper fed from Tray 2 failed to leave the Tray 2 Takeaway Roll Sensor, Q821, within specified clockcounts from the time the lead edge of that sheet arrived at the sensor, or the lead edge of a transparency was late to the Vertical Transport Sensor, Q851. When this fault is declared, the Takeaway Roll Sensor is blocked.

- Check Area 3
- Check SCP HFSI due for **P08-803C**, **P08-804R** and **P08-808R**
- Check for possible multi feeds due to excessive Tray vibration from the drive coupling misalignment. Adjust the Tray 2 Feeder Drives.
- Check the Feed Clutch Belt adjustment.
- Ensure that the Urethane sleeve is still bound to the Take-away Roll

**P08-125** The lead edge of the sheet of paper fed from Tray 2 did not arrive at the Vertical Transport Sensor, Q851, within specified clockcounts from the time the lead edge of that sheet of paper arrived at the Takeaway Roll Sensor, Q821.

- Check SCP HFSI due for **P08-808**
- Check the condition of the paper in Tray 2.
- Ensure that the Vertical Transport magnetic strips are properly positioned. Clear all paper from the Transport.
- Check the PHM Drive Belt tension.

**P08-131** The lead edge of the sheet of paper fed from Tray 3 did not arrive at the Tray 3 Feed Sensor, Q831, within specified clockcounts after the Tray 3 Feed Clutch was energized. When this fault is declared, the Feed Sensor is not blocked.

- *Check Area 1*
- *SCP HFSI due for P08-805C and P08-806k*
- *Check the condition of paper in the paper Trays. Ensure that the Length and Width Guides maintain position against the paper stack. Clear any obstructions from the feeder.*
- *Check the Tray 3 Feed Belt tracking. Ensure that Tray 3 Air Duct and Hose connections are secure.*
- *Check the date code on the Tray 3 Feed Clutch, CL831. Replace all Feed Clutches date coded 4/4/89 with a clutch with a different date code*
- *Ensure that the Tray latches and the Elevator moves up to the proper feed position.*
- *Ensure that dC131 PHN NVM locations 178=55 and 179=0*
- *If Tray 3 is empty when the fault is declared, check the Low Paper Sensor adjustment*
- *Check the Stack Height adjustment.*

**P08-132**      **The trail edge of the sheet of paper fed from Tray 3 failed to leave the Tray 3 Feed Sensor, Q831, within specified clockcounts from when the lead edge of that sheet actuated that sensor. When this fault is declared, the sensor is blocked.**

- *Check Area 1*
- *Check Tray 3 for: SCP HFSI due for P08-805, P08806, and P08-810*
- *Ensure that the Length and Width Guides maintain position against the paper Stack when the tray is closed.*
- *Ensure that the Paper Dampener is not binding.*
- *Ensure that the Retard Bracket does not contact the Feed Belts.*
- *Check that the feed belts are in the correct position and are not due for replacement.*
- *Check the double sided drive belt to make sure no teeth are missing.*
- *Check for broken Idler Roll Tabs at the Feeder*
- *Ensure that the paper supply meets the Processor Specification), for Paper Tray Capabilities*
- *Ensure that dC131 PHN NVM location 178 and 179 are in range, (see NVM table)*
- *Check line voltage tapping on autotransformer is correct as feed motor can overheat causing the thermal trip may beak intermittently if the wrong voltage is applied.*
- *This problem can occur with very dense papers, e.g. papers where a ream of 100gsm is only 25 mm thick instead of the normal 55 mm. There is no workaround and persistence will result in tray three overheating.*

**P08-133**      **The trail edge of the sheet of paper fed from Tray 3 failed to leave the Tray 3 Feed Sensor, Q831, within specified clockcounts from when the lead edge of that sheet actuated that sensor. When this fault is declared, the sensor is not blocked.**

- *Check Area 1, Initial Action see P08-132*

**P08-134**      **The lead edge of the sheet of paper fed from Tray 3 failed to arrive at the Tray 3 Transport Sensor, Q832, within specified clockcounts from when the lead edge arrived at the Tray 3 Feed Sensor, Q831. When this fault is declared, the Feed Sensor is blocked.**

- *Check Area 1.*
- *SCP HFSI due for P08-805, P08-806 and P08-810*
- *Clear the Transports of any obstructions.*
- *Ensure that Tray 3 is secure in the closed position.*
- *Check the Tray 3 closed switch does not bias the tray outwards.*
- *Check for interference between the AC Relay Chassis wire harness and the Elevator Safety Cover.*
- *Verify that dC131 PHN NVM location 178 is in the range 35 - 55 and that location 179=0 •*
- *Check the Tray 3 Latch Assembly adjustment*
- *Check the Stack Height adjustment.*

**P08-135**      **The lead edge of the sheet of paper fed from Tray 3 failed to arrive at the Tray 3**

Transport Sensor, Q832, within specified clockcounts from when the lead edge arrived at the Tray 3 Feed Sensor, Q831. When this fault is declared, the Feed Sensor is not blocked.

- *Check Areas 1,2 & 3.*
- *Initial Action See P08-134*

**P08-136** The trail edge of the sheet of paper fed from Tray 3 failed to leave the Tray 3 Transport Sensor, Q832, within specified clockcounts from when the lead edge arrived at that sensor.

- *Check Areas 1,2 & 3*
- *Initial Action See P08-134*

**P08-137** The trail edge of the sheet of paper fed from Tray 3 failed to leave the Tray 3 Transport Sensor, Q832, within specified clockcounts from when the lead edge arrived at that sensor.

- *Check Areas 2, 3 & 4*
- *Initial Action - see P08-134*

**P08-138** The lead edge of the sheet of paper fed from Tray 3 did not arrive at the Tray 3 Feed Sensor, Q831, within specified clockcounts after the Tray 3 Feed Clutch was energized. When this fault is declared, the Feed Sensor is blocked.

**P08-144** The lead edge of the sheet fed from the Duplex Inverter failed to arrive at the Vertical Transport Sensor, Q851, within specified clockcounts from when the lead edge of the sheet arrived at the Duplex Inverter Exit Sensor, Q841.

- *Check Area 3.*

**P08-145** The lead edge of the sheet failed to arrive at Duplex Inverter Exit Sensor Q842 within specified clockcounts after feed out clutch CL841 energized.

**P08-146** The trail edge of the sheet failed to exit the Duplex Inverter sensor Q842 within specified clockcounts after the lead edge arrived.

**P08-147** The lead edge of the sheet failed to arrive at the Duplex Inverter Exit Sensor Q842 within specified clockcounts after the feed out clutch CL841 energized.

**P08-149** The sheet failed to arrive at the vertical transport sensor Q851, specified clockcounts after arriving at the Duplex Inverter Exit Sensor Q842.

**P08-151** The trail edge of the sheet of paper did not leave the Vertical Transport Sensor, Q851, within specified clockcounts after the lead edge of that sheet arrived at that sensor.

- *Check Areas 3 & 4 Ensure Area 4 Baffle is closed.*
- *Ensure that the paper trays are properly loaded and that the paper is within the specification for the Paper tray capabilities.*
- *Clear any jammed paper or other obstruction from the paper path.*
- *Ensure that the Registration Xport Turn Baffle is mounted on the locating pin at the back of the Transport. Ensure that all Registration Xport Jam clearance Baffles are seated. Ensure that the idler rolls seat with the Drive rolls when the baffles are closed*

**P08-152** The lead edge of the sheet of paper delivered from the Vertical Transport did not arrive at the Registration Transport Sensor, Q861, within specified clockcounts after the lead

**edge of that sheet arrived at the Vertical Transport Sensor, Q851.**

- Check Area 2 & 4
- Ensure that the paper tray is properly loaded and that the paper is within the specification for the Paper tray capabilities.
- Clear any jammed paper or other obstructions from the paper path. Verify that the Cross Roll Idlers and Servo Roll Idlers rotate freely. Clean the Vertical Transport Belts and Magnetic Strips
- Ensure that the Vertical Transport Pinch Rolls are seated with the springs properly positioned.
- This has been seen to be caused by out of range NVM's, Perform dC101 [Save Setup Parameters] enter [dC131] and select [PHN], select Node initialization. If this has not resolved the problem, restore the dC101 values otherwise all paper feed setups will need to be performed.

**P08-153 The lead edge of the sheet of paper fed from Tray 3 did not arrive at the Registration Transport Sensor, Q861, within specified clockcounts after the lead edge of that sheet arrived at the Tray 3 Transport Sensor, Q832.**

- Check Areas 1,2 & 3
- Ensure that the paper in the Trays is properly loaded and within the Processor Specification for Paper Tray capabilities). Check for excessive curl (Copy Paper Diagnostics Service Call Procedures)
- Observe the outboard edge of paper passing through the Tray 3 Transport. If the Lead Edge catches on the Lower Turn Baffles causing damage or skew, install Tag F-61 Paper Edge Support Bracket.
- Ensure that TAG P-97 is installed. Bias the Right Adjustable Baffle) to the right to ensure sheets enter the CHM without LE problems. Check the FBM to CHM leveling. Go to the Finisher Section of the Install Manual for the procedure

**P08-154 The lead edge of a sheet of paper fed from Tray 3 did not arrive at the Registration Transport Sensor, Q861, within specified clockcounts after the lead edge of that sheet arrived at the Tray 3 Transport Sensor, Q832.**

- Check Areas 2,4 & 5

**P08-155 The trail edge of the sheet of paper did not leave the Registration Transport Sensor, Q861, within specified clockcounts after the lead edge of that sheet arrived at the sensor..**

- Check SCP HFSI for **P08-817**
- Ensure that the Servo Roll Idlers are seated with the springs in place: Verify that the Idlers rotate freely
- Ensure the Registration Transport Sensor connector is secure.
- Clean the Sensor being cautious not to crack the lens.
- Check for obstructions in the Pretransfer Baffle Area.
- This fault has been seen to be declared in conjunction with 10-102's, if this is the case suspect the photoreceptor drive coupling, don't forget to inspect the drive roll on the PR module as well.
- Check the Processor Registration. Ensure that there is no skew. Go to **P08-706 PHM Misregistration and Skew RAP** as required.

**P08-156 The sheet failed to arrive at the Registration Transport Sensor Q861, after the trail edge departed Vertical Transport Sensor Q851.**

**P08-170 The sheet failed to arrive at the Duplex Inverter position Sensor Q841, after leaving the**

**top transport Jam Sensor Q1012.**

- *Possible Decurler drive or slip clutches.*
- *This fault has been seen in conjunction with P10102 and P08-155, if this is the case got to the P08-155 code.*

**P08-171**      **The trail edge of the sheet failed to depart Duplex Inverter Position Sensor Q841 Forward - Invert Time (FIT) + 50 clockcounts after Feed Out Clutch CL842 energized. FIT equals sheet width (mm) the forward clearance time divided by 1095 mm/sec.**

**P08-172**      **Oversized sheet failed to arrive at Duplex Inverter Position Sensor Q841, 450 clockcounts after arriving at the top transport jam sensor Q1012. When the fault is declared, the jam sensor is not blocked.**

**P08-173**      **Oversized sheet failed to arrive at Duplex Inverter Position Sensor Q841, 450 clockcounts after arriving at the top transport jam sensor Q1012. When the fault is declared, the jam sensor is blocked.**

**P08-191/4**      **The Registration Transport Sensor, Q861, dynamic width measurement of a sheet of paper fed from Tray 1 is less than 55 servo clockcounts from the expected paper width.**

- *Ensure that dC131 NVM PHN location is 220=32 and 222=55*
- *Check the Vertical Transport Magnetic Strips position for damage.*
- *Clean the Servo Drive Rolls and Idlers. Clean the Registration Sensor and check for Lens damage. Ensure that all jam clearance baffles are seated.*

**P08-192/5**      **The Registration Transport Sensor, Q861, dynamic width measurement of a sheet of paper fed from Tray 2 is less than 55 servo clockcounts from the expected paper width.**

- *Check magnetic skis condition.*

**P08-193/6**      **The Registration Transport Sensor, Q861, dynamic width measurement of a sheet of paper fed from Tray 2 is less than 55 servo clockcounts from the expected paper width.**

- *Ensure that dC131 NVM PHN location is 220=32,221=64, 222=55 & 223=110*
- *Ensure that all the Transport baffles are seated. Verify that the Registration Transport Lower Right Baffle, at the FBN transition area is properly positioned with the Tabs engaged in the Lower Left Baffle.*
- *Clean the Registration Transport Sensor lens and check for damage. Clean the Servo Drive Rolls and Idlers. Ensure that all jam clearance baffles are seated*
- *Observe the out board edge of the paper passing through the Tray 3 Transport. If the Lead edge catches on the Lower Turn baffles causing skew or damage, install TAG F-61 Paper Edge Support Bracket.*
- *If the problem persists and is related to paper which the customer has to run, it can be overcome by setting PHN 176 to 32, this is a function of Features Bypass. Setting this NVM also overcomes the problem of running non standard (non A4) slip sheets with oversize paper.*

**P08-194**      **The Registration Transport Sensor, Q861, dynamic width measurement of a sheet of paper fed from Tray 1 is greater than 55 servo clockcounts from the expected paper width.**

- *Initial Actions see P08-191.*

**P08-195**      **The Registration Transport Sensor, Q861, dynamic width measurement of a sheet of paper fed from Tray 2 is greater than 55 servo clockcounts from the expected paper**

width.

- *Initial Actions see P08-192. Carry out for Tray 2*

**P08-196** The Registration Transport Sensor, Q861, dynamic width measurement of a sheet of paper fed from Tray 3 is greater than 55 servo clockcounts from the expected paper width. The expected paper widths are determined by the combined states of the tray sensors, Length Sensor A, Q741, Length Sensor B, Q733, and Tray Width Sensor, Q734.

- *Initial Actions see P08-193*

**P08-203** The lead edge of the sheet of paper arrived at the Registration Transport Sensor, Q861, greater than 100 clockcounts from when the Control Logic received the Registration Sync signal. The sheet is too late to be registered correctly. This fault is recorded in NVM only.

- *Check Areas 2, 4 & 5*
- *Check HFSI P08-808R, P08-517R and P08-818R*
- *Clear any jammed paper or other obstructions from the paper path. Verify that the Cross Roll Idlers and Servo Roll idlers rotate freely. Ensure that the Idler Rolls seat with the Drive rolls when the Baffles are closed. Clean the Registration Transport Sensor Q861*
- *Ensure that the Registration Transport Jam Clearance Baffles are seated properly, specifically the lower right Baffle at the FBM entrance. Check the FBM to CHM alignment in the Finisher Section of the Install Manual*

**P08-204** The lead edge of the sheet of paper arrived at the Registration Transport Sensor, Q861, more than 100 ms early in relation to the Registration Sync signal and the Registration Servo could not register the sheet correctly.

- *Check Areas 2 & 4*

**P08-210** Indicates that, during the print mode, the Tray 1 feed timing increased to more than 1601 clockcounts. Recorded in SCP only.

**P08-211** Indicates that, during print mode, the value for the Tray 1 feed timing decreased to less than 1321 clockcounts. Recorded in SCP only.

**P08-212** During the print mode, the Tray 2 feed timing increased to more than 1956 clockcounts. Recorded in SCP only.

**P08-213** During print mode the Tray 2 feed timing decreased to less than 1676 clockcounts. Recorded in SCP only.

**P08-214** Duplex Tray feed time value increased to more than 805 clockcounts. Recorded in SCP only.

**P08-215** Duplex Tray feed time value decreased to less than 525 clockcounts. Recorded in SCP only.

**P08-216** During print mode, the Tray 3 feed timing increased by more than 1601 clockcounts in Standard mode. Recorded in SCP only.

**P08-217** During print mode, the Tray 3 feed timing decreased by less than 1065 clockcounts in Standard mode. Recorded in SCP only.

**P08-218** During print mode, the Tray 3 feed timing increased by more than 896 clockcounts in

**Oversized mode. Recorded in SCP only.**

**P08-219** During print mode, the Tray 3 feed timing decreased by less than 616 clockcounts in Oversized mode. Recorded in SCP only.

**P08-225** No sheet was detected at the Cross Roll Sensor, Q871. Recorded in SCP only.

- *Ensure that the Paper trays are properly loaded and within the Specifications for Paper Tray Capabilities*

**P08-226** The control logic did not detect a change of state of the Transfer Assist Blade Sensor, Q907, 80 ms after the 11 Inch Transfer Blade Solenoid, SOL903, was energized or de-energized. This fault is recorded as a range fault only, and will not be recorded when running in service mode.

*NOTE: 1. On 50 Hz machines the 1 in. Transfer Blade Solenoid actuates a blade sized for A4 and A3 paper. The 14 in Transfer Blade Solenoid actuates a blade for 14 in. Paper.  
2. The 24 VDC to the Transfer Assist Solenoids is not interlocked without TAG P7 and interlocked with TAGP7*

- *If this fault is logged, the customer may also be experiencing deletions on the output prints. Check to verify whether this is the case.*

**P08-227** The control logic did not detect a change of state of the Transfer Assist Blade Sensor, Q907, 80 ms after the 14 Inch Transfer Blade Solenoid, SOL904, was energized or de-energized. This fault is recorded as a range fault only, and will not be recorded when running in service mode.

**P08-302** Registration Servo Controller failed to execute an initialize command.

- *Ensure that the Registration Servo Motor plugs P301 and P302 are connected.*
- NOTE:** *When making any measurement or running any dC Tests in the following procedure, clear the machine faults. Use Control Logic / Registration Servo fault*

**P08-310** The Control Logic is unable to communicate with the Registration Servo PWB.

- *Select [System Reset] as required.*

**P08-312** The Registration Servo PWB has failed the Turnaround Diagnostics Test (TAD). The PWB performs the TAD test each time dC703 is entered.

- *Perform the TAD test. Enter dC703. If there is no fault, the TAD test is passed. The PWB is OK. Exit this procedure*

**P08-901** The Registration Transport Sensor, Q861, dynamic width measurement of the first sheet fed from Tray 1 was greater than +/- 55 servo clockcounts from the expected paper width or a transparency was detected during a job originating with any other paper type. Expected paper widths are determined by the paper type selected and the combined states of the tray length sensors, Length Sensor A, Q712, and Length Sensor B, Q713.

- *If running paper backed transparencies select Paper Supply rather than Transparencies Initial Action ensure that dC131 PHN NVM location 220=32 and 222=55*

**P08-902** The Registration Transport Sensor, Q861, dynamic width measurement of the first sheet fed from Tray 2 was greater than +/- 55 servo clockcounts from the expected paper

width or a transparency was detected during a job originating with any other paper type. Expected paper widths are determined by the paper type selected and the combined states of the tray length sensors, Length Sensor A, Q722, and Length Sensor B, Q723.

- *If running paper backed transparencies select Paper Supply rather than Transparencies. Initial Action ensure that dC131 PHN NVM location 220=32 and 222 = 55*

**P08-903**

The Registration Transport Sensor, Q861, dynamic width measurement of the first sheet fed from Tray 3 was greater than +/- 55 servo clockcounts from the expected paper width or a transparency was detected during a job originating with any other paper type. Expected paper widths are determined by the paper type selected and the combined states of Tray 3 Length Sensor A, Q741, Tray 3 Length Sensor B, Q733, and Tray 3 Width Sensor, Q734..

- *If running paper backed transparencies select Paper Supply rather than Transparencies*
- *Initial Action: ensure that dC131 PHN NVM is set as follows.*

Address	Data
220	32
221	64
222	55
223	110

## Chain P09: Xerographics

**P09-101**      **The lead edge of the copy arrived at the Paper On Photoreceptor (POP) Sensor in the standard mode (A4).**

- *Touch RESET on the User Interface.*
- *Check Area 5*
- *If a **P09-201** (HVAC Arc Detected), **P09-327** (Detack current out of range), **P09-328** (Preclean current out of range) or **P09-329**(AC Voltage out of range) is displayed, troubleshoot that fault code first.*
- *If the Photoreceptor Drawer has just been installed, ensure that the Guide on the Pretransfer Baffle, the Prefuser Transport and the Photoreceptor Stripper Fingers are all in the correct position.*
- *If this fault occurs and there is no paper present, the gray wire to MT13 for the belt hole sensor can rub against the cleaner zone roll. Check the condition of the wire and repair if necessary*

**P09-102**      **The lead edge of the copy arrived at the Paper On Photoreceptor (POP) Sensor in the oversize mode (17”).**

- *Touch RESET on the User Interface.*
- *Check Area 5*
- *Initial Actions - See **P09-101***

**P09-201**      **The Arc Detection Simulation did not function properly, that the Arc Detection Circuitry is not functioning properly, or the Arc Detection Circuitry detected a High Voltage Arc.**

- Check the metering roll ground wire for continuity.
- Check [dC131][MIN] location 210 is not set to 220, this should be at 112 (for 2 Charge dicorotron systems) and 84 for 3 charge dicorotron systems . This can occur as a result of noise.
- Check the P/R Ground Brush for loose and/or frayed fibers. Pinch the fibers with thumb and finger pulling on the fibers. If fibers dislodge vacuum the area. Replace the P/R Ground Brush and/or the Dicorotrons if needed.
- Check the Cleaner Brush for loose and/or frayed fibers. This part should be thoroughly vacuumed prior to fitment in the machine. Inspect all of the dicorotrons for any loose fibers.
- Remove the transfer assist blade and clean it making sure there are no fibers present, while the blade is out, inspect the transfer assist assembly for any signs of arcing, the most common area is about 270 mm from the outboard edge, the assembly will be pitted where the dicorotron has arced through one of the gaps in the transfer assist blade. This can either be insulated with tape or the complete assembly replaced.
- Ensure that gray 125K02420 dicorotrons are both installed in the Preclean and Charge positions and that the yellow 125K2400's are installed in the transfer and detack locations.  
**NOTE:** Arcing, Yellow, brown and / or gray residue on wires and / or near wires. Cracks or nicks in wires is an indication of arcing spots.
- Ensure ACV is not at 245 or below 220, (MIN loc. 146) this is a common reason for intermittent P09201s.
- For hard on fault that does not seem to be a dicorotron try removing the OZAC connector plug from the HVAC o/p module, (check for signs of arcing on the connector) and run dC910 stress test.
- If the fault is still present, suspect the HVAC module or HVAC PWB and if not suspect the OZAC hose and / or connectors.
- Check condition of dicorotron shields at inboard end for poor connection with OZAC connectors.

- Check for curl on the Photoreceptor, excessive curl can cause the Photoreceptor to intermittently touch the underside of the cleaner housing and give P09201
- The LVPS control board can cause 09-201's, check that 3.5 VAC is measured at Pin 3 w.r.t. Pin 8 of P293 on the HVDC PWB, if not replace the control PWB in the LVPS.

**P09-202 The AC coronode voltage setpoint is at or outside of the preset limits (ACV high and ACV low in NVM). The fault is logged for future service, but the machine is not shut down.**

*The software requirements for logging the P09-202 Fault will not be changed even though the efficiency of the system has changed. Enter and run dC951 (initialize).*

- *If the AC slope without Tag P-199 is 92– 3 then leave this RAP and ignore the logged fault even if the AC Setpoint is out of range.*
- *If the AC slope with Tag P199 is 100 + 3 then leave this RAP and ignore the logged fault even if the ACV Setpoint is out of range. IF the above conditions are not met continue with this RAP*
- *If P09-329 AC Voltage Out of Range is displayed go to P09-329 RAP.*
- *Ensure that the Cleaner Zone Roll is in the operating position.*
- *Check Charge Dicorotron Height (Adj 9.2 – 6180, Adj 9.4 – 6100 & 35.*
- *Enter dC131[MIN], ensure that address 353 is 75 and address 354 is 3, and address 223 is 73.*
- *Inspect for opens. and loose connections, contamination, arcing and discoloration of the following: Dicorotrons and connectors, OZAC System and connectors, HVDC Cables*

**P09-203 Indicates Dark Decay value exceeds NVM Dark Decay Breakpoint of 700 Volts and initial charge (Vo) is at its maximum value of 1500 volts**

**P09-203 / P09-213 / P09-507**

**Generic Problem Solver.**

*Photoreceptor Problem.*

- *If the photoreceptor has failed before 750k prints for one of these fault codes then the Xerographics will need to be checked out for correct operation.*
- *Ensure that the Patch Generator is positioned correctly on the mounting pin and that the ESV is not skewed.*
- *Ensure the ESV is 1.8 mm above the photoreceptor.*
- *Check the HFSI for the Dicorotrons and Shields, Ensure that the covers and inner panels are on. Enter dC314. Ensure that the correct Power Supply Calibration Values are entered for both the AC and DC PWBs.*
- *Check that the charge dicorotrons height is correct.*
- *Check that the preclean dicorotron is 4 mm above the photoreceptor.*
- *Perform the DSS saturation and run a [dC951] [Xero] setup.*

**P09-211 The Patch Generator cannot generate the current required in order to produce the correct light output.**

**P09-212 The reflectance from a clean patch is 75% or less, or 10% or more, than a normal clean patch as measured by the DSS.**

- *Check the metering roll ground wire for continuity.*
- *Pull out the Xerographic Drawer and clean the DSS*
- *Check that the Photoreceptor Belt over the DSS is clean.*
- *Check the Photoreceptor Ground Brush for contamination and/or deformation*
- *Read the DMM Pulse Detection Setup (at the end of the RAP) before using the Pulse detection for troubleshooting*
- *For multiple DSS failures, go to the end of the RAP (multiple DSS Failures*

**P09-213**      **The following fault descriptions 1-6 correlate with the NVM Data found in dC131 [MIN] address 443 and 444. The data in 443 reflects the current cause of the displayed fault and the data in address 444 reflects the previous cause of the displayed fault.**

1. The Dark Decay Intercept is less than 0 or greater than 35.
  2. The Dark Decay Low is greater than the Dark Decay High and their difference is greater than 10.
  3. The ESV Monitor is less than 0.8 or greater than 1.4 Volts (less than 22 or greater than 35 on the Initialization Screen).
  4. The ESV Offset is greater than – 5 bits.
  5. The ESV reading is less than 61 volts, and the ESV error is greater than 121 volts on two consecutive patches.
  6. The ESV reading is more than 300 Volts above the CHG. 2 shield bias on two consecutive patches.
- If the precharge erase and multipurpose lamps are not on in print, an overcharging condition can exist. Prior to performing dC951 Xero, check and clean the precharge erase and multipurpose lamps and housings. Discard the lamps if any bulbs are burned out. In the patch area verify the lamps operate correctly in print(not just w/the test button). Check for loose ribbon cable in the p/r module. Install tag P205, vibration protection for erase lamps kit, 605K3820.
  - Initial Actions see the 09-203 / 09-213 / 09-507 Generic Problem Solver above.

**P09-215**      **Indicates that two consecutive DSS patch readings are above the dead cycle set point of the Toner Dispense Motor. The machine dead cycles with the Toner Dispense Motor switched on at 100% duty cycle. If, after 150 pitches, the DSS reading still exceeds the full dispense set point, a fault is declared.**

- *Check the last 50 Fault Screen to determine if P09201,P09-203, P09-213, P09-215 or other P09-300 series faults have been occurring. If 03 faults are occurring at the same time copy count as the 09 faults, go to the NRD3 Electrical Noise Entry RAP (Service Call Procedures) if this RAP does not fix the problem. Make several prints of the resident Xerographic Test Pattern. If the Prints are severely overtoned, go to the overtoned section at the end of this RAP. Check the following*
- *Developer Seal and Dump Door for excessive Developer leakage.*
- *Paddle Wheel for adding metal chips to developer.*
- *Developer drive Coupling for wear.*
- *Ensure that the photoreceptor is seated properly.*
- *Enter dC[Special Access][131][MIN]. Ensure that the Data in address 124 is 255.*

**P09-219**      **The Reclaim Auger Faults are enabled in NVM. There are no Reclaim Augers in the 135 IOT.**

- *Ensure that on 50 Hz machines the NVM address is set as follows: 178=16*

**P09-220**      **The Belt Hole Sensor did not see the belt hole within 3240 ms since the last belt hole was detected.**

- *If the Photoreceptor and/or the Machine Clock Sensor, have just been replaced, press [System Reset] and run again*
- *Ensure that the Photoreceptor Module is securely seated in the Xerographic Drawer and the Drawer is securely seated in the Machine.*
- *Check that the photoreceptor drive coupling and photoreceptor drive roll on the Photoreceptor module are in good condition, if there are any problems, both of these components should be replaced.*
- *Ensure that the Belt Hole Sensor Q901, and the Belt Hole LED, CR901, are connected.*
- *Bypass processor interlocks.*

- P09-221**      **The proper volume of air flow is not detected at the Ozone Blower Flow Switch.**
- P09-222**      **The Belt Hole Sensor detected the belt hole in less than 2840 ms since the last belt hole was detected.**
- *Initial Action - See P09-220*
- P09-320**      **The DEV Rolls 1 and 2 Bias Monitor Voltage is either less than 50% for two consecutive samples, or less than 75% for five consecutive samples, of the DEV Rolls 1 and 2 Bias Control Voltage.**
- *If this RAP does not fix the problem, go to the last, 50 Fault Screen. If several different Chain 9 faults are occurring, go to the NRD9 Xero faults RAP (Non-Repeatable Diagnostics, Service Call procedures). If 03 faults are occurring at the same copy count as the 09 faults, go to the NRD3 Electrical Noise Entry Rap (Non-Repeatable Diagnostics, Service Call Procedures). **Note:** Except for broken or missing Contact Points in the Developer Housing, replacing the Developer Housing will NOT solve 9 - 320 problem.*
  - *Ensure the developer drive coupling is not decking to the machine frame.*
  - *Constant 09-320 faults, Rap directs CSE to the 09328 rap. Drop out is to replace the HVAC output module. After doing so the problem is not resolved. The +34 volts, -34 volts, or the 24 KHz signal is missing to the HVAC PWB. These inputs are necessary to produce the 14-26 V ac drive which powers the HVAC Output module. The rap does not verify these inputs. Verify that +34 volts, -34 volts, and the 24 KHz signal are available at the HVAC PWB.*
- P09-321**      **The DEV Roll 3 Bias Monitor is either less than 50% for two consecutive samples, or less than 75% for five consecutive samples, of the DEV Roll 3 Bias Control.**
- *If this RAP does not fix the problem, go to the last 50 Fault Screen. If several different Chain 9 faults are occurring, go to the NRD9 Xero Faults RAP (Non-Repeatable Diagnostics, Service Call procedures). If 03 faults are occurring at the same copy count as the 09 faults, go to the NRD3 Electrical Noise Entry Rap (Non Repeatable Diagnostics, Service Call Procedures)*
- P09-322**      **The Cleaner Brush Bias Monitor is either less than 50% for two consecutive samples, or less than 75% for five consecutive samples, of the Cleaner Brush Bias Control.**
- *See P09-321*
- P09-323**      **The UDTR Bias Monitor is either less than 50% for two consecutive samples, or less than 75% for five consecutive samples, of the UDTR Bias Control.**
- *Remove the cleaner brush and inspect the Teflon coating on the upper roll, any damage to the Teflon rolls will result in 09-323.*
  - *See P09-321*
- P09-324**      **The LDTR Bias Monitor is either less than 50% for two consecutive samples, or less than 75% for five consecutive samples, of the LDTR Bias Control.**
- *Remove the cleaner brush and inspect the Teflon coating on the lower roll, any damage to the Teflon rolls will result in 09-324*
  - *See P09-321*
- P09-325**      **The Charge 2 SV Monitor is either less than 50% for two consecutive samples, or less than 75% for five consecutive samples, of the Charge 2 SV Control.**

- *If the Fault Code alternate between any combination of the following **P09-325,P09-326,P09-327,P09-328** and/or **P09-329** go to **P09-328** RAP first*
- *If this RAP does not fix the problem, go to the last 50 Fault Screen. If several different Chain 9 faults are occurring, go to the NRD9 Xero Faults RAP (Non-Repeatable Diagnostics, Service Call procedures). If 03 faults are occurring at the same copy count as the 09 faults, go to the NRD3 Electrical Noise Entry Rap (Non Repeatable Diagnostics, Service Call Procedures).*
- *Inspect for opens, loose connections, contamination, Arcing and discoloration of the following:*
  - *Dicorotrons and connectors.*
  - *OZAC Systems and connections*
  - *HVDC Cables*

**P09-326**      **The Transfer SI Monitor is either less than 50% for two consecutive samples, or less than 75% for five consecutive samples, of the Transfer SI Control.**

- *Initial Actions See **P09-325***
- *Enter dc[Special Access][ 131] [MIN]. Ensure that the value in address 210 is 84 (6100/6135), & for 6180: 210 = 112*

**P09-327**      **The Detack SI Monitor is either less than 50% for two consecutive samples, or less than 75% for five consecutive samples, of the Detack SI Control.**

- *Initial Actions See **P09-325***

**P09-328**      **The Preclean SI Monitor is either less than 50% for two consecutive samples, or less than 75% for five consecutive samples, of the Preclean SI Control.**

- *If directed here because the Fault Codes alternate between any combination of the following **P09-325,P09-326,P09-327,P09-328** and/or **P09-329**, solve the problem at this RAP.*
- *Check the last 50 fault Screens to determine if **P09-201, P09-203, 09-213, P09-215, or other P09-300** series faults have been occurring. If 03 faults are occurring at the same copy count as the 09 faults go to the NRD 3 Electrical Noise Entry RAP (Service CallProcedures) if this RAP does not fix the problem.*
- *Inspect for open circuits, loose connections, contamination, arcing, and discoloration of the following.*
  - Dicorotrons and connectors*
  - OZAC System and connectors)*
  - HVDC Cables).*
  - Reseat the HVDC PWB and the HVAC PWB*

**P09-329**      **The Coronode ACV Monitor is either less than 50% for two consecutive samples, or less than 75% for five consecutive samples, of the Coronode ACV Control.**

- *Initial Action See **P09-328***

**P09-330**      **The Charge 2 SI Monitor is either less than 50% for two consecutive samples, or less than 75% for five consecutive samples, of the Charge 2 SI Control. The fault is not declared unless the Charge 2 SI control is greater than 0.4 VDC.**

- *If this RAP does not fix the problem, go to the last 50 Fault Screen. If several different Chain 9 faults are occurring, go to the NRD9 Xero Faults RAP (Non-Repeatable Diagnostics, Service Call procedures). If 03 faults are occurring at the same copy count as the 09 faults, go to the NRD3 Electrical Noise Entry Rap (Non-Repeatable Diagnostics,*

*Service Call Procedures)*

- *Inspect for open circuits, loose connections, contamination, arcing, and discoloration of the following*
  - Dicorotrons and connectors
  - OZAC System and connectors
  - HVDC Cables Perform the following:
    - Charge Dicorotron Height Adjustment
    - Charge Dicorotron Balance Adjustment)

**P09-331**      **The Charge 0 SV Monitor is either less than 50% for two consecutive samples, or less than 75% for five consecutive samples, of the Charge 0 SV Control.**

- *If this RAP does not fix the problem, go to the last 50 Fault Screen. If several different Chain 9 faults are occurring, go to the NRD9 Xero Faults RAP (Non-*
- *Repeatable Diagnostics, Service Call procedures). If 03 faults are occurring at the same copy count as the 09 faults, go to the NRD3 Electrical Noise Entry Rap (Non-Repeatable Diagnostics, Service Call Procedures).*
- *Inspect for open circuits, loose connections, contamination, arcing, and discoloration of the following*
  - Dicorotrons and connectors
  - OZAC System and connectors)
  - HVDC Cables.*Perform the following:*
  - Charge Dicorotron Height Adjustment.
  - Charge Dicorotron Balance Adjustment.

**P09-332**      **Indicates a failure to complete the cycle in convergence.**

- *Check the following: Cleaner Zone Roll is engaged Photoreceptor Ground Strip for damage. Ground brush for contamination and or deformation.*
- *Perform the Charge dicorotron Height and Balance Adjustment.*

**P09-353**      **The control logic sensed a failure to converge contrast potentials dC951 [Xero].**

- *Switch off the Printer power, then switch on printer power, Run dC106. If P09-353 faults do not occur again, continue with the service call.*
- *Ensure the cleaner roll is engaged.*
- *Check / Perform the ROS Patch Exposure adjustment.*

**P09-354**      **The control logic sensed a failure to set toner concentration condition. This is only declared during dC951 [Xero] setup.**

- *Enter dC330 [9], select [Discharge Lamps] to check if the Precharge Erase Lamp and the Pretransfer Erase lamp can be lit. If not, go to the 09-624 RAP.*
- *Ensure that the Photoreceptor area is clean.*
- *All the covers and inner panels are in place.*
- *Ensure that the Developer Bias wires are connected*

**P09-355**      **The control logic sensed a failure to set the patch generator during dC951 [Xero] setup.**

- *The Cleaner Zone Roll is engaged.*
- *Enter dC330 [9], select [Discharge Lamps] to check if the Precharge Erase Lamp and the Pretransfer Erase lamp can be lit. If not, go to the 09-624 RAP.*

**P09-356**      **Indicates a failure to converge charge in TC setup dC951 [Xero].**

- *Check the following:*
  - Cleaner Zone Roll is engaged.
  - Photoreceptor Ground Strip for damage
  - Ground Brush for contamination and / or deformation.
- *Failure to converge charge in TC setup dC951 Xero. Problem due to a leaking HVDC PWB. Perform the following;*
  - Connect a jumper from P-293/4 [brown plug at top of HVDC PWB] to TP4 of the HVDC PWB.
  - Enter dC140, do not press start print, all dicorotron shield monitors should be less than 1.5 volts if any shield voltage monitor is greater than 1.5 volts replace the HVDC PWB. Check for a secondary fault code of 09-213 after power on.

**P09-358** Indicates a failure to respond in TC setup dC951 [Xero].

**P09-359** Indicates a failure to converge charge in the Patch Gen setup in dC951 [Xero].

- See P09-332.

**P09-360** ROS Patch Exposure adjustment failed to converge during dC951.

*Warning: Avoid direct exposure to the beam, Laser Radiation is present.*

- *Cover the photoreceptor, under the ROS assembly, outboard to inboard with white paper. Bypass the processor interlock. Enter dC330 [6] and select [Laser Write]. Press the start button. Observe the scanline on the paper. There should be a full scanline across the paper from inboard to outboard of equal brilliance.*

**P09-361** The ROS Patch Exposure Adjustment was out of range during dC951.

- See P09-360

**P09-502** The low toner sensor Q903, sensed no toner.

**P09-503** The Waste Bottle Full Sensor Q906 sensed that the Waste Bottle was full.

**P09-504** The Printer is adjusting it's print quality. This message may be a result of a variety of problems within the xerographic subsystem.

**P09-505** The low toner sensor Q903, sensed low toner.

**P09-506** The Waste Bottle Full Sensor Q906 sensed that the Waste Bottle was almost full.

**P09-507** The photoreceptor is almost at, or has reached, end of life.

- *Initial Actions, go to 09-203 fault code.*

**P09-508** The Cleaner has gone into a dead cycle routine. This message may be a result of a variety of problems within the xerographic subsystem.

## Chain P10: Print Transportation And Fusing

**P10-101** Indicates that a copy did not actuate the Prefuser Jam Sensor, Q1009, within specified clock counts after it arrived at the Registration Sensor.

- *Ensure that the Prefuser Sensor and Reflectors are not obstructed and that the Prefuser Jam Sensor and Reflector are clean and in proper position.*
- *Ensure that the Prefuser Transport is in the normal operating position, on the newer machines with tag P259, the position of the prefuser transport is adjustable via the bracket on the stripper bar.*
- *A P10-101 occurring at print cycle-up may be caused by a dirty or defective Registration Transport (Q861) Sensor*
- *Ensure that the paper path is free from obstructions*
- *If the fault occurs only when using 176 gsm or heavier paper ensure that the machine has the new Prefuser Transport. The New Prefuser transport has three vacuum holes per vertical channel 9/89 parts list. The old transport has only two holes.*

**P10-102** Indicates that a copy did not reach the Fuser Jam Sensor, Q1010, within specified clock counts after it arrived at the Prefuser Jam Sensor, Q1009, and that the Prefuser Jam Sensor, Q1009, is still blocked after the machine cycle-down.

- *Check SCP HFSI due for P10-800 and perform as necessary.*
- *Ensure that the Prefuser Jam Sensor and Reflector are not obstructed and that the Prefuser Jam Sensor and Reflector are clean and in proper position.*
- *Ensure that the Prefuser Transport is in the normal operating position*
- *Check that the Release Agent level, fill the reservoir if necessary. If the reservoir is empty and the machine has not detected this condition go to the P10-705 Low Release Agent Level RAP*
- *A P10-102 occurring at print cycle-up may be due to a dirty or defective Prefuser (Q 1009)*
- *Ensure that dC131 PHN NVM location 180 is 44 and location 182 is 145*
- *Ensure the copy Paper is loaded correctly and that the paper curl is not excessive. (Refer to Operator Manual)*
- *Image that extends all the way to the edge of the copies may cause an increased frequency of jams. Avoid dense images at the lead trail edges of the copy. Notify the operator of jam bypass operation (Lead edge density suppression) as described in the Operator Manual Options Section and ensure that it works correctly.*
- *If the problem occurs only with high humidity or just after machine power-up, check for condensed water vapor on the Decurler or the Top Transport and check the Fuser Vacuum Manifold for proper operation*
- *Ensure that the in-line Fuser Agent Filter is installed and not clogged.*
- *If the P10-102 faults are being caused by multi feeds go to the appropriate RAP through level one and repair the multi feed problem. Return to this RAP (through level one) if P10-102 faults are still occurring.*
- *Check that the metering roll bearings have not seized and ground down into the drip pan starving the heat roll of oil.*
- *On processors without Tag p195, check the airline to the fuser sensor, this can unplug itself and cause P10-102's.*
- *With the processor running, check that the compressor air pressure is between 20 - 25 lbs and adjust if required.*
- *Check the fuser roll bearings are mounted properly on the heat roll, if the bearings can move inboard or outboard from their position, replace the heat roll.*
- *Check the fuser roll ends have not started to shear away from the main body of the roller.*

- Check the MIN compressor is not clogged (53K01910), replace if required.
- Check that there are no teeth missing at the rear of the fuser, this can cause intermittent P10-102's.
- Check Fuser drive assembly is engaging correctly and that the key is not damaged.
- Check the machine clock sensor is securely mounted on the photoreceptor drive roll.
- P10-102's in conjunction with 08-155s have been seen to be caused by a skipping photoreceptor drive coupling, Inspect the drive coupling and also the photoreceptor drive roll, symptoms will include misregistered copies jammed in the fuser with the image misplaced by at least 20 mm

**P10-104** Indicates that a copy did not actuate the Decurler Jam Sensor, Q1011, within specified clock counts after it arrived at the Fuser Jam Sensor, Q1010.

- Check SCP HFSI due for **P10-800** and perform as necessary.
- Ensure that the Decurler Jam Sensor is not obstructed and that the Decurler Jam Sensor Actuator is not damaged.
- Check that the actuator snaps back from the actuated position, if there are signs of sluggishness, then the switch should be replaced.
- Ensure that the Decurler Paper path is free from obstruction. Look carefully for small pieces of torn paper or transparencies that could block the paper path.
- Ensure that the Decurler Jam Clearance baffle is positioned correctly.
- If the problem occurs only with high humidity or just after machine power up, check for condensation on the Decurler or Top Transport. Check the Fuser End Cooling Shoe for proper installation.
- A **P10-104** occurring at initial machine Start-up may be due to a dirty or defective Fuser Jam (Q1010) Sensor
- Ensure the copy Paper is loaded correctly and that the paper curl is not excessive. (Refer to Operator Manual)
- Image that extends all the way to the edge of the copies may cause an increased frequency of 4 jams. Avoid dense images at the lead / trail edges of the copy. Notify the operator of jam bypass operation (Lead edge density suppression) as described in the Operator Manual Options Section and ensure that it works correctly.
- If Release Agent is not being dispensed go to the **1708 RELEASE AGENT DISPENSE RAP**

*If the Decurler Jam Sensor has a flexible metal actuator, replace it with the new style sensor which has a plastic actuator (there is also a rigid aluminum actuator available that is acceptable).*

**P10-105** The trail edge of the copy did not leave the Decurler Jam Sensor, Q1011, within specified clock counts after actuating the sensor, (L.E. to T.E.) and that the sensor is still actuated after the machine cycle-down.

- Ensure that the Paper Path and Decurler Jam Sensor are not obstructed and that the Decurler Jam Sensor Actuator is not damaged.
- Ensure that the Top Transport Baffles are attached to the Top Cover and are seated properly.
- If the Decurler Jam Sensor has a flexible metal actuator, replace it with the new one which has a plastic actuator (there is also a rigid aluminum actuator available that is acceptable).

**P10-106** The trail edge of the copy did not leave the Decurler Jam Sensor, Q1011, within specified clock counts after actuating the sensor (L.E. to T.E.), and that the sensor is not actuated after the machine cycle-down.

- If the Decurler Jam Sensor has a metal actuator, replace it with the new one which has a plastic actuator (there is also a rigid aluminum actuator available that is acceptable).
- Ensure that the Decurler Jam Clearance baffle is properly seated and that the Jam Clearance Baffle handle is not bent.
- Ensure that the Decurler Jam Sensor is not obstructed and that the Decurler Jam Sensor

*Actuator is not damaged.*

- P10-107** Indicates that a copy did not actuate the Top Transport Jam Sensor, Q1012, within specified clock counts after it arrived at the Decurler Jam Sensor, Q1011. (L.E. Q1011 to L.E. Q1012).
- *Ensure that the Decurler Jam Sensor, Top Transport Jam Sensor and Top Transport paper path is free from obstruction and that the Decurler Jam Sensor Actuator is not damaged.*
  - *Ensure that the Top Transport Baffles are seated properly*
  - *If the Decurler Jam Sensor has a flexible metal actuator, replace it with the new one which has a plastic actuator (there is also a rigid aluminum actuator available that is acceptable).*
  - *Ensure that the top Transport Jam Sensor is not damaged or binding.*
  - *Ensure that the Top Transport Idler Rolls and springs are seated properly and that the rolls turn freely*
  - *If the Decurler Jam Sensor has a metallic actuator, replace it with the new one which has' a plastic one.*
  - *Ensure that the paper is loaded correctly, and the curl is not excessive, (refer to the Decurler Section in the Operators Manual)*
  - *Check the one way clutch in the top transport for correct operation, this can slip causing intermittent jams.*
- P10-108** The trail edge of a copy going to the Duplex Tray, did not leave the Top Transport Jam Sensor, Q1012, within specified clock counts after the copy lead edge actuated the sensor, and that the Top Transport Jam Sensor, Q1012, is still actuated after the machine cycle-down. (L.E. to T.E. Q1012).
- *Ensure that the Top Transport Jam Sensor Actuator is not damaged or binding.*
  - *Ensure that the Top Transport Baffles are attached to the Top Cover and are seated properly*
- P10-109** The trail edge of a copy going to the Duplex Tray, did not leave the Top Transport Jam Sensor, Q1012, within specified clock counts after the copy lead edge actuated the sensor, and that the Top Transport Jam Sensor, Q1012, is not actuated after the machine cycle-down. L.E. to T.E. Q1012
- *Initial Action See P10-108*
- P10-110** The trail edge of a copy going to the Finisher, did not leave the Top Transport Jam Sensor, Q1012, within specified clock counts after the copy lead edge actuated the sensor.
- *Ensure that the Top Transport Jam sensor and Turn Roll area of the paper path are not obstructed.*
  - *Ensure that the Top Transport Jam Sensor Actuator is not damaged or binding.*
  - *Ensure that the Top Transport Baffles are attached to the Top Cover and are seated properly*
- P10-111** The trail edge of the copy (A3 Mode) did not leave the Decurler Jam Sensor, Q1011, within specified clock counts after actuating the sensor.
- *Ensure that the Top Transport Baffles are attached to the Top Cover and are seated properly Ensure that the Decurler Jam Sensor Actuator is not damaged and moves freely.*
  - *If the decurler jam Sensor has a metallic actuator, replace it with a new sensor with a plastic sensor.*
  - *Ensure that the Paper Path is not obstructed.*
- P10-112** Indicates that a copy did not actuate the Prefuser Jam Sensor, Q1009, within 1570 clock counts after it arrived at the Registration Sensor, in 3 pitch mode.

- *Ensure that the Prefuser Jam Sensor and Reflector are not obstructed and are clean and in the correct position.*
- *Ensure that the Prefuser Transport is in the normal operating position.*
- *A P10-112 occurring at print cycle-up may be due to a dirty or defective Registration Transport (Q861) sensor*
- *Ensure that the Paper Path is not obstructed*

**P10-201**      **The Fuser did not reach the operating temperature within seven minutes of startup, or that no change (decrease) in the Fuser Thermistor resistance has been detected for 3 minutes, or no change (decrease) in Fuser Thermistor resistance was detected within 5 minutes after clearing Fault Code, P10-204.**

- *Inspect the Fuser Roll Thermistor for debris or damage and ensure that it is making proper contact to the Fuser Roll.*
- *If a P10-201 is declared during the print cycle and the system can recover, usually within 30 minutes, ensure that the Fuser Roll Thermostat is adjusted correctly.*
- *Ensure that the plastic bag that the Odor Filter 053E00590, was packed in has been removed*

**P10-202**      **The Fuser has reached a temperature of 435 °F (over-temp).**

- *Ensure that the machine is not in Power Interrupt mode.*
- *Ensure that the Fuser relay K102, is a Gordos Relay*
- *This has been seen to be caused by a wiring problem in the area of the MIN compressor.*

**P10-203**      **The voltage to the Fuser is less than 170 VAC. Power Interrupt may occur, disabling the +24VDC section of the LVPS.**

*Check the three phase power supply the machine is connected to, make sure that the neutral is connected.*

**P10-204**      **The Fuser temperature is 35 degrees below operating temperature after the Fuser had reached operating temperature.**

- *Check the last 50 Fault Code Listing. If a P10-210 is present at the same copy count as the P10-204 go to the P10-210 RAP*
- *The most common cause of intermittent P10-201 faults are mis-adjusted Fuser Roll and Metering Roll Thermostats*
- *Ensure that the plastic bag that the Odor Filter 053E00590, was packed in has been removed* **6180: Check Fuser Rod wiring is correct with BSDs**

**P10-205**      **The voltage to the fuser is greater than 265VAC**

- *Inspect Fuser System for overheat damage.*
- *Troubleshoot this problem by using peak hold on the multimeter and pressing Power Off and then Power On for each step of P10-205 RAP*

**P10-206**      **The Fuser temperature transiently dropped 35 degrees below operating temperature after the Fuser reached operating temperature. This is not a declared fault but is logged in NVM.**

- *Check the Fuser Roll Thermistor for debris or damage*

**P10-210**      **The Metering Roll did not reach a temperature of 250 °F within 7 minutes of startup or that the Metering Roll temperature is below 250 °F in Print (Under-Temperature).**

- *Ensure the metering roll is connected, this can be disconnected during service activity in the fuser area.*

**P10-211**      **The Metering Roll has exceeded a temperature of 380 °F (over-temperature).**

**P10-212**      **The Cam-In Sensor, Q1002, was unblocked during Print.**

- *Ensure that the Cam-in Sensor is not obstructed*
- *Ensure Camming break is not being actuated by OZAC hose*
- *If the camming Motor runs continuously go to **P10710 CAMMING MOTOR RUNS CONTINUOUSLY RAP***

**P10-213**      **The Cam-Out Sensor, Q1003, was unblocked during cycle down.**

- *Ensure that the Cam-out Sensor is clean and not obstructed*
- *If the camming Motor runs continuously go to **P10710 CAMMING MOTOR RUNS CONTINUOUSLY RAP***

**P10-214**      **The Camming Motor, MOT 1004, failed to stop during cam-in while in Print.**

- *Inspect the Camming Flag,, Camming Motor Brake, Cam-in Sensor Q1002 and Cam-out Sensor Q1003 for debris or damage.*
- *Ensure that the Camming Motor Brake (release lever) is not actuated by wiring, OZAC tubes etc. while in normal operating position.*
- *If the camming Motor runs continuously go to **P10710 CAMMING MOTOR RUNS CONTINUOUSLY RAP.***

**P10-215**      **The Camming Motor, MOT 1004, failed to stop during cam-out while in Print.**

- *Initial Actions - See **P10-214***

**P10-216**      **The Camming Motor, MOT 1004, failed to operate when commanded to do so. This will cause the machine to enter into the Power Interrupt mode disabling the +24 VDC section of the LVPS. A loss of +24 VDC from the LVPS will declare a false, P10-216, upon Power-Up.**

*Ensure no LEDs in the LVPS are on as often this code occurs with shorted 24VDC*

- *Ensure that the Pressure Roll is not partially cammed in.*
- *Ensure that the Camming Motor Brake is not on or that the Camming Assembly is not binding.*
- *Ensure that all the Power Cords are correctly installed and the circuit breakers are not tripped. If a circuit breaker is tripped return to Level One SFA, to determine the correct path to follow to diagnose the problem.*
- *Ensure that when the Fuser Drawer is closed that there is nothing interfering with the Camming Motor Brake. Especially the OZAC tubes which if not cable tied properly can contact the brake.*
- *The bins drive clutches have been seen to cause this problem.*
- *Ensure that the contacts on K107 (Finisher Power Relay) are in good condition.*

**P10-217**      **The Cam-In Sensor, Q1002, was unblocked during machine initialization.**

- *Initial Actions - See **P10-212***

**P10-218**      **The Cam-Out Sensor, Q1003, was unblocked during machine initialization.**

- *Initial Actions - See **P10-213***

**P10-219**      **The Camming Motor, MOT 1004, failed to stop during cam-out at machine initialization.**

- *Initial Actions* - See **P10-214**

## Chain P12: Finisher

- P12-100** Indicates that a copy arrived at the Finisher Entrance Sensor, Q1201, early. The copy missed the Duplex Gate, or a stray copy arrived at the Finisher Entrance Sensor.
- Advise caller to copy single sided only.
  - Check the Finisher Entrance Sensor for loose wires and be sure that it is clean.
  - Check for obstructions in the paper path
- P12-101** The copy arrived late at the Finisher Entrance Sensor, Q1201. The sensor is blocked after shutdown.
- Check Areas 8 & 11.
  - Clean the Finisher Entrance Sensor
  - Ensure that the Finisher Entrance Sensor is not obstructed.
  - Check the Inverter gate is not obstructing the paper path.
- P12-104** The trail edge of an inverted copy arrived 290 ms late at the Finisher Entrance Sensor, Q1201. The sensor is blocked after shutdown.
- Check Area 11.
  - Check/clear the Finisher Entrance Sensor for obstructions.
  - Ensure that the Inverter Active and Passive Gates are not obstructed.
- P12-107** The lead edge of an inverted copy arrived earlier than 350 ms at the Post Inverter Sensor, Q1202. The copy missed the Inverter Gate.
- Check Area 11
  - Ensure that the Inverter Gate is not obstructed
  - Ensure that the Inverter Gate Solenoid Return Spring is not damaged or missing.
  - Ensure that the Inverter Gate Solenoid plunger is not seized.
  - Ensure that the Post Inverter Sensor is not obstructed.
- P12-108** Indicates that a copy (in 7 pitch mode) arrived late at the Post Inverter Sensor, Q1202.
- Ensure that the Switch Bypass is not active in area
  - Ensure that the Post Inverter Sensor is not obstructed.
  - Ensure that the Inverter solenoid is not seized.
  - Ensure that the Inverter gate Spring is attached.
  - Ensure that the Pivoting Assembly is latched
- P12-111** The copy that was to be inverted, arrived late at the Post Inverter Sensor, Q1202 (7 pitch mode).
- Check Area 11 & 12)
  - Ensure that the Switch Bypass is not active is area 8.
  - Clean the Post Inverter Sensor
  - Check for obstructions in the paper path
  - Ensure that the Pivoting Assembly is latched
  - Intermittent P12-111 Finisher Inverter Faulty occur as few a 1 per 2000 sheets. The sheet which is jammed is usually found on top of the Tray 3 Cover or under the Bindexer. The P12-111 fault is dependent upon paper type, skew and/or curl, or Finisher to Processor alignment Possible Causes

1. *The PEM studs on the Inverter Output Baffle which mount the Flat Springs on the Inverter Output Baffle, were not assembled with the heads flush with or below the surface of the baffle. Solution Replace the Inverter Output Baffle Possible Causes*
2. *Dome Burrs and Sharp edges were not completely removed from the fingers on the Passive gate Solution Remove the Burrs and sharp edges with small file or replace the Passive gate.*

**P12-112**      **The copy was late at the Output Transport Sensor, Q1203. The Top Tray was selected (7 pitch mode).**

- *Check Area 11 & 12*
- *Inspect the finisher pre-registration baffle is for cuts or grooves on it's inner edge, this can cause skew or stalling of sheets, most noticeable with oversize paper or cardstock.*
- *Clean the Output Transport Sensor*
- *Ensure that the paper path is not obstructed*
- *Ensure that the Top Output baffle is not obstructed*

**P12-115**      **The trail edge of a copy destined for the Top Tray arrived late at the Output Transport Sensor, Q1203, (7 pitch mode).**

- *Check Area 11,12& 13*
- *Ensure that the Top Tray Gate is not obstructed. or interfered with by the Corrugator Drive Roll frame*

**P12-116**      **The trail edge of a copy destined for the bins arrived late at the Output Transport Sensor, Q1203.**

- *Check Area 11,12,13 &14*
- *Ensure R.H. Baffle is latched, and Top Tray Gate is not obstructed.*
- *Inspect the finisher pre-registration baffle is for cuts or grooves on it's inner edge, this can cause skew or stalling of sheets, most noticeable with oversize paper or cardstock.*
- *Clear sensor Q 1203*
- *Ensure that the Right Hand Baffle is latched.*
- *Ensure that the Top Tray Gate is not obstructed.*
- *Check the Vacuum Transport is latched.*
- *Ensure that the sheet path is not obstructed*

**P12-121**      **The copy is late to the Bin A Entrance Sensor, Q1205.**

- *Check Area 13 & 14.*
- *Clear Q1204 Sensor.*
- *Ensure that Finisher Tag F-76 is installed (600K24600) this consists of a metal plate which prevents the vacuum transport from rocking from side to side.*
- *Clean the Bin A Entrance Sensor*
- *Check for an obstructed or damaged Bin A, B, or C Entrance Gates.*
- *Check for an obstructed or damaged Vacuum Transport.*
- *Check for obstructions in the Top Transport Area*
- *Ensure that the Right Hand Baffle is latched.*
- *Ensure that the Vacuum Transport is latched.*
- *If the sheets are jammed on the webs of the bins entrance gate, identify which webs are causing the problem and if tag F86 is not installed, either install this now (600K32480), or with a piece of shim stock extend the length of the web so that the sheet does not catch on it.*
- *Check Vacuum Transport to the Bindexer Alignment*
- 

**NOTE** *When the Fault Code P12-121 is declared, the Bin Drive Clutch is de-energized and the remaining Finisher Drives are left On. This causes a secondary jam at the Entrance of the Vacuum Transport.*

- P12-122**      **The trail edge of the copy is late at the Bin A Entrance Sensor, Q1205.**
- *Check Area 14 & 15. If copies have Folded Corners, Areas 7&8.*
  - *Clean the Bin A Entrance Sensor*
  - *Check for an obstructed or damaged Bin A, B, or C entrance gates.*
  - *Check for an obstructed or damaged Vacuum Transport.*
  - *Check for obstructions in the Top Transport Area*
- P12-123**      **Indicates that a copy missed the Bin A Entrance Sensor, Q1205, or entered Bin A when it is not expected, or entered the wrong bin.**
- *Check Bindexer Area 14*
  - *Ensure that the Bin A Entrance Sensor is not obstructed.*
  - *Ensure that the Bin B and Bin C Gates move freely.*
  - *Ensure that the set is stacking properly in the bins*
- P12-124**      **The copy is late to the Bin B Entrance Sensor, Q1206.**
- *Ensure that Finisher Tag F-76 is installed.*
  - *Clean the Bin B Entrance Sensor*
  - *Check for an obstructed or damaged Bin A, B or C Entrance Gates.*
  - *If the sheets are jammed on the webs of the bins entrance gate, identify which webs are causing the problem and if tag F86 is not installed, either install this now (600K32480), or with a piece of shim stock extend the length of the web so that the sheet does not catch on it.*
  - *Check for an obstructed or damaged Vacuum Transport.*
  - *Check for obstructions in the Top Transport Area*
  - *Ensure that the Right hand Baffle is closed*
  - *Check the Vacuum Transport to Bindexer alignment*
- P12-125**      **The trail edge of the copy is late at the Bin B Entrance Sensor, Q1206.**
- *Check Area 14 & 15. If copies have Folded Corners, Areas 7& 8 Clear Q1204 Sensor*
  - *Clean the Bin B Entrance Sensor*
  - *Check for an obstructed or damaged Bin A, B, or C Entrance Gates.*
  - *Check for an obstructed or damaged Vacuum Transport.*
  - *Check for obstructions in the Top Transport Area.*
- P12-126**      **Indicates that a copy missed the Bin B Entrance Sensor, Q1206, or entered Bin B when it is not expected, or entered the wrong bin.**
- *Check Bindexer Area 14*
  - *Ensure that the B/n B Entrance Sensor is not obstructed.*
  - *Ensure that the Bin C Gate moves freely*
  - *Ensure that the sheets are stacking in the bin properly.*
- P12-126**      **Indicates that a copy missed the Bin B Entrance Sensor, Q1206, or entered Bin B when it is not expected, or entered the wrong bin.**
- *Check Bindexer Area 14*
  - *Ensure that the Bin B Entrance Sensor is not obstructed.*
  - *Ensure that the Bin C Gate moves freely*
  - *Ensure that the sheets are stacking in the bin properly*
- P12-127**      **The copy is late at the Bin C Entrance Sensor, Q1207.**

- Check Area 13 & 14. If copies have Folded Corners, Areas 7& 8.
- Clear Q1204 Sensor
- Ensure that Finisher Tag F-76 is installed
- Clean the Bin C Entrance Sensor
- Check for an obstructed or damaged Bin C Entrance Gates.
- If the sheets are jammed on the webs of the bins entrance gate, identify which webs are causing the problem and if tag F86 is not installed, either install this now (600K32480), or with a piece of shim stock extend the length of the web so that the sheet does not catch on it.
- Check for an obstructed or damaged Vacuum Transport.
- Check for obstructions in the Top Transport Area
- Ensure that the Right Hand Baffle is latched.
- Ensure that the Vacuum Transport is latched.

**P12-128      The trail edge of the copy is late at the Bin C Entrance Sensor, Q1207.**

- Check Area 14 & 15. If copies have Folded Corners, Areas 7&8
- Clean the Bin C Entrance Sensor
- Check for obstructions in Bin A, B and C Entrance Gates.
- Check for an obstructed or damaged Vacuum Transport.
- Check for obstructions in the Top Transport Area.

**P12-129      Indicates that a copy missed the Bin C Entrance Sensor, Q1207, or entered Bin C when it is not expected, or entered the wrong bin.**

- Check Bindexer Area 14
- Check that the Bin C Entrance Sensor is not obstructed
- Check that the Bin C Entrance Gate operates freely.
- Ensure that the sheets are stacking in the bin properly.

**P12-140      The Bins Exit Sensor, Q1222, is not blocked 255 ms after the Set Transport Carriage starts to move to the release position. The set is still in the Bins after cycle down.**

- Check Bindexer Area 14
- Ensure that the Airlines to the Stitcher A and/or Stitcher B Solenoid Valves are free of kinks, leaks or damage
- The Fault occurs in the Stitching mode (landscape, portrait or dual) and the stitch is OK, replace the Stitcher A Solenoid Valve, and Dump Valve, Stitcher B Solenoid Valve and Dump Valve or Both A & B solenoid valves and Dump valves.
- Check the airlines to the carriage assembly are not kinked or damaged.
- Check the age and condition of the position cylinder and it's associated airlines
- Ensure that the Bins Exit Sensor is not obstructed.
- Ensure that the Tilt Bed is in the start position.
- This fault has been seen to occur with P12-202, if this is the scenario, check the bins position when the jam occurs, check the shaft the bins move up and down for any wear and replace if required, check also that the bins are located properly on the mounting peg with the shaft removed. If these are okay then either suspect the drive motor (127E430), or FBN AC Remote PWB #1.
- Ensure that the Check Valve near the Compressor is not damaged.

**NOTE:** The + 24V for the Lower Clamp Solenoid valve is controlled by the Finisher Interlock Relay, K1206 (K7), and the Stacker Door Safety Switch S1243

**P12-141      The Bins Exit Sensor, Q1222, is not blocked 255 ms after the Set Transport Carriage starts to move from Bin A or Bin C in collated or any bin in uncollated mode. The Bins Exit Sensor is not blocked, then is blocked after cycle down.**

- Advise Customer, Use Top Output Tray

- *Initial Action -See P12-140*

**P12-142**      **The trail edge of the set failed to leave the Bins Exit Sensor, Q1222, 255 ms after the Bins Exit Sensor was blocked.**

- *Advise Customer, Use Top Output Tray*
- *Initial Action -See P12-140*

**P12-143**      **The lead edge of the set failed to arrive at the Set Path Sensor, Q1221, 270 ms after the Set Transport Carriage started to move from the finishing position.**

- *Check Area 19.*
- *Clear sensor Q1206*
- *Ensure that the Air-fines to the Stitcher A and/or Stitcher B Solenoid valves are free of kinks, leaks or damage*
- *The Fault occurs in the Stitching mode (landscape, portrait or dual) and the stitch is OK, replace the Stitcher A Solenoid valve, and Dump Valve, Stitcher B Solenoid valve and Dump Valve or Both A & B solenoid valves and Dump valves.*
- *Ensure that the Set Path Sensor is not obstructed.*
- *Ensure that the Tilt Bed is in the Home position.*
- *The position cylinder has been seen to cause this problem, replace this prior to replacing the set transport.*

**NOTE:** *The + 24V for the Lower Clamp Solenoid valve is controlled by the Finisher Interlock Relay, K1206 (K7), and the Stacker Door Safety Switch S1243*

**P12-144**      **The trail edge of the set failed to leave the Set Path Sensor, Q1221, 255 ms after the Set Path Sensor was blocked.**

- *Check Set path Sensor Q1221 and Tilt Bed at home position*
- *Initial Action -See P12-143*

**P12-148**      **The Set In Tilt Sensor, Q1210, is not blocked during the Binding Cycle. The set fell out of the Tilt Bed.**

- *Check dC105 to ensure that the Binder Available is selected*
- *Ensure that the Tilt Bed Sensor is not obstructed*

**P12-149**      **The Set In Tilt Sensor, Q1210, is blocked during initialization.**

- *Check sensor wire loom(600K40751) is not damaged.*

**P12-151**      **The Front Stack Height Sensor, Q1227, or Rear Stack Height Sensor, Q1218, is blocked 1000 ms after the Stacker Bail Solenoid Valve, SOL1213, is energized.**

- *Check Stacker Bail Shaft and Roller.*
- *Ensure that the Stacker Bail Shaft is not binding or obstructed*
- *Ensure that the Stacker Bail Roller is not missing*

**NOTE:** *The + 24 VDC for the Stacker Bail Solenoid valve and the 115 VAC for the Stacker Tray Motor MOT 1212 is controlled by the Finisher Interlock Relay K1206 (K7), and Stacker tray Door Safety Switch S1243.*

**P12-201**      **The Bindexer failed to actuate the Bins Home Sensor, Q1234, 3000 ms after the Bins Drive Motor, MOT1204, was energized to reset to the home position.**

- *Check Bindexer Area 15 WARNING When performing Service in the vicinity of the Bins*

*Drive Motor drives, the pulleys and the drive belt represents a safety hazard. Use caution when servicing in this area*

- *Ensure that the Bins Door is closed.*
- *Ensure that the Bindexer is not obstructed.*
- *Ensure that the Bins Home Sensor actuator is not riding under the Cam Follower.*

**P12-202**      **The Bindexer failed to actuate the Bins Unload Switch, S1203, 750 ms after the Bins Drive Motor, MOT1204, was energized to index the Bindexer.**

- *Check Bindexer Area 15 WARNING When performing Service in the vicinity of the Bins Drive Motor drives, the pulleys and the drive belt represents a safety hazard. Use caution when servicing in this area*
- *Ensure that the Bins Door is closed.*
- *Ensure that the Bindexer is not obstructed*
- *This fault has been seen to occur with P12-140, if this is the scenario, check the bins position when the jam occurs, check the shaft the bins move up and down for any wear and replace if required, check also that the bins are located properly on the mounting peg with the shaft removed. If these are okay then either suspect the drive motor (127E430), or FBN AC Remote PWB #1.*

**P12-211**      **The Set Transport Home Sensor, Q1224, is not blocked six seconds after the Compressor Motor, MOT1216, is energized.**

- *Ensure that the Set Transport Home and Set Transport Position Sensors are not obstructed*

**P12-213**      **The Stitcher Head A or Stitch Head B failed while moving in or moving out after the Stitcher Position Motor, MOT1209, was energized.**

- *Check Area 17*
- *Ensure that the Stitcher Position Sensor Q1215, Stitch A Home Sensor Q1240 and/or Stitch Home B Sensor Q1241 are not obstructed.*

**NOTE:** *The 115 VAC for the Stitcher Position motor is controlled by the Finisher Interlock Relay K1206 (K7), and the Stacker Door safety switch S1243*

**P12-214**      **The Stitcher Head B failed while moving out after the Stitcher Position Motor, MOT1209, was energized.**

- *Ensure that the Stitcher Position Sensor Q 1215 and Stitch B Home Sensor Q1241 are not obstructed* **NOTE:** *The 115V for the Stitcher Position Motor is controlled by the Finisher Interlock Safety Relay K1206 (K7) and the Stacker Door Switch S1243*

**P12-215**      **The Stitcher Head A failed to actuate the Stitch A Home Sensor, Q1240, within 4.2 seconds after the Stitcher Position Motor, MOT1209, was energized.**

- *Check Area 17 for obstructions.*
- *Ensure that the Stitcher A Home Switch is not obstructed.*
- *Ensure that the Stitcher Head A is not obstructed. This is often due to the Stitcher A guide extension plate not being up correctly, and catching on the Binder frame. If this is so, check for air leaks. NOTE: The 115V for the Stitcher Position Motor is controlled by the Finisher Interlock Safety Relay K1206 (K7) and the Stacker Door Switch 51243.*
- *Reach under the Stitcher position motor and press the magnetic brake, this can seize and prevent the stitch head from moving.*

**P12-216**      **Indicates that Stitcher Head B failed to actuate the Stitch B Home Sensor, Q1241, within**

**4.2 seconds after the Stitcher Position Motor, MOT1209, was energized.**

- Check Area 17 for obstructions.
- Ensure that the Stitcher B Home Switch is not obstructed.
- Ensure that Stitcher Head A is not obstructed.
- Reach under the Stitcher position motor and press the magnetic brake, this can seize and prevent the stitch head from moving.
- Ensure that the Stitcher Head B is not obstructed

**NOTE:** The 115V for the Stitcher Position Motor is controlled by the Finisher Interlock Safety Relay K1206 (K7) and the Stacker Door Switch 51243

**P12-217 The Stacker Safety Door failed to actuate the Stacker Door Down Sensor, Q1239, or the Stacker Door Up Sensor, Q1238, within 3.5 seconds after the Stacker Door Motor, MOT1215, was energized.**

- Check that Stacker Drawer is fully home.
- Ensure that the Stacker Door Up and the Stacker Door Down Sensors are not obstructed
- Ensure that the Stacker Drawer is in the Home position.
- Ensure door wiring loom is not fouling door mechanism.

**NOTE:** The 115V for the Stitcher Position Motor is controlled by the Finisher Interlock Safety Relay K1206 (K7) and the Stacker Door Switch S1243

**P12-218 The Catch Wire A Sensor, Q1216, failed to actuate 550 ms after the Wire Feed A Motor, MOT1210, was energized (450 ms for two or three sheet sets).**

- Ensure that the Customer knows that the -maximum stitched set size is 65 sheets of 80gsm paper or seven millimeters (or less) thick set
- Ensure that Wire Spool A is not out of wire.
- Ensure that the Catch Wire A Sensor is not obstructed.
- Check the catch wire sensor for wear or improper action of the actuator.
- Check condition of former bar.
- Ensure that the wire is on the Wire Reel
- Ensure that the Wire Drive Latch is in the locked position.
- Ensure that the wire feed gears are meshing properly and providing sufficient force to the wire (this can be observed by very slight indentations to the wire).
- Ensure that the white tensioning rollers surrounding the wire reel are not binding.
- Ensure that Finisher tag F-53 is installed.

**NOTE P12-218** wire feed faults may occur when the Stitcher A Solenoid Valve has an inadequate exhaust flow causing an interference between the still actuated Stitcher A Head and the wire being fed for the next stitch. If the following Procedure correct the problem, replace the Stitcher A Solenoid Valve and Dump Valve.

**P12-219 The Catch Wire B Sensor, Q1217, failed to actuate 550 ms after the Wire Feed B Motor, MOT1211, was energized (450 ms for two or three sheet sets).**

- Ensure that the Customer knows that the maximum stitched set size is 65 sheets of 80gsm paper or seven millimeter or less thick set.
- Ensure that Wire Spool B is not out of wire.
- Ensure that the Catch Wire B Sensor is not obstructed.
- Check condition of former bar.
- Check the catch wire sensor for wear or improper action of the actuator.
- Ensure that the wire is on the Wire Reel
- Ensure that the Wire Drive Latch is in the locked position.
- Ensure that the wire feed gears are meshing properly and providing sufficient force to the

wire (this can be observed by very slight indentations to the wire).

- Ensure that the white tensioning rollers surrounding the wire reel are not binding.
- Ensure that the Finisher Tag F-53 is installed NOTE wire feed faults may occur when the Stitcher B Solenoid Valve has an inadequate exhaust flow causing an interference between the still actuated Stitcher B Head and the wire being fed for the next stitch. If the following Procedure correct the problem, replace the Stitcher B Solenoid Valve and Dump Valve.

**P12-222**      **The Stacker Tray failed to actuate the Front Stack Height Sensor, Q1227, the Rear Stack Height Sensor, Q1218, or the Stacker Tray Down Sensor, Q1237, six seconds after the Stacker Tray Motor, MOT1212, was energized.**

- Check Area 19
- Check Sensors Q121&8, Q1227
- Ensure that the Front and Rear Stack Height Sensors are not obstructed.
- Ensure that the Stacker tray Down Sensor and Stacker Hold sensors are not obstructed.  
**NOTE:** The 115V for the Stitcher Position Motor is controlled by the Finisher Interlock Safety Relay K1206 (K7) and the Stacker Door Switch S1243

**P12-223**      **The Stacker Drawer failed to actuate the Stacker Drawer Out Sensor, Q1229, seven seconds after the Stacker Drawer Motor, MOT1214, was energized.**

- Check Area 19
- Ensure that the Stacker Drawer Out Sensor is not obstructed

**P12-224**      **The Stacker Drawer failed to actuate the Stacker Drawer In Sensor, Q1228, seven seconds after the Stacker Drawer Motor, MOT1214, was energized.**

- Check Area 19
- Ensure that the Stacker Drawer In Sensor is not obstructed

**P12-225**      **The Stacker Offset failed to actuate the Offset In Sensor, Q1230, or the Offset Out Sensor, Q1229, one second after the Stacker Offset Motor, MOT1213, was energized.**

- Ensure that the Offset In and the Offset Out Switches are not obstructed
- Ensure that the Stacker Empty Sensor connectors and spiral cable are not interfering with the Lift Ramps, Supports or Sensor actuators

**NOTE:** The 115V for the Stitcher Position Motor is controlled by the Finisher Interlock Safety Relay K1206 (K7) and the Stacker Door Switch S1243

**P12-226**      **The Stacker Offset failed to actuate the Offset Mesh Sensor, Q1232, 1.5 seconds after the Stacker Offset Motor, MOT1213, was energized.**

- Ensure that the Offset Mesh sensor Offset Out sensors and Offset In sensor are not obstructed **NOTE:** The 115V for the Stitcher Position Motor is controlled by the Finisher Interlock Safety Relay K1206 (K7) and the Stacker Door Switch S1243

**P12-230**      **The Set Transport Carriage arrived late at the Set Transport Position Sensor, Q1225, from the home position.**

- Check Set Transport Position Sensor Q1225
- Ensure that the Set Transport Position sensor and the Set Transport Home Sensor are not obstructed.
- Ensure that the Tilt bed is in the Home position.,

**P12-231**      **The Set Transport Carriage arrived late at the Set Transport Home Sensor, Q1224, from the Bins position (3 pitch).**

- *Check Set Transport Home Sensor Q1224*
- *Initial Action -See 12 - 230*

**P12-232**      **The Set Transport Carriage arrived late at the Set Transport Home Sensor, Q1224, from the Set Transport Position Sensor.**

- *Check Set Transport Home Sensor Q1224*
- *Initial Action -See 12 - 230*

**P12-233**      **The Set Transport Carriage arrived late at the Set Transport Position Sensor, Q1225, from the home position.**

- *Check Set Transport Position Sensor Q1225*
- *Initial Action -See 12 - 230*

**P12-234**      **The Set Transport Carriage arrived late at the Set Transport Position Sensor, Q1225, from the Bins position (4 pitch)..**

- *Check Set Transport Position Sensor Q1225*
- *Initial Action -See 12 - 230*

**P12-241**      **The Stacker Safety Door is open while the machine is in print.**

- *Ensure that the Operator does not open the Stacker Safety Door while the machine is in print*
- *Ensure that Stacker Safety Door is not obstructed.*
- *Ensure that the Stacker Safety Switch, Stacker Door Up sensor Stacker Door Down sensor are not obstructed*

**NOTE:** *The 115 VAC for the Stacker Door Motor MOT1215, is controlled by the Finisher Interlock Relay K1206(K7) and the Stacker Door Safety Switch S1243*

**P12-242**      **Occurs when the Finisher Right Door has been opened during print.**

**P12-243**      **Occurs when the Finisher Top Cover is opened during print.**

**P12-244**      **Occurs when the Finisher Left Door is opened during print.**

**P12-245**      **Bindexer Door Opened during print**

- *Ensure that the Bins Door is not obstructed*

**P12-246**      **Binder Drawer opened during Print**

- *Ensure that the binder Drawer and Binder In Switch are not obstructed*

**P12-247**      **Occurs when there is a failure detected in the interlock system (when not using the binder). NOTE: The 5 VDC Status Switches indicate that all of the cover doors are closed and the 24 VDC sense circuit indicates that a cover door is open.**

- *Check the last 50 Fault Screen and Queued Fault on the SCP Screen. If 03-24(x) fault occur at the same copy count as the P12-247 fault go to the 03-24(x) RAP*

**P12-248**      **Occurs when a failure in the Finisher interlock system is detected.**

- P12-251**      **The Flapper Heaters, HTR1202, failed to reach the operating temperature five minutes after the Binder power was energized.**
- *Ensure that the Binder In switch is not obstructed*
  - *Ensure that The Binder Drawer is closed*
- P12-253**      **The Spine Heater, HTR1203, failed to reach the operating temperature five minutes after the Binder power was energized.**
- *Ensure that the Binder In switch is not obstructed*
  - *Ensure that The Binder Drawer is closed*
- P12-254**      **The Flapper Heaters, HTR1202, went undertemp after reaching operating temperature.**
- *Ensure Binder Drawer is closed*
  - *Initial Action - See P12-251*
- P12-256**      **The Spine Heater, HTR1204, went undertemp after reaching operating temperature.**
- *Initial Action- See P12-253*
- P12-257**      **The Flapper Heaters, HTR1202, went into an over temperature condition.**
- P12-258**      **The Spine Heater, HTR1203, went into an over temperature condition.**
- P12-261**      **The Tape failed to reach the Tape In Guide Sensor, Q1213, 825 steps after the Tape Feed Stepper Motor, MOT1208, is energized to feed tape.**
- *Check Area 18*
  - *Ensure that the Tape Feeder Assembly is mounted properly to the Binder Frame. • Ensure that the Tape Pusher is not bent and/or Damaged.*
  - *Ensure that the Tape in Guide Sensor is not obstructed*
  - *Ensure that all paper is removed from the set path*
  - *Inspect the Binder tape to ensure that the Spine Adhesive is centered on the Tape*
- P12-262**      **The Tape Feeder Home Sensor, Q1223, failed to clear 110 ms after de-energizing the Tape Feed Motor, MOT1208, to the reset position.**
- *Check Tape Reel Latching, Check Tape Motor Home Sensor Q1223*
  - *Ensure the Tape Feeder Home Sensor is not obstructed.*
  - *Remove all paper from the Set Path*
  - *Remove Tape from the Tape Guides*
  - *Ensure that the tape guides are not obstructed*
- P12-263**      **The Tape In Guides Sensor is blocked during initialization, power up, or after loading the tape.**
- *Ensure that all paper is removed from the Set Path*
  - *Ensure that the Tape Guides are free of Tape obstructions. and contamination*
  - *This fault is normally declared after a paper jam which uses binding as the means of finishing, a length of tape will have been cut, it should be removed from the tape guides.*
- P12-264**      **The Tape In Guides Sensor, Q1213, is blocked after the Flappers move to the home position.**
- *Check Tape Guide Sensors Q1213 and Flapper home Sensor Q1212*
  - *Ensure that the Tape in Guides and the flapper Home Sensors are not obstructed*
  - *Ensure that the tape Guides are not obstructed*

- *Remove Tape from the Tape Guides.*
- *Remove paper from the Set Path or Tilt Bed*

**P12-271**      **The Flapper Home Sensor, Q1211, failed to actuate 2.5 seconds after the Flapper Drive Motor, MOT1206, was energized.**

- *Check Flapper Home Sensor Q1211*
- *Ensure that the Flapper Home and Flapper Position Sensors are not obstructed*
- *Ensure that paper is removed from the Tilt Bed and Set Path.*
- *Remove Tape from the Tape Guides*
- *Inspect the Binder tape to ensure that the Spine adhesive is centered on the Tape.. If not, go to the P12627 Binder Tape Manufacturing Defects.*

**NOTE:** *If Fault Code P12-273 is displayed, ensure that the Tape is being pushed fully into the Tape Guides If not, go to P12-62I RAP*

**P12-272**      **The Flappers failed to reach the Flappers Up Position 300 ms after the Flapper Drive Motor, MOT1206, was energized.**

- *Initial Action See P12-271*

**P12-273**      **The Tape Guides failed to reach the Tape In Bind Position 590 ms after the Flapper Drive Motor, MOT1206, was energized.**

- *Check Areas 17&18 Initial Action -See P12-271*

**P12-274**      **The Flappers failed to reach the Flap Position 460 ms after the Flapper Drive Motor, MOT1206, was energized.**

- *Check Areas 17 & 18. Initial Action See P12-271*

**P12-275**      **The Flappers and Tape Guides failed to reach the Start Position 1000 ms after the Flapper Drive Motor, MOT1206, was energized.**

- *Initial Action -See P12-271*

**P12-276**      **The Flapper Position Sensor, Q1212, is blocked 150 ms after the Flapper Drive Motor, MOT1206, is de-energized.**

- *Ensure that the Flapper Position Sensor is not obstructed*
- *Ensure that the Flappers and Tape Guides are not obstructed.*
- *Ensure that the set screws and the sprockets are tight.*
- *Ensure that the Drive Chain is tight*

**P12-281**      **The Tilt Bed failed to reach the Preregistration or post-registration position 460 ms after binding.**

- *Check Tilt Bed Area 17.*
- *Ensure that the Tilt Bed A Sensor, Tilt Bed B Sensor and the Tilt Bed Home Switch are not obstructed*
- *Ensure that the Tilt Bed is not obstructed.*

**P12-282**      **The Tilt Bed failed to reach the registration or bind position 260 ms after the Tilt Bed Motor, MOT1205, was energized.**

- *Check Tilt Bed sensor Q1208 / Q1209*
- *Initial Action - See P12-181*

- P12-283**      **The Tilt Bed failed to reach the post-registration position 260 ms after registration.**
- *Initial Action - See P12-281*
- P12-285**      **The Tilt Bed failed to reach the Preregistration position 1500 ms at initialization.**
- *Initial Action - See P12-281*
- P12-286**      **The Tilt Bed A Sensor, Q1208, is blocked 150 ms after the Tilt Bed Drive Motor, MOT1205, was de-energized.**
- *Check Tilt bed A sensor Q1208*
  - *Ensure that Tilt Bed A Sensor, is not obstructed.*
  - *Ensure that the Drive Sprockets are tight.*
  - *Ensure that the Drive chain is tight.*
- P12-287**      **The Tilt Bed failed to reach the load or unload position 680 ms during run.**
- P12-297**      **Occurs when a failure in the interlock system is detected during binding jobs.**
- NOTE:** The 5 VDC Status Switches indicate that all of the cover doors are closed and the 24 VDC sense circuit indicates that a cover door is open.
- P12-298**      **Occurs when a failure is detected in the Finisher interlock system during a binding job.**
- P12-400**      **The control logic has lost communication with the external device during a print run.**
- P12-401**      **Indicates that a fault has occurred in the external device.**
- P12-402**      **Indicates that external device did not deliver a completed set within specified time after the end of set signal was sent to the external device.**
- *Initial actions: check Device profiles are configured correctly*
- P12-403**      **Indicates that external device did not respond within the specified time to a sheet that the IOT delivered to it.**
- *Initial actions: check Device profiles are configured correctly*
- P12-404**      **Indicates that set delivery signal was received before the sheet delivery signal was sent.**
- *Initial actions: check Device profiles are configured correctly; ensure that “Set Compiler Processing Time” is not set to 0. Try a value of 200.*

## Chain P14: Interposer

- P14-100/1**      **Indicates that lead edge of a sheet failed to reach Lower Turn Transport sensor Q1424 within an allotted time after leaving Tray 3 Transport sensor Q832.**
- P14-100 indicates that the sensor was blocked at shutdown and P14-101 indicates it not blocked. *Ensure that jam access baffle is down correctly and ensure drives rotate freely.*

- P14-102/3** Indicates that lead edge of a sheet did not arrive at Lower Turn Transport Exit Sensor Q1425, 350ms after passing Lower Turn Transport sensor Q1424 P14-103 indicates that Q1425 was blocked at shutdown. *Ensure that Sensor actuators are not damaged at that jam clearance baffles are seated correctly*
- P14-104/5** Lead edge to trail edge elapse time is greater than expected over Lower Turn Transport Exit sensor Q1425. *Check for damaged/binding actuator and drives are working correctly.*
- P14-106** Indicates lead to trail edge elapse time over Loop jam sensor Q1426 was greater than expected.
- P14-107/8** Indicates that lead edge of sheet failed to arrive at the Top Transport Entrance jam sensor Q1422 after leaving Loop Transport sensor Q1426. Q1422 is not blocked.  
P14-108 indicates that Q1422 was blocked at the time of shutdown.
- P14-109** Indicates lead edge of sheet failed to reach the Top Transport Entrance sensor Q1422 after passing PHN Top Transport sensor Q1012.
- P14-110** Indicates that lead to trail edge of sheet passing Top Transport Entrance sensor Q1422 was greater than expected. *Check for obstructions.*
- P14-111** Indicates that lead edge of sheet took more than 550ms to go from Entrance sensor Q1422 to Top Transport Exit jam sensor Q1423.
- P14-112** Indicates that lead to trail edge of sheet elapse time over Top Transport Exit sensor Q1423 was greater than expected.
- P14-141/2** Indicates that a sheet fed from Tray 4 did not arrive at Takeaway Roll sensor Q1407 and that the sensor was not blocked. P14-142 indicates that the sensor was blocked at time of shutdown.
- P14-143/4** Indicates that trail edge of a sheet fed from tray 4 was 50ms late leaving takeaway roll (TAR) sensor Q1407 based on the lead edge of the sheet actuating that sensor. Sensor is blocked at shutdown.  
P14-144 indicates that the sensor is not blocked at shutdown.
- P14-145/6** Indicates that sheet leaving Tray 4 TAR sensor Q1407 did not arrive at top Transport exit sensor Q1423 within allotted time; Q1423 is not blocked at shutdown.  
P14-146 indicates Q1423 is blocked at shutdown.
- P14-151/2** Indicates Tray 5 misfeed and that lead edge of a sheet did no arrive at Tray 5 TAR sensor Q1408 after feed clutch energized.  
P14-152 indicates that Q1408 was actuated at time of shutdown.
- P14-153/4** Indicates that trail edge of sheet was 50ms late to leave Tray 5 TAR sensor Q1408 based on the lead edge of the sheet which actuated the sensor. The sensor was blocked at time of shutdown.  
P14-154 indicates that the sensor was clear at shutdown.
- P14-155/6** Indicates that lead edge of sheet did not arrive at Lower Turn Transport sensor Q1424 within allotted time after leaving Tray 5 TAR sensor Q1408. Q1424 is clear at shutdown.

P14-156 indicates Q1424 was blocked at shutdown.

**P14-157/8** Indicates a Post Insert mode jam where a sheet failed to arrive at Loop Transport sensor Q1426 after leaving Tray 5 TAR sensor Q1408. The sensor is clear for P14-157 and blocked with code P14-158 at shutdown.

**P14-194/7A** Indicates that Registration Transport sensor Q861 detected a dynamic width problem with a sheet fed from tray 5. P14-194 indicates that servo count is too few and 197 is too great.

**P14-200** Indicates the Interposer Right door opened during print.

**P14-201** Indicates the Interposer left door opened in during print.

**P14-214** Indicates a stray sheet was detected at the Loop Jam Sensor Q1426.

**P14-215** Indicates a stray sheet was detected at the Bottom Exit jam sensor Q1425

**P14-216** Indicates a stray sheet was detected at the Top Transport entrance sensor Q1422. *The sheet may have missed the Duplex gate.*

**Note: P14-2145/6** *has been associated with the sync harness connection between the IOT PHN module and Interposer. Also check in dc330 section 14: The status of the Interposer sensors with the Interposer drives running as there are potential areas where the harness for these sensors have been known to catch on moving shafts and cause intermittent problems.*

**P14-241/2** These codes indicate that control logic senses Tray 4 stack height switch not actuated by the stack of paper within 3.8 seconds, (3.1 for 60Hz) of elevator drive signal (L)

**P14-243** Indicates that Tray 4 closed sensor Q1434 detected that tray 4 unlatched during print.

**P14-244** Tray 4 Encoder RAP

**P14-250** +24VDC is missing in the Interposer.

**P14-251/2** These codes indicate that control logic senses Tray 5 stack height switch not actuated by the stack of paper within 22 seconds, (16sec for 60Hz) of elevator up drive signal was switched on, or the elevator indexed on more than three consecutive feeds.

**P14-253** Indicates that Tray 5 closed sensor, Q1435 detected that tray 5 unlatched during print.

**P14-274** Indicates that the clock count for the transport encoder is less than 2499 or greater than 3023. *Ensure that these IFN NVM values are correct*

NVM loc	Value
265	200
266	0
267	200
268	0
269	58
270	8

*Ensure belt tensions on the drives are not too tight etc.*

**P14-701** Paper size problem in tray 4

- P14-704** Paper size problem in tray 5
- P14-711** Tray 4 will not move up or down.
- P14-714** Tray 5 elevator RAP
- P14-751** Indicates +5VDC is missing in Interposer
- P14-905** Paper width problem detected by Registration sensor Q851 where a sheet of paper fed from tray 5 differs from what was expected.

## Features Bypass

The Features Bypass service diagnostics utility is an excellent tool for diagnosing various problems: useful when intermittent electrical/noise related fault codes are difficult to pinpoint. Also, in the event of non-catastrophic fault code stoppages and perhaps parts availability reasons, a 6135 could be left in Features Bypass with the suspect component left disabled to facilitate machine operation until resolution is achieved.

\*\* It is important to remember that this is a **TEMPORARY** workaround, and that the machine must be made fully functional as soon as possible. \*\*

The Features Bypass utility is a tool not currently used in the field: the following information has been written to assist the CSE in understanding the full potential and ease of use of this utility.

Features are bypassed, (enabled or disabled), by changing the relative NVM addresses in dC131. The Features Bypass table following, shows the options available. Referring to the enclosed table, the cell value for the function that you wish to deploy should be ADDED to the NVM bit value at that address e.g.....

At the first address in the table (MIN 124), if all options were to be satisfied, then the address value, MIN 124, would be set to: **255** i.e. **(128+64+32+16+8+4+2+1)**, the maximum value allowed for any address. As you can see from this particular address, the DT 135 normal operation is such that all functions are active, therefore the default value for location MIN 124 is 255.

As an alternative, if we consider MIN 178 where the default value is 80, then this is achieved by the summation of 64 (Reclaim Augers Disabled) + 16 (50 Hz Phase detection) equaling 80 i.e.. both these functions need to be satisfied for correct operation. The "Disable POP Sensor" is obviously not required for normal operation so this value of 128 is not included in the summation of the location entry value.

Working examples in the use of Features Bypass are shown in the following pages.

Features Bypass Reference Table for 61xx

\*\* Shaded Functions in Bold are Active during normal operation ( ) = NVM Default Data

		NVM Value to add - Specific to each function								
		128	64	32	16	8	4	2	1	
NVM Location	MIN	124 (255)	Enable Closed Loop	Enable Toner Control	Enable Charge Control	Enable Rest Recovery	Enable PGen Setup	Enable TC Setup	Enable ROS Setup	Enable Electrostatic Setup
		125 (80)	No Function	Enable Closed Loop Exposure	No Function	Enable ROS Diagnostic Faults	No Function	No Function	No Function	Enable Internal Test Pattern
		178 (80)	Disable POP Sensor	Disable Auger Faults	No Function	Enable 50Hz Detection	No Function	No Function	No Function	No Function
		179 (132)	Enable Arc Simulation at Power Up	No Function	Disable P09-3xx Faults	No Function	Disable HVPS Fault Detection	No Dead Cycle	Disable HVAC	No Function
	PHN	176 (0)	Enable Patch Print	Enable Copy Counter to Count by 1	Disable Dynamic Paper Width Faults	Disable Purge of Duplex Tray & Fuser Clean-up	No Function	Lower Tray 3 to Bottom	No Function	No Function
		250 (0)	No Function	No Function	No Function	No Function	No Function	No Function	No Function	Disable Initialisation of T/A Blades
		251 (0)	Disable 14" Transfer Assist Blade	Disable 13" Transfer Assist Blade	Disable 12" Transfer Assist Blade	Disable 11" Transfer Assist Blade	No Function	No Function	Enable 2 Solenoid Transfer Assist Blade	No Function

Working Examples

For the function you wish to utilize, refer to the Features Bypass table and note the NVM address for that function and the current value at that address

- 1) If an intermittent P09-101/102 (Paper on Photoreceptor) fault code is evident with no paper actually on the photoreceptor, the POP sensor can be over - ridden with the Features Bypass function in MIN.

To disable the POP sensor, the value relative to that function (128 from the table) would be added to the existing value, i.e.,  $80 + 128 = 208$ . Location MIN 178 would be set to 208. Temporary measure only!!

**Note:** The above is only an example and the default for MIN 178 with DocuSP1.3x is now 16.

- 2) If copy quality/toner concentration problems are suspected to be patch related, a useful visual indication of patch integrity is the "Enable Patch Print" facility. To perform this activity, check the NVM value for this function from the table and enter accordingly:

"Enable Patch Print" is under the NVM value column of 128, therefore to activate this facility, add 128 to the current NVM location, PHN 176. If the machine was currently at the default (0), then the NVM location PHN 176 would be set to 128 to enable patch printing.

- 3) In the event of P09-3xx problems, this fault indication could be temporarily disabled whilst waiting for parts, or pursuing very intermittent problems. From the table; a value of 32 would need to be added to the existing value at location MIN 179. If at default value (132), this would be set to 164 to disable P09-3xx faults. Temporary measure only!!

**Note:**

Before exiting Diagnostics pre call - closeout, Ensure that each of the seven NVM locations listed in the

table are set to their default value pertaining to the Modification state of that machine (see table). Unlike the 5090 The UI does not display the message “Limited Mode is Active” indicating that one of the NVM’s has been adjusted.

# HFSI

The purpose of this table is to enable you to identify which HFSI action is being requested on the 61xx, The Service intervals shown are the Base values.

HFSI Counter	Description	Service Interval
01-801	Toner Filter Bag	1000K
01-802	LVPS Filters	500K
03-802	Cooling Filter	1500K
08-802	T1 Feed Belt	1000K
08-804	T2 Feed Belt	1000K
08-806	T3 Feed Belts	10,000K
08-808	VT Transport Belts	3000K
08-810	T3 Transport Belts	9,000K
08-816	Reg Cross Rolls	2000K
08-817	Servo Rolls	3000K
08-818	Cleaning	1000K
09-801	Cleaner Brush & Blades	2000K
09-802	Agitator Spring	7850K
09-803	Transfer Assist Blade	W/Tag P-169: 1000K W/3 Layer TAB: 4000K
09-805	Spots Blade	2000K
09-806	Drive Couplings (PR, Dev & Fuser)	4000K
09-807	Cleaner 'O' Rings	2000K
09-808	Flicker Bar	4000K
09-809	Pop Sensor	500K:Clean
09-815	Dicor Shields	500K:Clean
09-820	Charge 1 dicor	2000K
09-821	Charge 2 dicor	2000K
09-822	Preclean dicor	2000K
09-823	Transfer dicor	2000K
09-824	Detack dicor	2000K
09-825	Developer	1000K
09-826	Cleaner System	2000K
09-827	T1, T2 & Prefuser drive couplings	4000K
09-829	Charge 0 dicor (if fitted)	2000K
10-801	Metering Blade	1000K
10-802	Wick and Filter	1000K
10-803	Donor Roll	8000K
10-805	Sensors Q1009 & Q1010	1500K
10-806	Pressure Roll & Stripper Fingers	1500K
10-811	Prefuser Transport Belts	6000K
10-812	Metering Roll	3000K
10-813	Decurler Belts	15000K

<b>HFSI Counter</b>	<b>Description</b>	<b>Service Interval</b>
10-814	Metering Assy	1000K
10-815	Prefuser Transport	2000K
10-816	Fuser Drive Coupling	4000K
12-802	Bin Scuffer Rolls	4000K
12-804	Stitch Head A Clean/lube	300K
14-814	Tray 4 Blower Belt	10000K
14-815	Tray 5 Blower Belt	10000K
14-816	Tray 6 Blower Belt	10000K
14-846	Tray 4 Feed Belts	10000K
14-856	Tray 5 Feed Belts	10000K
14-866	Tray 6 Feed Belt	10000K
S01-801	Dust Filters	2300 hours
S06-802	Illumination Lamp	1000 hours

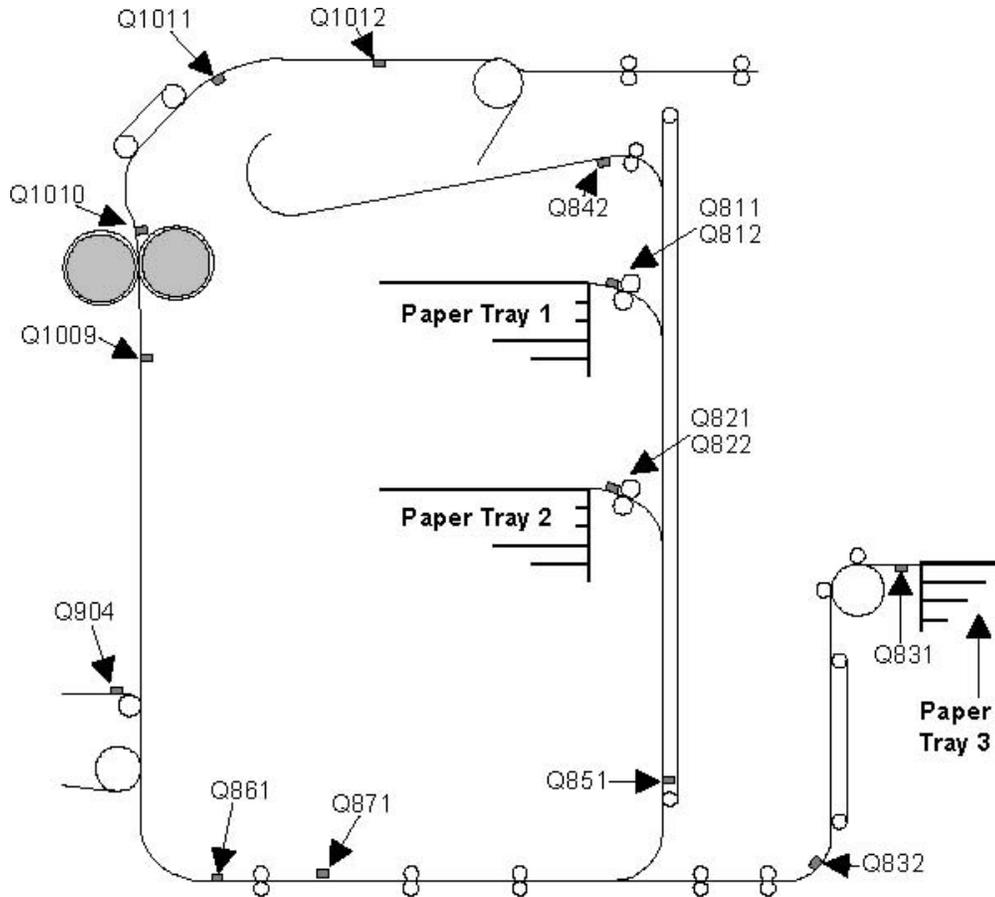
## NVM

NVM Address	Data	Note
<b>EDN</b>		
262	xx	SLB/RDR pwb Configuration 262=0 if part no is less than 140K42252 & 64 if 140K42252 or any other number
<b>MIN</b>		
124	255	See Features Bypass 1= Enable Electrostatic Setup 2= Enable ROS Setup 4= Enable TC Setup 8= Enable PGen Setup 6=Enable Rest Recovery 32= Enable Charge Control 64= Enable Toner Control 128= Enable Closed Loop
125	xx	ROS feature bypass 16=SLB < 140K42252 24=SLB = 140K42252 28=SLB = 140K65620 24=SLB = any other number
178	16	50Hz Phase detection enabled
179	1	See Features Bypass
210	112	Transfer Dicorotron value 2 charge dicorotron configurations
<b>PHN</b>		
176	0	See Features Bypass 04= Lower HCF to bottom 08= Disable set integration 16=Disable duplex purge & fuser clean up 32=Disable dynamic paper width faults 64=Enable copy counter to count by 1 128= Enable patch printing
251	0	See Features Bypass 0= Enable 4 Blade system 2= Enable 2 Blade system 16= Disable transfer 1 solenoid 32= Disable transfer 2 solenoid 64= Disable transfer 3 solenoid 126= Disable transfer 4 solenoid
<b>IFN</b>		
265	200	
266	0	
267	200	

NVM Address	Data	Note
268	0	
269	58	
270	8	

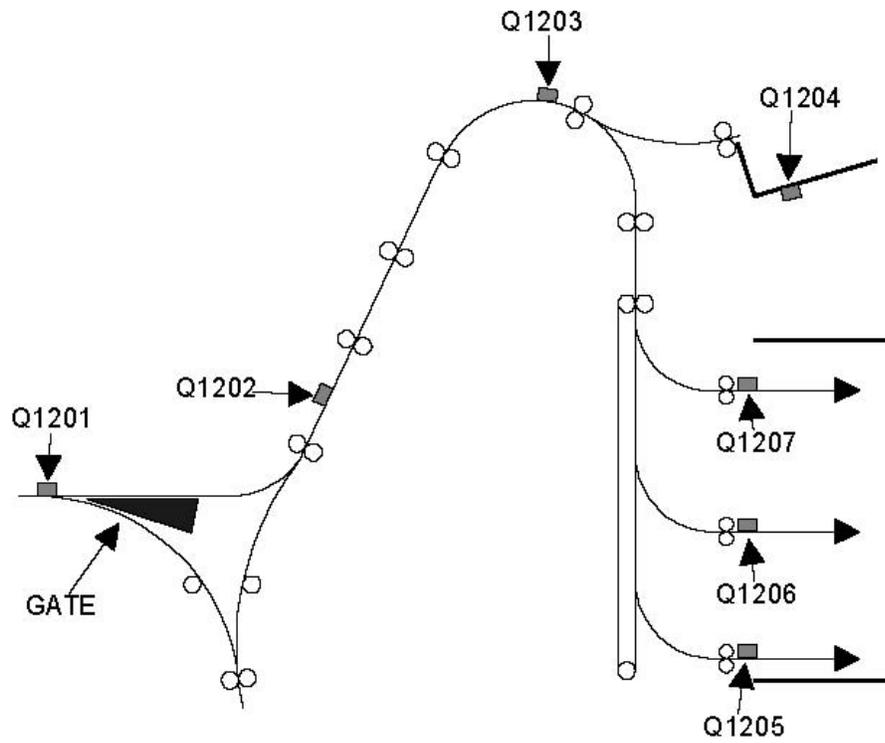
# Sensor Maps

## Paper Handling Module Sensor Locations



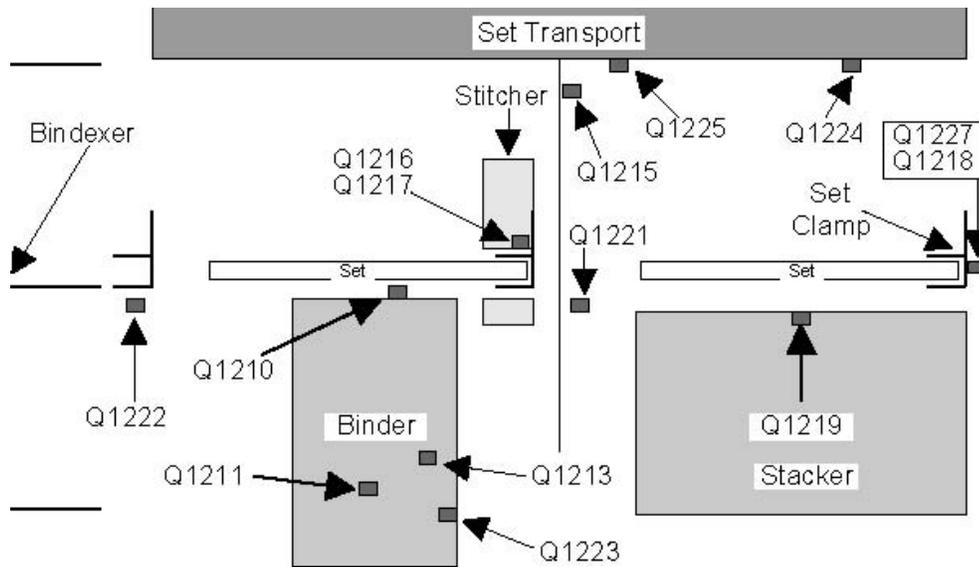
- Q811 Tray 1 Take Away Roll Sensor
- Q812 Tray 1 Stack Relief Sensor
- Q821 Tray 2 Take Away Roll Sensor
- Q822 Tray 2 Stack Relief Sensor
- Q831 Tray 3 Feed Sensor
- Q832 Tray 3 Transport Sensor
- Q841 Duplex Inverter Position Sensor
- Q842 Duplex Inverter Exit Sensor
- Q851 Vertical Transport Switch
- Q861 Registration Transport Sensor
- Q904 POP Sensor
- Q1009 Prefuser Sensor
- Q1010 Post Fuser Sensor
- Q1011 Decurler Sensor
- Q1012 Top Transport Sensor

**Inverter Sensor Locations**



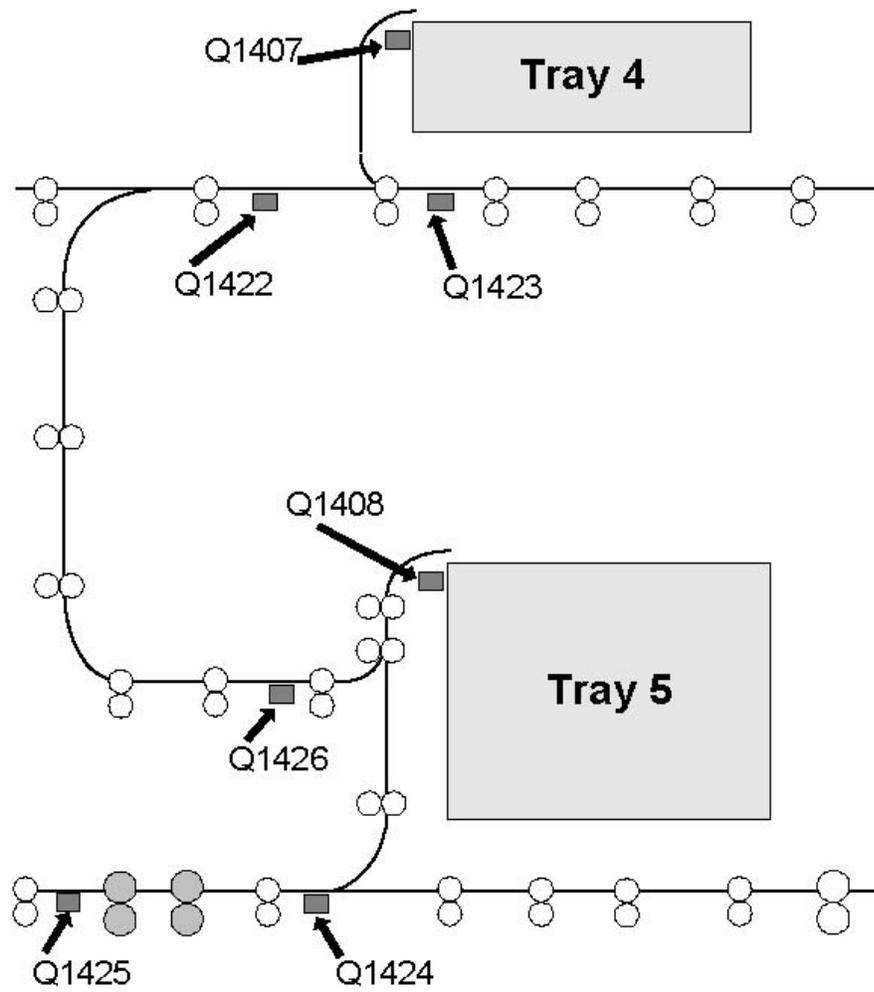
- Q1201 Finisher Entrance Sensor*
- Q1202 Post Inverter Sensor*
- Q1203 Top Transport Output Sensor*
- Q1204 Top Tray Empty*
- Q1205 Bin A Entrance Sensor*
- Q1206 Bin B Entrance Sensor*
- Q1207 Bin C Entrance Sensor*
- Q1222 Bins Exit Sensor*

**Finisher Sensor Locations**



- Q1210 Set in Tilt Bed Sensor
- Q1211 Flapper Position Sensor
- Q1213 Tape in Guide Sensor
- Q1215 Stitcher Position Encoder
- Q1216 Catch Wire A Sensor
- Q1217 Catch Wire B Sensor
- Q1218 Rear Stack Height Sensor
- Q1219 Stacker Drawer Empty Sensor
- Q1221 Set Path Sensor
- Q1222 Bins Exit Sensor
- Q1223 Tape Feeder Sensor
- Q1224 Set Transport Home Sensor
- Q1225 Set Transport Position Sensor
- Q1227 Front Stack Height Sensor

**Interposer Sensor Locations**



- Q1422 Top Transport Entrance Sensor
- Q1423 Top Transport Exit Sensor
- Q1424 Lower Transport Turn Jam Sensor
- Q1425 Lower Transport Exit Jam Sensor
- Q1426 Loop Jam Sensor

## DFA Profile Backup

Refer to the “System Backup/Restore” section of the “DocuSP Controller Installation Guide.”