FIERY X3E SERVICE GUIDE

for Minolta CF2001 Color Copiers

A guide for service technicians

Part Number: 45019420

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Declaration of Conformity

Trade Name:	Printer Controller
Model Number:	Fiery X3e CF9001
Compliance Test Report Number:	M00912A1
Compliance Test Report Date:	September 13, 2000
Responsible Party (in USA):	Electronics for Imaging, Inc.
Address:	303 Velocity Way, Foster City, CA 94404
Telephone:	(650) 357-3500

This equipment has been tested and found to comply with the limits for a digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

WARNING: FCC Regulations state that any unauthorized changes or modifications to this equipment not expressly approved by the manufacturer could void the user's authority to operate this equipment.

CE Marking (Declaration of Conformity)

We declare under our sole responsibility that the copier and options to which this declaration relates is in conformity with the specifications below. This declaration is valid for the area of the European Union (EU) only.

Product Type	Console Copier System
System Product Name	CF9001 + Fiery X3e CF9001, CF9001 Options: AFR-12, ST-103, S-105, C-101, AD-7, I/F KIT G, ADF KIT
Compliance Report Number	M00913C1
Standards	Safety *2 : EN 60 950/1992 (A1, A2, A3, A4 & A11) (Safety of information technology equipment, including electrical business equipment) EN 60825-1 / 1994 with A11 (Copier only) (Radiation safety of laser products, equipment classification, requirements, and user's guide) EMC *1 : EN55 022 (Class B)/1994 with A1 (1995) & A2 (1997) EN55 022 (Class B)/1998 (Printer Controller only) (Limits and method for measurement of radio disturbance characteristics of information technology equipment (ITE)) EN61000-3-2/1995 (Electromagnetic compatibility (EMC)- Part 3: Limits, Section 2: Limits for harmonic current emissions (equipment input current ≤16A per phase)) EN61000-3-3/1995 (Electromagnetic compatibility (EMC)- Part 3: Limits, Section 2: Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current ≤16A) EN55024/1998 (Information technology equipment — immunity characteristics — Limits and methods of measurement) EN61000-4-2/1995 : Electrostatic discharge immunity test EN61000-4-3/1995 : Radiated electromagnetic field immunity test EN61000-4-4/1995 : Electrical fast transient/burst immunity test EN61000-4-5/1995 : Surge immunity test EN61000-4-6/1996 : Immunity to conducted disturbance, induced by radio-frequency field EN61000-4-8/1993 : Power-frequency magnetic field immunity test EN61000-4-11: Voltage dips, short interruptions and voltage variations immunity test Notes: *1) EMC performance: This product was designed for operation in a typical office environment. *2) First year of labeling according to EC-directive 73/23/EEC and 93/68/EEC: 2000 3) This product was designed for operation in a typical office environment.
EC Directives	Safety: 73/23/EEC and 93/68/EEC EMC: 89/336/EEC and 93/68/EEC

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Preface

The *Service Guide* is intended for certified Fiery X3e™ and copier service technicians installing or servicing a Fiery X3e. If you have not received installation and service certification, you should not attempt to install or service a Fiery X3e. Electronics for Imaging, Inc. does not warrant the performance of the Fiery X3e if installed or serviced by non-certified personnel.

About this guide

This guide is divided into the following sections:

- "Preface"

  Gives general information about this guide and general information that you should know before you attempt to install or service the Fiery X3e.

- Chapter 1, "Introduction"

  Provides an overview of the Fiery X3e.

- Chapter 2, "Using the Fiery X3e Operation Panel"

  Tells you how to use the Fiery X3e Operation Panel for Fiery X3e status/control functions.

- Chapter 3, "Service Procedures"

  Describes removal and replacement procedures for Fiery X3e board components, how to check connections, and how to reinstall system software.

- Chapter 4, "Troubleshooting Procedures"

  Identifies the source of common problems and suggests ways of correcting them.

Customers should not use the technical service documentation. Do not leave this guide behind after you make a service call.

About the illustrations in this guide

Illustrations in this guide reflect the Fiery X3e assembly at the time of publication. Components shown in these illustrations are subject to change. To receive information about any components that do not match illustrations in this guide, contact your authorized service/support center.

Terminology and conventions

The term “network administrator” refers to the person responsible for maintaining the network at the customer site.

The term “Operation Panel” describes the separate Fiery X3e Operation Panel attached to the front of the copier. It includes LEDs, a display window, and several control keys.

The term “PC” refers to any IBM PC or compatible computer running Windows over MS-DOS.

The term “100BaseT” refers to 100BaseTX.

The term “HDD” refers to the hard disk drive that is part of the Fiery X3e assembly.

The term “Fiery X3e” refers to the functional module that supports network printing and associated features for the copier.

NOTE: The note indicator highlights important messages and additional information.



The caution icon indicates a need for special care and safety when handling the equipment.

Precautions

Always observe the following general precautions when installing and servicing the Fiery X3e assembly:

1. **Report any shipping damage.**

   If there is any evidence of shipping or handling damage to packing boxes or their contents, save the damaged boxes and parts, call the shipper immediately to file a claim, and notify your authorized service/support center.

2. **Never alter an existing network without permission.**

   The Fiery X3e is probably connected to an existing Local Area Network (LAN) based on Ethernet hardware. The network is the link between the customer’s computer, existing laser printers, and other prepress equipment. Never disturb the LAN by breaking or making a network connection, altering termination, installing or removing networking hardware or software, or shutting down networked devices without the knowledge and express permission of the network administrator.

3. **Never assign an IP address in Network Setup.**

   Only the network administrator should assign an IP address on a network device. Entering an incorrect IP address to the Fiery X3e can cause unpredictable errors on any or all devices.

4. **Follow standard ESD (electrostatic discharge) precautions while working on the internal components of the copier.**

   Static is always a concern when servicing electronic devices. It is highly unlikely that the area around the copier is static-free. Carpeting, leather-soled shoes, synthetic clothing fibers, silks, and plastics may generate a static charge of more than 10,000 volts. Static discharge is capable of destroying the circuits etched in silicon microchips, or dramatically shortening their life span. By observing standard precautions, you may avoid extra service calls and save the cost of a new board.

   When possible, work on a ground-connected antistatic mat. Wear an antistatic wristband, grounded at the same place as the antistatic mat. If that is not possible:

   - Attach a grounding strap to your wrist. Attach the other end to a good ground.
   - When you remove an electronic component, place it into an antistatic bag immediately. Do not walk across a carpet or vinyl floor while carrying an unprotected board.
   - Leave new electronic components inside their antistatic bags until you are ready to install them.
   - When you unpack the electronic components, touch a metal area of the copier to discharge the static on your body. Place the components on a grounded antistatic surface, component-side up.

5. **Avoid flexing a printed circuit board, and handle it by opposing edges (not corners) only.**

6. **Never set a cup of coffee—or any liquid—on or near any components or the print device.**

Tools you will need

To service the Fiery X3e, you should bring the following:

- ESD wrist grounding strap
- Antistatic mat
- #1 and #2 Phillips head screwdrivers (non-magnetic)
- A pair of small needlenose pliers
- Flashlight
- Other tools that may be specified in your documentation for installing the Fiery X3e into the copier
- This guide and any technical notes you may have for the Fiery X3e

Chapter 1: Introduction

The Fiery X3e provides computer connectivity and highly efficient color printing capability for the copier. Users can print from networked computers running on Microsoft Windows or Mac OS platforms. In addition, the Fiery X3e parallel port can be used for printing directly from a PC.

Features

As an integral part of the printing system, the Fiery X3e enables users to:

- Send images over TCP/IP, Novell, and AppleTalk networks, or through the parallel port for printing.
- Spool print jobs and select a printing priority for each job. Users can control spooled print jobs sent to the Fiery X3e with remote user software running on networked PCs and Mac OS computers.
- Print files in color or grayscale.
- Print PostScript, EPS, and PDF files.
- Use 136 resident fonts (117 Adobe Type 1 PostScript and 19 TrueType) plus two Adobe Multiple Master fonts used for font substitution when printing PDF files. The Fiery Downloader or any third-party LaserWriter downloader, such as the Adobe Font Downloader, can be used to download additional fonts.
- Use built-in ColorWise™ color management and NetWise™ network features.

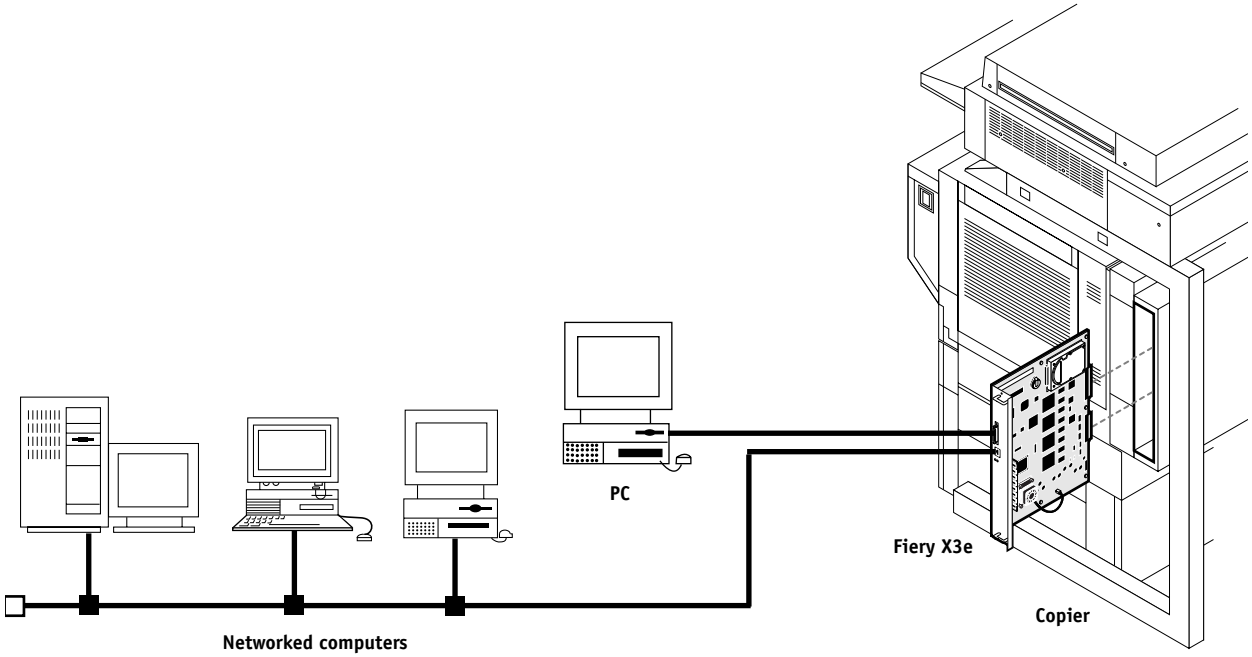


FIGURE 1-1 Printing system

How the Fiery X3e operates

The Fiery X3e provides efficient image processing and printing control. The Fiery X3e board includes a 366MHz Celeron CPU with a built-in floating point accelerator that runs the PostScript Interpreter, which interprets the page description file to produce the image pattern in memory. Powerful components on the board control data management and other system functions, freeing up the CPU for efficient image data processing.

Image data is sent from the Fiery X3e to the copier. Raster data is supplied to the laser in the copier at full copier rated speeds in order to charge the drum and render the final image on paper.

High-speed DIMMs (dual in-line memory modules) on the Fiery X3e board hold image data during printing. Standard DIMM configuration is 128MB, upgradable to 384MB.

Two green LEDs visible at the Fiery X3e faceplate indicate network status. To indicate link speed, the left LED is on at 100Mbps and off at 10Mbps. To indicate link activity, the right LED blinks.

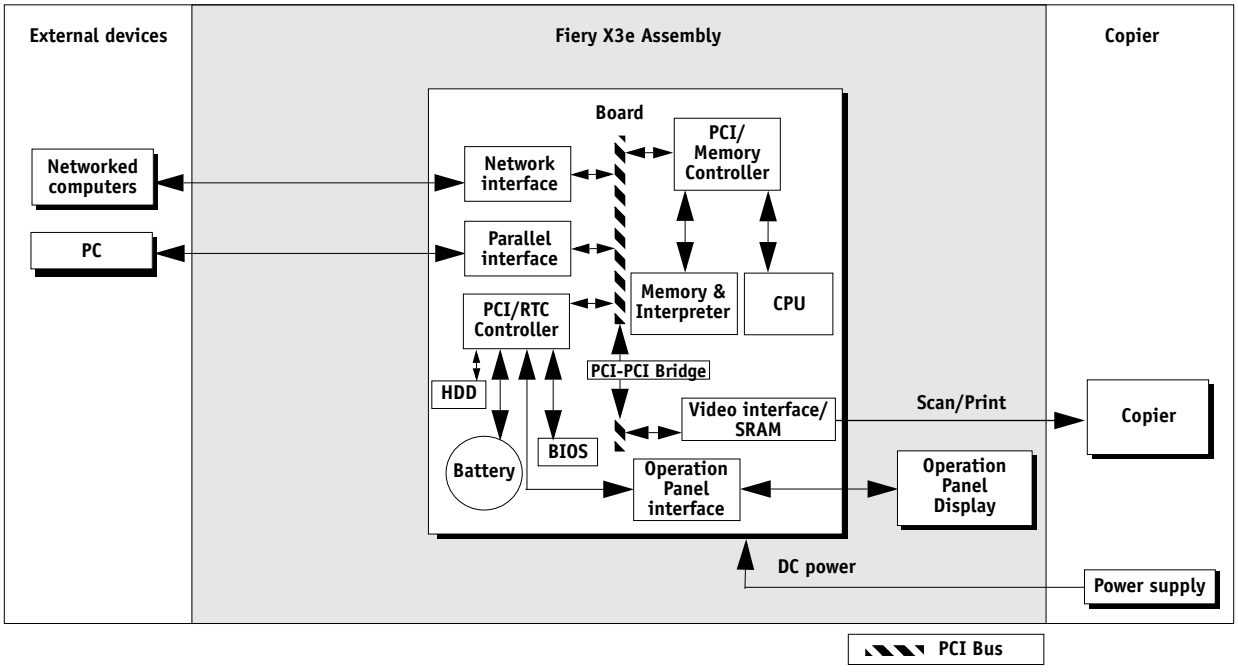


FIGURE 1-2 Fiery X3e functional diagram

Fiery X3e printing

The Fiery X3e's efficient PostScript capabilities allow customers to use a variety of applications to create printed color or black and white pages of text and/or images. The Fiery X3e operates both over a network and directly over the parallel port. Since the Fiery X3e has the ability to print an image while processing the next image (RIP-While-Print™), it is capable of printing documents at full copier speeds.

Users can print documents directly from the applications in which they were created. In addition, the Fiery X3e offers an efficient way to print files that have been saved in PostScript, EPS (Encapsulated PostScript), or PDF format. These files can be downloaded directly to the Fiery X3e using the Fiery Downloader™, a remote utility provided with Fiery X3e.

Through the parallel port, customers can print documents directly from applications running on a stand-alone or networked PC. Files that have been saved in PostScript, EPS (Encapsulated PostScript), or PDF format can also be printed to the parallel port from Windows, including the MS-DOS window, without requiring the applications in which the files were created.

User software

User software is provided on the User Software CD. The network administrator or the user at the customer site is responsible for installing software onto computers that will use the Fiery X3e over the network. For information on the contents of the User Software CD, see the *Getting Started* manual for this product.

Fiery WebTools

For information on the Fiery WebTools, see the *Job Management Guide, Printing Guide,* and *Getting Started*.

Chapter 2: Using the Fiery X3e Operation Panel

This section describes the Fiery X3e functions on the Fiery X3e Operation Panel. The Fiery X3e Operation Panel is separate from the copier Operation Panel and is located on the right side of the copier. You will use the keys on the Fiery X3e Operation Panel to access and monitor different features of the Fiery X3e.

Status/Control overview

Current status and Setup information are displayed on the Fiery X3e Operation Panel. Print activity can be monitored in the display window, and specific Fiery X3e functions (such as printing a Test Page and installing or updating system software) are controlled using the keys on the Fiery X3e Operation Panel. Two LEDs assist in providing status information.

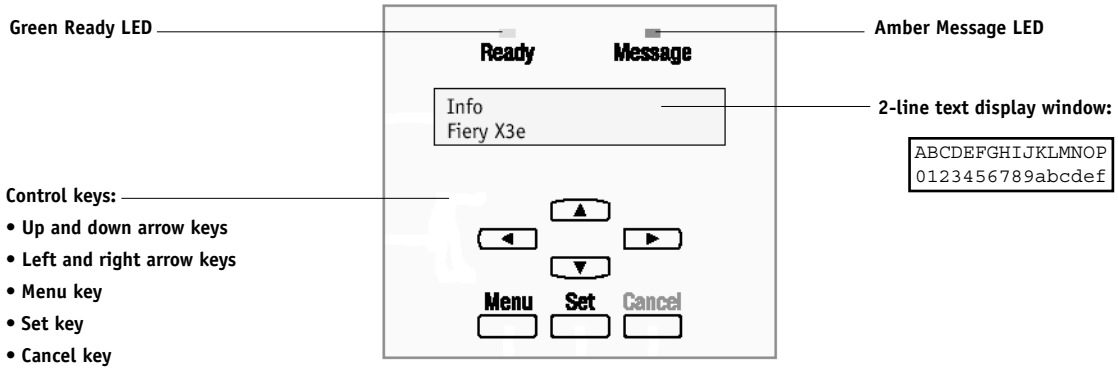


FIGURE 2-1 Fiery X3e Operation Panel

Activity lights

The activity lights on the Fiery X3e Operation Panel indicate printer status and perform the following Fiery X3e functions:

Activity light	Description	Condition
Ready	Off	Off when the Fiery X3e is off or starting up. (See Release Notes if off in a normal state condition.)
	Flashing green	Flashes when the printer is processing or printing a job or communicating with a remote computer.
	Solid green	Solid indicates normal state.
Message	Off	Off when no error is detected.
	Flashing amber	Flashes when there is an error that prevents printing or scanning (see the *Job Management Guide* for more information).
	Solid amber	Solid for more than 30 seconds may indicate a communication error between the Fiery X3e and the copier.

Keys

The control keys on the Fiery X3e Operation Panel allow you to navigate the various screens and to send commands. Usually, the display window shows the name of the screen on the first line and one menu item or message on the second line. The keys perform the following functions:

Key	Description
Menu	Use to cycle through the Info screen and the runtime screens.
Set	Selects the currently displayed menu item and proceeds to the next screen.
▲	Use to scroll up the screen to the previous entry in a list or portion of a message. When the top of the screen is reached, pressing the up arrow displays the bottom of the screen.
▼	Use to scroll down the screen to the next entry in a list or portion of a message. When the bottom of the screen is reached, pressing the down arrow displays the top of the screen.
▶	Use to advance the cursor to the text-entry position to the right.
◀	Use to backspace the cursor to the text-entry position to the left. In a text field, it deletes the character to the left.
Cancel	Use to cancel a function selected by the Set key and go back one step or to return to the Info screen. Also, use to bypass start-up diagnostics. (When a job cancel message is displayed during RIP or Print, press Set to cancel the job, not Cancel.)

Screens

While one or more jobs are being sent to the Fiery X3e, runtime information is displayed on the Fiery X3e Operation Panel. If an Alert condition arises, the Alert screen is displayed. Pressing the Menu key cycles from the Info screen to any active runtime screens (RIP, Print, Alert). Press the Cancel key to return to the Functions screen. (On the initial release of the Fiery X3e, using the Menu key to cycle through the runtime screens may not be supported.)

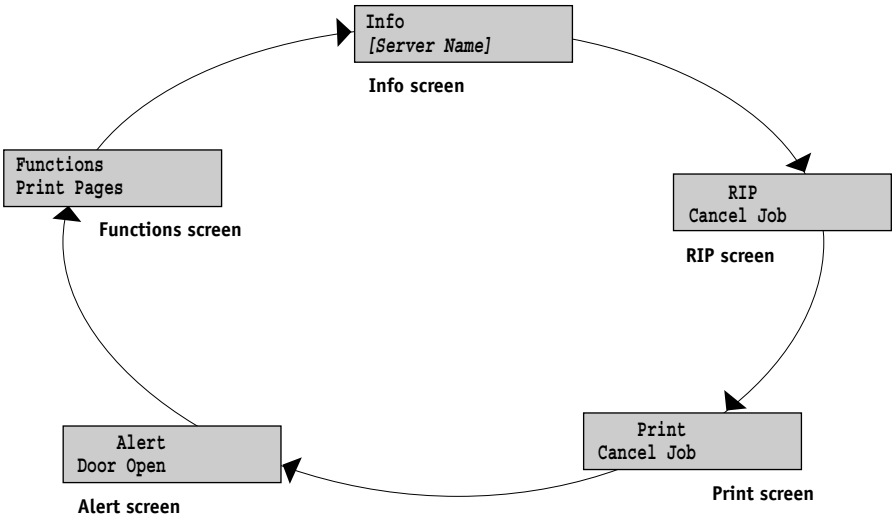


FIGURE 2-2 Fiery X3e Operation Panel screens

Assuming all screens are active, the Menu key cycles through in this order:

- Info
- RIP
- Print
- Alert

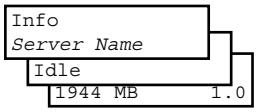
Press the Cancel key to return to the following screen:

- Functions

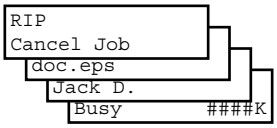
These screens contain the following information:

Info status screen—The first line of this screen displays the status of the Fiery X3e; for example, Idle or Printing. Scrolling down displays the printer's name on the network, the amount of disk space available on the hard disk drive, and the current system software

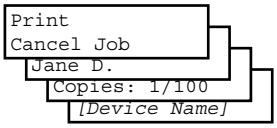
version. Normally, if no jobs are currently being processed or printed, the Info screen displays Idle (a job may be between processes). The Info screen is the default screen.



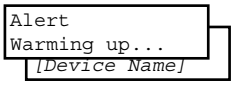
- RIP status screen—Allows you to cancel the job being processed. Displays the name of the file, the name of the user who sent the job, the status, and the amount of the job in kilobytes that has been processed so far. To cancel a job, display Cancel Job and press the Set key.



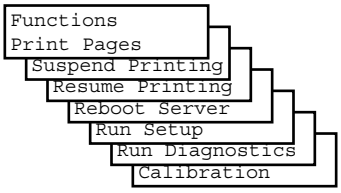
- Print status screen—Allows you to cancel the job being printed. Displays the name of the user who sent the job, the number of copies printed so far, and the number of copies requested. To cancel a job, display Cancel Job and press the Set key.



- Alert screen—Displays a message if an error or other Alert condition arises. Pressing the down arrow key may be necessary to view the entire error message. If other screens are being accessed, the Alert screen is redisplayed frequently until the condition is resolved.



- Functions screen—Gives you access to administrative functions not normally performed from a remote workstation (see "Functions screen" below for information on the available functions). To access it from the Info screen, press the Menu key.



Functions screen

The Functions screen allows you to perform a variety of administrative functions that do not affect print jobs of other users. To access the Functions screen, press the Menu key. Use the up/down arrow keys to scroll through the list of menu items. Press the Set key when the option you want to select is displayed. Press the Cancel key or do nothing to return to the Info screen.

The following options are available from the Functions screen:

Print Pages—Enables you to print special pages from the copier:

- Test Page—Prints the Test Page resident on the Fiery X3e hard disk drive. The Test Page confirms that the Fiery X3e is properly installed in the copier and allows you to view information about color and grayscale to troubleshoot Fiery X3e functions. The following information also displays: Server name; Printer name; Calibration Method; Calibration Date & Time; RGB Source Profile; Date & Time; CMYK Simulation Profile; Simulation Method; RGB Separation; and Compression. For more information see the user documentation set.
- Configuration—Prints the current device configuration, including information about all current Setup settings, calibration profile, and the Ethernet address of the Fiery X3e board.
- Job Log—Prints the log of the last 55 jobs. For more information about the job log, see the *Configuration Guide*.
- Control Panel Map—Prints the Fiery X3e Menu Map, useful when navigating through the different Fiery X3e Setup screens.
- Color Charts—Prints the color reference charts, including swatches of the RGB, CMY, and Pantone colors available from the Fiery X3e.
- Font List—Prints a list of all the fonts resident on the Fiery X3e hard disk drive.
- E-mail Log—Prints the log of the last 55 e-mail transmissions to or from the Fiery X3e. See the *Configuration Guide* for more information.

Suspend Printing— This option interrupts the current print job so you can use the copier to make copies. If it has not finished processing, the RIP will continue but the job will not print. You can then select Resume Printing.

Resume Printing—Resumes printing after interrupting the print job in order to make copies.

Reboot Server—Shuts down all printing activity properly and then restarts the Fiery X3e. Access to Fiery X3e Setup options is made available at this time. The option Shut Down System shuts down the system properly so that you can safely power off the copier.

Run Setup—Configure the Fiery X3e for specific options at startup and save the settings on the Fiery X3e. Certain options may be required in order to connect to networked computers. See the *Configuration Guide* for more information.

Run Diagnostics—Select this option to access:

- Video Diagnostics—Runs diagnostics on the Fiery X3e video interface (see "Video Interface Diagnostics" on page 4-6).
- Test E-mail—Runs an internal E-mail test. This option is displayed only if the E-mail function is configured in Network Setup.

Calibration—Select calibration options such as Remove Calibration, Print Measurement Page, or Apply Calibration.

Chapter 3: Service Procedures

Generally, the Fiery X3e assembly does not require regular maintenance. Use the procedures in this chapter to inspect, remove, reseat, or replace major hardware components and also to install system software.

Overview

This chapter includes information on the following:

- Cable connections (page 3-3)
- Fiery X3e board components
    - CPU cooling unit (page 3-10)
    - DIMMs (page 3-12)
    - Battery (page 3-13)
    - Hard disk drive (page 3-14)
- System software (page 3-20)

For how to remove and replace the entire Fiery X3e assembly, see other documentation.

See Figure 3-1 on page 3-2 for an overview of Fiery X3e board components. Replacement parts are available from your authorized service representative.



Follow standard ESD (electrostatic discharge) precautions while working on the internal components of the copier. Before performing the procedures described in this chapter, review "Precautions" on page xii and "Tools you will need" on page xiv.

The Fiery X3e system software is installed on the hard disk drive at the factory. You will need to re-install system software if you:

- Replace the hard disk drive
- Upgrade to a more recent version of the system software

Shutting down the Fiery X3e

Before you power off the copier, shut down the Fiery X3e.

TO SHUT DOWN THE FIERY X3E FROM THE OPERATION PANEL

1. **From the Info screen, press the Menu key to display the Functions menu.**
2. **Scroll to display Reboot Server and press the Set key.**
3. **Scroll to display Shut Down System and press the Set key.**

   When the message says it is safe, power off the copier using the copier power switch.

Key

1. Fiery X3e board
2. HDD
3. CPU cooling unit
4. DIMMs
5. Battery
6. DIMM socket J48
7. DIMM socket J49
8. Faceplate
9. Video interface connector
10. Video interface connector

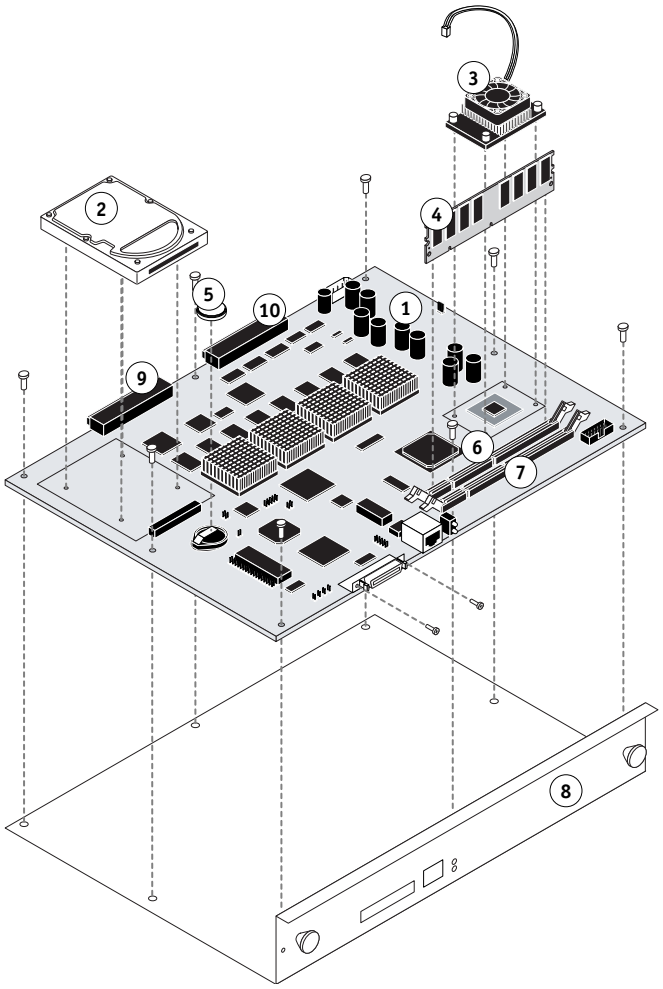


FIGURE 3-1 Exploded view of Fiery X3e assembly

NOTE: A cooling-air duct may be present which attaches to the faceplate with two screws. It receives power directly from the copier through a 2-pin cable connector. This item and the installation instructions are provided by its manufacturer in an I/F kit that may also include the Operation Panel for the Fiery X3e.

Checking connections

The most common causes of hardware problems are faulty or loose connections. This section describes copier connections to the Fiery X3e, external cable connections at the Fiery X3e faceplate, and the Fiery X3e assembly.

TO CHECK CONNECTIONS

1. **Attach an ESD grounding wrist strap, shut down the Fiery X3e (see page 3-1), and power off the copier.**
2. **Inspect internal ribbon cables to see if they are intact.**

   Faulty ribbon cables are easily overlooked. Check the contact point between the cable and the connector to ensure that they have not separated. If a ribbon cable is suspect, substitute it with a tested cable.
3. **Make sure that all cables and DIMMs are properly aligned and well seated on their Fiery X3e connectors. For connector and DIMM socket locations on the Fiery X3e, see Figure 3-4 on page 3-9.**

TABLE 3-1 Fiery X3e cable connections within the copier

From	To
Copier power supply	Video interface connectors on Fiery X3e (J784 and J787)
Copier video interface	Video interface connectors on Fiery X3e (J784 and J787)
Operation Panel	Video interface connectors on Fiery X3e (J784 and J787)
CPU fan on Fiery X3e	CPU fan connector on Fiery X3e (J300)

4. **Check the HDD connection to the Fiery X3e connector J207. If the 4 screws are installed properly from the Fiery X3e into the HDD, the connection is secure.**
5. **After tightening connections, if one or more Fiery X3e components are still not getting power at power up, you may need to check the copier power supply.**

Verifying connection to the network

The Fiery X3e provides twisted pair connectivity to an Ethernet network. This section describes how to connect the Fiery X3e to the network and print a few test documents in order to verify the connection.

Category 3 or Category 5 unshielded twisted pair (UTP) network cable can be used for 10BaseT. Category 5 cable is required for 100BaseTX.

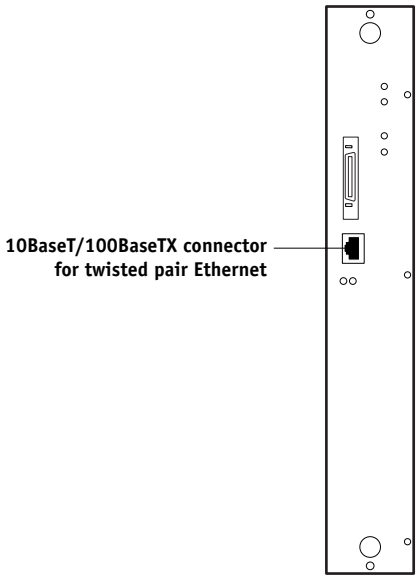


FIGURE 3-2 Fiery X3e network connector

TO CONNECT A TWISTED PAIR CABLE TO THE FIERY X3E

Category 5 unshielded twisted pair (UTP) network cable must be used for 100BaseTX. It connects to the RJ-45 connector on the Fiery X3e (see Figure 3-2 on page 3-4).

1. **Shut down the Fiery X3e (see page 3-1) and power off the copier before connecting the Fiery X3e to any network device.**

2. **Connect the network cable to the RJ-45 connector on the Fiery X3e (see Figure 3-2 on page 3-4).**

3. **Configure Setup options.**

   It is the network administrator's responsibility to configure Setup according to the network and user environment. Default settings in Setup may be adequate although they may not be optimal for the user's environment. Refer the network administrator to the *Configuration Guide* for Setup information.

4. **After configuring Setup options, verify the network connection.**

   Once the network connection has been made and the Fiery X3e has the correct Setup configuration and is Idle, the Fiery X3e should be available on the network.

   The network administrator should perform any additional network Setup, verify the network connection, verify that the Fiery X3e appears in the list of printers, and print a few test documents from a networked computer that will use the Fiery X3e. (See the *Configuration Guide* for more information.)

Verifying the parallel port connection

On the Fiery X3e, the parallel connector (female 36-pin mini-Centronics) provides a high-speed interface port for connecting directly to the parallel port of a PC. The parallel port can be used for installing system software (see page 3-20) and for printing documents.

The Fiery X3e can be connected to the network and to a parallel port device at the same time. See Figure 3-2 on page 3-4.

An IEEE 1284 bi-directional cable is required. One end of the cable requires a male IEEE 1284-C (36-pin mini-Centronics) connector for connecting to the Fiery X3e.

NOTE: For optimal performance, use a short cable. Longer cables may cause erroneous operation.

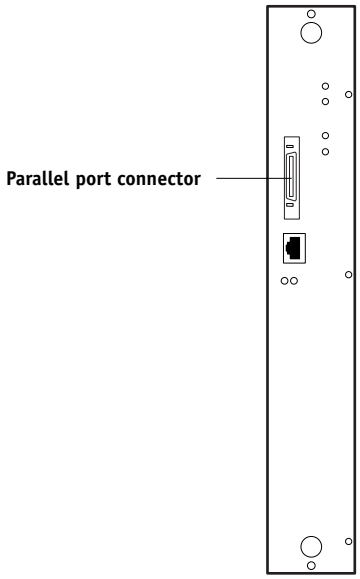


FIGURE 3-3 Fiery X3e parallel port connector

TO CONNECT THE FIERY X3E TO A PC

NOTE: If the PC is for installing system software, make sure it meets the minimum requirements specified in *Getting Started*.

1. **Shut down the Fiery X3e (see page 3-1) and power off the copier before connecting the Fiery X3e to a PC.**
2. **Power off the PC.**
3. **Connect a parallel (Centronics) cable to the 36-pin mini-Centronics connector on the Fiery X3e (see Figure 3-2 on page 3-4).**
4. **Connect the other end of the parallel cable to the parallel port of the PC.**

   If there is more than one parallel port connector on the back of the PC, ask the network administrator to indicate the preferred parallel port to use for the copier.
5. **Power on the PC and the copier.**
6. **Configure Setup options.**

   It is the network administrator's responsibility to configure Setup according to the network and user environment. Default settings in Setup may be adequate although they may not be optimal for the user's environment. Refer the network administrator to the *Configuration Guide* for Setup information.
7. **After configuring Setup options, verify the parallel port connection.**

   Once the parallel port connection has been made and the Fiery X3e has the correct Setup configuration and is Idle, the network administrator should print a few test documents from the PC connected to the copier. See the *Configuration Guide* for more information.

Once you conclude that all external connections are good, check the internal connections.

In order to service the Fiery X3e, you need to shut down and open the copier from the side. See other documentation for instructions.

Fiery X3e assembly

The custom Fiery X3e board has a Celeron CPU that controls the video image data transferred to and from the copier. The Fiery X3e board provides the Ethernet networking interface, controls hard disk drive functions, and handles the communication between the Fiery X3e and external devices. It has two DIMM sockets that hold a total memory of 128MB (upgradable to 384MB). See Figure 3-4 on page 3-9 and also "DIMMs" on page 3-12.

When the Fiery X3e assembly is installed inside the copier, the connectors for external devices are easily accessible from the faceplate.

When you remove the Fiery X3e assembly from the copier, you will find the Fiery X3e board and its on-board HDD. The Fiery X3e board is attached to the faceplate. You do not need to remove the faceplate in order to replace parts on the Fiery X3e.

Following are instructions for accessing, removing, and replacing Fiery X3e board components, including the CPU cooling unit, DIMMs, battery, and HDD.



Make sure you attach an ESD grounding wrist strap and follow standard ESD (electrostatic discharge) precautions before following these procedures.

Key

1. HDD
2. CPU fan cable connector
3. CPU with cooling unit
4. HDD connector
5. DIMM in socket J48
6. DIMM socket J49 (not visible)
7. Battery
8. Video interface connector (J787)
9. Video interface connector (J784)
10. Parallel connector (J771)
11. 10/100BaseTX connector (J772)
12. Network Status LEDs (see page 1-2)
13. Handles (2)
14. Faceplate screw holes (2)

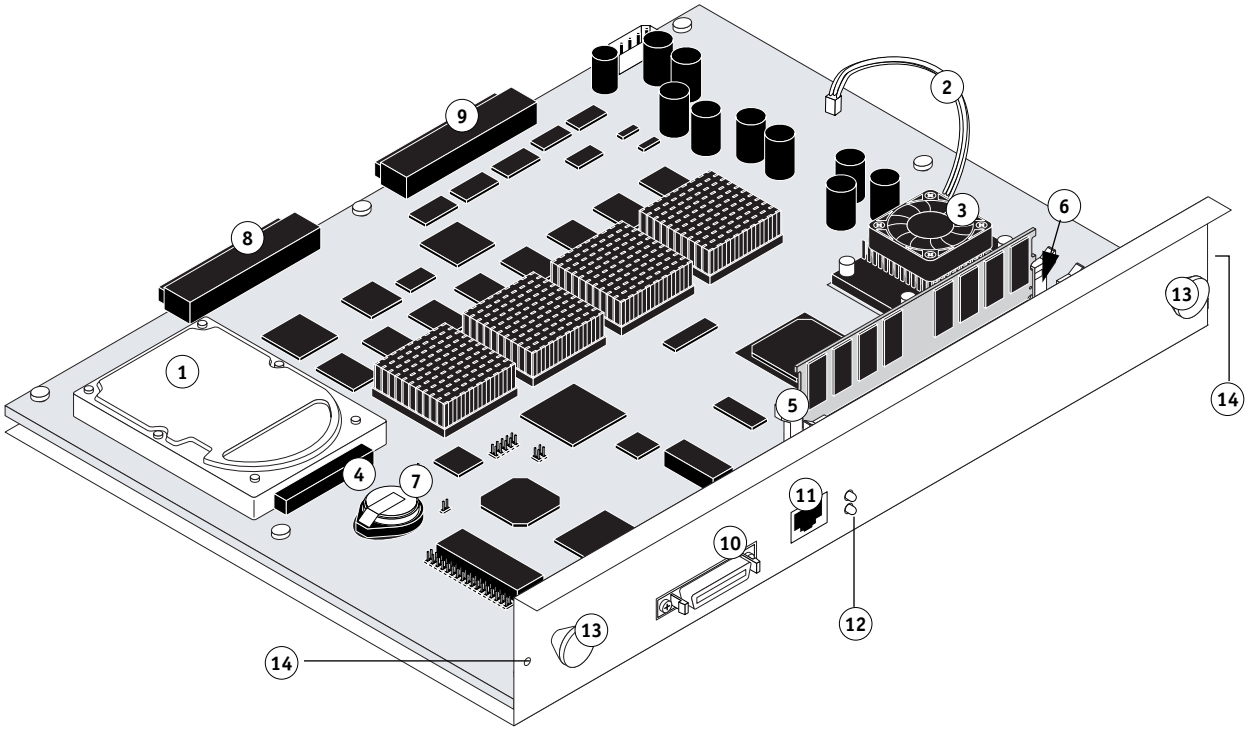


FIGURE 3-4 Fiery X3e board

Replacing Fiery X3e board components

This section describes how to remove and install the following replaceable parts on the Fiery X3e board:

- CPU cooling unit
- DIMMs
- Battery
- Hard Disk Drive (HDD)

CPU cooling unit

A fan attached to the CPU heatsink runs continuously when the copier is on.

TO REMOVE THE CPU COOLING UNIT

1. **Shut down the Fiery X3e (see page 3-1) and power off the copier.**
2. **Open the copier and remove the Fiery X3e assembly as described in other documentation.**
3. **Lay the board on a flat surface. Unplug the CPU fan cable from board connector J300.**

   To remove the fan cable, gently pull the cable connector straight out from the on-board connector (see the following figure).

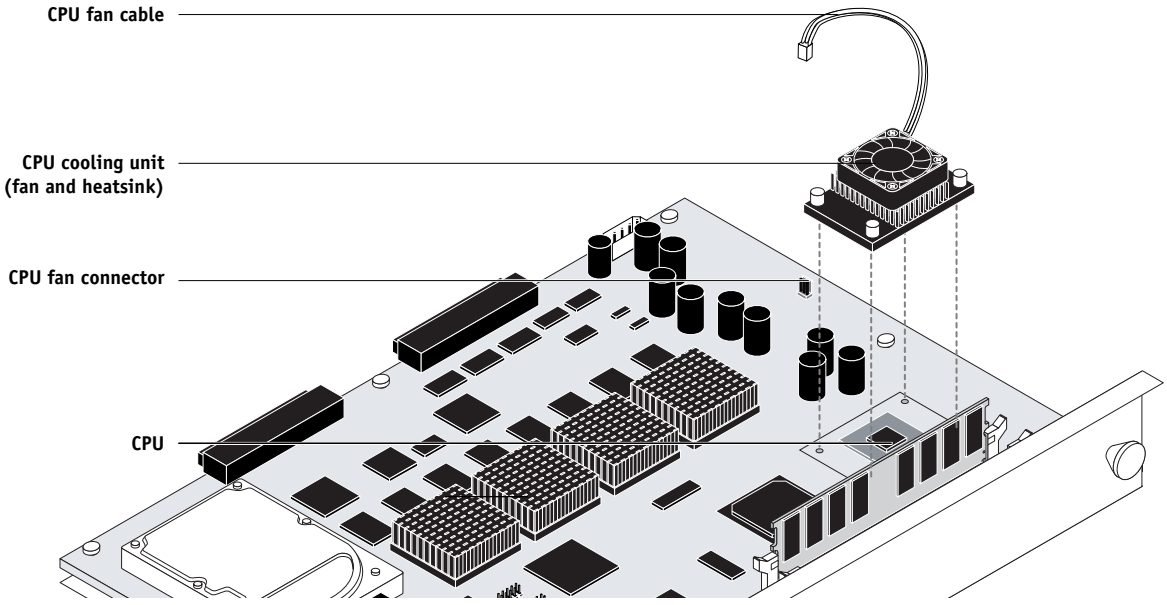


FIGURE 3-5 CPU Cooling Unit

4. **Lay the board on a flat surface and remove the faceplate from the Fiery X3e.**

   The board is attached to the faceplate with 10 screws: 8 screws through the board into standoffs plus 2 screws on the parallel connector. Set aside the screws, standoffs, and faceplate so that you can reinstall them later.

5. **Lay the board upside down on a flat surface and dislodge each cooling unit pin from the hole in the board.**

   From the bottom of the board, use your fingers or needlenose pliers to squeeze the pin together then push the pin into the hole. Each pin is slotted and has a lip to secure it to the board. Squeezing the slotted pin together enables you to dislodge it from the hole in the board. Allow the pins to remain connected to the cooling unit.

   NOTE: Make sure not to apply excessive pressure on the board. When using needlenose pliers, orient the pliers perpendicular to the board in order to keep from scraping any board components or circuitry.

6. **Remove the CPU cooling unit, noting its orientation on the CPU.**

TO INSTALL THE CPU COOLING UNIT

1. **Position the CPU cooling unit over the board holes around the CPU.**

   Orient the cooling unit so that the fan cable will not be stretched when connected to the on-board connector J300.

2. **Attach the CPU cooling unit to the board by pushing each of the four pins through the hole so that the lip of each pin snaps into place on the bottom of the board.**

   NOTE: Make sure not to apply excessive pressure on the board.

3. **Reinstall the faceplate on the Fiery X3e.**

   The board is attached to the faceplate with 10 screws: 8 screws through the board into standoffs plus 2 screws on the parallel connector. Use the screws and standoffs that you removed earlier.

4. **Plug the CPU fan cable into the 3-pin board connector J300.**

   The fan cable connector is keyed to ensure proper connection.

5. **Reassemble the Fiery X3e and verify functionality.**

   See “Restoring Fiery X3e functionality after service” on page 3-19.

DIMMs

Each DIMM (dual in-line memory module) is held in place by levers at each end of its socket on the Fiery X3e board. See Figure 3-1 on page 3-2. In the initial configuration, DIMM slot J48 holds one 128MB DIMM and DIMM slot J49 is empty. Approved DIMMs are available from your authorized service representative.

TO REPLACE OR UPGRADE A DIMM

1. **To release a DIMM, push outward on the lever on each side of the DIMM.**

   See the following figure.

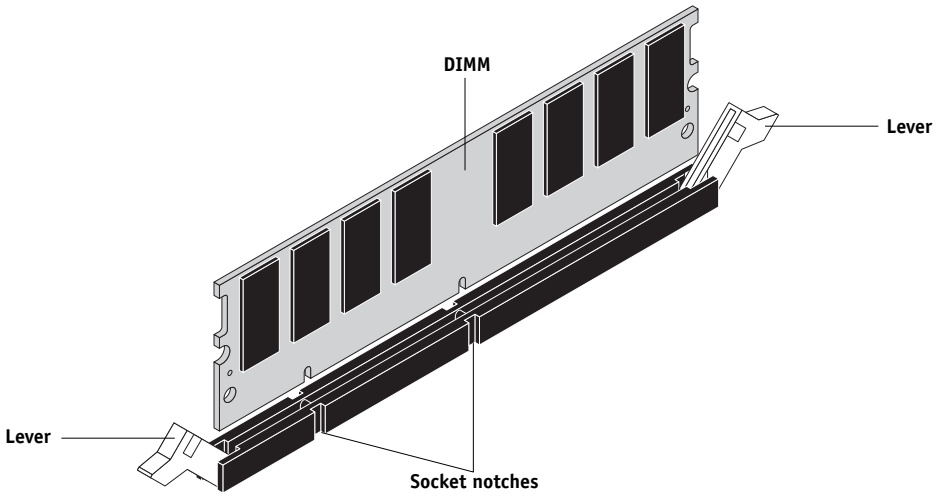


FIGURE 3-6 Releasing a DIMM

2. **Slide the DIMM out of the socket at the same angle as the socket and set it aside.**

   DIMMs of different memory capacity look alike, so take note where you place loose DIMMs.

3. **To install a DIMM, slide it into the angled socket at the same angle as the socket. Push the DIMM into the socket until the levers snap into place.**

   Make sure that the levers close securely around the ends of the DIMM and that the DIMM is fully seated in its socket. Avoid flexing the board while you firmly seat the DIMM in its socket. The DIMM fits the socket only one way. The two notches on the bottom of the DIMM should line up with the notches in the socket.

4. **Reassemble the unit and verify functionality.**

   See "Restoring Fiery X3e functionality after service" on page 3-19.

   To verify memory capacity, print a Configuration page to check the amount of memory recorded under Server Info.

Battery

The battery on the Fiery X3e board is located at BT200, near the DIMMs. To replace it, use a 3V manganese dioxide lithium coin cell battery (Panasonic CR2032 or equivalent).

CAUTION: There is danger of explosion if the battery is replaced with the incorrect type. Replace only with the same type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

ACHTUNG: Es fbesteht Explosionsgefahr, wenn die Batterie durch eine Batterie falschen Typs ersetzt wird. Als Ersatz dürfen nur vom Hersteller empfohlene Batterien gleichen oder ähnlichen Typs verwendet werden. Verbrauchte Batterien müssen entsprechend den Anweisungen des Herstellers entsorgt werden.

ATTENTION: Il y a risque d'explosion si la pile est remplacée par un modèle qui ne convient pas. Remplacez-la uniquement par le modèle recommandé par le constructeur. Débarrassez-vous des piles usées conformément aux instructions du constructeur.

TO REPLACE THE BATTERY

1. **Locate the battery on the Fiery X3e (see Figure 3-4 on page 3-9).**
2. **Carefully lift up the clip that holds the battery.**

   Use caution when lifting up the clip; excessive force could cause the clip to lose its tension.

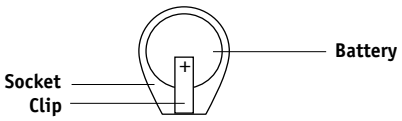


FIGURE 3-7 Fiery X3e battery

3. **Pull the battery out of its socket and release the clip.**
4. **To insert a new battery, slide the battery into the socket under the clip with the positive (+) side facing up.**

   Make sure the clip holds the battery securely in the socket.

5. **Reassemble the Fiery X3e and verify functionality.**

   See "Restoring Fiery X3e functionality after service" on page 3-19.

   The date and time of day are lost when the old battery is removed. See the *Configuration Guide* for instructions on entering Server Setup to program the system date and time.

Hard disk drive

The factory-installed hard disk drive (HDD) is formatted and loaded with all Fiery X3e software, including operating software, system software, network drivers, and printer fonts. Because the HDD is used to store spooled print jobs, available disk space is displayed on the Operation Panel.

Instructions for installing system software are provided to service technicians in separate kits and are also included in this guide.

If you are replacing the HDD, you need:

- The appropriate System Software CD
- The latest version of user software (for networked computers that will be printing to the Fiery X3e)

Proper handling

Handle the hard disk drive with care:

- Use proper ESD practices when grounding yourself and the Fiery X3e.
- Keep magnets and magnetic-sensitive objects away from the HDD.
- Do not remove the screws on top of the HDD. Loosening these screws voids the warranty.
- Never drop, jar, or bump the HDD.
- Handle the HDD by its sides and avoid touching the printed circuit board assembly.
- Allow the HDD to reach room temperature before installation.

Hard disk drive problems may be a result of the following:

- Loose or faulty connection
- Faulty hard disk drive

Before you decide that the hard disk drive needs to be replaced, make sure that all cables are connected properly.



If the hard disk drive needs to be replaced, you'll need to install the system software on the new hard disk drive. (Replacement drives are shipped without Fiery X3e system software installed.) Make sure you attach an ESD grounding wrist strap and follow standard ESD (electrostatic discharge) precautions before handling Fiery X3e components.

TO REMOVE THE HDD

1. **If you are removing this HDD in order to replace it with a new one, print the following from the Functions menu (if possible):**

   - Configuration page—records the customer's current Setup configuration.

     The Setup configuration will be reset to the default configuration when you install system software on the replacement HDD.

   - Font List—details what fonts are resident on the Fiery X3e HDD. Along with the fonts that are provided on the System Software CD, the customer may have installed additional fonts that will be deleted when the system software is installed.

2. **Shut down the Fiery X3e as described on page 3-1 and power off the copier.**

3. **Remove the Fiery X3e assembly from the copier as described in other documentation.**

4. **Remove the faceplate so that you can access the HDD screws (see "To remove and install the faceplate" on page 3-18).**

5. **Remove the four screws that secure the HDD to the board from the bottom of the board.**

   Set the screws aside.

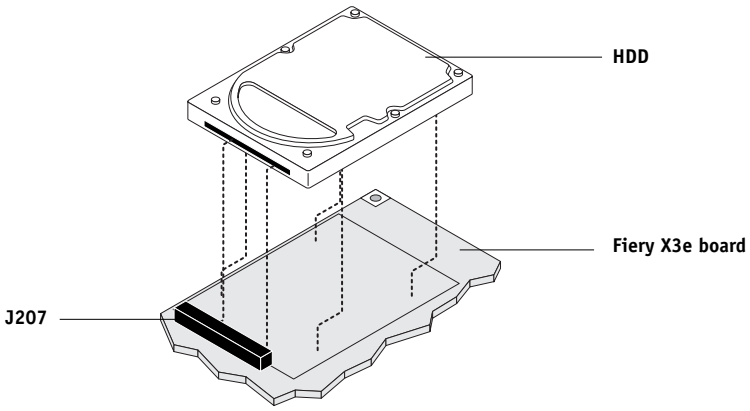


FIGURE 3-8 Removing the hard disk drive

6. **Slide the HDD out from board connector J207.**

7. **Handle the HDD with care and place it in an antistatic bag.**

   Do not touch the drive with magnetic objects, such as magnetic screwdrivers. Do not place items near the hard disk drive that are sensitive to magnets, such as credit cards and employee ID cards. See "Proper handling" on page 3-14.

TO INSTALL A NEW HARD DISK DRIVE

Make sure you attach an ESD grounding wrist strap and follow standard ESD (electrostatic discharge) precautions before handling Fiery X3e components.

1. **Handle the hard disk drive with care.**

   Do not touch it with magnetic objects or place any objects near it that are sensitive to magnets. See "Proper handling" on page 3-14.

2. **Slide the HDD into board connector J207.**

3. **Observe the alignment of holes in the HDD with holes in the board. Secure the HDD to the board with four screws on the bottom of the board. (See Figure 3-8 on page 3-15.)**

   Using the wrong screw holes could damage the Fiery X3e board.

4. **Reinstall the faceplate using the ten screws you removed earlier: eight screws to the faceplate bottom and two screws to the parallel port connector (see "To remove and install the faceplate" on page 3-18).**

5. **Reassemble the unit and verify functionality.**

   See "Restoring Fiery X3e functionality after service" on page 3-19.

6. **If the HDD is a replacement, install system software as described on page 3-20.**

Faceplate

The following procedure describes how to remove and install the Fiery X3e faceplate. Before performing this procedure, shut down the copier and remove the Fiery X3e as described in other documentation.

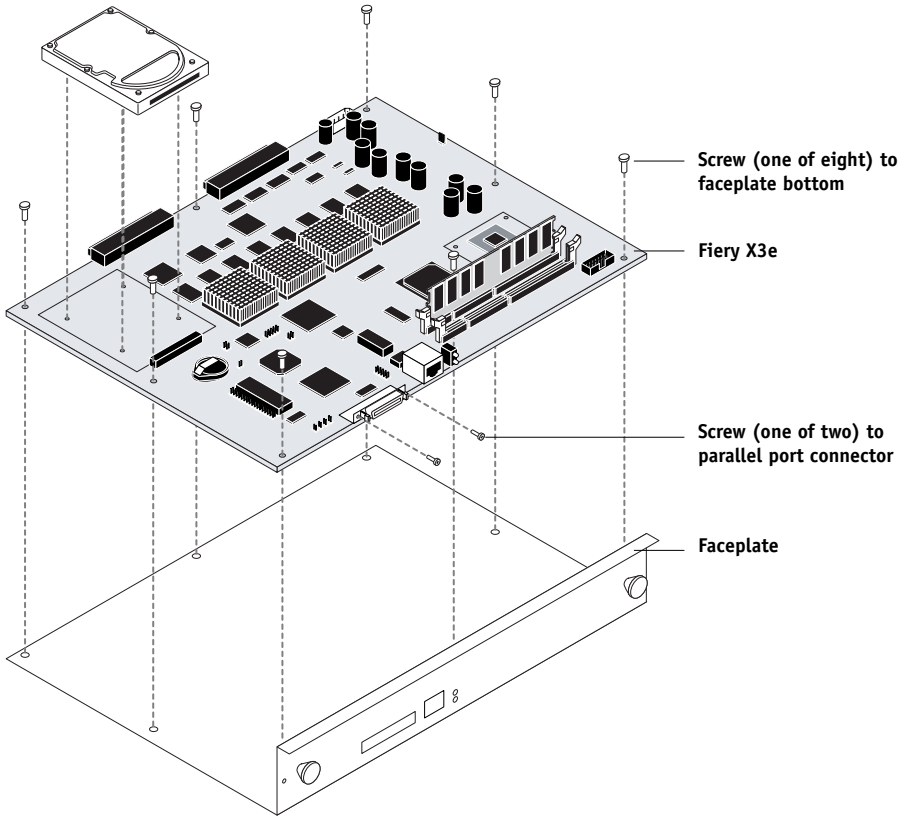


FIGURE 3-9 Fiery X3e faceplate

TO REMOVE AND INSTALL THE FACEPLATE

1. Remove the eight screws that attach the faceplate to the Fiery X3e board (these screws are located on the board side of the faceplate). Set aside the screws.
2. Remove the two screws on the front of the faceplate that attach the parallel port connector to the faceplate. Set aside the screws.
3. Gently remove the faceplate from the Fiery X3e board. Set aside the faceplate.
4. To install the faceplate, position it so that the cutouts fit over the connectors on the Fiery X3e board.
5. Insert the eight screws you removed earlier into the mounting holes on the board side of the faceplate.
6. Insert the two screws on the front of the faceplate that attach the parallel port connector to the faceplate.

Restoring Fiery X3e functionality after service

1. **Reinstall any parts of the Fiery X3e assembly that you loosened during inspection or service.**
2. **Install the Fiery X3e in the copier and reassemble the copier as described in other documentation.**
3. **Before you leave the customer site, verify Fiery X3e operation as outlined below.**

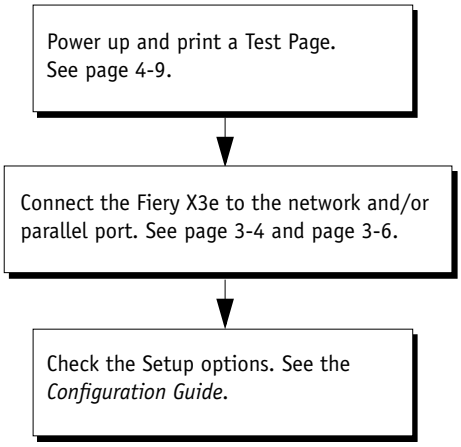


FIGURE 3-10 Fiery X3e connection verification steps

System Software

The Fiery X3e System Software CD includes one system software file to be installed over the parallel port of the Fiery X3e.

Install system software when:

- You replace the Fiery X3e hard disk drive (HDD)
- You upgrade to a more recent version of the system software

System Software installation reminders

Installing system software erases all data on the HDD. Keep in mind the following when installing system software:

- **Job Log**—The list of jobs in the Job Log and any jobs in the queues are deleted. The network administrator at the customer site can save a current list of jobs (not the actual jobs) from the Job Log using Fiery Spooler or WebSpooler.
- **Fonts**—All fonts that the customer has installed on the Fiery X3e are deleted. Only resident fonts will be restored during system software installation. Fiery Downloader can be used to reinstall additional fonts.

  To determine which additional fonts were downloaded to the Fiery X3e, print the Font List before you format the HDD and again after you complete the system software installation. Any fonts not listed after installation will need to be reinstalled. See the *Printing Guide* for more information.
- **Language**—Screens for installing system software are always displayed in English, even if the copier is configured for another language.
- **Compatibility**—The latest user software must be installed onto all computers that print to the Fiery X3e. Using incompatible versions of the system and user software may result in system problems.

Installing System Software

To install system software using the parallel port on the Fiery X3e, you need:

- A PC with Windows 98
    - A CD-ROM drive built in or attached
    - At least 400MB of disk space free
    - Support for ECP mode on the parallel port
- IEEE 1284 bi-directional parallel cable (maximum 6 feet long)

  One end of the parallel cable requires a male connector for connecting to the female mini-Centronics connector on the Fiery X3e.

The PC will need to be configured so the parallel port mode in the BIOS is set to ECP. When you access the PC BIOS to set the parallel port mode to ECP, you may discover that ECP is the default mode, or you may discover that ECP mode is not supported at all. If ECP is not supported, you can either install an add-in board (not provided), use a different PC, or opt for a much slower installation using Compatibility Mode.

In addition to accessing the BIOS, setting up the PC also requires certain port and printer settings in Windows 98. Before you begin installing system software, follow the procedure for setting up the PC.

TO SET UP THE PC

1. **Access the PC BIOS and make sure that Parallel Port Mode is set to ECP.**

   Power on the PC and immediately press the key indicated on your monitor for entering the BIOS (or a likely key if it is not indicated). Pressing a likely key repeatedly (ESC, DEL, F1, or a combination) may interrupt the starting of Windows and access the BIOS or give you directions for accessing the BIOS.

   Once in the BIOS, you may have to scroll through several screens to reach the settings for the parallel port. After setting the Parallel Port Mode to ECP, save your changes and exit the BIOS.

2. **Install the PostScript printer driver for the Fiery X3e from the User CD in the Windows 98 subdirectory.**

   This driver supports IEEE 1284 fast bi-directional throughput over an ECP parallel port and allows you to configure all port and spool settings required for a successful installation. You may skip this step if a comparable printer driver is already installed on the PC. See *Getting Started* for directions on installing printer drivers.

3. **In Windows 98, click the Start button, point to Settings, and click Printers.**

4. **Click the icon for the printer and choose Properties from the File menu.**

5. **Click the Details tab and make sure the box "Print to the following port:" reads exactly as follows: LPT 1: (ECP Printer Port).**

   If this box reads LPT 1: (Printer Port) instead of LPT 1: (ECP Printer Port), the LPT1 port settings in the BIOS for ECP mode have not been configured. Reboot the PC to reenter the BIOS and set the Parallel Port Mode to ECP. Compatibility mode will work but the installation will take much longer.

6. **Click Spool Settings and select "Spool print jobs so program finishes printing faster," "Start printing after first page is spooled," and, if it is not greyed out, "Disable bi-directional support for this printer." Then click Apply and click OK.**

   NOTE: The "Start printing after first/last page is spooled" setting generally does not affect this procedure significantly. Choosing "last page" may result in a faster installation. If your PC is likely to spool the file very slowly, however, choose "Start printing after first page is spooled" in order to avoid disruption from a parallel port timeout.

   Disabling Windows support for the bi-directional parallel port helps the system software installation to succeed.

7. **Click Port Settings and ensure that "Spool MS-DOS print jobs" and "Check port state before printing" are checked. Click OK.**

8. **Click Apply, then OK to activate the settings and exit from the Printer Properties screen.**

   The PC is properly configured. Now prepare for the installation.

TO PREPARE FOR INSTALLATION USING THE PARALLEL PORT

1. **Before installing system software, print the following from the Functions menu (if possible):**

   - Configuration page—records the customer's current Setup configuration.

     The Setup configuration will be reset to the default configuration when the system software is installed.

   - Font List—details what fonts are resident on the Fiery X3e HDD. Along with the fonts that are provided on the System Software CD, the customer may have installed additional fonts that will be deleted when the system software is installed.

2. **Shut down the Fiery X3e as described on page 3-1, and power off the copier and the PC.**

3. **Connect an IEEE 1284 cable to the LPT1 port on your PC and to the parallel port on the Fiery X3e.**

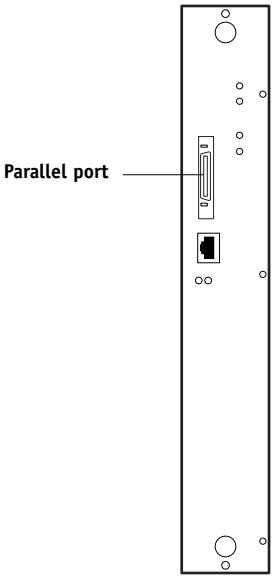


FIGURE 3-11 Parallel port connector on the Fiery X3e

Now you are ready to do the software installation procedure.

TO INSTALL SYSTEM SOFTWARE

1. **Make sure the copier is powered off.**
2. **Power on the PC, then insert the System Software CD into the CD-ROM drive.**
3. **In the Windows Start menu, select Programs, and click MS-DOS prompt to bring up an MS-DOS window.**

   Do *not* use the option to "Shut Down and Restart Windows in DOS mode."
4. **At the MS-DOS prompt, navigate to the CD-ROM drive directory and do a dir command to display the contents.**

   To find the correct letter for the CD-ROM drive, open the My Computer folder and read the drive letter associated with the CD-ROM icon.

   For each file, an information line of text is displayed in the MS-DOS window, including file size and the full name of the file. Note the full filename, including its extension, which is displayed at the end of the line of text. Also, note which file is smaller; you will install the smaller file first.
5. **In the CD-ROM drive, type the following command at the MS-DOS prompt but *do not* press the enter (or return) key yet:**

   copy *filename1* lpt1 /b

   filename1 refers to the full name of the smaller file on the System Software CD.

   /b specifies the binary option (not ASCII).

   NOTE: Make sure to spell the filename correctly. *Do not* press the enter (or return) key yet.
6. **Power on the copier and within 3 seconds press the enter (return) key on the PC.**
7. **Wait until the following service menu is displayed.**

   ```
   |>Diagnostics<
   V Continue Boot
   ```

   Status messages Downloading..... and Booting..... appear first. If these messages do not appear, recycle power to the copier and repeat this step, making sure to press enter quickly. You can ignore the prompt, "Press any key to enter config mode."

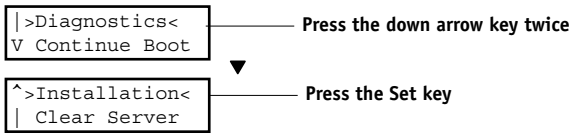
   The DOS-type window on the PC will display a message that one file was copied.
8. **Type the following command at the MS-DOS prompt on the PC but *do not* press the enter (or return) key yet:**

   copy *filename2* lpt1 /b

   filename2 refers to the full name of the larger file on the System Software CD.

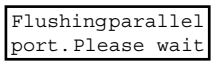
   NOTE: Make sure to spell the entire filename correctly. *Do not* press the enter (or return) key yet.

9. **At the Operation Panel, scroll down to select Installation, then press the Set key.**



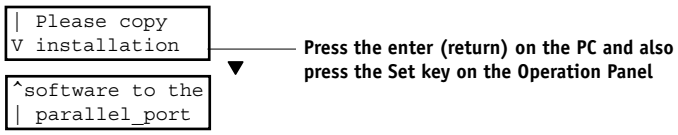
The angled brackets > < indicate the selected option.

10. **Wait while the following message is displayed.**

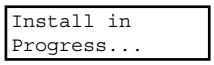


11. **At the following message, press the enter (or return) key on the PC and also press the Set key on the Operation Panel.**

Although it is not necessary, if you want to read the entire message, press the down arrow key on the Operation Panel.

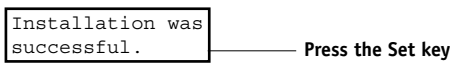


12. **Wait during the following message.**



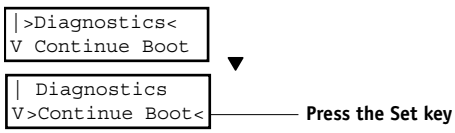
This step may take 15-30 minutes (or longer), depending on the PC.

13. **After a successful installation, press the Set key.**



The DOS-type window on the PC will display a message that one file was copied.

14. **At the Service Menu, scroll down to select Continue Boot, then press the Set key, and wait while the Fiery X3e boots.**

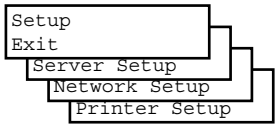


15. **At the Select Language screen, select the name of the language you want to use. Also select the market region, if prompted.**

    Use the up and down arrows to cycle through the languages available. When the language you want to use is displayed, press the Set key.

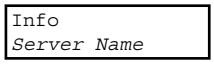
    If you select a new language, the prompt to reboot appears in the language you selected. Press the Set key to reboot, then wait until the Setup screen appears.

16. **In Setup, reenter the customer's settings from the Configuration page that you printed earlier.**



    Enter settings for Server, Network, and Printer Setup in that order. Bypass settings not included on the Configuration page if it is more appropriate for the network administrator to set them. See the *Configuration Guide* for more information.

17. **When the Fiery X3e reaches the Info screen, close the DOS-type window on the PC and remove the System Software CD from the CD-ROM drive.**



18. **Power off the Fiery X3e and the PC before removing the parallel cable.**

Chapter 4: Troubleshooting Procedures

This chapter focuses on the troubleshooting process, identifies the source of common problems that may occur with the Fiery X3e assembly, and suggests ways of correcting them.

The troubleshooting process

The troubleshooting process is designed to eliminate the most obvious causes of failure before progressing to more complex issues. “Where problems occur” on page 4-2 gives an overview of the Fiery X3e components and indicates areas most likely to require troubleshooting.

If the Fiery X3e fails to complete its Start-up sequence and the copier does not reach Info, the most likely cause is a loose cable or board connection. See “Checking connections” on page 3-3.

- Try a phone check before you go to the customer site.

  “Before you go to the customer site” on page 4-3 suggests areas you should check out before making a service call to the customer site. With a phone call, you can find out if the problem is a simple operating failure or a failure caused by a network or configuration change. You can ask the customer to check for loose cables on the side of the copier and loose connections at a power strip or outlet.

- Check for obvious causes of problems.

  “Preliminary on-site checkout” on page 4-4 takes you through the initial visual checkouts you should make when you arrive at the customer site. You should check the Operation Panels for an error message and see if the LEDs indicate an error condition. Then inspect the copier externally and internally for the most common problems, such as loose or faulty cables.

- Check network connections.

  “Checking network connections” on page 4-10 provides guidelines for checking the network connections between the copier and the computers to which it is connected, as well as information on several printing problems.

Where problems occur

The Fiery X3e as a built-in print server for the copier is generally part of a configuration like the one shown in Figure 4-1. Problems may occur in one of the following areas:

- The interface between the Fiery X3e board and the copier
- The interface between the Fiery X3e and computers on the same network
- The board or copier itself

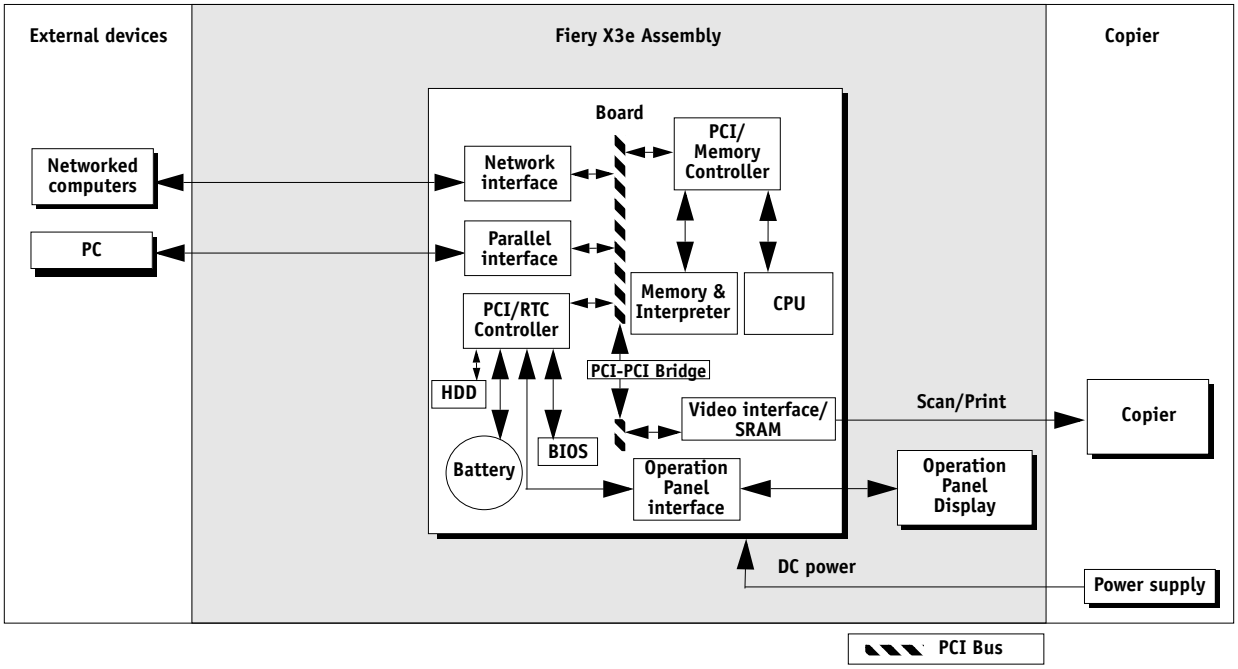


FIGURE 4-1 Fiery X3e functional diagram

This chapter does not attempt to provide troubleshooting information for attached computers such as Windows or Mac OS computers, for copiers, or for extensive networks. You should refer problems in these areas to the appropriate service departments and network administrators.

Before you go to the customer site

Before you make a service call to a customer site, talk to the customer on the phone, and check out the following items:

1. **Does the copier work?**

   If the copier works, but the user cannot print the Fiery X3e Test Page, have the customer check the Message LED and any error messages in the Operation Panel.

2. **Is the failure caused by a simple operating problem?**

   - Is there a printing problem?
     - Does the Fiery X3e Test Page fail to print?
     - Does the Fiery X3e fail to respond to a print command?
     - Does printing seem to take a long time?
     - Is print quality poor?
     - Does the Fiery X3e fail to appear in the list of printers?
   - Has the customer noted any error messages on the copier Operation Panel?

3. **If the answer to any of these questions is yes, refer the customer to the Troubleshooting Appendixes in the user documentation set.**

   If the customer has followed the corrective actions in the user documentation set and has failed to solve the problem, be prepared to make a service call. Keep a log of the failures and messages the customer has observed.

4. **Has the customer made any network changes?**

   If network changes have occurred, request that the customer's network administrator verify the Fiery X3e network requirements.

5. **Is the user having printing problems with a particular image file?**

   If there are problems with files from particular applications, the user may be more successful using different print settings.

If your telephone call fails to clear up the problem, proceed to the next phase, the preliminary on-site checkout.

Preliminary on-site checkout

Your goal in the preliminary on-site checkout is to eliminate obvious problems, such as loose or missing cables and connectors.

Checking connections

Before you remove the copier cover to inspect cables:

- Check that external interface cables are plugged into the proper connectors at the side of the copier.

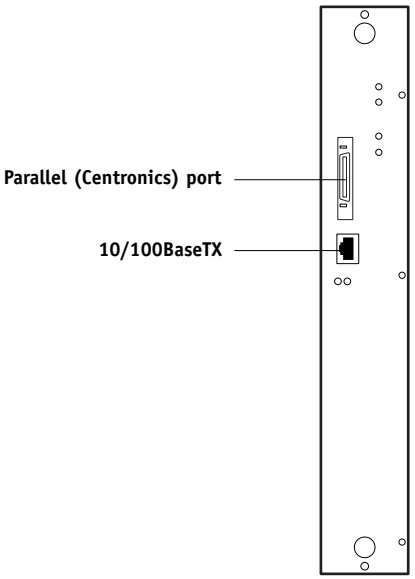


FIGURE 4-2 External cables

- Make sure the power cable is plugged into the wall outlet and that the copier is powered on.

General Fiery X3e system errors

When you start up the system or when you install system software, you may encounter error conditions that are not reported during the Start-up diagnostics. Table 4-1 lists some of these error conditions and suggests corrective action.

When you first encounter any of these error conditions, power off the copier and inspect for an obviously loose part or cable. Then check other components as suggested below. For service procedures, refer to Chapter 3.

4 General Fiery X3e system errors

TABLE 4-1 General Fiery X3e system error conditions and messages

Symptom	Probable cause	Suggested action
Fiery X3e does not start up.	Connections to the copier power supply are faulty.	• Check the Fiery X3e video interface connectors as well as the copier's relevant connectors and/or cables.
	Power supply has failed.	• Replace the copier power supply.
Fiery X3e starts up but CPU fan is not working or overheating.	CPU fan is not properly connected.	• Check CPU fan connection to Fiery X3e connector (see "CPU cooling unit" on page 3-10). • If problem persists, replace the CPU cooling unit.
CPU fan is working but blows air away from the Fiery X3e.	CPU fan is installed upside down.	• Remove the CPU fan and reinstall it in the proper orientation (see "CPU cooling unit" on page 3-10).
Buttons do not work on the Fiery X3e Operation Panel.	Connection to the Operation Panel is faulty or the Operation Panel is bad.	• Check the Fiery X3e video interface connectors as well as the copier's relevant connectors and/or cables.
	Faulty chip on the Fiery X3e.	• If the problem persists, you may have to replace the Fiery X3e.
Nothing appears on the Fiery X3e Operation Panel when the copier is powered on.	Connections to the Operation Panel are faulty or the Operation Panel is faulty.	• Check the Fiery X3e video interface connectors, the Operation Panel and its connections, as well as the copier's relevant connectors and/or cables.
	Faulty power supply.	• Check the Fiery X3e video interface connectors as well as the copier's relevant connectors and/or cables. • If problem persists, replace the copier power supply.
	Bad DIMM connections.	• Make sure that the DIMMs are seated correctly. • If the problem persists, try switching the DIMMs to other slots. • If problem still persists, replace the DIMMs.
A "Check power and cable" message appears in the Fiery X3e Operation Panel.	Copier has a malfunction yet is supplying power to the Fiery X3e.	• Shut down the Fiery X3e and power off the copier, then power on and print a Test Page to verify operation. • If problem persists, service the copier.
	Faulty video interface connection.	• Check the connection between the copier and the Fiery X3e, then print a Test Page.
Fiery X3e hangs at the Loading system... or the Loading settings... screen.	System software is not installed on the hard disk drive.	• Install system software (see "System Software" on page 3-20).

Run Diagnostics function

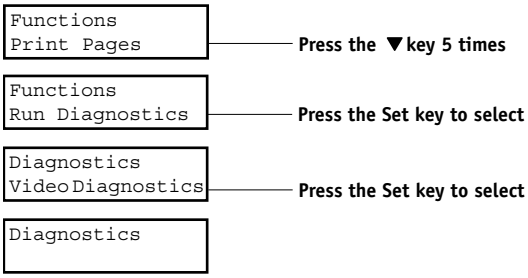
One of the menu items in the Functions screen on the Fiery X3e Operation Panel is Run Diagnostics. Select Run Diagnostics if you want to run Video Diagnostics.

Video Interface Diagnostics

If you suspect there may be a problem with the video interface on the Fiery X3e board (for example, the print quality of output is poor), you can run Video Diagnostics. Video Diagnostics loops data internally, comparing data sent with data received to make sure no errors have occurred.

TO RUN VIDEO DIAGNOSTICS

1. **Power on the copier. Once the Fiery X3e has reached the Info screen, press the Menu key to view the Functions menu.**
2. **Select Run Diagnostics, then Video Diagnostics.**



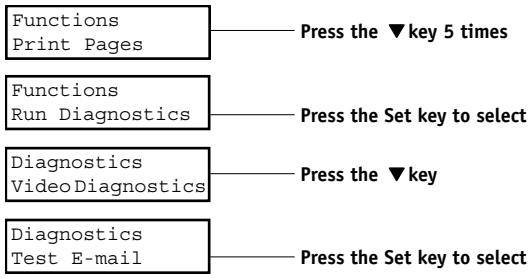
3. **If "Video Diags passed" appears, press the Menu (or Set) key to return to the Functions menu.**
4. **If "Video Diags failed" appears, then to fix the problem you may have to replace the Fiery X3e board.**

Test E-mail Diagnostics

If you suspect there may be a problem with the E-mail function on the Fiery X3e board, you can run Test E-mail. Test E-mail loops the Send E-mail request internally.

TO RUN TEST E-MAIL DIAGNOSTICS

1. **Power on the copier. Once the Fiery X3e has reached the Info screen, press the Menu key to view the Functions menu.**
2. **Select Run Diagnostics, then Test E-mail.**



3. **After "Sending Test E-mail" appears, press the Cancel key or just wait in order to return to the Functions menu.**
4. **Wait twice the E-mail polling interval and then print the E-mail Log to verify that the E-mail internal transmission and reception was successful.**

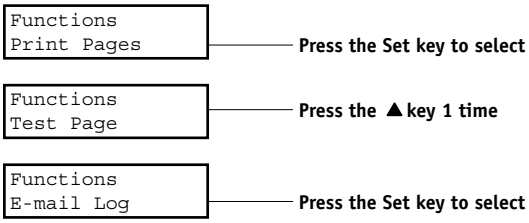
   To find out the length of the polling interval in minutes, navigate to E-mail Services Setup (Network Setup > Service Setup > E-mail Services Setup) or else look up the Polling Interval under E-mail Services on the current Configuration Page. For information on Setup options, see the *Configuration Guide*.

   The E-mail Log should report "Transmission succeeded" and "Reception succeeded".

TO PRINT THE E-MAIL LOG

1. **Power on the copier and allow it to warm up.**
2. **At the Info screen, press the Menu key once to display the Functions menu.**
3. **Select Print Pages, then scroll to display E-mail Log.**

   Press the up or down arrow keys to display each option. Press the Set key to select the option displayed.



   The Fiery X3e sends the E-mail Log to the copier and displays the RIP and Print status screens so you can monitor the job.

Printing the Test Page

If the Test Page does not print at all or has a low-quality image, the Fiery X3e board or the video interface connection may be faulty or the copier may not be functioning properly.

TO PRINT THE TEST PAGE

1. **Power on the copier and allow it to warm up.**
2. **At the Info screen, press the Menu key once to display the Functions menu.**
3. **Select Print Pages, then Test Page.**

   Press the up or down arrow key to display each option. Press the Set key to select the option displayed.



   The Fiery X3e sends the Test Page to the copier and displays the RIP and Print status screens so you can monitor the job.

4. **Examine the quality of the Test Page.**

   If the Test Page prints, you know that the Fiery X3e print engine is functional and that the connection between the Fiery X3e and the copier is good. When you examine the Test Page, keep in mind that:

   - All color patches should be visible, even though they may be very faint in the 5% and 2% range.
   - Each color's patch set should show uniform gradation from patch to patch as the color lightens from 100% to 0%.

   Poor image quality may indicate a need to calibrate the system or service the copier. Information on the Test Page includes the date and time of the last calibration, so the Test Page can be used for future reference. For more information, see the user documentation set.

Checking network connections

Printing problems may arise if the network hardware or software is not set up properly or does not match network settings on the Fiery X3e. Problems may also arise when printing from a specific application or printing a particular file.

Most of these problems show up as printing problems and do not necessarily indicate a Fiery X3e malfunction. The customer's network administrator can eliminate many printing problems without requiring you to make a service call. The network administrator deals with:

- Print device error conditions
- Network connection problems that result in the copier not appearing in the list of printers on the customer's computers

NOTE: If the copier does not appear in the list of printers on the network, there may be another device on the network with the same Ethernet hardware address.

- Conflicting network settings in Setup and on the customer's computers
- Printing problems caused by inappropriate Setup options
- Application-specific printing errors caused by missing or incorrectly installed printer description files

Printing to the Fiery X3e

If the customer can print a Fiery X3e Test Page but cannot print a job from a computer on the network, you may have to make a service call. However, first make sure the network administrator has done the following:

- Checked all components of the network including cables, connectors, terminators, network adapter boards, and network drivers.
- Activated the network and used it to communicate with other printers.
- Checked the corrective actions listed in "Fiery X3e Error Messages" in the *Job Management Guide*.
- Confirmed that the applicable network settings in Setup (such as AppleTalk zone, IP address, Subnet mask, and Gateway address) match the settings used in the network.

When you make a service call, check the Fiery X3e faceplate at the side of the copier to make sure that the appropriate network connection is in place.

Print quality problems are difficult to trace. Before you try to troubleshoot print quality problems, print a Test Page to make sure that the copier does not need servicing or adjusting. Also, make sure the correct paper is being used in the copier.

NOTE: EPS file generation is not completely standardized among applications. Some users may encounter problems while printing certain EPS files.

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