Printer and Network Controller Upgrades

Both the Printer Controller and Network Interface Card controller are FLASH ROM equipped. This means as software fixes and upgrades are available, you are able to update printer software without a service call.

The current software at the time of manufacture is provided on the CD-ROM. The path to the software is:

PRINTER CONTROLLER:

- **D\INSTAL\UTILITY\FIRMWARE\PRINTER\(version #).xfc**
  (version # in the form #_#_#)

NETWORK INTERFACE CARD CONTROLLER:

- **D\INSTAL\UTILITY\FIRMWARE\NIC*.xfn**

In addition the newest software will always be available on the Internet on both the Xerox ftp and world wide web sites.

FTP URL: (download using the binary setting.)

- Network Interface Card software
  ftp://spectrum.xerox.com/pub/network_cards/Color/ C55
- Printer controller software
  ftp://spectrum.xerox.com/pub/drivers/Color/ Firmware/C55

WWW URL:

- **http://www.xerox.com/drivers**

All files are compressed using PKZIP or BinHex/ StuffIt formats to avoid corruption during transfer. Self-extracting versions of the files exist for many platforms. For the other platforms you will need the appropriate decoding software.

When downloading a Network Interface Card file be sure to download the correct file for your network type (either Ethernet or Token Ring). The upgrade file name for Ethernet is ***en.*** and for Token Ring is ***tr.***.

There are a variety of ways to upgrade the printer and network software. Choose one of the following that is most familiar to you.

Before you upgrade:

- Be sure the printer is in communication with the workstation directly or over the network.

- Be sure you have the proper upgrade file for the kind of upgrade you need to do. The printer controller file will end in the extension **.xfc**. The network interface card controller file will end with the extension **.xfn**.

PRINT A SETTINGS PAGE

This will provide a record of the critical parameters for your printer.

Follow these steps to print a settings page:

1. Press the **Online** button to take the printer off-line.
2. Press **Menu**.
3. Press **Next** until **<PRINT>** is displayed. Press **Enter**.
4. Press **Next** until **<SETTINGS>** is displayed, then **Enter**.
5. Press **Next** until **<YES>**is displayed, then **Enter**.
6. At this point the settings page will print.

PRINT A PRINTER DIAGNOSTICS PAGE

This contains margin adjustment information that you may need to reset after doing a Printer Controller upgrade.

Follow these steps to print a Diagnostics page:

1. Press **Menu**.
2. Press **Next** until **<SERVICE>** is displayed. Press **Enter**.
3. Press **Next** until **<TEST PATTERNS>** is displayed, then **Enter**.
4. Press **Next** until **<DIAGNOSTICS>** is displayed, then **Enter**.
5. Press **Next** until **<YES>** is displayed, then **Enter**.
6. At this point the diagnostics page will print
7. Return the printer to online by pressing the **Online** button.

Upgrade Methods

Select a method from the chart to do an upgrade for your operating system. The bold letter indicates the upgrade procedure to use.

Operating System	CentreWare DP	LPR	Parallel Port	Novell Print Queue	Macintosh Printer Utility	Internet Services
Win 3.x	**A**	***	**C**	**D**	*	**F**
Win 95	**A**	***	**C**	**D**	*	**F**
NT 3.51 & 4.0	**A**	**B** **	**C**	**D**	*	**F**
OS/2	*	**B** **	**C**	**D**	*	**F**
UNIX	*	**B**	*	*	*	**F**
Macintosh	*	*	*	*	**E**	**F**

* - Not Applicable

** - Requires TCP/IP services to be installed from your operating system.

*** - Requires LPR capable software to be installed independently from the operating system.

Printer Controller Upgrade Process

During the upgrade process the printer's Control Panel will display several messages.

As the printer receives the file it will alternate between the message "Waiting" and the message "Processing". It is normal in some cases for the printer to display the message "Waiting" a majority of the time.

After the complete file has been received the Control Panel will display "Upgrading, Please Wait…" and the upgrade process will begin.

When the upgrade process is complete the printer will automatically initialize and print a startup sheet.

The process can take as little as 5 minutes over a fast network to as long as 20 minutes over the parallel port.

NOTE: It is important to not interrupt any part of the process. DO NOT TURN OFF THE PRINTER IN THE MIDDLE OF AN UPGRADE.

If you experience any problems, call your Xerox Customer Support Center.

Determining a Successful Upgrade

Printer Controller

If your upgrade is successful, you will receive a new start up page. The "Software Version" on the start up page should reflect the software level of the upgrade.

Network Interface Card Controller

If your upgrade is successful, you will receive a confirmation page. The confirmation page will state the new software version. If the upgrade fails for any reason, you will receive an error page explaining what failed (for example, if you send an Ethernet file to a Token Ring Interface Card, it will tell you the incorrect file was sent).

After the Upgrade

After a successful **Network Interface Card upgrade**, power off and on the printer. Print a Print Settings page and make sure the network settings are as you expect.

After a successful **Printer upgrade** some printer features may be set to the factory defaults. Some of these parameters may include settings that allow you to print to the printer. These parameters must be reset before you will be able to print. To accomplish this, you will need the previously printed Settings page and Diagnostics page.

Using the directions in the section labeled **Before you Upgrade**, print out a new Print Settings Page and Diagnostics page.

Compare the original settings page with the new one, especially the network settings. Identify the items that are different between the 2 settings pages. Use CentreWare DP or the Control Panel (in some cases both) to restore settings. If you require assistance please contact your Xerox Customer Support Center.

Now compare the Printer Diagnostics pages. Look at the section labeled Adjustments. If the Top Margin and Left Margin numbers have changed they will need to be reset. To do this use the following procedure:

1. Press the **Online** button to take the printer off-line.

2. Press **Menu**.

3. Press **Next** until **<SERVICE>** is displayed. Press **Enter**.

4. Press **Next** until **<ADJUSTMENTS>** are displayed, then **Enter**.

5. Press **Next** until **<LEFTMARGIN>** is displayed, then **Enter**.

6. Using the **Next** and **Previous** buttons, scroll to the desired margin adjustment. Select **Enter**.

7. **<TOPMARGIN>** should now read on the Control Panel. Press **Enter**.

8. Using the **Next** and **Previous** buttons, scroll to the desired margin adjustment. Select **Enter**.

9. Return the printer to online by selecting the **Online** button.

Other settings on the Diagnostics Page may have changed due to print quality adjustments. This is normal and not a result of the upgrade.

Finally, it is advisable to perform a Color Balance procedure at this time to ensure optimum color printing. Consult the User's Guide or Technical Information Guide on the CD-ROM for details.

Upgrade Procedures

PROCEDURE A
UPGRADE FROM CENTREWARE DP

Warning: Once the upgrade process has begun DO NOT Power off your Printer !

1. Print a **Printer Settings** page. Print a **Printer Diagnostics** page. Keep these pages for future reference. For directions on doing this reference the section labeled **Before you Upgrade**.

2. Start the CentreWare DP software from your workstation. Select the printer from the **Printers List**.

3. At the CentreWare DP main screen select the **Tools** menu.

4. From the **Tools** menu select the **Upgrade Printer** item.

5. Select either the **Network** or **Printer** button.

6. Enter the path of the upgrade file and click **OK**.

7. CentreWare DP will send the upgrade file to the printer. The upgrade should take less than 10 minutes to perform.

8. To see if your upgrade was successful see the section labeled **Determining a Successful Upgrade.** If successful follow the instructions in **After the Upgrade**. For problems consult the section labeled **General Troubleshooting**.

PROCEDURE B
LPR UPGRADE PROCEDURE

Warning: Once the upgrade process has begun DO NOT power off your printer!

1. Print a **Printer Settings** page. Print a **Printer Diagnostics** page. Keep these pages for future reference. For directions on doing this reference the section labeled **Before you Upgrade**.

2. Send the upgrade file to the printer. Use the format based on your client operating system:

WINDOWS NT (3.51 & 4.)

> **lpr -P ps -S <ipaddress> <filename>[RETURN]**

OS/2

> **lpr -p ps -s <ipaddress> <filename>[RETURN]**

UNIX (use lp or lpr as appropriate)

> **lpr <switches><queue><filename> [RETURN]**
> **lp <switches><queue><filename> [RETURN]**

Where:

> **<ipaddress>** = the TCP/IP address the printer has been assigned
>
> **<filename>** = the path and name of the upgrade file
>
> **<queue>** = the native queue to which the printer is assigned
>
> **<switches>** = use switches as appropriate to your UNIX environment

3. To see if your upgrade was successful see the section labeled **Determining a Successful Upgrade**. If successful follow the instructions in **After the Upgrade**.

IF YOU HAVE PROBLEMS :

- Try to ping the printer to make sure it has a valid ip address
- In addition consult the section labeled **General Troubleshooting**

PROCEDURE C-
THE PARALLEL PORT

> ⚠️ Warning: Once the upgrade process has begun, DO NOT power off your printer !

1. Print a **Printer Settings** page. Print a **Printer Diagnostics** page. Keep these pages for future reference. For directions on doing this reference the section labeled **Before you Upgrade**.

2. If you have a C55 mp printer, or the PostScript option, the parallel port on the printer must be in **Auto Select** mode. Check the settings page previously printed. In the **Parallel Settings** section the **Mode** should be set to **Auto Select**. If it is not you will need to set this through the printer's Control Panel or CentreWare DP. To make the setting through the Control Panel do the following:

    a) Take the printer off-line by pressing the **Online** button.

    b) Press **Menu**.

    c) Press **Next** until **<COMMUNICATIONS>** is displayed. Press **Enter**.

    d) Press **Next** until **<PARALLEL>** is displayed. Press **Enter**.

    e) Press **Next** until **<MODE>** is displayed. Press **Enter**.

    f) Press **Next** until **<AUTOSELECT>** is displayed. Press **Enter**.

    g) Return the printer to online by pressing the **Online** button.

3. Send the upgrade file to the printer.

    An OS/2 user should open a command prompt.

    A Windows(95/NT/3.1x) user should run from DOS or run a DOS session. For speed, it is recommended to exit Windows and run from DOS.

    The format for the copy command is as follows:

    copy <filename> <port>[RETURN]

    Where:

    <port> = the parallel port to which the printer is connected (LPT1:,LPT2:, etc.)

    <filename> = the path and name of the upgrade file

    Ex: **copy 3_3_4.xfc LPT1**

4. To see if your upgrade was successful see the section labeled **Determining a Successful Upgrade**. If successful follow the instructions in **After the Upgrade**.

IF YOU HAVE PROBLEMS:

- Make sure you are using a IEEE P1284 compliant cable such as the one shipped with the C55 printer.
- Make sure the printer's parallel port **Mode** is set to **AutoSelect** for C55 mp printers, or printers with the **PostScript** option.
- If running a DOS window from Windows 95 make sure that one of your printers through Settings/Printers is mapped directly to LPT 1(not re-directed to a network queue). Also check the port settings by selecting the **Port Settings**.. button on the **Details** tab dialog. Make sure the selection **Spool MS-DOS Print Jobs** is selected. If still having problems after making these settings, try powering your PC off and on.
- (Windows Users) If experiencing time-outs on the host PC ("Problem detected on parallel port, Abort,Retry,Fail") then you need to set the port to an infinite time-out against busy on the printer. From the command line or as an entry in autoexec.bat type the following command:

  mode lpt1:,,b (two commas following the colon)

  The "b" option sets the port for infinite time-out. After setting the port to an infinite time-out, try using the copy command again. If the command prompt does not appear within 20 minutes a ctrl-break can be used to abort the copy command without rebooting your computer.
- Windows 3.11 users should turn off Print Manager.
- In addition consult the section labeled **General Troubleshooting**

PROCEDURE D
INSERT INTO NOVELL QUEUE

⚠ Warning: Once the upgrade process has begun DO NOT Power off your Printer !

1. Print a **Printer Settings** page. Print a **Printer Diagnostics** page. Keep these pages for future reference. For directions on doing this reference the section labeled **Before you Upgrade**.

2. Start **PCONSOLE**

3. Select **Print Queue** Information the press **[RETURN]**

4. Select the print queue to send the job to, then press **[RETURN]**

5. Select **Current Print Job Entries** then press **[RETURN]**

6. Press the **[INSERT]** key. Type in the path/filename and press **[RETURN].**

7. Choose configuration and then press **[RETURN].**

8. Press the **[ESC]** key. Select **Yes** then **press [RETURN].**

9. The upgrade file will be sent to the printer. The upgrade should take less than 10 minutes to perform.

10. To see if your upgrade was successful see the section labeled **Determining a Successful Upgrade**. If successful follow the instructions in **After the Upgrade**.

IF YOU HAVE PROBLEMS :

If the printer never goes to "Processing" check the status of the job in the queue. If the job is in the queue and Active, but not being sent to the printer, power the printer off and on. See if the job is then sent to the printer.

In addition consult the section labeled **General Troubleshooting.**

PROCEDURE E
MACINTOSH – XEROX PRINTER UTILITY

⚠️ Warning: Once the upgrade process has begun DO NOT Power off your Printer !

1. Print a **Printer Settings** page. Print a **Printer Diagnostics** page. Keep these pages for future reference. For directions on doing this reference the section labeled **Before you Upgrade**.

2. Launch the Xerox Printer Utility

3. Select the C55 printer to upgrade in **PostScript Printers** list.

4. Select **Send**.

5. Locate the upgrade file.

6. Select **Open** to send the upgrade file to the printer.

7. The Xerox Printer Utility will send the upgrade file to the printer. The upgrade should take less than 10 minutes.

8. To see if your upgrade was successful see the section labeled **Determining a Successful Upgrade.** If successful follow the instructions in **After the Upgrade**. For problems consult the section labeled **General Troubleshooting**.

PROCEDURE F
UPGRADE PROCEDURE VIA INTERNET SERVICES

Warning: Once the upgrade process has begun, DO NOT power off your printer !

1. Print a **Printer Settings** page. Print a **Printer Diagnostics** page. Keep these pages for future reference. For directions on doing this reference the section labeled. **Before you Upgrade.**

2. Launch your web browser and connect to the printer URL (typically **http://ipaddress**)

3. Select the **Print** page to get to the **File Download** dialog.

4. In the **File: box** enter the path and name of the upgrade file, or select the **Browse..** button to select the upgrade file.

5. Select the **Start** button.

6. The upgrade file will be sent to the printer. The upgrade should take less than 10 minutes to perform.

7. To see if your upgrade was successful see the section labeled **Determining a Successful Upgrade.** If successful follow the instructions in **After the Upgrade**.

IF YOU HAVE PROBLEMS :

- If having problems with time-outs when sending the file using a proxy server try turning off the proxy server and sending the file again. Alternatively, the printer IP address can be entered individually as an address for which a proxy should not be used.

- Check your browser version to be sure your are using the correct version. The upgrade procedure requires Netscape 3.0 or later or Internet Explorer 4.0 or later

- Try to ping the printer to make sure it is a valid ip address

- In addition consult the section labeled **General Troubleshooting.**

General Troubleshooting

Some of the individual printer upgrade methods will have their own trouble shooting sections. This section is to address general problems.

PRINTER CONTOLLER UPGRADE:

If the printer controller upgrade has failed, you will not receive an error page. Check the following and try the upgrade again:

1. Make sure you are using the correct upgrade file for your printer controller. It should be a ***.xfc** file, <u>not</u> an ***.xfn** file

2. Check your method of connectivity to your printer. Can you successfully send a job over your chosen method of connectivity? For parallel port users- are you using a IEEE 1284 compliant parallel cable?

3. If the flash software was downloaded from an ftp site, make sure it was downloaded in binary format, not ASCII. To change to binary format, type binary at any ftp prompt. If you are using an ftp software package such as Chameleon ftp, you can select binary from within the software.

4. Consult your upgrade procedure to see if there is a "If you have problems" section in your chosen upgrade procedure

5. If the printer never goes to "Processing" and stays "Online" check your method of printer connection. Try powering off and on. If sending via a NetWare queue check the status of the job in the queue. Powering off and on the printer may cause the job to get to the printer.

6. Power off and on. Send the file again using the same method.

7. Power off and on. Send the file using an alternative method as indicated in the chart.

8. If the printer appears to be hung in "Processing" after sending the upgrade file (with the "Processing" message on the Control Panel for at least 15 minutes) either contact your Xerox Customer Support Center for assistance, or power off and on the printer. If the printer powers up properly try sending the upgrade file again. If the printer does not power up properly contact your support center for assistance.

9. If the printer appears to be hung in "Upgrading, Please Wait…", (with the "Upgrading, Please Wait" message on the Control Panel for at least 10 minutes) contact your Xerox Customer Support Center for assistance.

10. If all attempts to upgrade the printer controller have failed, note the Control Panel message of the printer when the upgrade fails and contact your support center for assistance.

11. If a printer upgrade was attempted and the printer will not power up properly contact your support center for assistance.

NETWORK INTERFACE CARD UPGRADE:

If the Network Interface Card upgrade is unsuccessful, an error page will print. Check the following and send the upgrade file again:

1. Make sure you are using the correct upgrade file for your Network Interface Card (token ring/ Ethernet). If you download the incorrect file for your Network Interface Card you will receive an error stating **Wrong type firmware for Network Interface Card**.

    *EN.xfn is for the upgrade of Ethernet Interface Card.

    *TR.xfn is for the upgrade of Token Ring Interface Card.

2. If you are upgrading a Token Ring Interface Card, first insert it into the ring.

3. If the flash software was downloaded from an ftp site, make sure it was downloaded in binary format, not ASCII. To change to binary format, type binary at any ftp prompt. If you are using an ftp software package such as Chameleon ftp, you can select binary from within the software.

4. Power the printer off and on.

5. If you still cannot upgrade the Network Interface Card, perform a factory reset of printer and turn the printer off and on, and try the upgrade again. Make sure you have a settings page printed before you do a factory reset. To do a factory reset do the following:

    a) Take the printer off line by pressing the **Online** button.

    b) Press **Menu**.

    c) Press **Next** until **<SETUP>** is displayed. Press **Enter**.

    d) Press **Next** until **<FACTORY RESET>** is displayed. Press **Enter**.

    e) Press **Next** until **<YES>** is displayed. Press **Enter**.

    f) Return the printer to online by pressing the **Online** button.

6. If all of these attempts fail to upgrade the Network Interface Card, contact your support center for assistance.