Electronics
for
Imaging, Inc.

Fiery XJ BP100 Installation and Service Guide

for Ricoh NC5006
Ricoh Aficio Color 5106, 5206
Gestetner 2706, 2606, 2606e
Rex Rotary CC8406, CC8606, CC8606E
nashuatec C406, C606, C606e
infotec 7306, 7316, 7316E
Savin SC106, SDC206, SDC206E
Sharp AR-C860
and Lanier 5506 DC color copiers

A guide for service representatives

Printed in the United States of America on recycled paper.

Part Number: 45000221

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If you have any questions, please contact in writing:

Electronics for Imaging, Inc.
2855 Campus Drive
San Mateo, California 94403

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Preface

The *Installation and Service Guide* is intended for certified Fiery XJ BP100™ and copier service technicians installing or servicing a Fiery XJ BP100 Color Server™. If you have not received installation and service certification, you should not attempt to install or service a Fiery XJ BP100 Color Server. Electronics for Imaging, Inc. does not warrant the performance of Color Servers 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 a Fiery XJ BP100.
- Chapter 1, "Introduction", provides general information about the Fiery XJ BP100.
- Chapter 2, "Preparing for Fiery XJ BP100 Installation", describes the steps you need to take before you install the unit. This chapter also includes an overview of the Control Panel.
- Chapter 3, "Connecting the Fiery XJ BP100", tells you how to connect the Fiery XJ BP100 to the copier and the network and verify that the system is working correctly.
- Chapter 4, "Setting Up the Fiery XJ BP100", describes how to configure the Setup options.
- Chapter 5, "Service Procedures", describes removal and replacement procedures for Fiery XJ BP100 components.
- Chapter 6, "Troubleshooting Procedures", identifies the source of common problems and suggests ways of correcting them.

Fiery XJ BP100 customers should not use the technical service documentation. Please don't leave your copy of the *Installation and Service Guide* behind after you make a service call.

About the illustrations in this guide

The illustrations in this guide reflect the current shipping version of the Fiery XJ BP100 at the time of publication. Components shown in these illustrations are subject to change. To receive information about any Fiery XJ BP100 components that do not match illustrations in this guide, contact your authorized service/support center. Technical notes will be provided following major Fiery XJ BP100 hardware changes.

Terminology and conventions

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

The term *Control Panel* ™ is used to describe the area on the front of the Fiery XJ BP100 that includes the green/red activity light, the display window (LCD—liquid crystal display), and the buttons to the right of and below the display window.

The term *PC-compatible* refers to any IBM PC-compatible computer capable of running Windows 95.

The term *PC-based server* refers to any device that may be connected to the Fiery XJ BP100 for parallel printing.

When this guide refers to other Fiery XJ BP100 manuals, such as the *Administrator Guide*, the title is displayed in italics.

The arrow highlights important notes and additional information.

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

Fiery XJ BP100 Control Panel screen messages and commands referred to in the text of this guide appear in the Univers typeface.

Precautions

Always observe the following general precautions when installing and servicing the Fiery XJ BP100:

1. ***Report any shipping damage.***

   If there is any evidence of shipping or handling damage to the Fiery XJ BP100 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 XJ BP100 will probably be 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 system or network administrator or the shop supervisor.

3. ***Never enter an IP address in Fiery XJ BP100 Network Setup.***

   Only the network administrator should enter an IP address on a network device. Assigning a Fiery XJ BP100 an incorrect IP address can cause unpredictable errors on any or all devices connected to the network.

4. ***Always disconnect power before opening the Fiery XJ BP100 chassis.***

   Although Fiery XJ BP100 circuitry operates on 5V DC and 12V DC, 115V AC is present when the chassis cover is removed. Before you service the Fiery XJ BP100, shut it down completely (switch the Fiery XJ BP100 off and unplug the AC power cord from the rear of the Fiery XJ BP100).

5. ***Handle the Fiery XJ BP100 Control Panel display window with care.***

   The Fiery XJ BP100 display window is made of glass. If the glass breaks and the liquid crystal inside leaks out, avoid contact with it. If you do come in contact with the liquid crystal, wash it off with soap and water immediately.

6. ***Avoid pressing the surface of the display window.***

   Applying pressure to the display window will cause it to change color.

7. ***Use a soft cloth moistened with isopropyl or ethyl alcohol to clean the surface of the Fiery XJ BP100 display window.***

   Other solvents, such as water, may damage the polarizer on the display window.

8. ***Follow standard ESD (electrostatic discharge) precautions while working on the internal components of the Fiery XJ BP100.***

   Static is always a concern when servicing electronic devices. It is highly unlikely that the area around the copier and the Fiery XJ BP100 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 unpack the Fiery XJ BP100 from the carton for the first time, touch a metal area of the copier to discharge the static on your body.
   - Before you remove the Fiery XJ BP100 cover and before you handle internal components, touch a metal part of the Fiery XJ BP100 chassis.
   - Leave new electronic components inside their antistatic bags until you are ready to install them. When you remove components from an antistatic bag, place them on a grounded antistatic surface, component-side up.
   - 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.

9. ***Handle printed circuit boards by their edges only, but avoid touching the contacts on the edge of the board.***

10. ***Never set a cup of coffee—or any liquid—on or near the Fiery XJ BP100 or the copier.***

Tools you will need

To install or service the Fiery XJ BP100, you should bring the following tools and parts:

- ESD wrist grounding strap
- Wire cutters
- #0 and #1 Phillips head screwdrivers (non-magnetic)
- Small flat-blade screwdriver (non-magnetic)
- Small needlenosed pliers
- 5/16" wrench
- Flashlight

You should also bring this guide and the latest Fiery XJ BP100 technical notes for the Fiery XJ BP100 and the customer network type.

Chapter 1: Introduction

The Fiery XJ BP100 Color Server adds computer connectivity and highly efficient PostScript color printing capacity to color copiers.

The Fiery XJ BP100, as an integral part of a color printing system, enables users of Macintosh computers, PC-compatibles, and UNIX workstations to:

- Send images over AppleTalk, TCP/IP, Novell networks, and through a parallel port to print on a Fiery XJ BP100-supported copier.
- Spool print jobs and select a printing priority for each job. Users can also control spooled print jobs sent to the Fiery XJ BP100 with remote utility software running on networked Macintosh and PC-compatible computers.
- Print PostScript and EPS files, in color and grayscale.
- Use 136 resident PostScript 3 fonts. The customer can download additional fonts as needed.

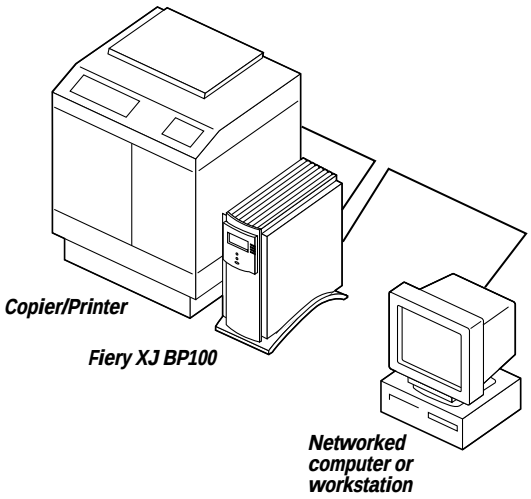


Figure 1-1 Fiery XJ BP100 color printing system

The Fiery XJ BP100 is one of several color imaging products engineered and manufactured by Electronics for Imaging, Inc.

How the Fiery XJ BP100 operates

The Fiery XJ BP100 enables the customer to use a color copier as a printer. Users can print to the Fiery XJ BP100 from networked Apple Macintosh computers, from networked IBM PC or compatible computers running Microsoft® Windows™, and from networked UNIX workstations running TCP/IP. In addition, the Fiery XJ BP100 parallel port can be used to print directly from a PC.

The Fiery XJ BP100's custom-designed boards and operating software are responsible for the Fiery XJ BP100's efficient image processing and printing controls. The main functions of Fiery XJ BP100 components and software are described below.

The Fiery XJ BP100 uses two specialized circuit boards to process image data for printing color images: the motherboard and the video interface board.

The motherboard includes a MIPS 4700 RISC (Reduced Instruction Set Computer) CPU with a built-in floating point accelerator that runs Adobe's PostScript Interpreter. The PostScript Interpreter interprets the PostScript page description file and STARR technology compresses the image pattern into memory. The RipChips™ on the motherboard control data management and other system functions, freeing up the CPU for efficient image data processing.

High-speed SIMMs (single in-line memory modules) on the motherboard hold the color image data during printing. The Fiery XJ BP100 is configured for 64MB of memory.

The PostScript Interpreter outputs raster data through the image frame buffer memory to the Fiery XJ BP100 STARR daughter card installed on the video interface board. The STARR daughter card decompresses the image data and sends it to the copier interface port through the video interface board and the copier interface cable. The raster data is supplied to the laser in the copier at full copier rates in order to charge the drum and render the final image on paper.

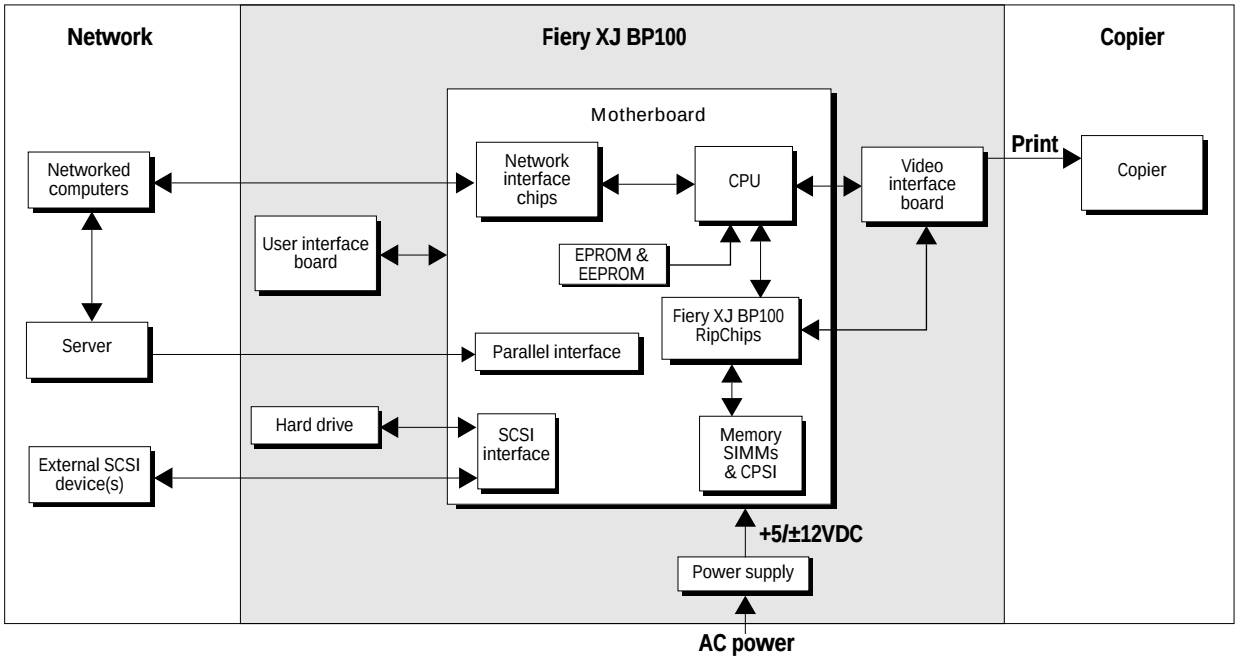


Figure 1-2 Fiery XJ BP100 functional diagram

Fiery XJ BP100 print options

The Fiery XJ BP100's efficient capabilities allow customers to use a variety of applications to create and print pages of text and/or images. The Fiery XJ BP100 operates over a network or by printing directly to the parallel port. Since the Fiery XJ BP100 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.

Printing over a network allows Fiery XJ BP100 users to print documents directly from applications in which they were created. In addition, Fiery XJ BP100 offers an efficient way to print files that have been saved in PostScript or EPS (Encapsulated PostScript) format. These files can be downloaded directly to the Fiery XJ BP100 using the Fiery XJ Downloader, one of the remote utilities provided with Fiery XJ BP100.

With the parallel port option, customers can print documents directly from applications running on a PC-compatible computer or a server that is connected to the Fiery XJ BP100's parallel port. PostScript files can also be printed to the parallel port from the DOS prompt or the Windows File Manager.

Fiery XJ BP100 user software

Fiery XJ BP100 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 XJ BP100 over a network. Some user software can also be installed from Fiery WebTools Installer (see the *User Guide* for more information on Fiery WebTools).

The Fiery XJ BP100 User Software CD (for PC-compatible or Macintosh computers) contains the following software:

- The Fiery XJ Downloader™ is a Fiery XJ BP100 utility that allows the customer to download PostScript or EPS files to the Fiery XJ BP100 without opening the file or the application that created the file. The Fiery XJ Downloader also allows the customer to manage the printer fonts on the Fiery XJ BP100.
- The Fiery XJ Spooler™ is a utility that allows a user to control Fiery XJ BP100 print jobs from a networked PC or Macintosh computer. It allows the user to view the order and priority of a job, delete jobs, and move jobs between queues.
- A set of Adobe Macintosh screen fonts that correspond to the PostScript printer fonts resident on the Fiery XJ BP100.
- Printer description files that allow remote users to access special features when printing.
- Printer drivers for Macintosh and Windows. They allow applications to communicate with the Fiery XJ BP100 and use all the printing features of the Fiery XJ BP100.
- Color Reference pages to view the range of colors available on the Fiery XJ BP100.

Fiery WebTools

The Fiery XJ BP100 can support Internet or intranet access with Fiery WebTools. WebTools include Status, Installer, and WebSpooler. For more information about WebTools, see the *Administrator Guide* and the *User Guide*.

Chapter 2: Preparing for Fiery XJ BP100 Installation

This chapter includes the following information:

- Summary of the installation procedure
- Preparing a customer site for Fiery XJ BP100 installation
- Unpacking the Fiery XJ BP100

Overview of the installation procedure

Familiarize yourself with Chapters 2 through 4 of this guide before you attempt an installation. The installation sequence described in this chapter is designed to make your job as easy as possible. Installation problems are easier to avoid and diagnose if you proceed from the component to the system level and verify functionality at each stage. Figure 2-1 on page 2-2 outlines the recommended installation procedure for connecting the Fiery XJ BP100 to the copier.

Because the Fiery XJ BP100 is a component of the customer's computer network, make sure that you coordinate your scheduled installation with the network administrator at the customer site. Refer the network administrator to the *Administrator Guide* for network setup information.

For sites that print to the Fiery XJ BP100 through a parallel (Centronics) port, you will need the parallel (Centronics) printer cable shipped with the Fiery XJ BP100. If you use your own parallel printer cable, it must have a male 36-pin D-shell connector on one end and a 25-pin male D-sub, shielded connector at the other end, and cannot be more than six feet long. Because of the cable arrangement necessary to connect the Fiery XJ BP100 to a PC-based server, make sure the customer has enough space near the copier for both the Fiery XJ BP100 and the server.

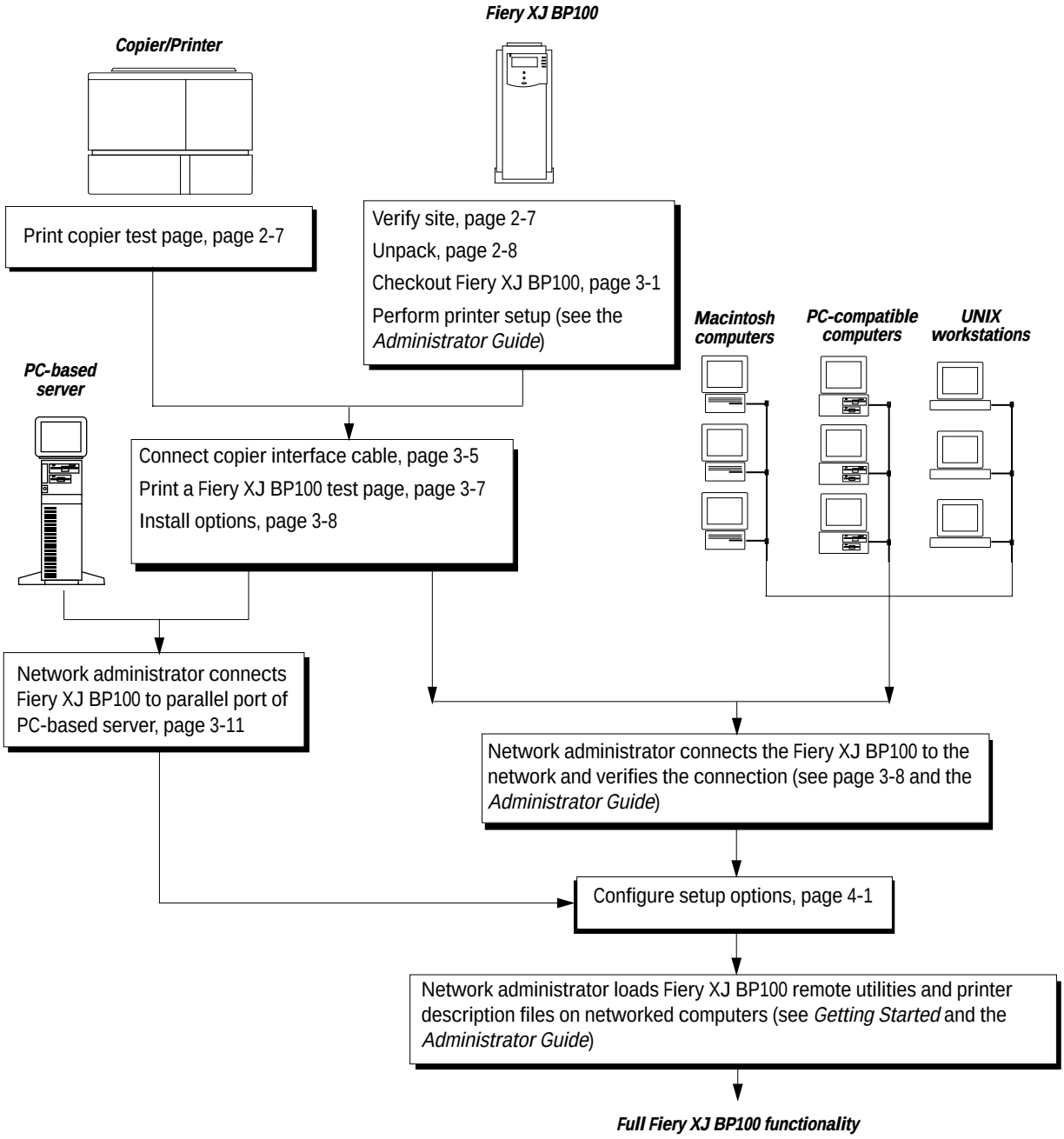


Figure 2-1 Recommended installation steps and references

Preparation for Fiery XJ BP100 installation

Before you visit a customer site to install the Fiery XJ BP100, call ahead to verify site conditions and inform the customer of installation requirements.

Note that the software versions listed in the checklist below reflect compatible versions at the time of publication. If you are using a later version of the software, contact your authorized service/support center to determine Fiery XJ BP100 system compatibility.

Customer site checklist

☐ ***1. Copier model***

What copier model is installed?

Are the copier interface card and connector installed in the copier?

Is there space near the copier for the Fiery XJ BP100?

☐ ***2. Power***

Is there a dedicated grounded electrical outlet near the copier for the Fiery XJ BP100?

☐ ***3. Computers***

If Macintosh computers on the network will be supported by the Fiery XJ BP100:

- Do networked Macintosh computers have an Ethernet card or Ethernet built-in?
- Are networked Macintosh computers running a compatible version of the system software?
- Do networked Macintosh computers use a compatible version of Adobe PSPrinter driver?

If PC-compatibles on the network will be supported by the Fiery XJ BP100:

- Do networked PC-compatible computers use a compatible version of the Adobe PostScript Printer Driver for Windows?

Windows 95

- Do PC-compatibles that will be printing to the Fiery XJ BP100 have Microsoft Windows 95 software with the SPX/IPX networking protocol set up?

Windows NT

- Do PC-compatibles that will be printing to the Fiery XJ BP100 have Microsoft Windows NT with TCP/IP networking protocol set up?

☐ ***4. Network***

Will a new network node for the Fiery XJ BP100 be ready on the installation date?

What kind of network will the Fiery XJ BP100 be installed on?

Is a compatible version of the network software installed?

- AppleTalk (for Macintosh or Windows 3.x)
- SPX/IPX (for Windows 3.x or Windows 95)
- TCP/IP (for Windows NT)

What is the network cable and connection type?

- Thinnet
- Thicknet
- Twisted pair (10Base-T)

Will network hardware be ready for the Fiery XJ BP100 installation?

- Thinnet and thicknet: Will a network cable be ready?

☐ ***5. TCP/IP networks***

Does the UNIX network support RFC1179 (Berkeley lpr Protocol)?

Does the network administrator already have a valid IP address, subnet mask, and a gateway address to assign in Setup?

Inform the network administrator that it may be necessary to:

- Edit the /etc/hosts file to include the Fiery XJ BP100 as a network device.
- Create a spool directory in the /usr/spool directory.
- Add Fiery XJ BP100 information to the /etc/printcap file.

Specific instructions and a sample printcap entry for the Fiery XJ BP100 are provided in the *Administrator Guide*.

☐ ***6. NovelI networks***

Will the network administrator be available during installation to configure the system for the Fiery XJ BP100 and verify the connection?

Is the Novell file server running Novell NetWare software version 3.11, 3.12, or 4.x in emulation mode that supports Frame Ethernet 802.3 or 802.2?

☐ ***7. Parallel port connections to the Fiery XJ BP100***

Is a tested parallel (Centronics) printer cable available (cable is provided with the Fiery XJ BP100)?

Is there room for both the Fiery XJ BP100 and the PC-based server that will be connected to the Fiery XJ BP100?

☐ ***8. System contact person***

Will the person responsible for the computers and the network be available at the time set for installation? Get a name as a contact.

Setting customer expectations

If the site is ready, installation takes about one hour. The customer should be informed of the following:

- The network may be unavailable for up to one hour.
- The copier may be unavailable for up to one hour.
- The network administrator needs to be available during the installation for network connectivity.

Equipment downtime and impact on the network can be minimized if the network administrator installs a network connector for the Fiery XJ BP100 and confirms network functionality with the connector in place before the date scheduled for the Fiery XJ BP100 installation.

- The network administrator should have a networked computer available during the installation. The appropriate software should already be installed. Documentation for the networked computer and the network operating software should be available.
- The network administrator should install the remote utility software shipped with the Fiery XJ BP100 (a package of user documentation is also included) onto networked Macintosh and PC-compatible computers that will print to the Fiery XJ BP100. (See “Fiery XJ BP100 user software” on page 1-4.)

Note: This guide covers Fiery XJ BP100 hardware installation and service. It provides general information on connecting the Fiery XJ BP100 to the customer’s network. However, network setup and configuration information goes beyond the scope of this guide. For network setup and configuration information, the network administrator should refer to the *Administrator Guide*.

Verifying site readiness

Before unloading and installing the Fiery XJ BP100, verify that the customer site is prepared.

1. ***Check the electrical source.***

   Locate the grounded electrical outlet that will supply power to the Fiery XJ BP100. You should not run the Fiery XJ BP100 and the copier on the same circuit. Use surge suppressors for both the Fiery XJ BP100 and the copier.

   - *Do not* use a 3-prong adapter in a 2-hole ungrounded outlet.
   - *Do not* use an extension cord.
   - *Do not* plug the Fiery XJ BP100 into a circuit with heating or refrigeration equipment (including water coolers).
   - *Do not* plug the Fiery XJ BP100 into a switchable wall outlet. This can result in the Fiery XJ BP100 being turned off accidentally.

2. ***Check the intended location for the Fiery XJ BP100.***

   Make sure that there is space for the Fiery XJ BP100. You may need to move the copier out from the wall for easier access to the copier interface port.

3. ***Test copier functionality before installing the Fiery XJ BP100.***

   Copy the copier color test page before you install the Fiery XJ BP100.

   If the copied image indicates that the copier needs adjustment, inform the customer. After getting approval, complete the copier service needed. Make a new copy of the test page and continue with the next procedure.

4. ***Check the network.***

   Verify that the network is functioning before you attach the Fiery XJ BP100.

   - Ask the network administrator to print a document on a shared printer over the network.
   - Ask the network administrator to verify the computer and network requirements as specified in “Customer site checklist” on page 2-3.

Unpacking the Fiery XJ BP100

The Fiery XJ BP100 is assembled and shipped from the factory in a box that includes all cables and documentation, as shown in Figure 2-2 on page 2-9. In addition to the Fiery XJ BP100 Color Server, a box containing the Fiery XJ BP100 furniture may be shipped from the factory.

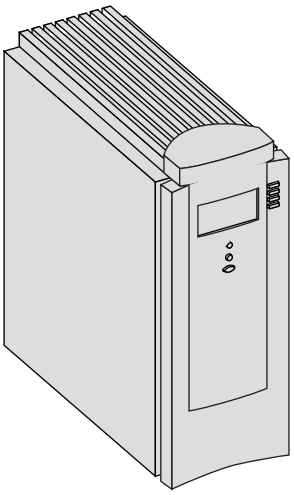
To unpack the Fiery XJ BP100

Save the original boxes and packing materials. If you need to transport the Fiery XJ BP100 at a later date, the original box and packing material will ensure safe shipment.

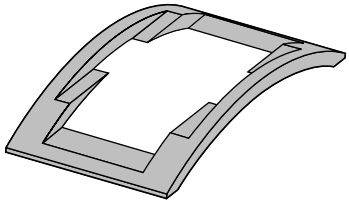
1. ***If Fiery XJ BP100 furniture is included with your shipment, open the box and if necessary, assemble the furniture (see the instructions that came in the box with the furniture or Appendix B).***
2. ***Open the Fiery XJ BP100 Color Server box and remove the packing material.***
3. ***Remove the contents from the top tray. Inspect the contents for visible damage. The contents of the tray should include the following items:***

    - Bags containing the copier interface cable (16' long, gray, with 100-pin D-connectors), a Fiery XJ BP100 AC power cable, and a parallel (Centronics) port cable.
    - Fiery XJ BP100 stand (includes 2 screws for attaching it to the Fiery XJ BP100)
    - AUI to BNC Ethernet Transceiver
    - SCSI terminator
    - Media package (includes user documentation, and User Software CD)

Note that a service kit containing the System Software CD is ordered separately.

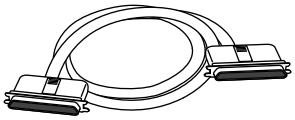


Fiery XJ BP100

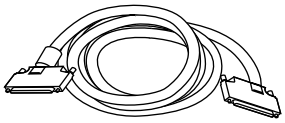


Fiery XJ BP100 stand

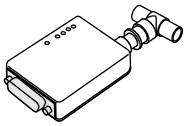
Power cable (US version)



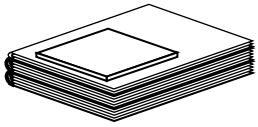
Parallel (Centronics) port cable



Copier interface cable



Ethernet transceiver



Media package

Note: This illustrations does not include the SCSI terminator.

Figure 2-2 Contents of Fiery XJ BP100 shipping box

4. ***Give the media package to the customer or the network administrator.***

   Let the customer or network administrator know that in order to take full advantage of the Fiery XJ BP100, the user software must be installed on computers that will print to the Fiery XJ BP100.

5. ***Set aside the remaining Fiery XJ BP100 cables, Ethernet transceiver, SCSI terminator, and the Fiery XJ BP100 stand.***

6. ***Remove the tray and any packing materials. Set the tray and the packing material aside in case you need to reship the unit.***

7. ***Carefully lift the Fiery XJ BP100 out of the box.***

If you notice shipping damage to any Fiery XJ BP100 component, be sure to save the shipping container in case the carrier needs to see it. Call the carrier immediately to report the damage and file a claim, then call your authorized service/support center. Be ready to furnish the serial number, printed on the back of the Fiery XJ BP100 chassis.

To attach the stand to the Fiery XJ BP100

If you place the Fiery XJ BP100 in the furniture brackets (see Appendix B), you do not need to attach the Fiery XJ BP100 stand.

1. ***Set the Fiery XJ BP100 on a flat surface, with the front of the chassis facing up (see Figure 2-3 on page 2-11).***

2. ***Place the stand over the bottom of the Fiery XJ BP100 so the holes in the stand line up with the holes on the bottom of the chassis.***

3. Attach the stand using the two screws included with the shipment.

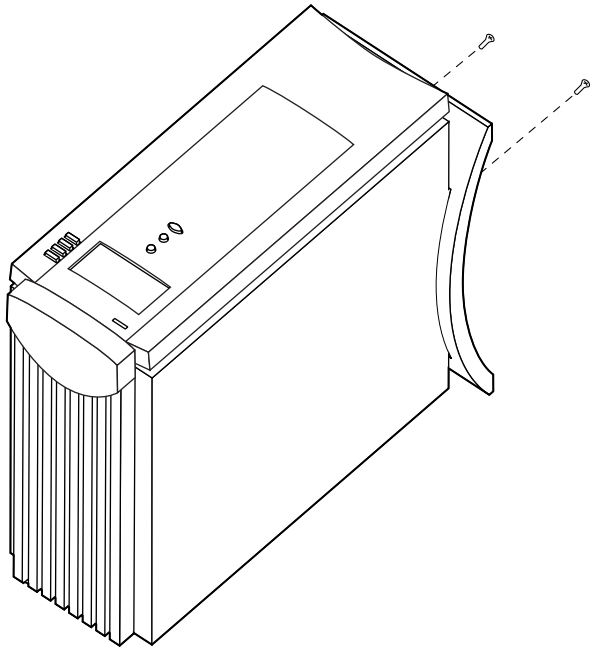


Figure 2-3 Attaching the Fiery XJ BP100 stand

You will connect the Fiery XJ BP100 to the copier and the network after you verify that the Fiery XJ BP100 powers up properly. The following section describes the buttons on the front of the Fiery XJ BP100 and the different functions available from the Control Panel. You will select functions from the Control Panel when you turn on the Fiery XJ BP100.

Using the Fiery XJ BP100 Control Panel

This section describes the Control Panel on the front of the Fiery XJ BP100. Once you install the Fiery XJ BP100 and verify that it powers up correctly (described in "Connecting the Fiery XJ BP100" on page 3-1), you will use the Control Panel to access and monitor different functions of the Fiery XJ BP100.

The current status of the Fiery XJ BP100 and Setup information is displayed in the Fiery XJ BP100 display window. Fiery XJ BP100 activity can be monitored in the display window, and functions of the Fiery XJ BP100 can be controlled locally using the buttons on the Control Panel (such as printing a test page and installing or updating system software).

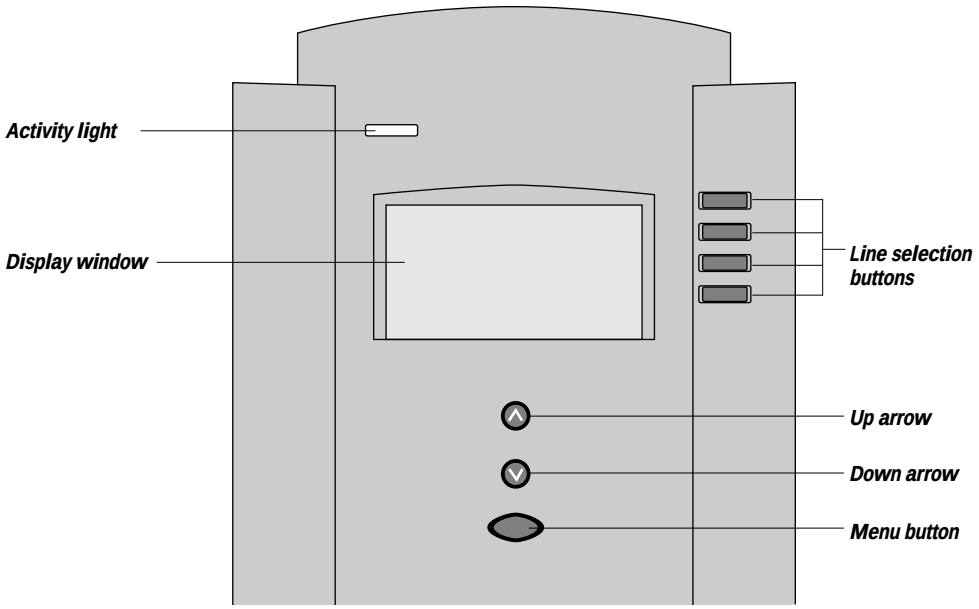


Figure 2-4 The Fiery XJ BP100 Control Panel

The physical controls and status indicators on the Control Panel, from the top down, are:

- The activity light at the top of the Control Panel
- The display window
- The four line selection buttons to the right of the display window
- The up and down arrow buttons for scrolling and editing
- The menu button (oval button at the bottom)

Fiery XJ BP100 Control Panel screens

When the Fiery XJ BP100 is in Print mode, pressing the menu button cycles among four screens: three status screens (Info, RIP, and Print) and the Functions menu (see Figure 2-5). When the Fiery XJ BP100 is idle, pressing the menu button cycles between the Info screen and the Functions menu. The Fiery XJ BP100 screens display the following information:

- Info status screen—Displays the current system software version, the amount of disk space available on the hard disk drive, the printer name on the network, and the current Fiery XJ BP100 status (Printing, Processing, Error, or Idle).
- RIP status screen—Displays information about the job currently being processed and allows you to cancel the job.
- Print status screen—Displays information about the job currently being printed and allows you to cancel the print job.
- Functions menu—Gives you access to administrative functions not normally performed from a remote workstation (see "Functions menu" on page 2-15 for information on the available functions).

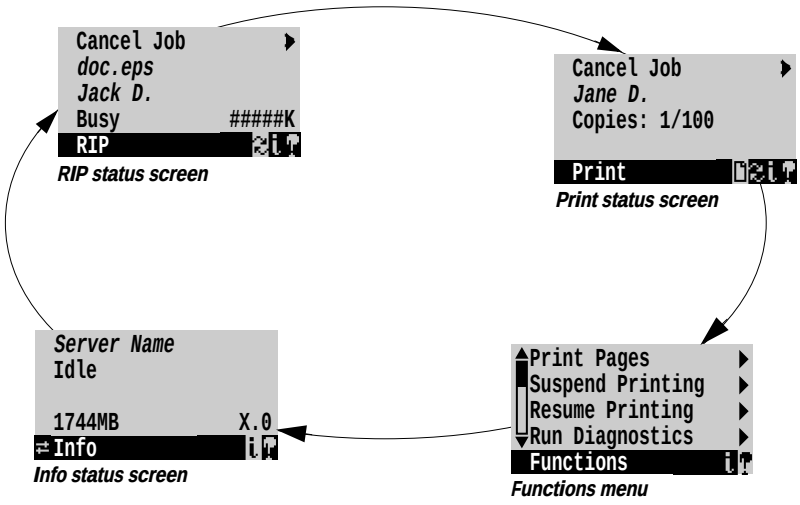


Figure 2-5 Fiery XJ BP100 Control Panel screens

Fiery XJ BP100 Control Panel screen icons

The row of icons at the bottom of the Control Panel window display information about the current status of the Fiery XJ BP100. The highlighted icon corresponds to the screen that is currently displayed. Pressing the menu button allows you to move between the available screens (available screens are displayed in the row of icons at the bottom of the Control Panel). See Table 2-1 for a description of the different icons.

Table 2-1 Fiery XJ BP100 Control Panel screen icon descriptions

Fiery XJ BP100 screen icon	Description
	The Alert icon is highlighted when the Control Panel shows the Error screen.
	The Print icon is highlighted when the Fiery XJ BP100 is printing or scanning a job and the Control Panel shows the Print screen.
	The RIP icon is highlighted when the Fiery XJ BP100 is ripping (processing) a job and the Control Panel shows the RIP screen.
	The Information icon is highlighted when the Control Panel shows the Info screen.
	The Function icon (a finger pressing a button) is highlighted when the Fiery XJ BP100 Control Panel shows the Functions menu.
	The Network icon is displayed in the bottom left corner of the Control Panel when the Fiery XJ BP100 is communicating with the network (for example when downloading a file).

Functions menu

The Functions menu allows you to perform a variety of administrative functions that do not affect print jobs of other users. Use the up/down arrow buttons to scroll through the list of options. Press the line selection button next to the option you want to select.

The following options are available from the Functions menu:

Print Pages—Enables you to print special pages from the Fiery XJ BP100. You can print the following pages from the submenu that appears:

- Test Page—Prints a Fiery XJ BP100 test page to the current print device. This enables you to confirm that the Fiery XJ BP100 is properly connected to the copier and to view information about color and grayscale to troubleshoot the Fiery XJ BP100. The following information also displays: Fiery XJ BP100 server name, Fiery XJ BP100 model, Color Mode, Printer Mode, Calibration, Memory Multiplier setting, Color Rendering Dictionary in use, and the Date printed.
- Configuration—Prints the current server and device configuration. This includes information about all current Setup settings, calibration profile, and the Ethernet and Token Ring addresses of the Fiery XJ BP100.
- Job Log—Prints the log of the last 55 jobs. For more information about the job log, see the *User Guide*.
- Control Panel Map—Prints the Setup screen help pages. These pages are useful when navigating through the different Setup screens.
- Font List—Prints a list of all the fonts resident on the Fiery XJ BP100 hard disk drive.

Suspend Printing—Disconnects the Fiery XJ BP100 from the copier. This option interrupts the current print job so that you can use the copier to make copies; after you make the copies you can select Resume Printing and the copier will continue processing and printing jobs.

Resume Printing—Connects the copier to the Fiery XJ BP100 so that you can resume printing after interrupting the print job to make copies.

Run Diagnostics—When you select this option, you can choose the single option:

- Video Diagnostics—Runs diagnostics on the Fiery XJ BP100 video interface board. Select the diagnostic test and press the line selection button next to OK. For more information on this option, see “Video interface board diagnostics” on page 6-31.

Reboot Server—Shuts down all Fiery XJ BP100 activity properly and then restarts.

Chapter 3:
Connecting the Fiery XJ BP100

Preliminary checkout of the Fiery XJ BP100

When you have just unpacked or serviced a Fiery XJ BP100, power it up alone before you connect the copier and the network. The diagnostics automatically performed during startup check the Fiery XJ BP100 for internal problems.

If you replaced the motherboard, the system will require you to enter an authorization code when you turn on the Fiery XJ BP100. The authorization code is obtained from your authorized service/support center.

To start the Fiery XJ BP100

1. ***Connect one end of the Fiery XJ BP100 power cable to the lower plug at the back of the Fiery XJ BP100 (see Figure 3-1).***
2. ***Make sure that the Fiery XJ BP100 power switch is in the Off position (press O), then plug in the Fiery XJ BP100 power cable.***

   The power supply automatically senses the correct voltage.
3. ***Install the SCSI terminator on the SCSI connector.***

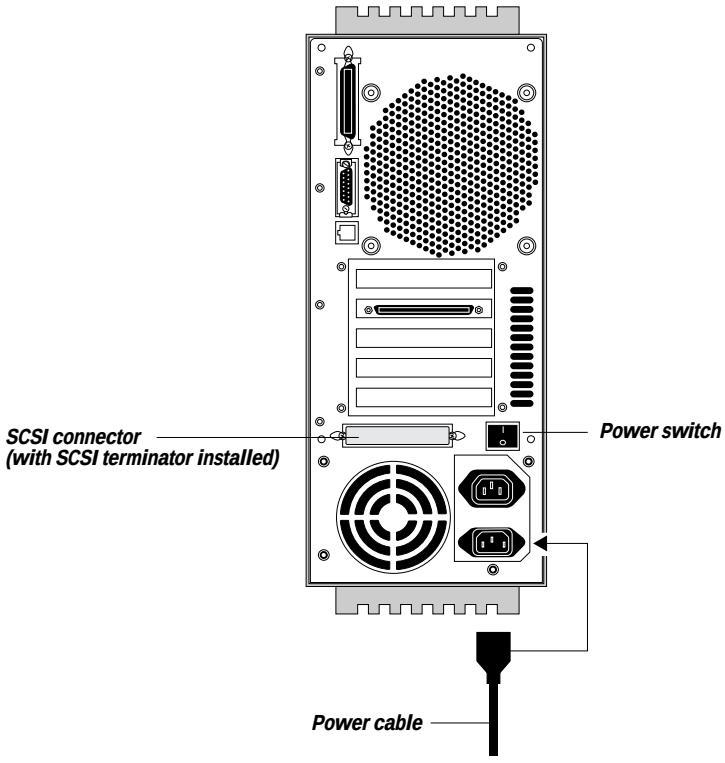


Figure 3-1 Fiery XJ BP100 back panel

Standard startup

The following procedure describes the standard startup for the Fiery XJ BP100. If you replaced the motherboard in the Fiery XJ BP100 you are servicing or you received a message in the Control Panel indicating that the software is not authorized, see "Password-required startup" on page 3-3.

1. ***Turn on the power switch at the back of the Fiery XJ BP100 (press I).***
2. ***To confirm normal operation, allow the Fiery XJ BP100 startup to proceed without interruption while you watch the Control Panel.***

   The Control Panel first shows TESTING: with a graphic of a magnifying glass passing over a circuit board.The Fiery XJ BP100 is performing its automatic startup tests.

   If no errors occur during the Start-up diagnostics, the activity light on the Control Panel flashes green and goes off at the end of the tests.

   If an error occurs during startup, the activity light flashes red and remains on at the end of the tests. The Control Panel then displays the Test Failed screen. Pressing the Details line selection button in the Test Failed screen gives you more information about the failing test. See "Errors during the Start-up diagnostics" on page 6-9 for more information. The most likely cause of a failure is a loose cable or board connection.
3. ***If it is the first time you start the Fiery XJ BP100:***

   - Allow the Fiery XJ BP100 to proceed to the Select Language screen, and select the language that you want to appear in the Control Panel. If you change the language, select OK to reboot the Fiery XJ BP100. The language you select will then appear in the Control Panel.
   - Configure Printer Model with the correct copier type in Printer Setup.

     To enter the printer model in Printer Setup, you must enter Server Setup and Network Setup first and Save Changes (you can use default settings for Server and Network Setup). For more information, see "Using Setup" on page 4-1.
   - Select Exit Setup from the Setup menu.

     Allow the system to proceed to Idle to confirm that the Fiery XJ BP100 is operating correctly. You will configure Setup options after you connect the Fiery XJ BP100 to the copier and the network.
4. ***Following a successful startup, proceed to "Connecting the Fiery XJ BP100 to the copier" on page 3-5.***

Password-required startup

If you replace the motherboard, you will be required to enter an authorization code, obtained from your authorized service/support center, when you turn on the Fiery XJ BP100. If you did not replace the motherboard refer to “Standard startup” on page 3-2.

1. ***Install system software (see “Installing Fiery XJ BP100 system software” on page 5-47).***

   Once you have reinstalled the system software and selected the language you want to appear in the Control Panel, you need to enter the system password.

2. ***At the screen shown in Figure 3-2, select OK.***

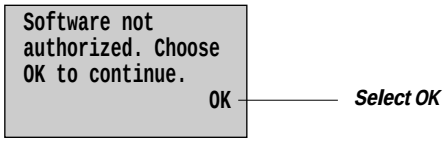


Figure 3-2 Software not authorized screen

3. ***At the next screen, carefully write down the ID# that appears in the Control Panel and call your authorized service/support center.***

Figure 3-3 ID# screen

You will need to give your authorized service/support center the ID# and the upgrade or service kit number. You will then receive a new authorization code.

4. ***At the screen "Enter Authorization Code", enter the authorization code and select OK.***

   Use the up and down arrow buttons on the Control Panel to select the correct letter or number and the line selection buttons to advance to the next space. Note that the authorization code must be entered exactly.

   If you enter the wrong number, you will receive the message "Invalid code. Try again." Re-enter the authorization code. If you still get the invalid code message, call your authorized service/support center.

   If the installation is successful, the screen will indicate that the password has been installed.

5. ***Select* OK *to reboot the Fiery XJ BP100.***

6. ***After the Fiery XJ BP100 reboots, you will see the Select Language screen. Select the language you want to appear on the Control Panel.***

   If you select a different language from the one highlighted on the Control Panel, the Fiery XJ BP100 will reboot again. After the Fiery XJ BP100 reboots, the language you selected will appear on the Control Panel.

7. ***Allow the Fiery XJ BP100 to proceed to the Setup screen, configure Printer Model with the correct copier type in Printer Setup.***

   In order to enter the printer model in Printer Setup, you must enter Server Setup and Network Setup first and Save Changes (you can use default settings for Server and Network Setup). For more information see "Using Setup" on page 4-1.

8. ***After you select the correct printer model, select* Exit Setup *from the menu.***

   Allow the system to proceed to Idle to confirm that the Fiery XJ BP100 is operating correctly. Setup options may be configured after you connect the Fiery XJ BP100 to the copier and the network.

   If an error occurs on startup, see "Errors during the Start-up diagnostics" on page 6-9.

9. ***Following a successful startup, proceed to "Connecting the Fiery XJ BP100 to the copier" on page 3-5.***

Connecting the Fiery XJ BP100 to the copier

After successfully starting the Fiery XJ BP100 by itself, you are ready to connect the Fiery XJ BP100 to the copier. The Fiery XJ BP100 communicates with the copier through a cable from the video interface board to the copier's interface port.

To connect the Fiery XJ BP100 to the copier

1. ***Turn off the Fiery XJ BP100.***
2. ***Get permission from the network administrator or supervisor to turn off the copier.***
3. ***Turn off the copier.***

   Wait for the thermostatically controlled fan to stop.
4. ***Locate the Fiery XJ BP100 copier interface cable (100-pin) and connect one end of the cable to the copier interface port on the copier.***

   Tighten the screws completely.
5. ***Make sure the Fiery XJ BP100 is near the copier.***
6. ***Connect the other end of the cable to the Fiery XJ BP100 copier interface connector (see Figure 3-4 on page 3-6).***

   Tighten the screws completely.

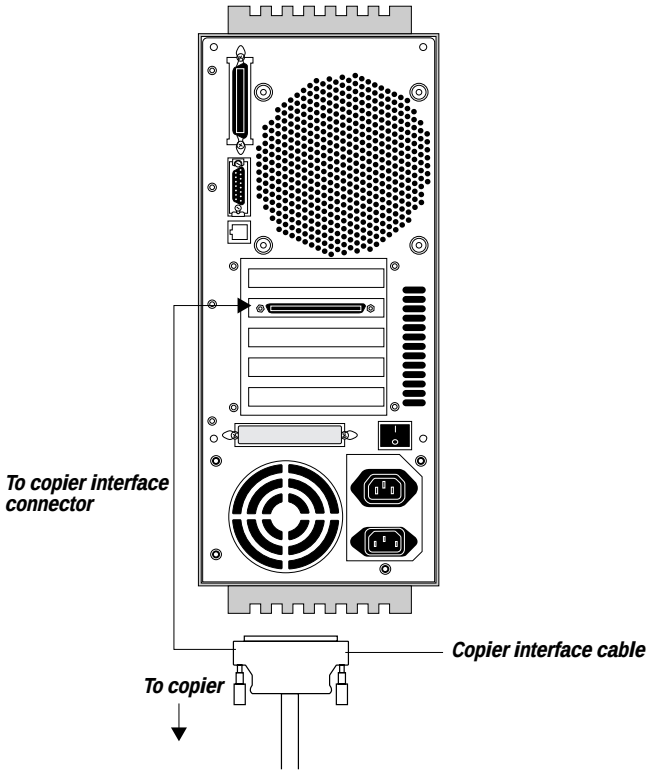


Figure 3-4 Copier interface cable connection

Verifying the connection

Before connecting the Fiery XJ BP100 to the network, verify that all components of the Fiery XJ BP100-to-copier interface work by printing a test page to the copier. The copier will print the Fiery XJ BP100 test page, a color PostScript file that is resident on the Fiery XJ BP100's hard disk drive.

To print a test page from the Control Panel

1. ***Turn on the copier and allow it to warm up.***
2. ***Turn on the Fiery XJ BP100 from the power switch on the back panel.***

   Messages will appear on the Control Panel as the Fiery XJ BP100 runs through its Start-up diagnostics.
3. ***Before proceeding, make sure that the copier is not in use.***

   The Fiery XJ BP100 Info screen should read Idle.
4. ***At the Idle screen, press the menu button once (see "Using the Fiery XJ BP100 Control Panel" on page 2-12).***

   The Functions menu displays a scrolling list of options. The full list of options is shown below:

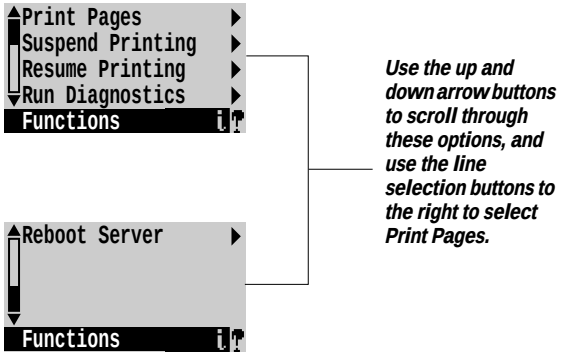


Figure 3-5 Functions menu options

5. ***Press the line selection button to the right of* Print Pages *and then select* Test Page *from the submenu.***

   The Fiery XJ BP100 sends the test page to the copier and displays the RIP and Print status screens so you can monitor the job.
6. ***Examine the quality of the test page from the copier.***

   The test page confirms that the Fiery XJ BP100 print engine is functional and that the connection between the Fiery XJ BP100 and the copier is good.

Installing additional options

If the customer has purchased additional options, install those before connecting the Fiery XJ BP100 to the network. See the documentation included with that particular option for more information.

After installing options, print a test page to verify that the system is operating properly. Checking the installation at each stage allows you to easily pinpoint the cause of problems should they occur.

Connecting the Fiery XJ BP100 to the network

The 16-bit Ethernet network adapter chip (Intel 82593 CSMA/CD core LAN Controller) built into the Fiery XJ BP100 motherboard provides connectivity to Ethernet networks. Supported Ethernet cabling includes: thinnet, thicknet, and twisted pair.

Other Fiery XJ BP100 connectivity includes a high-speed parallel port that enables the Fiery XJ BP100 to connect directly to the parallel port of a PC-compatible or a Novell server.

Token ring and 100BaseTcompatibility is available using optional kits (see the documentation included in the kit for more information).

Ethernet network connections

The Fiery XJ BP100's motherboard has two external Ethernet network connectors: an AUI (Attachment Unit Interface) connector for a thin Ethernet cable (thinnet) or a thick Ethernet cable (thicknet), as well as a 10Base-T connector for twisted pair (see Figure 3-6). Only one Ethernet connection should be made to the Fiery XJ BP100 at a time. The circuitry on the Fiery XJ BP100 automatically determines which connector is being used. For network configuration information, see the *Administrator Guide*.

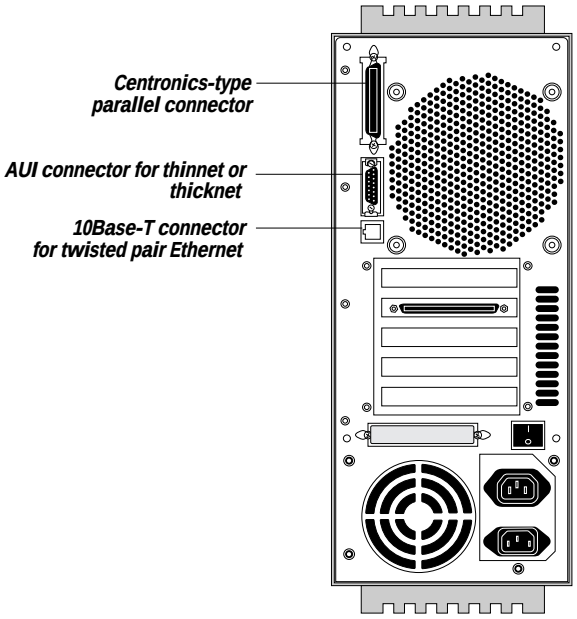


Figure 3-6 Fiery XJ BP100 network connectors

To connect a thinnet or thicknet cable to the Fiery XJ BP100

Thinnet (thin coaxial Ethernet cable or 10Base-2) connections require an external transceiver attached directly to the AUI connector on the back of the Fiery XJ BP100. An AUI to BNC Ethernet transceiver is included with the Fiery XJ BP100.

Thicknet (thick coaxial Ethernet cable or 10Base-5) connections require an external transceiver with an AUI drop cable connected to the AUI connector on the back of the Fiery XJ BP100.

1. ***Turn off the Fiery XJ BP100 before connecting it to any network device.***
2. ***With the AUI slide latch in the up position, connect the network cable to the AUI connector on the back of the Fiery XJ BP100. Slide the latch down to lock the connector in place.***

    - To connect a thinnet cable to the Fiery XJ BP100, the AUI to BNC external transceiver must be installed on the Fiery XJ BP100 AUI connector. The thinnet cable then connects to the BNC connector on the external transceiver.
    - To connect a thicknet cable to the Fiery XJ BP100, connect the AUI drop cable directly to the AUI connector on the back of the Fiery XJ BP100.

If you turn on the Fiery XJ BP100 without connecting the network cable to the transceiver, the Fiery XJ BP100 will hang at the Loading Settings screen. Make sure the network cable is connected to the transceiver before you turn on the Fiery XJ BP100.

3. ***Configure Setup options. See "Using Setup" on page 4-1.***
4. ***After configuring Setup options, verify the network connection.***

   Once the network connection has been made and the Fiery XJ BP100 has the correct Setup configuration and has reached Idle, the Fiery XJ BP100 should be available on the network.

   The network administrator should perform any additional network setup, verify the network connection, verify that the Fiery XJ BP100 appears on the list of printers, and print a few test documents from a networked computer that will use the Fiery XJ BP100. (See the *Administrator Guide* for more information.)

To connect a twisted pair cable to the Fiery XJ BP100

Twisted pair (unshielded twisted pair cable or 10Base-T) uses an 8-pin, RJ-45 connector that connects to the RJ-45 socket on the back of the Fiery XJ BP100 (see Figure 3-6 on page 3-9).

1. ***Turn off the Fiery XJ BP100 before connecting the Fiery XJ BP100 to any network device.***
2. ***Connect the RJ-45 cable to the RJ-45 socket on the back of the Fiery XJ BP100.***
3. ***Configure Setup options. See "Using Setup" on page 4-1.***
4. ***After configuring Setup options, verify the network connection.***

   Once the network connection has been made and the Fiery XJ BP100 has the correct Setup configuration and has reached Idle, the Fiery XJ BP100 should be available on the network.

   The network administrator should perform any additional network setup, verify the network connection, verify that the Fiery XJ BP100 appears in the list of printers, and print a few test documents from a networked computer that will use the Fiery XJ BP100. (See the *Administrator Guide* for more information.)

Connecting parallel port devices to the Fiery XJ BP100

The parallel (Centronics) connector on the back of the Fiery XJ BP100 provides a high-speed interface port that allows the Fiery XJ BP100 to connect directly to the parallel port of a PC-based server (such as a Novell server). Although there are a number of PC-based devices that may be connected to the Fiery XJ BP100 for parallel printing, the procedure for connecting each of these device types is relatively similar.

The Fiery XJ BP100 connects to the parallel port of a PC-based server through the parallel (Centronics) cable (6 feet long or less, with a male 36-pin connector on one end and a 25-pin male D-sub, shielded connector on the other end). The parallel (Centronics) cable is shipped with the Fiery XJ BP100.

To connect the Fiery XJ BP100 to a PC-based server

Make sure the Fiery XJ BP100 is turned off before you connect it to a PC-based server.

1. ***With the network administrator's permission, turn off the PC-based server.***
2. ***Connect the 25-pin connector on the Centronics cable to the parallel port of the PC-based server.***

   If there is more than one parallel port connector on the back of the PC-based server, ask the network administrator to indicate the preferred parallel port to use for the Fiery XJ BP100.
3. ***Connect the 36-pin connector on the Centronics cable to the 36-pin, D connector on the back of the Fiery XJ BP100.***

   The parallel (Centronics) connector is above the Ethernet connectors on the Fiery XJ BP100's back panel (see Figure 3-6 on page 3-9).
4. ***Turn on the PC-based server and the Fiery XJ BP100.***
5. ***Configure Setup options. See "Using Setup" on page 4-1.***
6. ***After configuring Setup options, verify the parallel port connection.***

   Once the parallel port connection has been made and the Fiery XJ BP100 has the correct Setup configuration and has reached Idle, the network administrator should print a few test documents from the *host PC*—a PC-compatible or a Novell server with a parallel (lpt) port connected to the Fiery XJ BP100. (See the *Administrator Guide* for more information.)

Connecting a CD-ROM drive to the Fiery XJ BP100

Attaching a CD-ROM drive to the Fiery XJ BP100 allows you to install system software from the Fiery XJ BP100's System Software CD to the Fiery XJ BP100's hard disk drive. The SCSI cable from the CD-ROM drive attaches to the SCSI connector on the back of the Fiery XJ BP100 (see Figure 3-1 on page 3-1).

Fiery XJ BP100 CD-ROM drives are available from Electronics for Imaging, Inc.

Turn off the Fiery XJ BP100 when adding or removing devices from the SCSI chain.

To attach a CD-ROM Drive

Make sure the drive is terminated and does not use SCSI ID 0 or SCSI ID 7. For CD-ROM drives obtained from Electronics for Imaging, the SCSI ID is set on the back of the drive.

1. ***Turn off the Fiery XJ BP100 (see "To shut down the Fiery XJ BP100" on page 3-13).***
2. ***Make sure that the CD-ROM drive power switch is in the Off position (press O).***
3. ***Make sure the SCSI terminator is connected to the bottom SCSI connector on the CD-ROM drive (for drives obtained from Electronics for Imaging).***
4. ***Connect the power cable to the back of the CD-ROM drive.***
5. ***Connect the SCSI cable to the top connector on the CD-ROM drive.***
6. ***Connect the other end of the SCSI cable to the SCSI connector on the Fiery XJ BP100 (see Figure 3-1 on page 3-1).***

   Push firmly on the cable connector to the Fiery XJ BP100 and to the CD-ROM drive. Make sure that the SCSI connectors are securely connected so that the bails (wire clips) clip easily into the cable connectors.
7. ***Plug the power cable into the wall outlet or power strip.***

Always turn on the CD-ROM drive first and make sure it is free of activity before you turn on the Fiery XJ BP100.

Shutting down and restarting the Fiery XJ BP100

The customer will generally leave the Fiery XJ BP100 on all the time. Remember that when the Fiery XJ BP100 is turned off, network access to the copier is interrupted. Print jobs that have been stored on the Fiery XJ BP100 hard disk, jobs in the Hold and Printed queues, and jobs that have been processed but not printed are not deleted and are available for printing when you restart the Fiery XJ BP100. Fonts that were downloaded to the Fiery XJ BP100's hard disk remain installed until they are removed using the Fiery Downloader, no matter how many times the Fiery XJ BP100 is turned off and on.

You should turn off the Fiery XJ BP100 when you need to service the copier or the Fiery XJ BP100, and before you remove or attach any cables to the Fiery XJ BP100 or the copier's interface port.

Turn off the Fiery XJ BP100 when changing the copier's toner. If the Fiery XJ BP100 is left on, its fan might draw toner into the Fiery XJ BP100.

To shut down the Fiery XJ BP100

1. ***Ensure that the Fiery XJ BP100 is not receiving, processing, or printing a document.***

   If you see Printing or Ripping on the Fiery XJ BP100 Control Panel, the Fiery XJ BP100 is currently processing a print job. Wait until the job is complete and Idle appears on the Info screen.

2. ***Turn off the Fiery XJ BP100 using the power switch on the back panel.***

To restart the Fiery XJ BP100

You'll need to restart the Fiery XJ BP100 in order to make changes to the Setup options.

1. ***If the Fiery XJ BP100 is already on, ensure that it is not receiving, processing, or printing a document.***

   Make sure that the status message on the Fiery XJ BP100 Control Panel is Idle.

2. ***If the Fiery XJ BP100 is already on (at Idle), select Reboot Server from the Functions menu. If the Fiery XJ BP100 is turned off, turn on the power switch on the back panel.***

Chapter 4:
Setting Up the Fiery XJ BP100

Using Setup

Setup enables you to set certain options at startup and save them on the Fiery XJ BP100's hard disk drive (some Network Setup information is saved in EEPROM). Certain Setup options must be set during installation in order to connect the Fiery XJ BP100 to the customer's computer network. See the *Administrator Guide* for more information about Setup options. The following is a list of the different Setup options as they appear on the Control Panel:

- Exit Setup—Saves any changes made in the Setup menus and reboots the Fiery XJ BP100. (Note that the Fiery XJ BP100 only reboots if changes are made to the Setup configuration).
- Server Setup—Configures the Fiery XJ BP100. These options do not configure any other devices attached to the Fiery XJ BP100.
- Network Setup—Affects network connections to the Fiery XJ BP100, including active ports and network protocols.
- Printer Setup—Configures the device(s) connected to the Fiery XJ BP100.
- Job Log Setup—Affects the Fiery XJ BP100 Job Log.
- Calibration—Allows you to calibrate the Fiery XJ BP100.
- Change Password—Enables you to change the existing password. This password is used to limit access to the Setup menus and to some administrator functions in the Fiery XJ Spooler.
- Clear Server—Clears all jobs from the Print, Hold, and Printed queues and clears the Fiery XJ BP100 Job Log. In general, you should not have to use this option. If a job fails to print and you are unable to cancel it, restart the Fiery XJ BP100 and then select Clear Server. You will be prompted to verify that you want to clear all files from all queues. Select Yes to clear the server.

When to perform Fiery XJ BP100 Setup

Setup is required the first time the Fiery XJ BP100 is turned on after new system software is installed. You must enter setup information for Server, Network, and Printer Setup in order. However, as a Fiery XJ BP100 installer, you are only concerned with setting the printer model option in Printer Setup. In order to enter the printer model, you must enter Server Setup and Network Setup and Save Changes first. Default settings in the other Setup screens are adequate although they may not be optimal. The customer can reset options later according to the network and user environment. In this first-time setup, you also select the language you want to use for Control Panel screens.

On IPX networks and on some TCP/IP networks, the network servers should be configured for printing to the Fiery XJ BP100 before you enter network settings on the Fiery XJ BP100.

In most cases you'll need a live network connection so the Fiery XJ BP100 can query the network for zones, servers, and server-based queues.

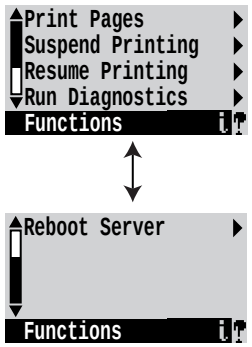
Whenever the configuration of servers, printers, or the network itself changes at the customer site, you can alter individual settings to correspond to the changed environment. Likewise, if printing needs or administrative requirements change, you can alter the corresponding settings.

Accessing Setup options

Before servicing the Fiery XJ BP100 print the Configuration page from the Functions menu.

To access Setup when the Fiery XJ BP100 is at Idle

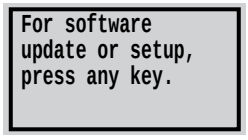
1. ***When the Fiery XJ BP100 displays the Idle screen, press the oval Menu button on the Control Panel to go to the Functions menu.***



2. ***Press the down arrow button to view the second screen of the Functions menu.***
3. ***In the second screen, press the top line selection button to select Reboot Server.***

   After its automatic Start-up diagnostics, the Fiery XJ BP100 displays the entry screen.
4. ***At the startup message, press any button.***

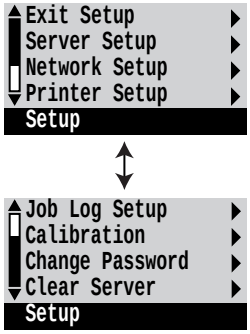
   This displays the Start Up screen.



5. ***Select Run Setup to access all Setup menus.***

6. ***Press the line selection button for the Setup you want.***

   Press the down arrow to view the second screen of the main setup menu.



7. ***Select setups in the same order as they appear in the menu: Server Setup, Network Setup, Printer Setup, and then Job Log Setup.***

   The sequence is important for first-time setup. Later, just skip to the menu you want to change. However, if you make changes in Network Setup, you may need to change some settings in Printer Setup as well.

To access Setup when the Fiery XJ BP100 is off:

1. ***Make sure the Fiery XJ BP100 is connected to the copier/printer and connected to the network you will use.***
2. ***Turn on the Fiery XJ BP100.***

   The Start-up diagnostics are performed.

3. ***At the startup message, press any button.***
4. ***Select Run Setup.***
5. ***Select Setups in the same order as they appear in the menu: Server Setup, Network Setup, Printer Setup, and then Job Log Setup.***

   The sequence is important for first-time setup.

   Later, just skip to the menu you want to change. However, if you make changes in Network Setup, you may need to change some settings in Printer Setup as well.

   For more information, see the *User Guide* and the *Administrator Guide*.

Running Setup

When you restart the Fiery XJ BP100 and select Run Setup, you can select one menu after another and enter information about your Fiery XJ BP100 and your network and printing environment.

In each setup, the last line of the display window tells you the name of the current Setup menu. The screens you see correspond to screens on the Control Panel Map, a flowchart that can be printed from the color server. When the color server displays the Idle screen, you can print the Control Panel Map by choosing Print Pages from the Functions menu, and then choosing Control Panel Map.

Types of setup screens

There are two types of setup options:

Multiple choice questions

You are given choices (for example, Yes or No, or a list of options from which to select). Only one choice is displayed at a time, in highlighted text. The currently selected (or the default) value appears first.

Use the up/down arrow buttons to scroll through the selections and select OK when the correct information is displayed.

Information entry options

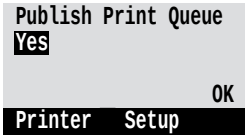
You must specify the information for your site. For example, the printer name or IP address.

In that case, use the up/down arrow buttons to scroll the alphabet and numerals to make your selection.

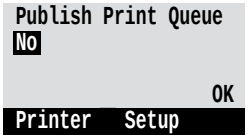
The cursor position is made evident, and two of the line selection buttons become left/right buttons. Arrows appear on the display window next to the corresponding buttons. Use these buttons to move between positions for entering information.

Note: When you enter text, enter it from left to right, as the left-arrow button will act as a delete key as well as a cursor-moving key. This is indicated in the display by the delete symbol (⌫).

Example: Multiple choice



Press the up or down arrow button to display the other option or options.



When the setting you want is displayed, press OK to continue.

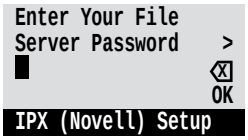
Example: Information entry with fields

From the starting position, press the right arrow button to move the cursor to the right.

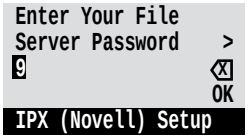
The next field is selected. Press the up or down arrow button to change the number.

When the number is what you want, press the right arrow button to move to the third field or press OK to accept the choice and continue.

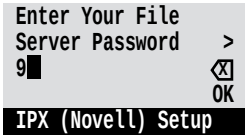
Example: Information entry with individual characters



From the starting position, press the up or down arrow button to enter the first character.



When the character is what you want, press the right arrow button to move the cursor to the next position.



Press the up or down arrow to enter a character in the second position. The delete button erases the current character and moves the cursor to the left.

In addition to the up/down arrow buttons and line selection buttons, the Menu button is active during Setup. If you are viewing a setup screen, pressing the Menu button cancels what you are doing in the current screen to bring you to the next higher level menu. After you have made all the changes you want in a particular setup, press the Menu button.

When you have entered all the settings or made all the changes you want, you need to save the changes. For most setups, a screen will prompt you to save changes. When you have finished Network Setup for all the protocols you use, select Exit Network Setup; you'll be prompted to save changes. If you select Yes, your settings will overwrite previous settings. If you select No, your previous settings will be retained. The Fiery XJ BP100 will reboot after you exit from the main setup menu.

Chapter 5:
Service Procedures

Servicing the Fiery XJ BP100

Generally, the Fiery XJ BP100 requires no regular service or maintenance. Use the procedures in this chapter to inspect, remove, reseat, and replace major hardware components. This chapter includes information on servicing the following components:

- Boards
- Cables
- Switches
- Fuses
- EPROM and EEPROM
- SIMMs (single in-line memory modules)
- Fan
- Power switch
- Power supply
- Hard disk drive

See Figure 5-1 on page 5-2 for an overview of components. Replacement parts are available from your service representative.

When performing the service procedures described in this chapter, follow the precautions listed in “Precautions” on page *xiii*.

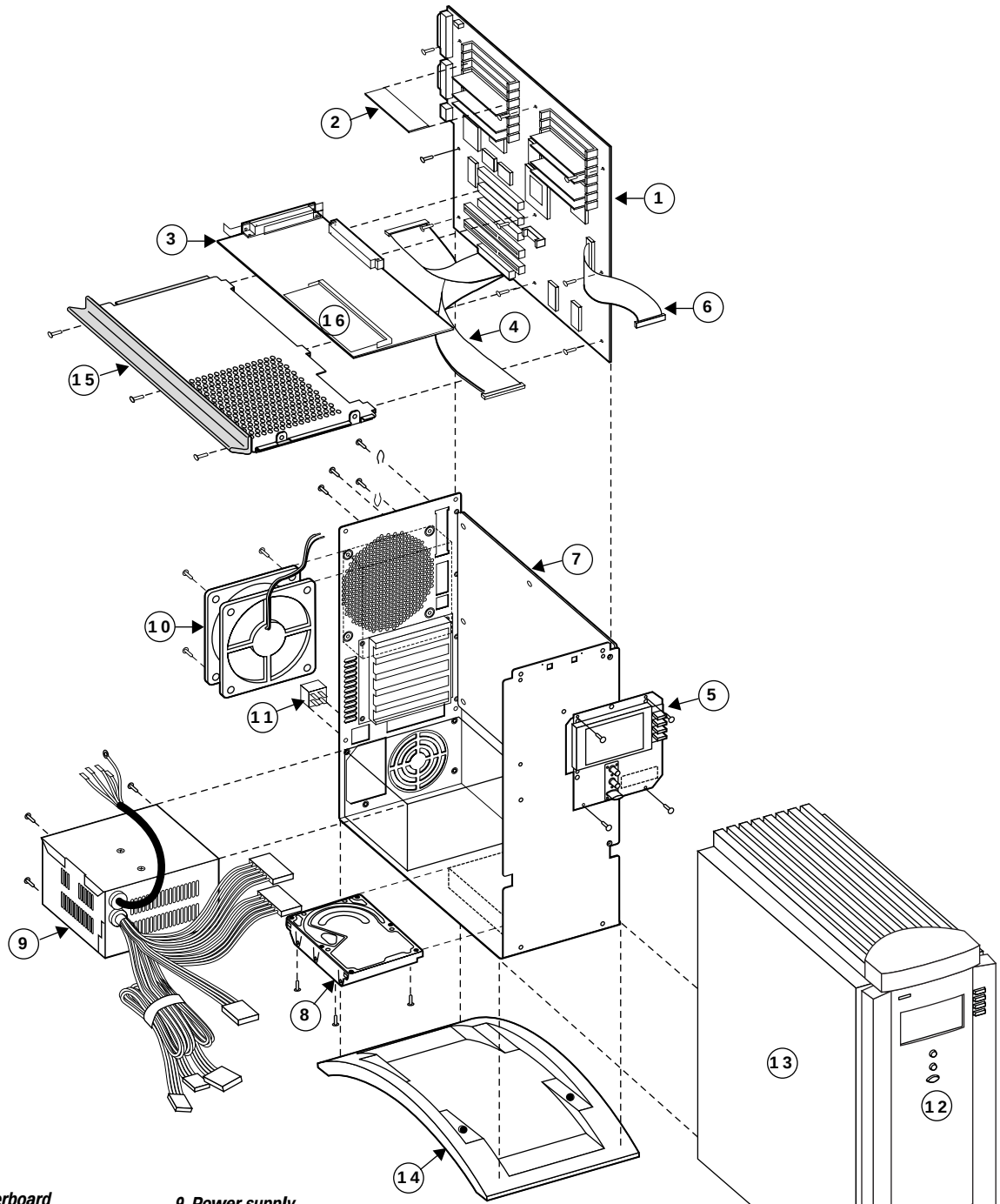
The tools required to service the system are the same ones used to install it; they are listed in “Tools you will need” on page *xv*.

Software service

Fiery XJ BP100 system software is installed on the hard disk drive at the factory. Use the Fiery XJ BP100 software service kit to reinstall Fiery XJ BP100 system software when you need to:

- Install system software on a replacement hard disk drive
- Upgrade to a more recent version of the system software
- Replace the motherboard

For more information, see “The Fiery XJ BP100 Software Service Kit” on page 5-46.



Key

1. Motherboard
2. SIMM
3. Video interface board
4. Internal SCSI cable
5. User interface board
6. User interface cable
7. Chassis
8. Hard disk drive
9. Power supply
10. Fan
11. Power switch
12. Control Panel
13. Chassis cover
14. Chassis stand
15. Isolation plate
16. STARR daughter card

Figure 5-1 Exploded view of Fiery XJ BP100 components

Accessing Fiery XJ BP100's internal components

Always use the procedure below when opening the Fiery XJ BP100 chassis for inspection or service. If the Fiery XJ BP100 is turned on, shut down the system first.

To shut down the Fiery XJ BP100

Always verify that the Fiery XJ BP100 is not being used before you power down or restart it. Make sure that Ripping or Printing does not appear on the Fiery XJ BP100 Control Panel.

When procedures in this chapter refer to "right" and "left" on the Fiery XJ BP100, it is assumed that you are looking into the Fiery XJ BP100 chassis from the side.

1. ***Make sure that the Fiery XJ BP100 Info screen reads* Idle.**
2. ***Turn off the Fiery XJ BP100 using the power switch on the back.***
3. ***Disconnect all cables from the back of the Fiery XJ BP100.***

   Always obtain permission from the network administrator before you take the Fiery XJ BP100 off the network.

To open the Fiery XJ BP100 chassis

1. ***Make sure you have shut down the Fiery XJ BP100 and removed all the cables from the back of the Fiery XJ BP100.***
2. ***Remove the four screws on the back of the Fiery XJ BP100 chassis (see Figure 5-2 on page 5-4).***

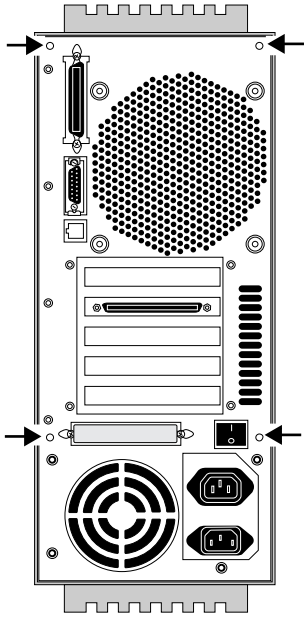


Figure 5-2 Fiery XJ BP100 back panel screw locations

3. ***Set the screws aside so you can replace them later (see "Restoring Fiery XJ BP100 functionality after service" on page 5-11).***
4. ***If the Fiery XJ BP100 stand is attached, remove the two screws on the bottom of the chassis that attach the stand to the Fiery XJ BP100. Set the two screws and the stand aside so you can replace them later.***

   If you place the Fiery XJ BP100 on its back panel to remove the stand, be careful not to damage the connectors. Also, the connectors may cause the Fiery XJ BP100 to be slightly unstable.
5. ***Pull the chassis out of the chassis cover (see Figure 5-3 on page 5-5). The internal components of the Fiery XJ BP100 are now accessible.***

   As you remove the chassis cover, be careful not to damage the user interface board attached to the front of the Fiery XJ BP100 chassis. Also, if the chassis cover snags on the power supply cord while you are trying to remove it, gently push the cord into the chassis and proceed.

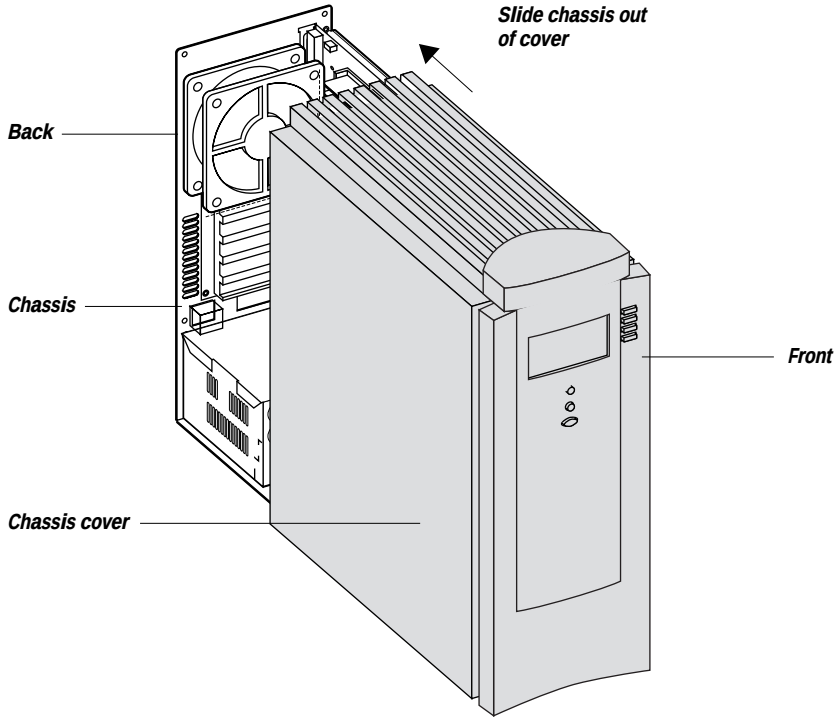


Figure 5-3 Removing the Fiery XJ BP100 chassis cover

6. Attach an ESD wrist strap before handling internal parts.

The Fiery XJ BP100 is shipped from the factory with a standard board configuration, as shown in Figure 5-4 on page 5-6. For option information, see the documentation that came with the specific kit.

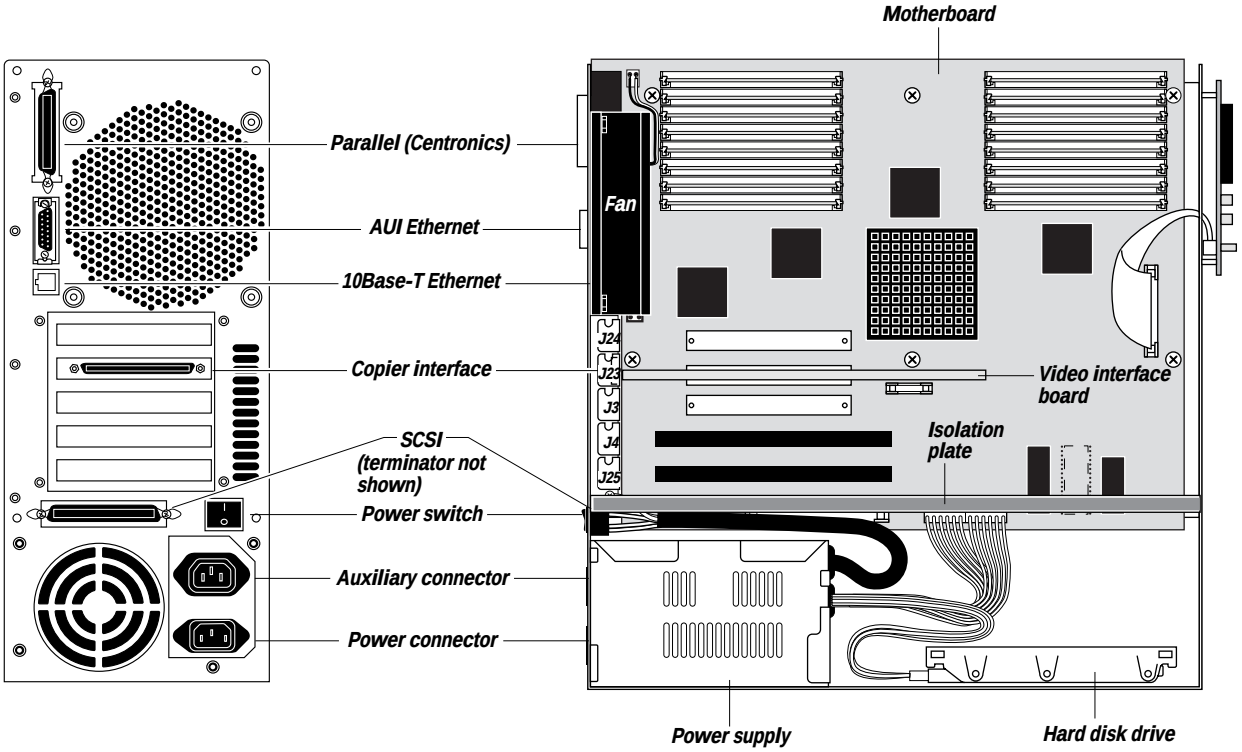


Figure 5-4 Fiery XJ BP100 plan view and back view

Checking Fiery XJ BP100's internal connections

The most common causes of hardware problems are faulty and loose connections. Before you conclude that any board or component has failed, remove, inspect, and reseat all appropriate connections, and then verify that the problem still occurs.

To check board and cable connections

1. ***Before you touch any parts inside the Fiery XJ BP100 chassis, attach a grounding wrist strap. Touching the metal part of the power supply case inside the Fiery XJ BP100 also discharges static electricity.***
2. ***Visually inspect the Fiery XJ BP100 video interface board, as well as any optional boards that may be installed, for secure insertion into the motherboard. Press down firmly on each board to make sure it is securely installed.***

   Looking into the chassis from the side, the standard board configuration includes the following (from top to bottom):

   - J24 Empty expansion slot
   - J23 Video interface board
   - J3 Empty expansion slot
   - J4 Empty expansion slot
   - J25 Empty expansion slot

3. ***Visually inspect the EPROM and the EEPROM for secure insertion into the motherboard.***

   EPROM is installed in socket U5 and EEPROM is installed in socket U11 on the motherboard.

4. ***Visually inspect 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.

5. ***Make sure that all Fiery XJ BP100 ribbon cables are seated on connectors. See Figure 5-5 on page 5-9 and Table 5-1 on page 5-10.***

   If you notice any bent pins, straighten them gently with a pair of needlenosed pliers. For a detailed view of the cable connectors used in the Fiery XJ BP100, see Figure 5-14 on page 5-18.

6. ***Make sure that power cables have not come loose.***

   Power connectors are keyed to fit only when properly oriented. For more information, see the Fiery XJ BP100 wiring diagram (Figure 5-29 on page 5-41) and the Fiery XJ BP100 power connector chart (Table 5-2 on page 5-40).

7. ***Check the fan connection to the motherboard.***

   The board is labeled so that when the fan wires are plugged in, the red wire is on the left and the blue wire (or black wire depending on the fan model) is on the right.

8. ***Check the connections to the power switch at the back of the Fiery XJ BP100, near the power supply.***

9. ***After tightening connections, if one or more Fiery XJ BP100 components are still not getting power, see "Checking voltages" on page 5-40.***

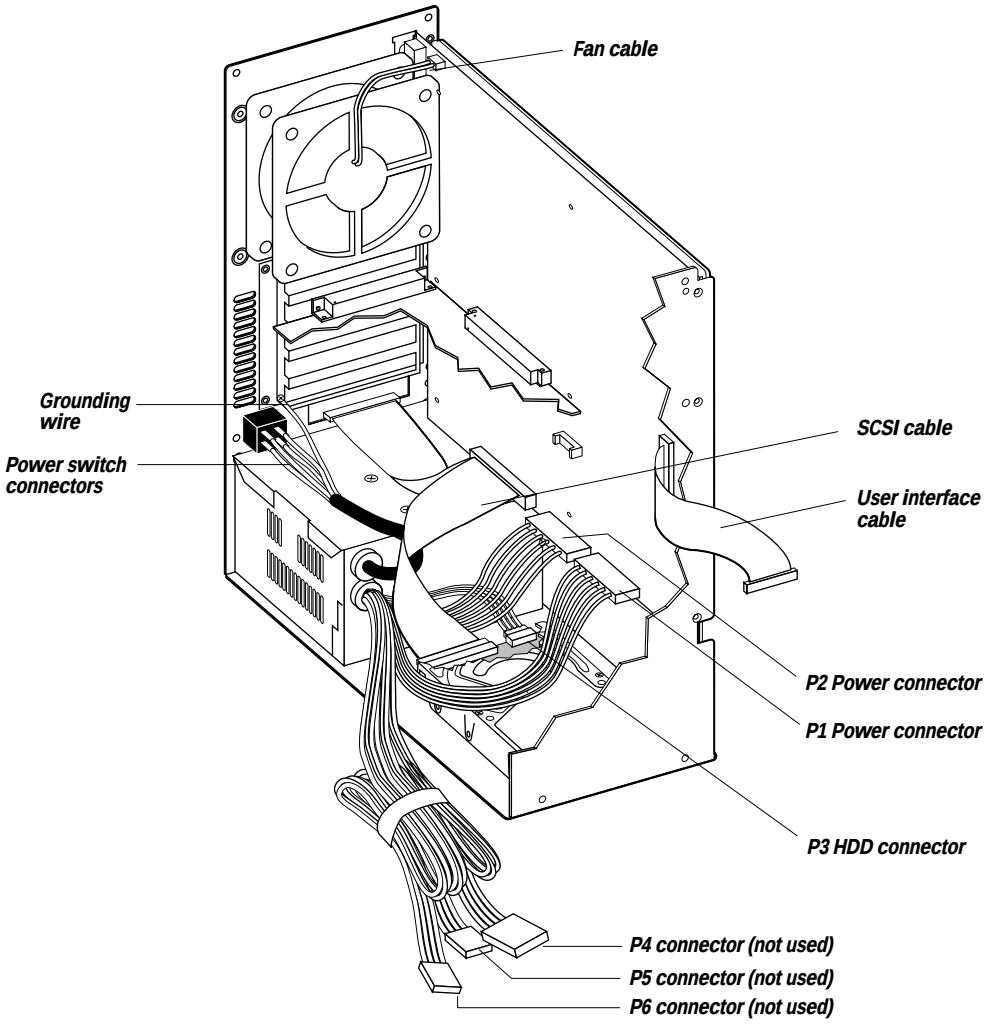


Figure 5-5 Cable connections in the Fiery XJ BP100

Table 5-1 Fiery XJ BP100 internal cable connections

From	To
SCSI connector on the motherboard (J22)	Hard disk drive and out the Fiery XJ BP100 back panel
User interface connector on the motherboard (J27)	User interface board
Power supply (P1 cable connector)	P1 power connector on the motherboard (J5)
Power supply (P2 cable connector)	P2 power connector on the motherboard (J5)
Power supply (P3 cable connector)	Hard Disk Drive
Power supply (P4 cable connector)	Not used
Power supply (P5 and P6 cable connectors)	Not used
Power supply (power switch connectors)	Power switch connectors on the Fiery XJ BP100 back panel. (Note that a grounding wire from the power supply attaches to the back panel of the Fiery XJ BP100.)
Fan	Fan connector on the motherboard (J29)

To check motherboard SIMM connections

The SIMMs (single in-line memory modules) on the Fiery XJ BP100 motherboard are held in place by metal clips at each end. They occupy the sockets at the top of the motherboard.

1. ***Check that all SIMM strips are locked. If any strips have come loose, release and reseat them.***
2. ***To release a SIMM strip, push outward on the spring clip on one side of the SIMM strip. Then while supporting the SIMM, push outward on the other spring clip to release the SIMM from its socket. (See Figure 5-6, arrows marked 1 and 2.)***

   When releasing SIMMs, start at the center of the motherboard and work your way toward the outer edge of the motherboard.

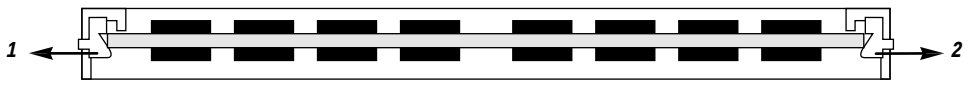


Figure 5-6 Releasing the SIMM spring clips

3. ***Slide the SIMM strip out of the slot at a 45-degree angle.***

   In order to release a SIMM, you need to push down on the SIMM (see Figure 5-7).

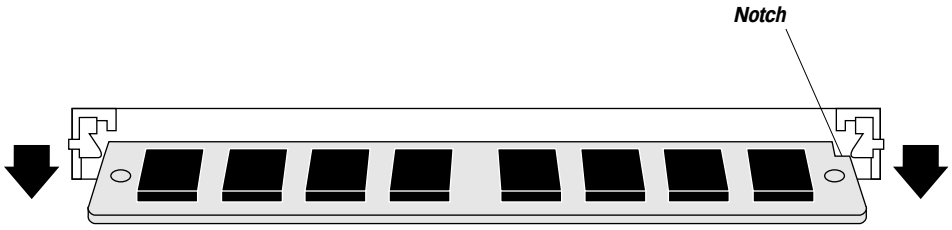


Figure 5-7 Releasing a SIMM strip

4. ***To replace a SIMM strip, slide the SIMM strip into the socket at a 45-degree angle and lock it into place.***

   Make sure that the spring clips close securely around the ends of the SIMM strip and that each strip is fully seated in its slot.

   If you removed the SIMMs completely, note that SIMMs fit the socket only one way. The index notch at one end of each SIMM (near pin1) fits in the right side of the socket.

   When installing SIMMs, start at the outer edge of the motherboard and work your way toward the center of the motherboard.

Restoring Fiery XJ BP100 functionality after service

To reassemble the Fiery XJ BP100

1. ***Reseat all boards, cables, connectors, and other parts that you loosened during inspection or service.***
2. ***Slide the chassis into the chassis cover.***

   As you replace the cover, line up the tabs on the back of the chassis cover with the cutouts on the front of the chassis. Also, be careful not to damage the user interface board attached to the front of the chassis.

3. ***Place the Fiery XJ BP100 stand over the bottom of the chassis so that the holes in the stand line up with the holes on the bottom of the chassis and replace the two screws.***

   You do not need to install the stand if the Fiery XJ BP100 will be placed in the brackets of the Fiery XJ BP100 furniture.

4. ***Replace the four screws at the back of the Fiery XJ BP100 chassis (see Figure 5-2 on page 5-4).***

Do not leave the Fiery XJ BP100 cover off after servicing. An airflow channel is created by the cover and the fan. Leaving the Fiery XJ BP100 cover off for extended periods of time could reduce the operational life expectancy of internal Fiery XJ BP100 components.

5. ***Before you leave the customer site, verify Fiery XJ BP100 operation as outlined in Figure 5-8.***

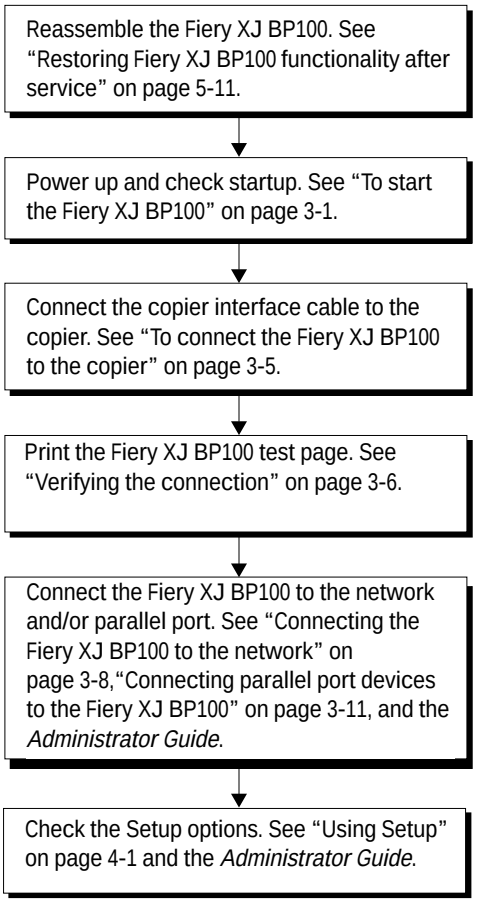


Figure 5-8 Fiery XJ BP100 connection verification steps

Removing and replacing circuit boards

This section describes the procedure for removing and replacing the video interface board, the STARR daughter card, and the user interface board. For information on installing optional boards such as the token ring board, see the separate installation instructions that came with that board.

Video interface board

The video interface board in the Fiery XJ BP100 (see Figure 5-9 on page 5-14) provides the interface between the Fiery XJ BP100 and the copier.

The copier interface connector on one side of the board (outside the Fiery XJ BP100 chassis) connects to the interface cable that plugs into the copier's interface port. The other connector on the video interface board attaches to the motherboard connector at J23.

To remove the video interface board

1. ***Shut down the Fiery XJ BP100 and open the chassis as described in "To shut down the Fiery XJ BP100" on page 5-3 and "To open the Fiery XJ BP100 chassis" on page 5-3.***
2. ***Make sure the copier interface cable connected to the back of the Fiery XJ BP100 is removed.***
3. ***Remove the video interface board mounting bracket screw.***
4. ***Remove the video interface board from slot J23.***

   Grasp the board at the front and back edge. Gently rock the board backward and forward as you pull on it, until it releases from the motherboard.
5. ***Place the board in an antistatic bag.***

To replace the video interface board

1. ***Reseat the video interface board in slot J23.***

   The video interface board connector is keyed to fit only one way when properly oriented. Make sure that none of the connector pins are bent. Gently straighten any bent pins with a pair of needlenosed pliers.
2. ***Attach the board mounting bracket screw.***
3. ***Reassemble the Fiery XJ BP100 and verify its functionality (see the connection verification steps described in "Restoring Fiery XJ BP100 functionality after service" on page 5-11).***
4. ***Make sure to attach the copier interface cable.***

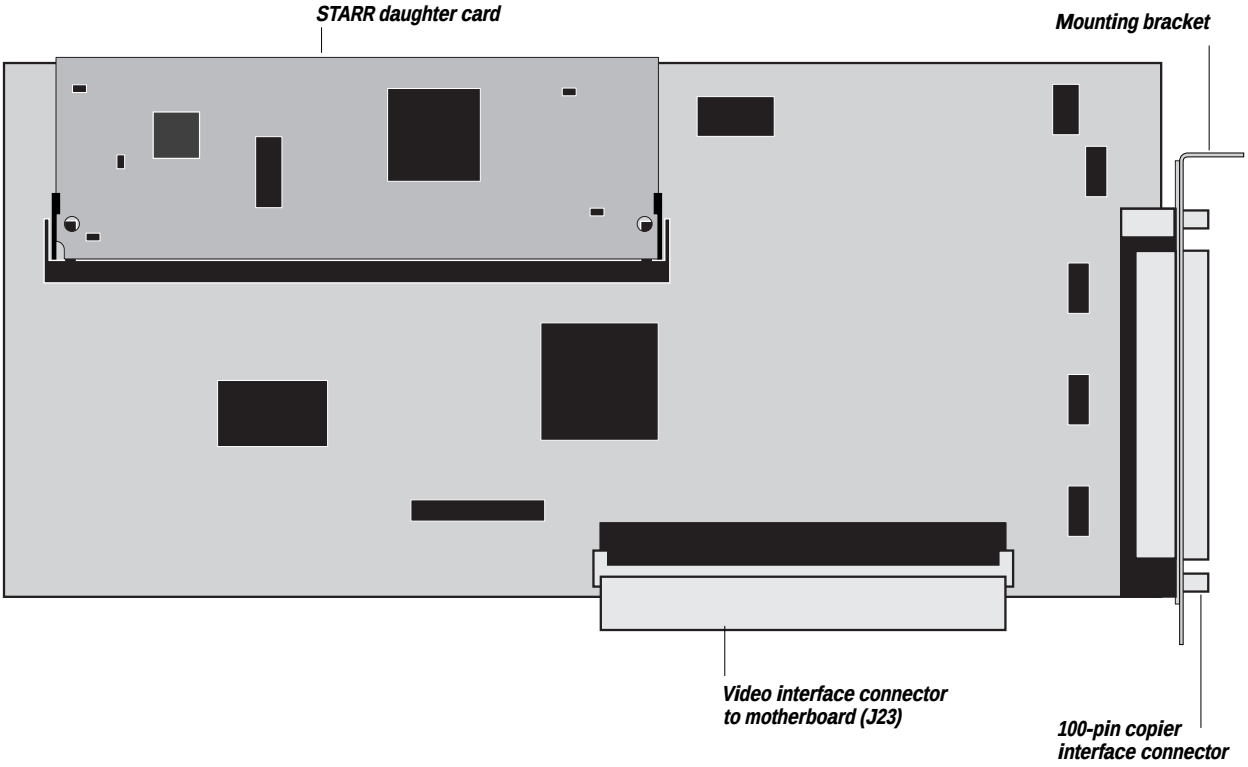


Figure 5-9 Diagram of the Fiery XJ BP100 video interface board

STARR daughter card

The STARR daughter card is installed in connector J3 on the video interface board. It is responsible for decompressing the image data as it is sent from the Fiery XJ BP100 to the copier.

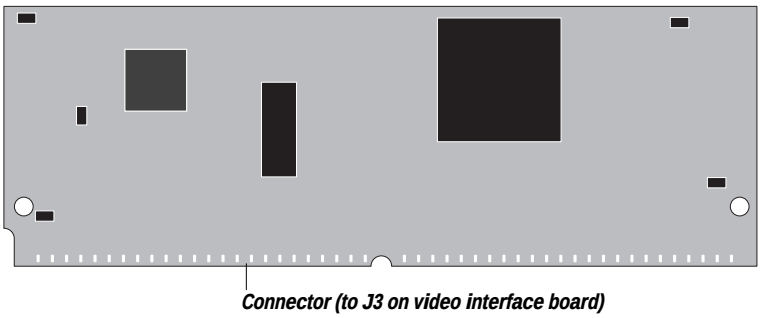


Figure 5-10 Diagram of the STARR daughter card

To remove the STARR daughter card

1. ***Shut down and open the Fiery XJ BP100 as described in "To shut down the Fiery XJ BP100" and "To open the Fiery XJ BP100 chassis" on page 5-3.***
2. ***Gently pull out the clips on the video interface board around the edges of the STARR daughter card (see Figure 5-11).***
3. ***Slide the STARR daughter card out of connector J3 at a 45-degree angle.***

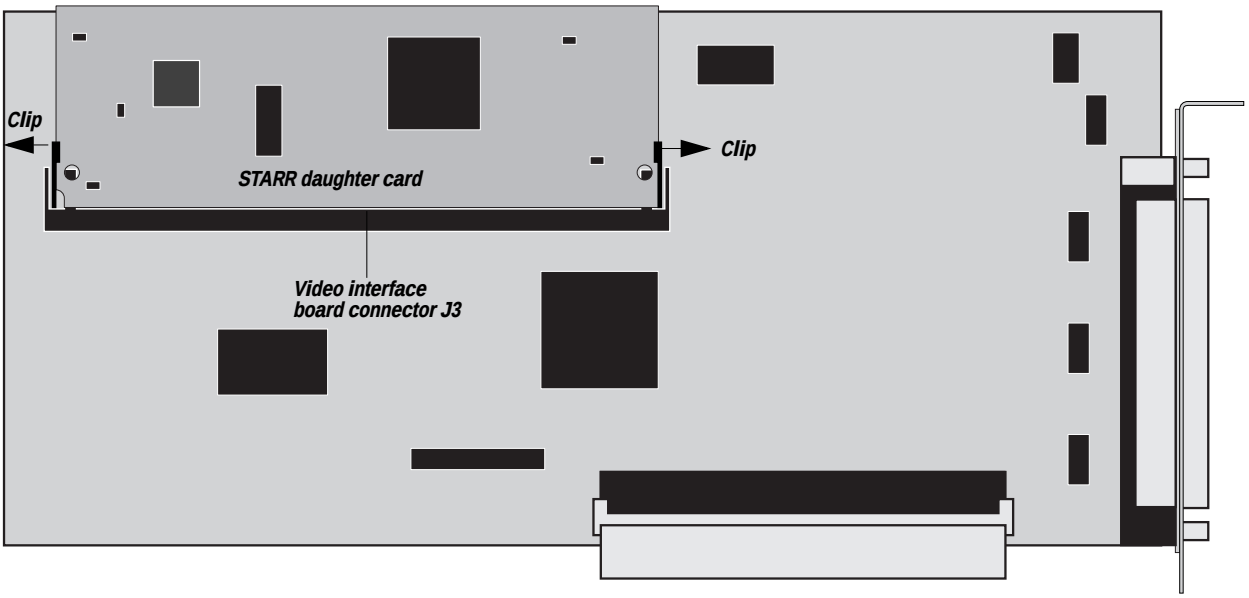


Figure 5-11 Removing the STARR daughter card

To replace the STARR daughter card

1. ***Slide the STARR daughter card into connector J3 on the video interface board at a 45-degree angle (see Figure 5-12).***

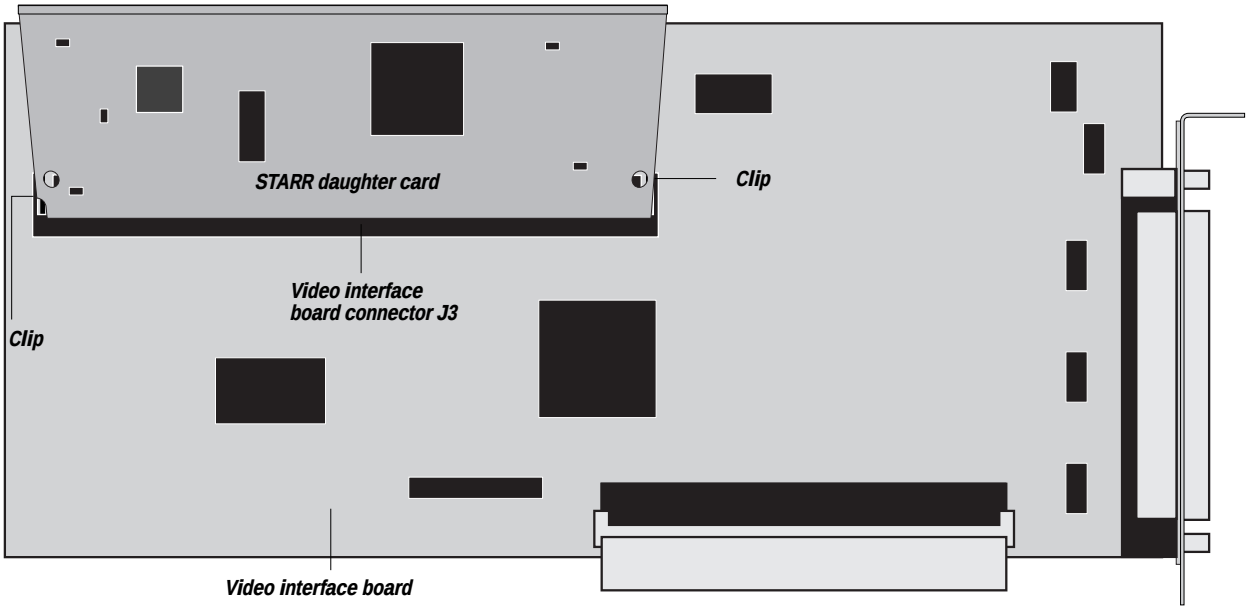


Figure 5-12 Installing the STARR daughter card

2. ***Push the STARR daughter card down to lock it into place.***

   Make sure that the daughter card snaps into the connector clips and that the connector clips close securely around the card.

3. ***Reassemble the Fiery XJ BP100 and verify its functionality (see the connection verification steps described in "Restoring Fiery XJ BP100 functionality after service" on page 5-11).***

4. ***Make sure to attach any cables that may have been removed during installation.***

User interface board

The user interface board installed on the front of the Fiery XJ BP100 chassis (see Figure 5-13) provides the interface between the Fiery XJ BP100 server and the user. The physical controls and status indicators on the front of the user interface board are:

- Activity lights (1 green and 1 red LED) at the top of the board
- Display window (LCD)
- Four line selection buttons
- Up and down arrow buttons
- Menu button at the bottom of the board

A cable connector on the back of the board connects the user interface board to the motherboard.

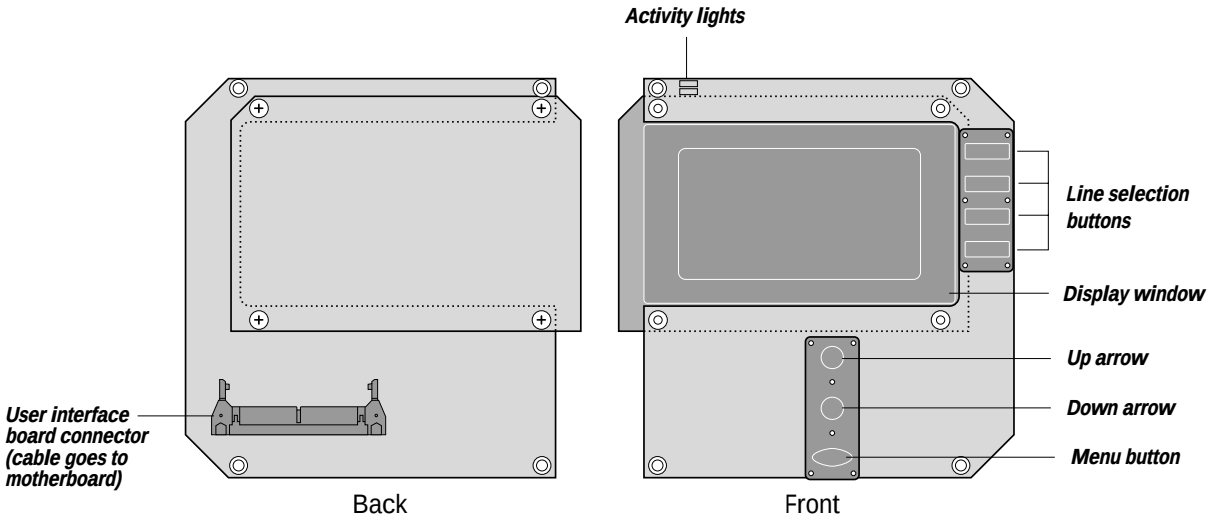


Figure 5-13 Diagram of the user interface board (back and front)

To remove the user interface board

1. ***Shut down the Fiery XJ BP100 as described in "To shut down the Fiery XJ BP100" on page 5-3 and remove the chassis cover as described in "To open the Fiery XJ BP100 chassis" on page 5-3.***
2. ***Remove the four screws that secure the user interface board and the UIB shield to the Fiery XJ BP100 chassis (see Figure 5-15 on page 5-19).***
3. ***Remove the cable connected to the user interface board.***

   Press outward on the connector levers on each side of the connector (see Figure 5-14), then pull the connector free. Avoid pulling on the cable itself.

   If you are simply replacing the user interface board, leave the end of the ribbon cable that is connected to the motherboard in place.

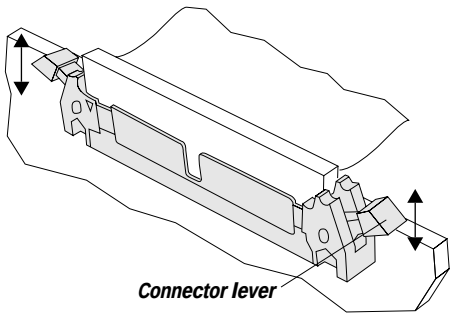


Figure 5-14 Detail of ribbon cable connector

4. ***Remove the user interface board.***
5. ***Place the board in an antistatic bag.***

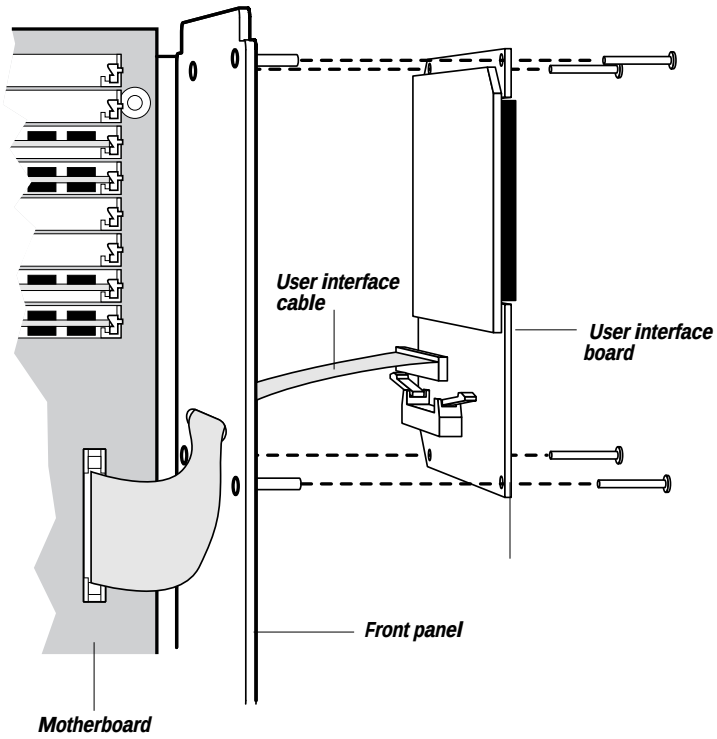


Figure 5-15 User interface board mounting hardware

To replace the user interface board

1. ***Attach the ribbon cable connector from the motherboard to the connector on the user interface board.***

   When you connect the cable, be sure to snap the levers together to ensure that the connector is securely fastened.

2. ***Position the user interface board on the front of the chassis over the holes where the screws will be inserted.***

3. ***Supporting the user interface board with one hand, replace the four screws that secure the user interface board to the Fiery XJ BP100 chassis.***

4. ***Reassemble the Fiery XJ BP100 and verify its functionality (see the connection verification steps described in "Restoring Fiery XJ BP100 functionality after service" on page 5-11).***

Motherboard

The custom Fiery XJ BP100 motherboard has a 175MHz CPU chip and controls the image data transferred to and from the video interface board. The motherboard also controls hard disk drive functions and the communication between the Fiery XJ BP100 and external devices. The motherboard has 16 SIMM sockets that currently hold 8MB SIMM strips (see "SIMMs" on page 5-33). Two ISA slots have been provided on the motherboard as expansion slots for optional configurations. For a view of the motherboard with the video interface board installed, see Figure 5-4 on page 5-6.

Removing the Fiery XJ BP100 motherboard

The motherboard attaches to the side of the Fiery XJ BP100 chassis, above the power supply and the hard disk drive. Before you remove the motherboard, you must remove:

- All ribbon and power cable connectors on the motherboard.
- All circuit boards and the isolation plate installed on the motherboard.
- Mounting hardware on motherboard network connectors.

Instructions are included in this section for each of the procedures listed above. This section also includes information on replacing the fuses, EPROM, EEPROM, and SIMMs on the motherboard.

To remove the ribbon and power cables

1. ***Print the Configuration page from the Functions menu.***

   If you are replacing the motherboard, you will need to reinstall system software after the new motherboard is installed. Setup settings are reset to the default configuration when you reinstall system software. The Configuration page gives you current Setup information.

2. ***Print the Font List from the Functions menu.***

   The Font List details what fonts are resident on the Fiery XJ BP100 HDD. Along with the fonts provided on the System Software CD, the customer may have installed additional fonts that will be deleted when system software is installed.

3. ***Shut down the Fiery XJ BP100 (see "To shut down the Fiery XJ BP100" on page 5-3).***

4. ***Remove the chassis cover as described in "To open the Fiery XJ BP100 chassis" on page 5-3.***
5. ***Remove the 50-pin SCSI connector at the bottom of the motherboard.***

   A detailed view of the Fiery XJ BP100 motherboard ribbon cable connector is shown in Figure 5-16.
6. ***Remove the P1 and P2 power connectors at the bottom of the motherboard (see Figure 5-18 on page 5-24).***
7. ***Disconnect the ribbon cable on the motherboard that attaches to the user interface board.***

   A detailed view of the Fiery XJ BP100 motherboard ribbon cable connector is shown in Figure 5-16.

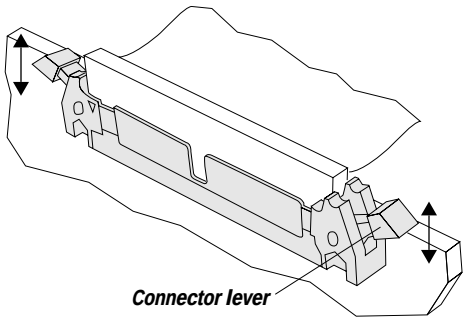


Figure 5-16 Detail of a Fiery XJ BP100 board ribbon cable connector

8. ***Remove the two fan wires that connect to the fan connector (J29) on the motherboard.***

   To remove the fan wires from the connector on the motherboard, press down on the bottom of the connector and gently pull out the two fan wires. (See Figure 5-27 on page 5-37.)

   The motherboard is labeled so that when the fan wires are plugged in, the red wire (labeled RED+) is on the left and the blue (or black depending on the fan model) wire is on the right (labeled BL-).

To remove the circuit boards and isolation plate

Take ESD precautions and be very careful when handling the Fiery XJ BP100 circuit boards.

1. ***Remove the video interface board mounting bracket screw.***
2. ***Remove the video interface board from slot J23.***

   Grasp the board at the front and back edges. Gently rock the board backward and forward as you pull on it, until it releases from the motherboard. Place the video interface board on a static-free surface.
3. ***Remove the mounting bracket screws and any boards installed in slots J24, J3, J4, or J25.***

   Grasp the board at the top front and rear edges. Rock the board forward and backward as you pull on it until it lifts free. Place the boards on a static-free surface.
4. ***Remove the bottom set of motherboard screws (3) that attach the isolation plate to the motherboard (see Figure 5-17 on page 5-23).***
5. ***Remove the two screws that attach the isolation plate to the front of the chassis and gently pull the isolation plate out of the chassis (see Figure 5-17 on page 5-23).***

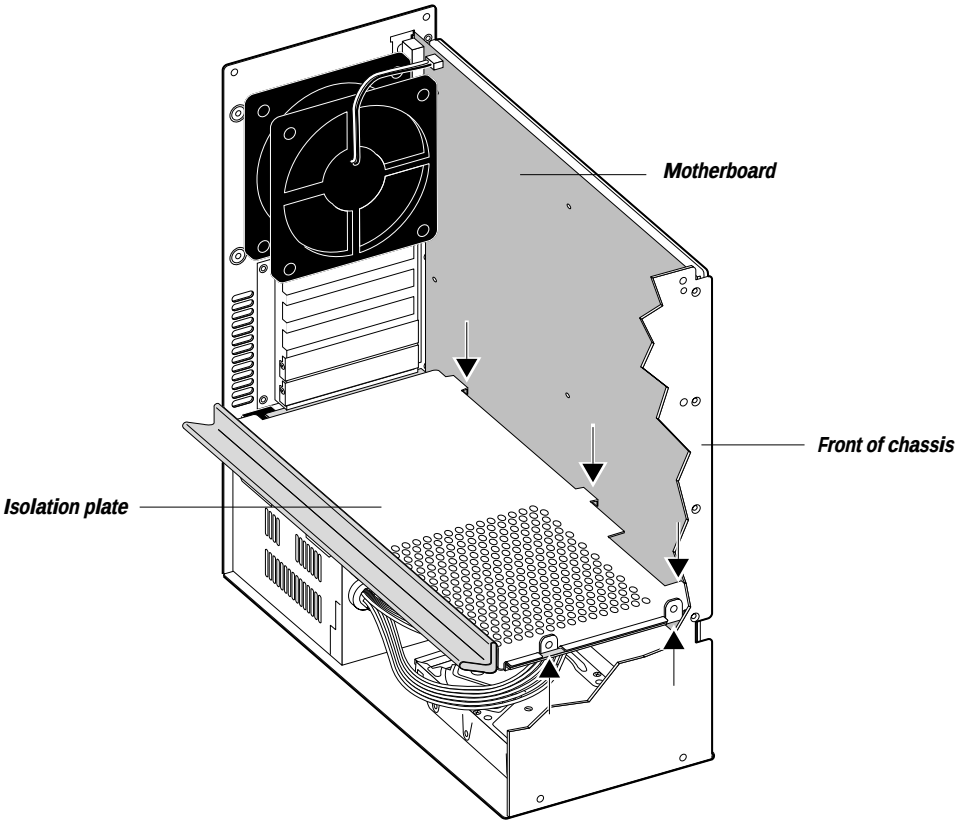
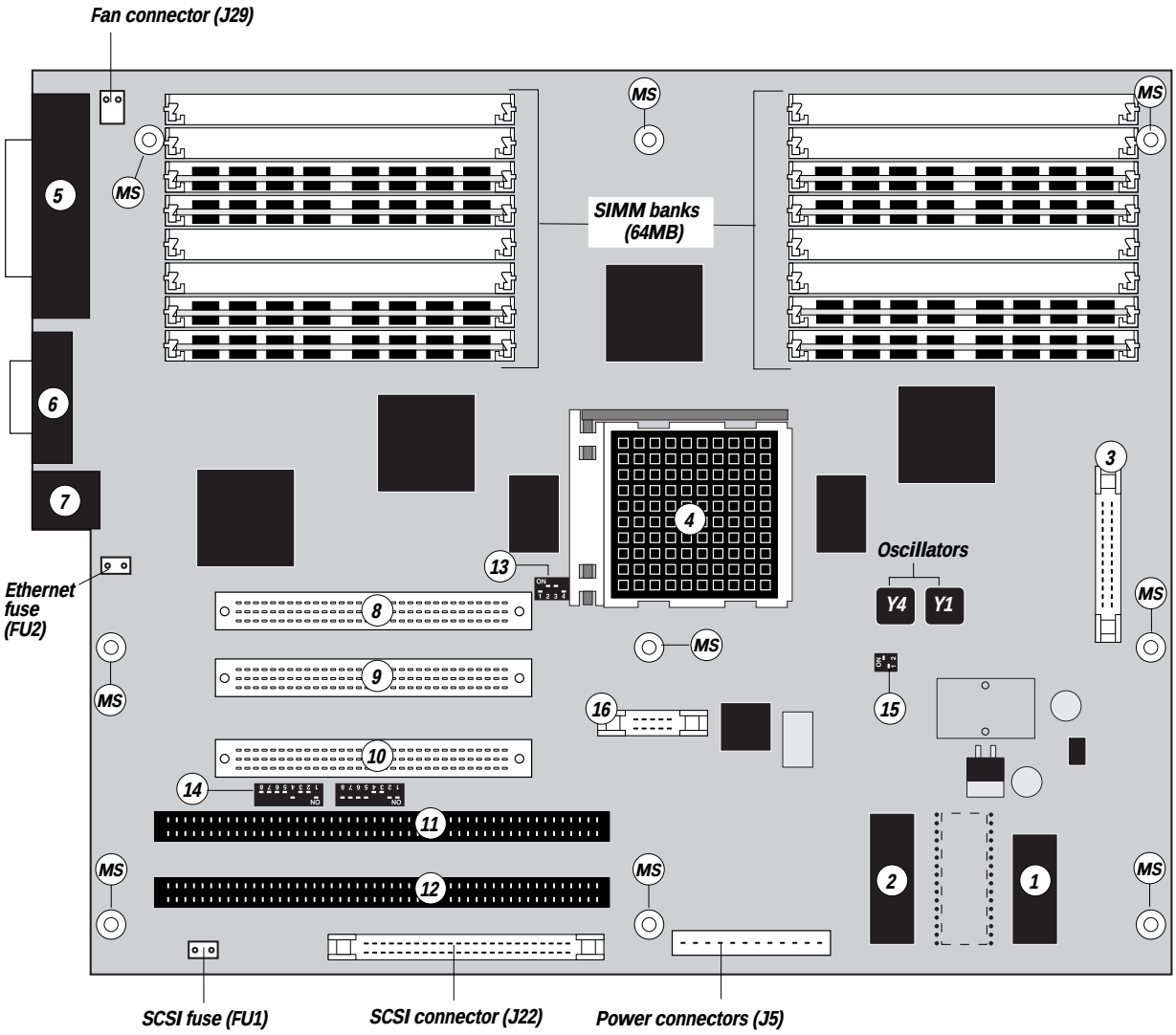


Figure 5-17 Removing the isolation plate



Default switch settings, also see page 5–36:

SI—

S2—

S3—

S4—

Key

1. *EEPROM (U11)*
2. *EPROM (U5)*
3. *User interface board connector (J27)*
4. *175MHz CPU chip (U3)*
5. *Centronics parallel connector (J26)*
6. *AUI connector (J1)*
7. *10Base-T connector (J2)*
8. *Expansion slot (J24)*
9. *Video interface board slot (J23)*
10. *Expansion slot (J3)*
11. *Expansion slot (J4)*
12. *Expansion slot (J25)*
13. *Switch (S1)*
14. *Switches (S3 and S2)*
15. *Switch (S4)*
16. *Serial port connector (J30)—not used*

MS—Mounting screws (9 screws)

Figure 5-18 Diagram of the Fiery XJ BP100 motherboard

To remove the motherboard

1. ***Remove the two screws on the parallel (Centronics) connector on the back of the Fiery XJ BP100.***
2. ***Remove the two bails on the parallel connector (see Figure 5-19).***

   To remove the bail, squeeze the edges of the bail together and remove it from the holes in the connector.
3. ***Set the screws and the bails aside so they can be replaced later.***
4. ***Remove the two screws and the latch on the AUI connector. Note the orientation of the latch so it can be replaced correctly later (see Figure 5-19).***

   To remove the screws, push the latch up to access the top screw and down to access the bottom screw.

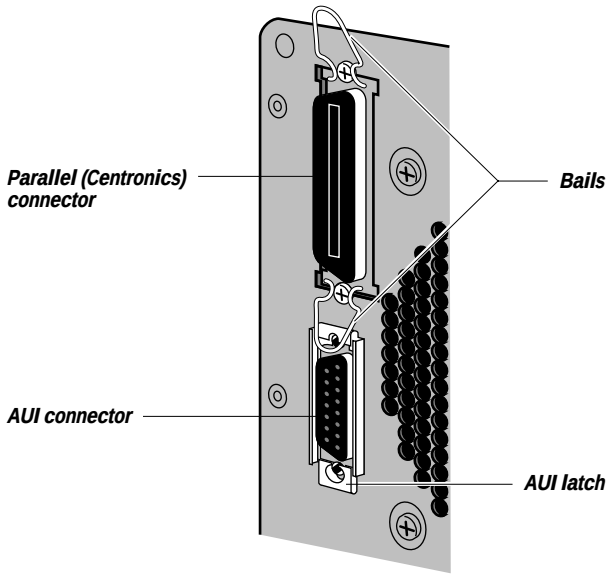


Figure 5-19 Centronics and AUI connectors on the motherboard

5. ***Remove the rest of the mounting screws on the motherboard. Leave the center mounting screw in place and remove it last (see Figure 5-18 on page 5-24).***
6. ***Supporting the motherboard, remove the center mounting screw.***

7. ***Pull the motherboard out of the Fiery XJ BP100 chassis (see Figure 5-20).***

   Make sure the parallel connector and the AUI connector on the motherboard clear the chassis before you pull the board out of the chassis.

   Be careful to avoid handling contacts and avoid using excessive force.

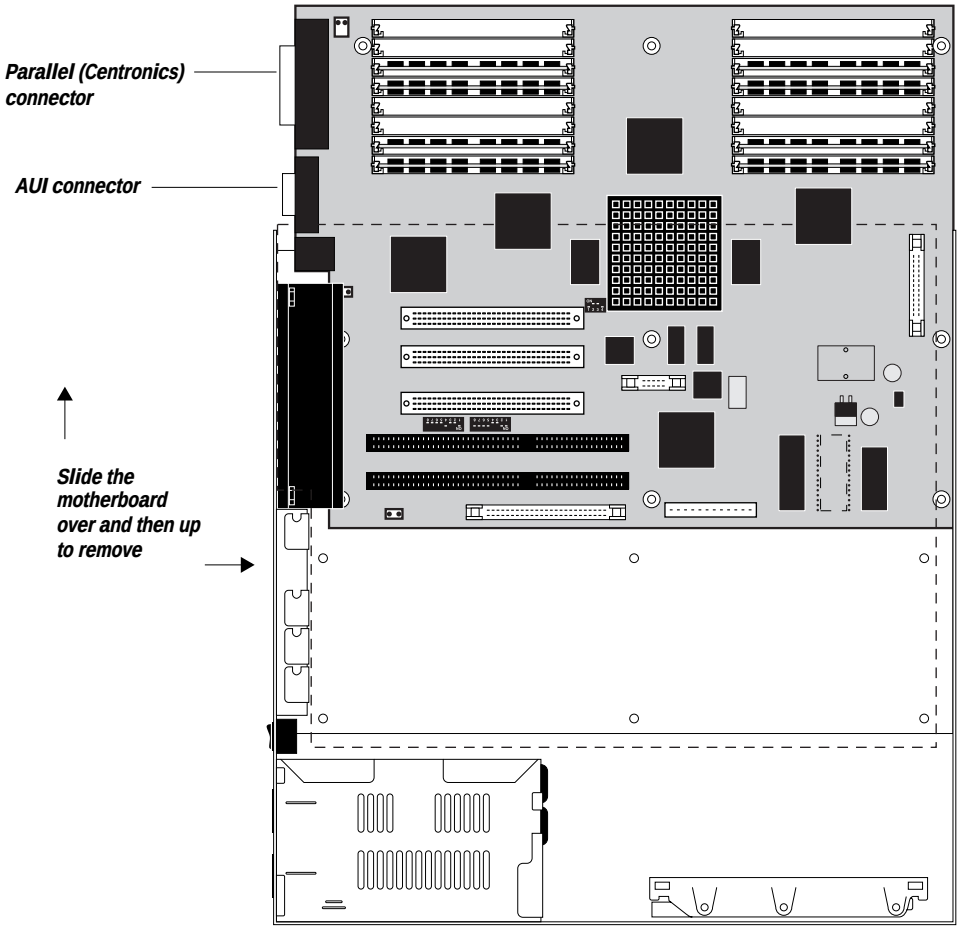


Figure 5-20 Removing the motherboard from the chassis

Replacing the motherboard

This section describes the procedures required to replace the Fiery XJ BP100 motherboard.

To replace the motherboard

1. ***Align the motherboard against the front panel of the chassis and carefully slide it into the chassis.***

   Make sure the parallel connector and the AUI connector fit into the cutouts in the back of the chassis.

2. ***Carefully place the Fiery XJ BP100 on its side (so the motherboard is facing up).***

3. ***Position the center mounting screw hole in the motherboard over the center mounting screw hole in the chassis (see Figure 5-21 on page 5-28 for screw positions on the Fiery XJ BP100 chassis).***

4. ***Insert a screw in the center screw hole and attach the motherboard to the chassis. Do not tighten it completely.***

5. ***Insert screws in the top and middle set of screw holes and tighten them (see Figure 5-21 on page 5-28).***

   Do not install the bottom set of screws. You will install those later when you attach the isolation plate.

6. ***Position the Fiery XJ BP100 right side up.***

7. ***Replace the two bails in the holes in the parallel connector.***

   To replace the bails, squeeze the edges of the bail together and insert it into the holes in the connector (see Figure 5-19 on page 5-25).

8. ***With the curved edges of the bails resting against the edges of the parallel connector, replace the two screws in the connector.***

9. ***Replace the top screw in the AUI connector and tighten it completely.***

10. ***Place the latch over the AUI connector and replace the second screw.***

    Make sure the latch is oriented as shown in Figure 5-19 on page 5-25. Push the latch up to secure the bottom screw.

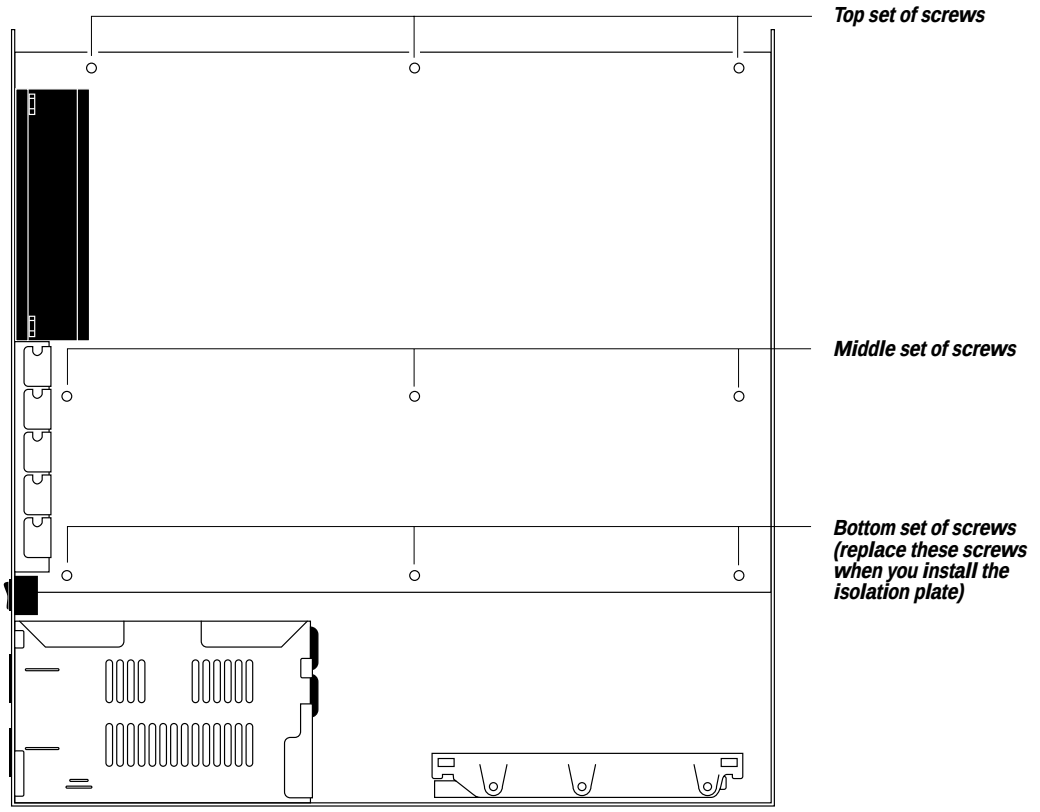


Figure 5-21 Motherboard screw positions on the chassis

To replace the motherboard cables

1. ***Connect the 50-pin SCSI ribbon cable to the 50-pin SCSI connector (J22) on the motherboard. See Figure 5-18 on page 5-24.***
2. ***Connect the P1 and P2 power cables to the power connector (J5) on the motherboard.***

   Power cable connectors are keyed to fit only when properly oriented. The motherboard is labeled with P1 on the right and P2 on the left of the connector.
3. ***Attach the connector from the user interface board to the user interface connector on the motherboard (J27).***
4. ***Insert the fan wires into the 2-pin fan connector on the motherboard (J29).***

   The board is labeled so that when the fan wires are plugged in, the red wire (labeled RED+) is on the left and the blue wire (or black wire depending on the fan model) is on the right (labeled BL-).

To replace the isolation plate and circuit boards

1. ***Align the three brackets (screw holes) on the isolation plate with the three screw holes at the bottom of the motherboard and insert the screws.***

   You may need to use a longer screwdriver (10" phillips) to attach the left screw.

2. ***Secure the isolation plate to the front of the chassis.***

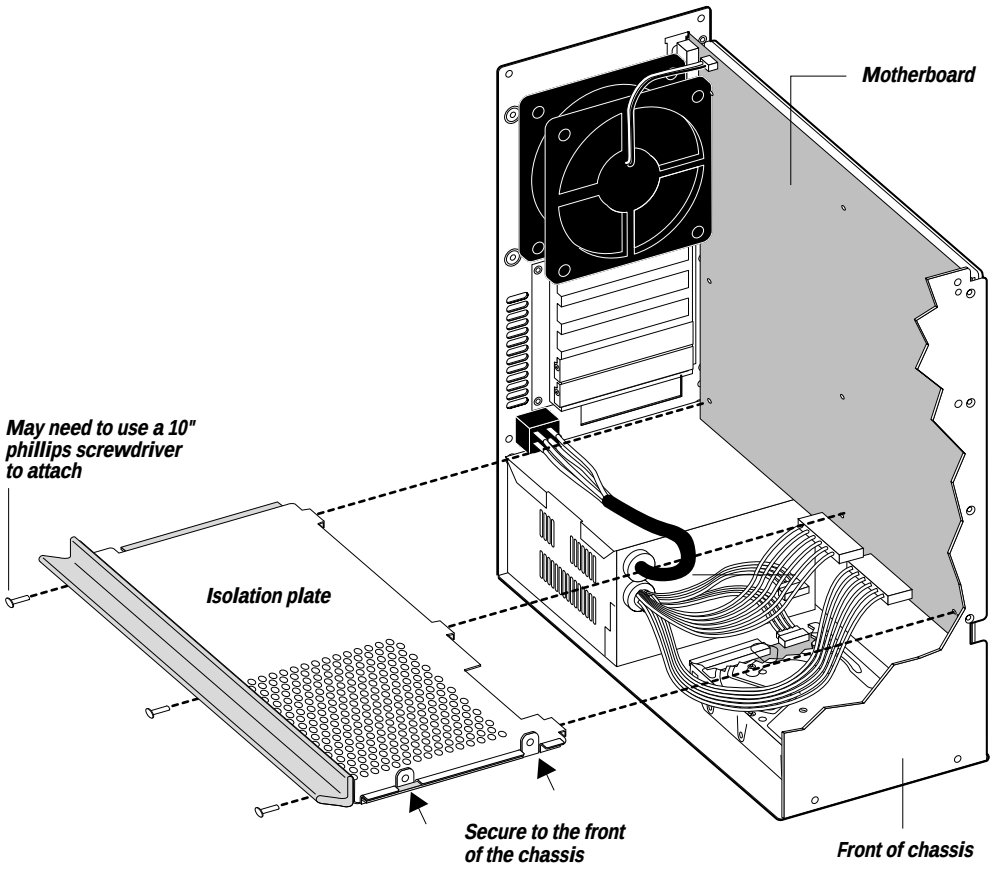


Figure 5-22 Installing the isolation plate

3. ***Reseat the video interface board in slot J23.***

   Slide the board straight into the board guide. As you plug the board into the connector on the motherboard, make sure that the connector pins on the board are properly aligned with the connector on the motherboard. The video interface board is keyed to fit only one way on the motherboard so that it cannot be plugged in wrong.

4. ***Reseat any optional boards removed from slots J24, J3, J4 or J25.***

To complete and verify motherboard installation

1. ***Attach the board mounting bracket screws for any boards installed in slots J24, J23, J3, J4, and J25.***

   Press down firmly on the top edge of the board as you insert each screw.

   Make sure unused slots have slot covers installed. Uncovered slots reduce air flow and could cause the Fiery XJ BP100 to overheat.

2. ***Press down on each ribbon cable connector and verify that all ribbon and power cables have been attached properly.***

3. ***Slide on the Fiery XJ BP100 chassis cover and install the cover screws (see Figure 5-2 on page 5-4 and Figure 5-3 on page 5-5).***

4. ***If you are using the Fiery XJ BP100 stand, attach it to the bottom of the Fiery XJ BP100 chassis (see Figure 2-3 on page 2-11).***

5. ***Connect the power cable to the back of the Fiery XJ BP100.***

6. ***Turn on the Fiery XJ BP100 and reinstall system software (see "Installing Fiery XJ BP100 system software" on page 5-47).***

   You will also be required to enter a password after you install the system software (see "Password-required startup" on page 3-3).

7. ***Verify Fiery XJ BP100 functionality (see the connection verification steps described in "Restoring Fiery XJ BP100 functionality after service" on page 5-11).***

Replacing parts on the motherboard

This section describes how to remove and replace the fuses, EPROM, EEPROM, and SIMMs on the motherboard. Before performing any of these procedures, you must first shut down the Fiery XJ BP100 as described in “To shut down the Fiery XJ BP100” on page 5-3, and remove the chassis cover as described in “To open the Fiery XJ BP100 chassis” on page 5-3.

Fuses

Two 1Amp fuses are located on the motherboard at FU1 and FU2 (see Figure 5-18 on page 5-24). A blown fuse may result from an incorrect connection to the AUI connector or the SCSI connector on the motherboard. Replacing the fuse corrects the problem. Replacement fuses are available from your service representative.

To replace a fuse

1. ***To remove a fuse, gently pull the fuse out of its socket on the motherboard.***
2. ***Insert the new fuse into the socket.***

EPROM and EEPROM

The EPROM is located in socket U5 on the motherboard. The EPROM contains boot information, such as the startup diagnostics that the Fiery XJ BP100 uses when you turn on the power.

The EEPROM is located in socket U11 on the motherboard and contains motherboard configuration information required when printing to the copier. Some Setup information is also stored in the EEPROM.

To replace EPROM and EEPROM

1. ***Grasp the edges of the chip and gently pull the chip out of its socket on the motherboard.***

   EPROM is located in socket U5 and EEPROM is located in socket U11 on the motherboard (see Figure 5-18 on page 5-24).

2. ***Insert the new chip so that the notch in the chip is aligned with the notch in the socket (see Figure 5-23 on page 5-32).***

   Also make sure to align the pins on the chip with the holes in the socket. If you notice any bent pins, straighten them gently with a pair of needlenosed pliers.

3. ***If you are replacing the EEPROM, verify that the Setup options are set correctly after you replace the chip (see "Using Setup" on page 4-1).***

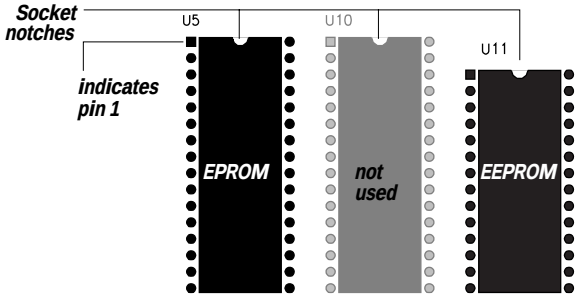


Figure 5-23 EPROM and EEPROM socket notches on the motherboard

SIMMs

The Fiery XJ BP100 motherboard is capable of holding four banks of memory with four SIMM strips installed in each bank. The Fiery XJ BP100 is configured with eight 8MB SIMM strips. The 8MB strips can be recognized by the yellow stripe on the outside edge of the SIMM strip. When upgrading the SIMM configuration on the motherboard, always install the largest capacity SIMM strips in the lowest banks.

Replacement SIMMs are available from your service representative. Motherboard SIMMs are not interchangeable with off-the-shelf SIMMs.

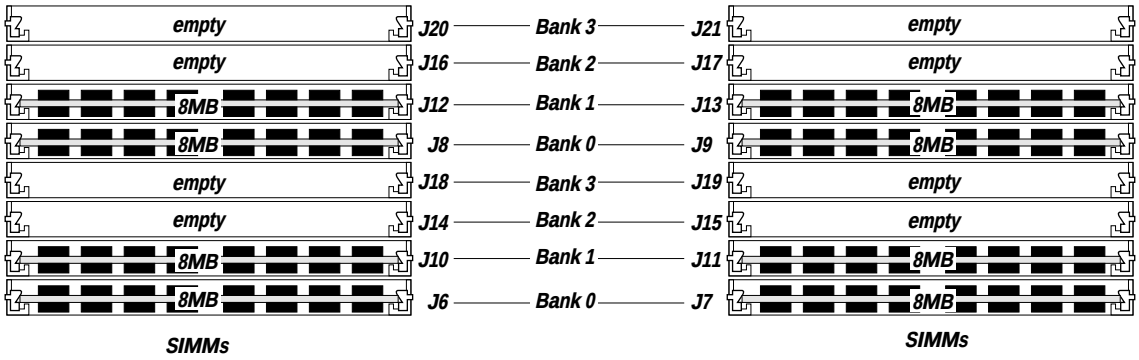


Figure 5-24 Example of 64MB SIMM configuration

To replace a SIMM

1. ***To release a SIMM strip, push outward on one of the spring clips. Then while supporting the SIMM, push outward on the other spring clip. (See Figure 5-25.)***

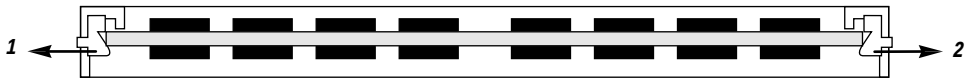


Figure 5-25 Releasing SIMM spring clips

2. ***Slide the SIMM strip out of the slot at a 45-degree angle.***

   In order to release a SIMM, you need to push down on the SIMM (see Figure 5-26).

   Remove SIMMs in sequence. Start at the center of the motherboard and work your way toward the outer edge of the motherboard.

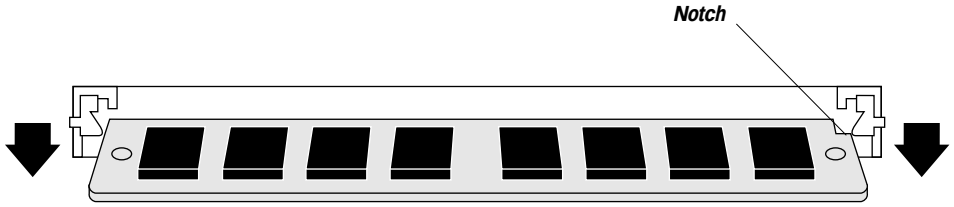


Figure 5-26 Releasing a SIMM strip

3. ***To replace a SIMM strip, slide the SIMM strip into the socket at a 45-degree angle and lock it into place.***

   Make sure that the spring clips close securely around the ends of the SIMM strip and that each strip is fully seated in its slot.

   Note that SIMMs fit the socket only one way. The index notch at one end of each SIMM (near pin1) fits in the right side of the socket.

   Insert SIMMs in sequence. Start at the outer edge of the motherboard and work your way toward the center of the motherboard.

4. ***See "Restoring Fiery XJ BP100 functionality after service" on page 5-11.***

Motherboard switches

There are four banks of switches on the motherboard (S1-S4) that control secondary cache size, on-board Ethernet and SCSI, DMA channels, interrupts, and which oscillator (87.5MHz or a 66MHZ) drives the CPU. These switches may need to be changed depending on the Fiery XJ BP100 configuration. See Figure 5-18 on page 5-24 for the location of the switches on the motherboard (key locations 13-15). For a more detailed description of the switches and their functions see below.

Switch (default configuration)	Description
S1 	Switch S1 controls secondary cache on the motherboard. The default configuration configures the Fiery XJ BP100 for 256K of secondary cache. If this switch is not set correctly the Fiery XJ BP100 may fail the DRAM Startup diagnostics. Switch settings for secondary cache expansion may be supported in future versions.
S2  S3 	Switch S2 and S3 are used together to control functions such as on-board Ethernet and SCSI, interrupts, and DMA, for optional boards that are intended for installation in slot J3. If no board is installed in slot J3 the switches should have the default configuration. If an optional board is intended for slot J3, see the documentation enclosed with the board for the specific switch configuration.
S4 	Switch S4 controls which oscillator on the motherboard (located at Y1 and Y4) drives the CPU. In the default configuration, the switch is set for a 175MHz CPU using the 87.5MHz oscillator at Y4. ***Note:*** Setting both switches in the ON position could damage the CPU chip.

Intake fan

An air intake fan attached to the back panel of the Fiery XJ BP100 runs continuously when the Fiery XJ BP100 is on. You should hear the fan start as soon as you turn on the Fiery XJ BP100. If you don't hear the fan, the most likely problem is a faulty power connection (see "To check board and cable connections" on page 5-7).

To remove the fan

1. ***Shut down the Fiery XJ BP100 and open the chassis, as described in "To shut down the Fiery XJ BP100" on page 5-3 and "To open the Fiery XJ BP100 chassis" on page 5-3.***
2. ***Unplug the fan power wires from the connector (J29) on the motherboard.***

   To remove the fan wires, push down on the bottom of the fan connector on the motherboard while gently pulling the wires from the connector (see Figure 5-27).

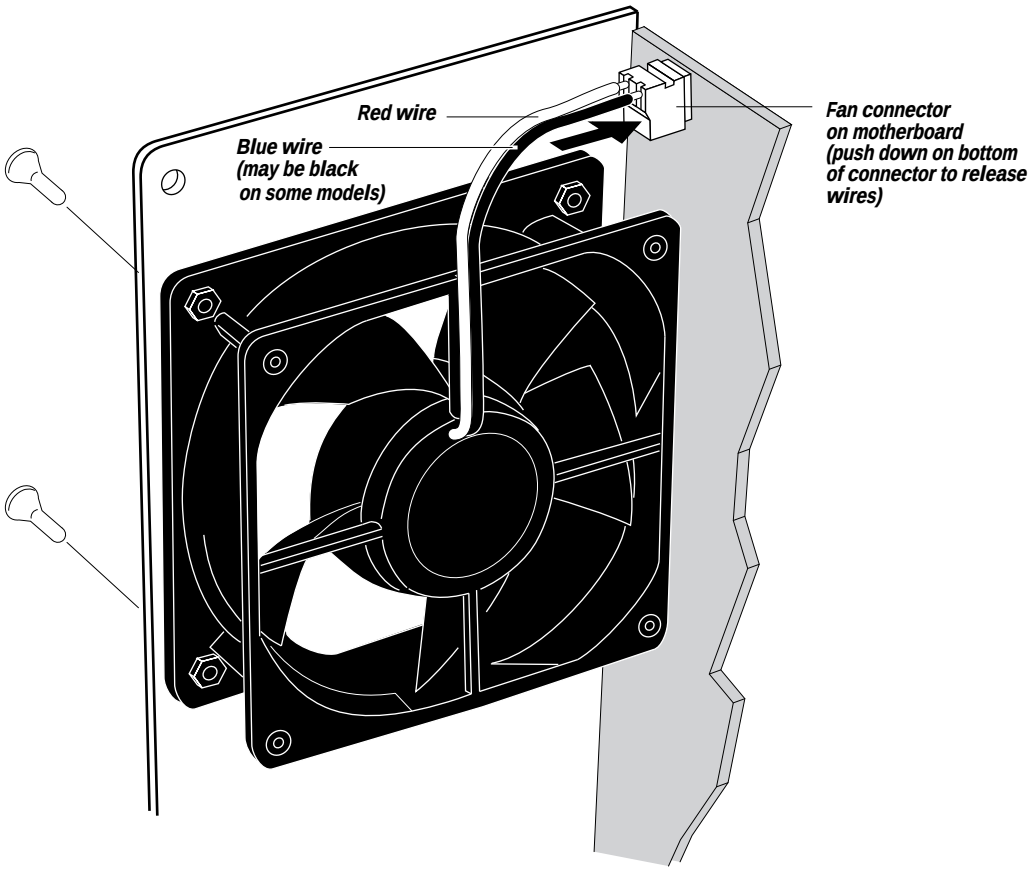


Figure 5-27 Fan connector and mounting hardware

3. ***Remove three of the four screws that fasten the fan to the chassis.***
4. ***Supporting the fan, remove the fourth screw.***
5. ***Set the screws aside so they can be replaced later.***
6. ***Remove the fan from the chassis.***

To replace the fan

1. ***Attach the new fan to the chassis with the four screws.***

   The label on the side of the fan indicates the airflow direction. Make sure the arrows on the label point to the inside of the Fiery XJ BP100 chassis and the fan wires come out the top of the fan.

2. ***Plug the fan wires into the 2-pin fan connector on the motherboard (see Figure 5-18 on page 5-24).***

   The motherboard is labeled so that when the fan wires are plugged in, the red wire (labeled RED+) is on the left and the blue (or black depending on the fan model) wire is on the right (labeled BL-).

3. ***Reassemble the Fiery XJ BP100 and verify functionality (see the steps described in "Restoring Fiery XJ BP100 functionality after service" on page 5-11).***

Power switch

Loose connections on the back panel power switch can often be repaired by checking the connection of the connectors on the switch from the inside of the Fiery XJ BP100 chassis.

To remove the power switch

1. ***Shut down the Fiery XJ BP100 and open the chassis, as described in "To shut down the Fiery XJ BP100" on page 5-3 and "To open the Fiery XJ BP100 chassis" on page 5-3.***

   Make sure you remove the power cable from the back of the Fiery XJ BP100 before you proceed with this procedure.

2. ***Using a pair of needlenosed pliers, pull the four connectors off the power switch (see Figure 5-28 on page 5-39).***
3. ***From the inside of the chassis, push the power switch through the cutout in the chassis.***

   You may also need to pry gently around the edges on the front of the switch with a flat-head screwdriver in order to free the switch from the chassis.

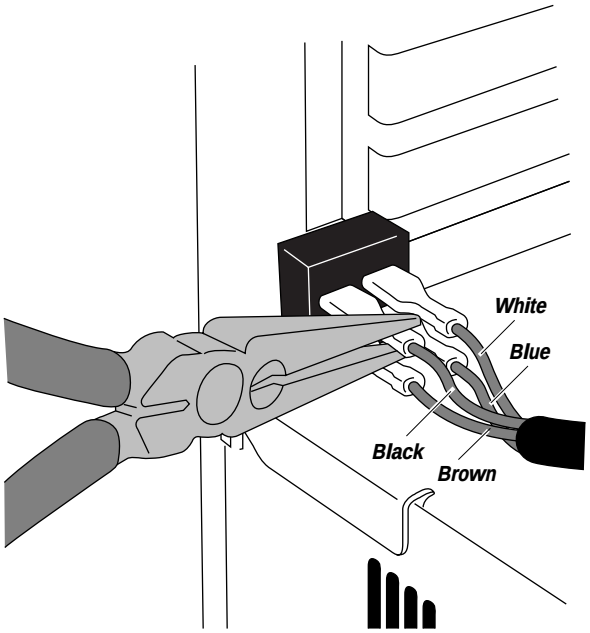


Figure 5-28 Removing the connectors from the power switch

To replace the power switch

1. ***Insert the power switch into its cutout on the back of the chassis.***

   Make sure to insert the switch so that the I on the front of the switch is on top.

2. ***Reseat the four connectors on the switch. If you aren't sure where a connector should be connected, see the label next to the power switch on the back of the Fiery XJ BP100 chassis. Also see Figure 5-28.***

   Note: Make sure you plug the connectors on the power switch correctly. Connecting the power switch incorrectly can result in blowing a fuse in the wall.

3. ***Reassemble the Fiery XJ BP100 and verify functionality (see the verification steps described in "Restoring Fiery XJ BP100 functionality after service" on page 5-11).***

Power supply

The fan-cooled 200 watt power supply used in the Fiery XJ BP100 has an automatic input voltage selection circuit. Input ranges are 90-135VAC and 180-265VAC.

Checking voltages

You can check power supply functionality using a voltmeter at the following locations:

- Connectors P1 and P2, which supply power to the motherboard
- Connector P3, which supplies power to the HDD

Note: Connectors P4, P5, and P6 are reserved for future expansion.

Test voltages on the cable connectors on the power supply, not on the board connectors. A wiring diagram is shown in Figure 5-29 on page 5-41. Table 5-2 describes the Fiery XJ BP100's power connectors.

Table 5-2 Fiery XJ BP100 power plugs

Connector	Pin	Cable Color	Voltage
 *P1*	1	white	power good (see note)
	2	red	+5 V
	3	blue	+12 V
	4	yellow	-12 V
	5	black	common
	6	black	common
 *P2*	1	black	common
	2	black	common
	3	orange	-5 V
	4	red	+5 V
	5	red	+5 V
	6	red	+5 V
 *P3 & P4*	1	blue	+12 V
	2	black	common
	3	black	common
	4	red	+5 V
 *P5 & P6*	1	blue	+12V
	2	black	common
	3	black	common
	4	red	+5V

Note: The power good signal voltage monitors the power supply so diagnostics can determine if the power supply is working properly.

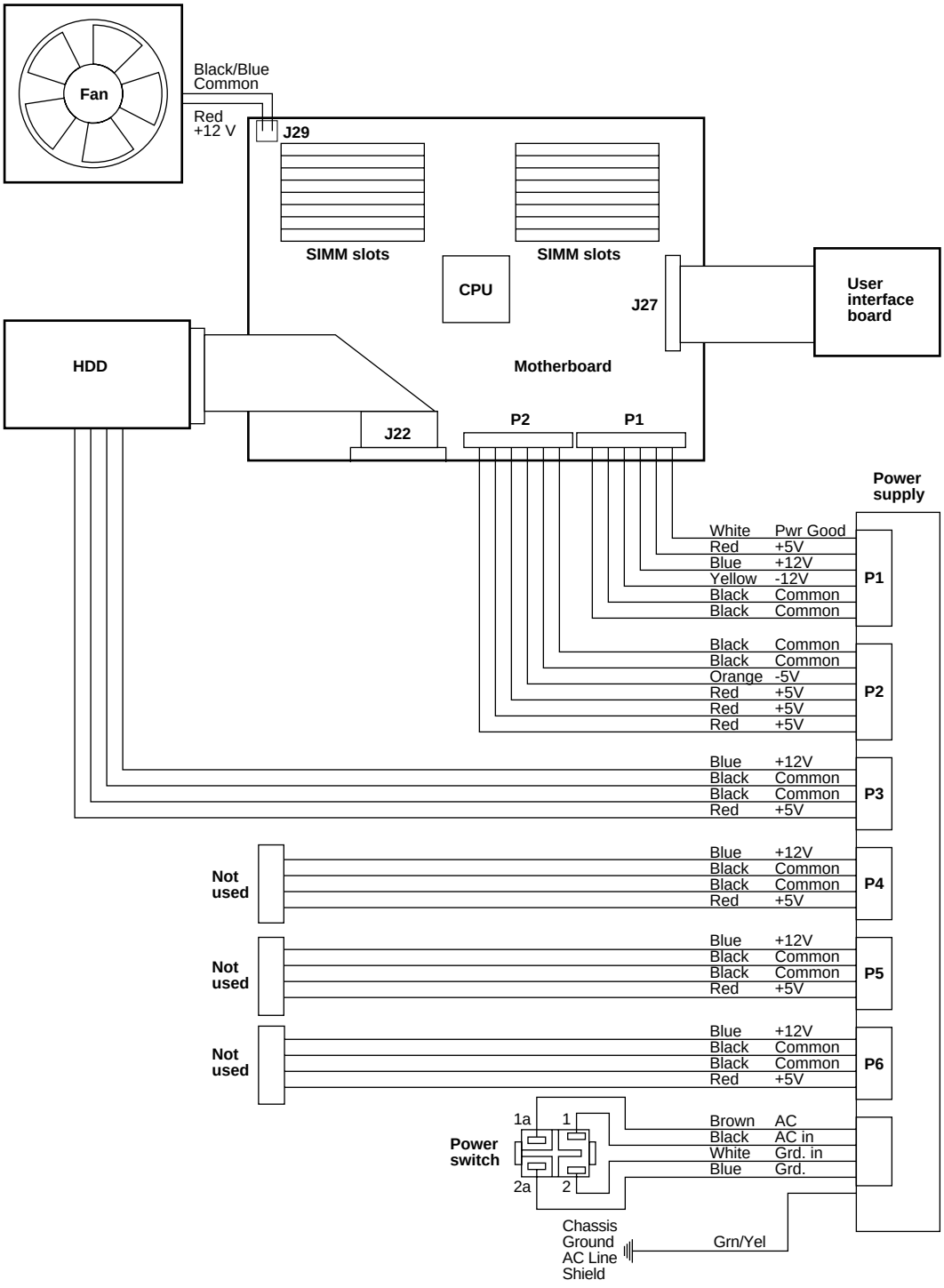


Figure 5-29 Fiery XJ BP100 wiring diagram

Removing and replacing the power supply

This section describes how to remove the power supply and all cables and replace it with a new power supply.

To remove the power supply

1. ***Shut down the Fiery XJ BP100 and open the chassis, as described in "To shut down the Fiery XJ BP100" on page 5-3 and "To open the Fiery XJ BP100 chassis" on page 5-3.***
2. ***Disconnect the main power connectors (P1 and P2) on the motherboard.***
3. ***Disconnect the power connector (P3) on the hard disk drive (see Figure 5-5 on page 5-9).***
4. ***Using needlenosed pliers, disconnect the connectors from the power switch on the back panel (see Figure 5-28 on page 5-39).***
5. ***Remove the screw that secures the grounding wire to the back of the chassis.***
6. ***Remove the four screws on the back panel of the Fiery XJ BP100 that attach the power supply to the chassis.***
7. ***Set the screws aside so they can be replaced later.***
8. ***Slide the power supply out of the chassis.***

To replace the power supply

1. ***Set the new power supply inside the bottom left corner of the chassis and attach it from the outside with four screws.***
2. ***Connect the main power connectors (P1 and P2) to the motherboard power connector (J5).***
3. ***Connect P3 to the Fiery XJ BP100 hard disk drive.***
4. ***Connect the four power switch connectors to the power switch on the back panel.***

   If you aren't sure where a connector should be connected, see the Fiery XJ BP100 wiring diagram (Figure 5-29 on page 5-41).
5. ***Secure the grounding wire to the back of the chassis.***
6. ***Reassemble the Fiery XJ BP100 and verify its functionality (see "Restoring Fiery XJ BP100 functionality after service" on page 5-11).***

   If you cut any tie wraps, make sure you replace them.

Hard disk drive

Factory-installed Fiery XJ BP100 HDDs (hard disk drives) are thoroughly tested and burned in before shipment. Hard disk drives are formatted and loaded with all Fiery XJ BP100 software, including the Fiery XJ BP100 operating software, Fiery XJ BP100 system software, network drivers, and the set of Fiery XJ BP100 printer fonts. Additionally, the hard disk drive is used to store spooled print jobs. Available space on the hard disk drive is displayed on the Control Panel.

Fiery XJ BP100 system software and installation instructions will be made available to service technicians for field replacement.

If you are replacing a Fiery XJ BP100 HDD, you will need:

- The appropriate Fiery XJ BP100 Software Service Kit and documentation for the Fiery XJ BP100 you are servicing.
- The latest version of user software for networked computers that will be using the Fiery XJ BP100.

To remove the HDD

1. ***Print the Configuration page from the Functions menu (if possible) to record the customer's settings before you shut down the Fiery XJ BP100.***

   If you are replacing the HDD, the Setup configuration will be lost when the new HDD is installed.

2. ***Print the Font List from the Functions menu.***

   The Font List details what fonts are resident on the Fiery XJ BP100 HDD. Along with the fonts provided on the System Software CD, the customer may have installed additional fonts that will be lost when the new HDD is installed.

3. ***Shut down the Fiery XJ BP100 and open the chassis, as described in "To shut down the Fiery XJ BP100" on page 5-3 and "To open the Fiery XJ BP100 chassis" on page 5-3.***

4. ***Using ESD precautions, remove the 50-pin SCSI ribbon cable connecting the HDD and the motherboard, by pulling the connector (not the cable) straight out from the HDD (see Figure 5-5 on page 5-9).***

5. ***Disconnect the white power connector (P3) from the base of the HDD (see Figure 5-5 on page 5-9).***

6. ***On the exterior of the chassis, locate the four mounting screws that attach the HDD to the chassis (see Figure 5-30 on page 5-44).***

   The four mounting screws are located on the bottom exterior of the chassis. To access the four screws, position the Fiery XJ BP100 on its back panel (see Figure 5-30).

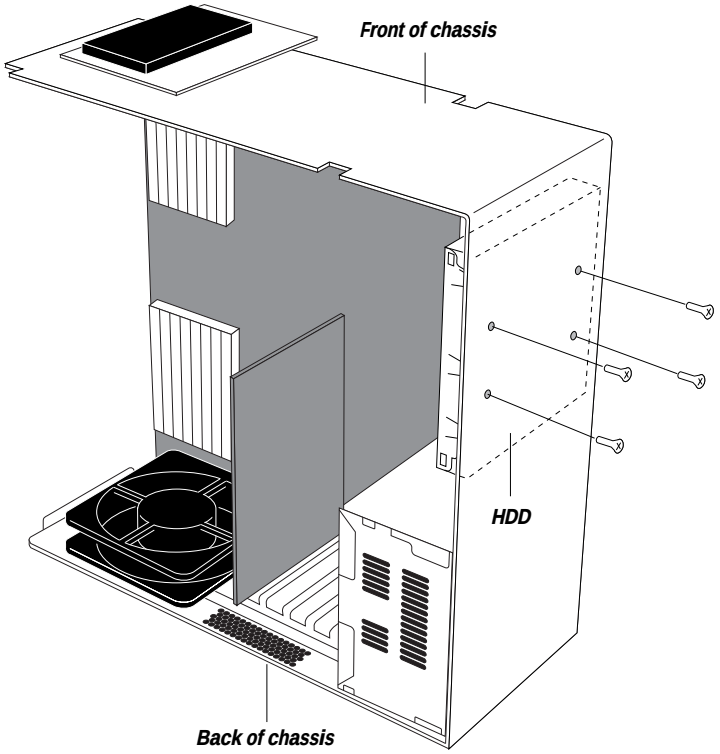


Figure 5-30 Disk drive mounting screw holes on chassis exterior

7. ***Using a Phillips screwdriver, remove three of the four screws.***
8. ***With one hand supporting the HDD on the inside of the chassis, remove the fourth screw.***

   Set all the screws aside; you will need them later to install the new HDD.

9. ***Lift out the HDD.***

Do not unscrew the six screws on the rounded side of the HDD (see Figure 5-31). Loosening these HDD screws will break the seal and void the HDD warranty.

Do not touch the drive with magnetic objects (such as magnetic screwdrivers) and avoid placing items such as credit cards and employee ID cards that are sensitive to magnets near the HDD.

10. ***Place the HDD in an antistatic bag.***

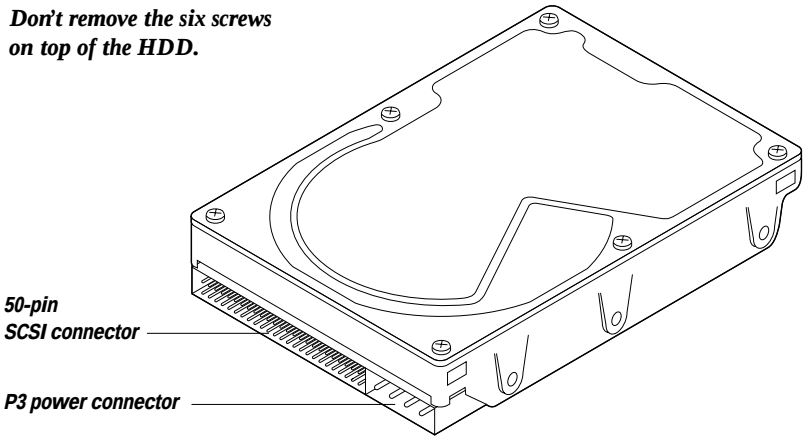


Figure 5-31 Fiery XJ BP100 hard disk drive, removed

To install a new HDD

Replacement hard disk drives are not shipped with Fiery XJ BP100 system software pre-installed. After installing the drive, you need to install the Fiery XJ BP100 system software as described in the instructions included with the Software Service Kit.

1. ***Unpack the new hard disk drive. With its rounded side down, place the drive on a flat surface or on your palm.***

   Do not touch the HDD with magnetic objects or place objects sensitive to magnets near the drive.

2. ***Position the Fiery XJ BP100 on its back panel so you can easily access the HDD screw holes.***
3. ***Make sure the SCSI ID for the HDD is set to 0.***
4. ***Attach the white power connector (P3) to the HDD.***
5. ***Attach the 50-pin SCSI ribbon cable connector to the HDD.***

   The connector is keyed to attach only one way.

6. ***Orient the HDD against the chassis so that the power and SCSI connectors on the drive face the back panel of the Fiery XJ BP100 chassis.***
7. ***Supporting the HDD against the chassis, align the four holes in the HDD with the holes in the bottom of the chassis.***
8. ***Attach the HDD to the chassis with the four Phillips screws.***

   From the outside of the chassis, push one screw through the chassis and the HDD assembly and tighten it partway. Fasten the remaining three Phillips screws the same way, and then tighten all four screws.
9. ***Position the Fiery XJ BP100 right side up.***
10. ***Check board and cable connections and replace the Fiery XJ BP100 chassis cover (see "Restoring Fiery XJ BP100 functionality after service" on page 5-11).***
11. ***Reestablish the connections at the back of the Fiery XJ BP100. Install the power cable last.***
12. ***Use the Fiery XJ BP100 Software Service Kit to install the Fiery XJ BP100 system software (see "The Fiery XJ BP100 Software Service Kit" below).***

    After installing the new HDD, you must install Fiery XJ BP100 system software.

    If a startup error appears on the Control Panel when you turn on the Fiery XJ BP100, check the Fiery XJ BP100 connections. If a startup error still appears, call your authorized service/support center before attempting to proceed with software installation.

The Fiery XJ BP100 Software Service Kit

The Fiery XJ BP100 Software Service Kit enables you to reformat a Fiery XJ BP100 hard drive and reinstall Fiery XJ BP100 system software. Use this kit when:

- You replace the Fiery XJ BP100 hard disk drive with a new or optional hard disk drive
- You replace the motherboard
- You upgrade to a more recent version of the system software

The Fiery XJ BP100 Software Service Kit includes the system software and fonts on a CD.

Installing Fiery XJ BP100 system software

These steps must be followed exactly in order to successfully install Fiery XJ BP100 system software. If you encounter any errors during the installation process, refer to "General Fiery XJ BP100 system error conditions" on page 6-12.

Note that installing system software deletes the list of jobs in the Job Log and any jobs in the queues. The site system administrator can save a current list of jobs (but not the actual job) from the Job Log using the Fiery Spooler.

To install Fiery XJ BP100 system software

Screens for installing the system software and formatting the disk are always displayed in English, even if you configured the Fiery XJ BP100 for a language other than English.

1. ***If you have not done so already, print the Configuration page from the Functions menu (if possible) to record the customer's Setup Configuration.***

   Setup settings are reset to the default when new software is installed.

2. ***Print the Font List from the Functions menu.***

   The Font List details what fonts are resident on the Fiery XJ BP100 HDD. Along with the fonts provided on the System Software CD, the customer may have installed additional fonts that will be deleted when system software is installed.

3. ***With the Fiery XJ BP100 turned off, connect a CD-ROM drive to the Fiery XJ BP100 SCSI port (see "Connecting a CD-ROM drive to the Fiery XJ BP100" on page 3-12). Make sure the CD-ROM drive is terminated.***

   Push firmly on the cable connector to the Fiery XJ BP100 and to the CD-ROM drive. Make sure the SCSI connectors are securely connected so that the bails (wire clips) easily close around the cable connectors.

4. ***Turn on the CD-ROM drive, wait for the drive to be free of activity, and then push the eject button and insert the Fiery XJ BP100 System Software CD.***

   The Fiery XJ BP100 System Software CD *must* be inserted into the CD-ROM drive before you turn on the Fiery XJ BP100.

5. ***Make sure the CD-ROM drive is free of activity and then turn on the Fiery XJ BP100.***

6. ***Allow the Fiery XJ BP100 to perform and complete its Start-up diagnostics.***

7. ***As soon as you see the message "For software update or setup, press any key" press any button.***

   If you do not press a key within three seconds, the Fiery XJ BP100 continues the startup process. If this occurs, reboot the Fiery XJ BP100 and try again.

8. ***The Fiery XJ BP100 displays the Start Up screen, as shown below.***

Figure 5-32 Start Up screen

9. ***Before you install system software, you should reformat the Fiery XJ BP100 hard disk. Press the line selection button next to* Format Disk.**

10. ***At the screen, "Deletes contents. Continue?" select* Yes.**

    The next screen gives you the choice of a High Level or Low Level format.

11. ***Select* High Level *from the Format Method screen.***

    The Fiery XJ BP100 hard disk is reformatted.

    Note: If you suspect a problem with the hard disk drive, format the drive using the low level format method first. This should correct any bad sectors on the disk.

    Depending on the type of hard disk drive, a low level format can take from a few seconds to 60 minutes.

    Turning off the Fiery XJ BP100 while a low level format is in progress could permanently damage the hard disk drive.

12. ***At the Start Up screen (Figure 5-32), select* Install Software.**

    Make sure the CD-ROM drive is free of activity before you install the software. If it is not free of activity and you attempt to install software, you may encounter an Error 52. If an error does occur, turn off the Fiery XJ BP100, check the CD-ROM drive connections, make sure you have the correct CD inserted, and try again.

13. ***The next screen allows you to confirm that you want to install software; select* Yes*, then select* OK*.***

    The Fiery XJ BP100 displays a progress bar while it copies the system software from the CD.

    If the installation is successful, you will be prompted to reboot the Fiery XJ BP100.

14. ***Select* OK*.***

15. ***After the Fiery XJ BP100 reboots, you will see the Language Setup screen. Select the language you want to be displayed on the Fiery XJ BP100 Control Panel.***

    If you select a different language from the one initially highlighted on the Control Panel, select OK at the "System will reboot to load new language." screen. After the Fiery XJ BP100 reboots, the language you selected will appear on the Control Panel.

    If you changed the SIMM configuration or replaced the motherboard, you will need to provide a password for system verification (at this point, continue with "Password-required startup" on page 3-3).

16. ***The Setup screen is displayed. Reenter the customer's settings from the Configuration page that you printed earlier.***

    Make sure you configure the Printer Model with the correct copier type in Printer Setup.

17. ***When the Fiery XJ BP100 reaches the Idle screen, press the eject button and remove the System Software CD.***

    Make sure the CD-ROM drive is free of activity before you remove the System Software CD.

18. ***Turn off the Fiery XJ BP100 and the CD-ROM drive.***

19. ***Remove the SCSI cable from the back of the Fiery XJ BP100.***

    Make sure you replace the SCSI terminator on the back of the Fiery XJ BP100.

Chapter 6: Troubleshooting Procedures

This chapter identifies the source of common problems that may occur with the Fiery XJ BP100 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 6-3 gives an overview of the Fiery XJ BP100 system and indicates areas most likely to require troubleshooting.

- ***Problems with initial installation***

  If the Fiery XJ BP100 fails to complete its first startup and reach the Idle (ready to print) screen, the most likely cause is a loose cable or board connection. See "Accessing Fiery XJ BP100's internal components" on page 5-3 for instructions on opening the Fiery XJ BP100 chassis, and "Checking Fiery XJ BP100's internal connections" on page 5-7 for descriptions of Fiery XJ BP100 parts and connections.

  If a loose part or cable is not the cause of the problem, see "Checking the Fiery XJ BP100 as a stand-alone unit" on page 6-9, and "Checking the entire Fiery XJ BP100 system" on page 6-33.

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

  "Before you go to the customer site" on page 6-4 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 back of the Fiery XJ BP100 and loose connections at a power strip or outlet.

- ***Check for obvious causes of problems***

  "Preliminary on-site checkout" on page 6-6 takes you through the initial visual checkouts you should make when you arrive at the customer site. You should check the Fiery XJ BP100 internally and externally for the most common problems such as loose cables, connectors, and boards.

- ***Check the Fiery XJ BP100 as a stand-alone unit***

  "Checking the Fiery XJ BP100 as a stand-alone unit" on page 6-9 describes the checks you should perform on the Fiery XJ BP100 if the initial checks fail to identify the cause of a problem. With the Fiery XJ BP100 disconnected from the copier and the network, test the Fiery XJ BP100 as a stand-alone unit.

  This section describes possible startup errors and explains how to run and interpret Fiery XJ BP100 diagnostics.

- ***Check the entire Fiery XJ BP100 system***

  "Checking the copier interface" on page 6-33 explains how to print the test page from the Fiery XJ BP100. "Checking network connections" on page 6-34 includes guidelines for checking the network connections between the Fiery XJ BP100 and the computers or workstations to which it is connected, and information on several printing problems.

Where problems occur

The Fiery XJ BP100 is a server for one color copier, and it is generally part of a configuration like the one shown in Figure 6-1. Problems may occur in one of three areas:

- Inside the Fiery XJ BP100
- In the interface between the Fiery XJ BP100 and the color copier
- In the interface between the Fiery XJ BP100 and the workstations or computers to which it is connected

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

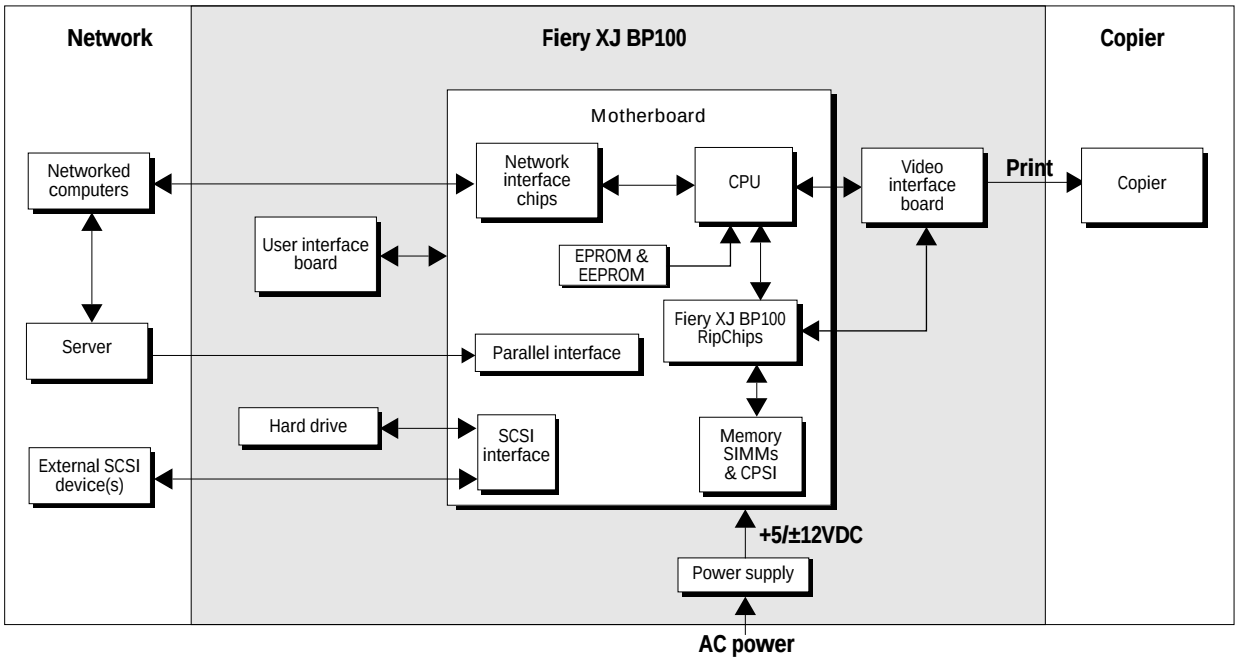


Figure 6-1 Functional diagram of a typical Fiery XJ BP100 configuration

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 when it is not connected to the Fiery XJ BP100?***

   If the copier works but the user cannot print a Fiery XJ BP100 test page, have the customer check the Control Panel on the Fiery XJ BP100 for an error message.

   If the Fiery XJ BP100 Control Panel reports an error, the customer can check the interface cable connections between the Fiery XJ BP100 and the copier.

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

   - Is there a printing problem?
     - Does the Fiery XJ BP100 test page fail to print?
     - Does the Fiery XJ BP100 fail to respond to a print command?
     - Does printing seem to take a long time?
     - Is print quality poor?
     - Does the Fiery XJ BP100 fail to appear in the list of printers?
   - Has the customer noted any error messages on the Fiery XJ BP100 or the copier screen?

   If the answer to any of these questions is yes, refer the customer to the *User Guide*.

   If the customer has followed the corrective actions in the *User Guide* 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.

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

   If so, request that the customer's network administrator verify the Fiery XJ BP100 network requirements. See "Checking network connections" on page 6-34.

4. ***Has the customer added or removed any equipment that might impact the operation of the Fiery XJ BP100?***

   If so, obtain a list of the modifications. This should direct you toward possible problem areas. For example, if the hard disk drive has been replaced, system software may need to be reinstalled.

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. The *Administrator Guide* provides print settings for some popular applications.

If your preliminary phone call fails to clear up the problem, proceed to the second 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, or loosely seated printed circuit boards.

Checking the interface cables

Before you remove the cover of the Fiery XJ BP100 to check internal components:

- Check that all interface cables to the system are plugged into the proper connectors on the back panel of the chassis (see Figure 6-2).
- Make sure the power cable is plugged into the wall supply.
- Make sure that the power switch on the back panel of the Fiery XJ BP100 is turned on.

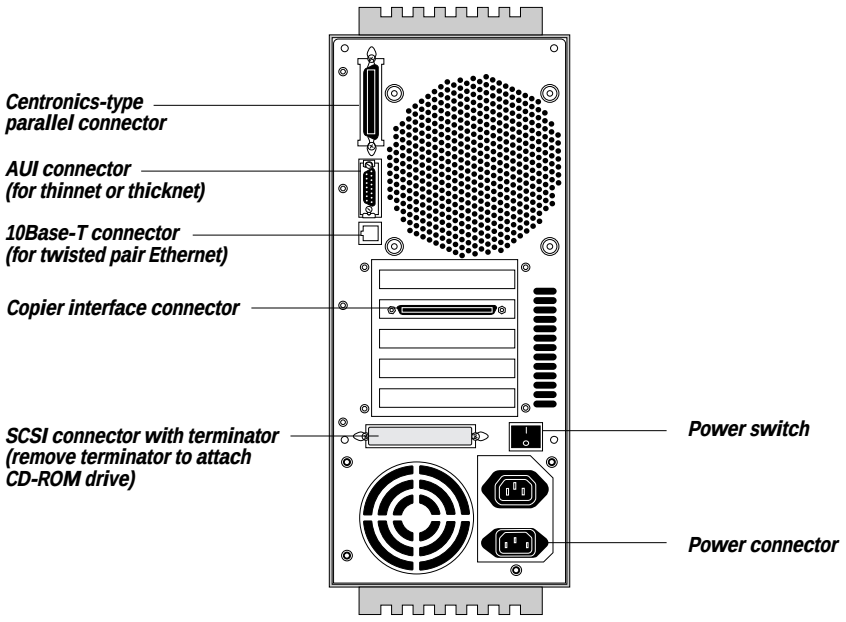


Figure 6-2 Back panel of Fiery XJ BP100 showing connectors

If all the connectors are properly in place and the power is on, proceed to the next stage of troubleshooting.

Checking the internal components

To check the internal components you must remove the cover of the Fiery XJ BP100.

Before you remove the cover of the Fiery XJ BP100, be aware of the safety precautions you should take when handling the Fiery XJ BP100, and use ESD precautions when handling printed circuit boards and electronic components. To review the safety precautions, see “Precautions” on page *xii*.

Use the guidelines in Chapter 5 when disassembling, checking, and reassembling the Fiery XJ BP100.

To check internal components

1. ***Shut down the Fiery XJ BP100 (see “To shut down the Fiery XJ BP100” on page 3-13).***
2. ***Remove the cover (see “To open the Fiery XJ BP100 chassis” on page 5-3).***
3. ***Before you touch any components inside the Fiery XJ BP100 chassis, attach a grounding strap to your wrist. Discharge any static electricity on your body by touching the metal cover of the Fiery XJ BP100.***
4. ***Inspect the inside of the chassis. For detailed information, see“Checking Fiery XJ BP100’s internal connections” on page 5-7.***

   Make sure no foreign materials have been dropped into the chassis. Figure 6-3 on page 6-8 shows an exploded view of the system components.

   - Look for obviously loose boards and reseat each board securely in its connector on the motherboard.
   - Look for connectors that are obviously loose. Reseat each connector firmly.
   - Make sure each connector is properly aligned with its mating connector. If the pins are offset from each other, the board affected will not function properly.

5. ***Reassemble the Fiery XJ BP100 and verify functionality (see “Restoring Fiery XJ BP100 functionality after service” on page 5-11).***

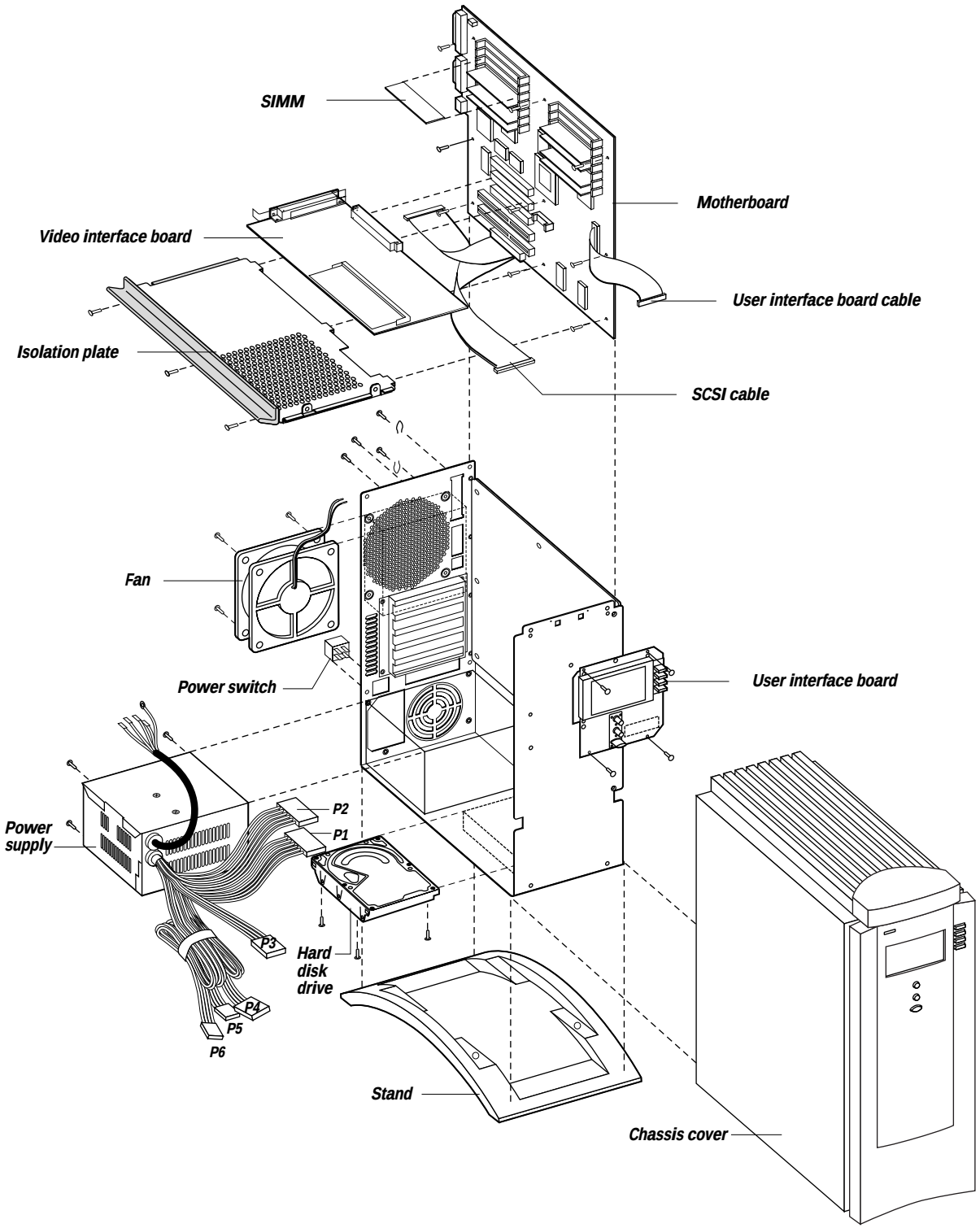


Figure 6-3 Exploded view of Fiery XJ BP100 system components

Checking the Fiery XJ BP100 as a stand-alone unit

In this phase of troubleshooting, you will test the Fiery XJ BP100 as a stand-alone unit. To do this:

- Disconnect the Fiery XJ BP100 from the copier and from the network.
- Check for possible start-up problems.
- Check Setup.
- If there are problems, run diagnostics.

Isolating the Fiery XJ BP100

1. ***Isolate the Fiery XJ BP100 from the copier and from the network by disconnecting the following cables from their connectors on the back panel of the Fiery XJ BP100:***
    - Network connector
    - Copier interface cable connector
    - Centronics-type parallel connector (if used)
2. ***Make sure the power connector to the Fiery XJ BP100 is still in place.***
3. ***Turn on the Fiery XJ BP100.***

Errors during the Start-up diagnostics

When you turn on the Fiery XJ BP100 or reboot, the system goes through a series of diagnostic tests that checks the motherboard. While the diagnostic tests are running, the name of the test and a progress bar are displayed on the Control Panel.

Note: To skip a particular diagnostic test while it is running, press the down arrow on the Control Panel. Pressing the menu button during the Start-up diagnostics will skip all the startup tests.

If an error occurs during the Start-up diagnostics, the red activity light on the Fiery XJ BP100 Control Panel flashes. At the end of the diagnostics, the red activity light remains on and the Test Failed screen appears on the Control Panel. Select the line selection button to the right of Details in the Test Failed screen for more information about the test that failed.

When you encounter any of these conditions, turn off the Fiery XJ BP100 and inspect the inside of the chassis for an obviously loose part or wire. Then check the other components as suggested below. For all service, refer to "Accessing Fiery XJ BP100's internal components" on page 5-3. When you are done, refer to "Restoring Fiery XJ BP100 functionality after service" on page 5-11.

If the problems you experience are intermittent, you can also run Fiery XJ BP100 diagnostics manually. See "Fiery XJ BP100's diagnostic sets" on page 6-16 for details.

Table 6-1 lists the diagnostic tests that are run at startup, the corresponding error numbers for a failed test, the area of the Fiery XJ BP100 being tested, and the suggested corrective action for the failing test.

Table 6-1 Possible errors during Start-up diagnostics

Test name	Error number	Area tested on motherboard	Suggested action
UI LCD	800, F00	J27—User interface board connector ***Note:*** An error code of F00 indicates that this test could not be run. Check the SIMMs in Bank 0 (J6-J9) first. See "SIMMs" on page 5-31.	• Check the user interface cable connection on the motherboard and on the user interface board. • If the problem persists, first try replacing the user interface cable and then the user interface board.
EPROM	100	U5—EPROM	• Make sure the EPROM is installed correctly. • If the problem persists, you may need to replace the EPROM (call your authorized service/support center).
EEPROM	200	U11—EEPROM	• Make sure the EEPROM is installed correctly. • If the problem persists, you may need to replace the EEPROM (call your authorized service/support center).
MIPS FPU	900	U3—CPU	• Replace the motherboard.
RTC Self	700	U9—Real Time Clock chip	• Replace the motherboard.
RTC R/W Reg	710		
RTC Start	730		
RTC Set	740		

Table 6-1 Possible errors during Start-up diagnostics *(continued)*

Test name	Error number	Area tested on motherboard	Suggested action
DRAM SIMM	310	J6-J21—SIMMs	• Check the diagnostic report to determine the faulty SIMM (see "Viewing the diagnostic report" on page 6-29). • When you locate the faulty SIMM, reseat the SIMM in its socket. • If the problem persists, clean the gold contacts on the edge of the strip with a pencil eraser and insert the SIMM into another socket. If the SIMM fails in the second location, replace it. ***Note:*** Incorrect S1 switch settings can cause DRAM error code 340. Check the settings for S1 before replacing any SIMMs (see "Motherboard switches" on page 5-36).
DRAM Slot	320		
DRAM Config	330 or 350		
DRAM 64K	D00	J6-J9—SIMMs	
DRAM	340	J6-J21—SIMMs	
ACA DMA Cnfg	B00	U40—RipChips	• Replace the motherboard.
ACA DMA ADR	B10		
ACA Cntl Reg	A00		
ACA VAdr Reg	5A0		
ACA VCnt Reg	B50		
Eth Fuse	400	FU2—Ethernet fuse	• Make sure the fuse is installed. • If the fuse is installed and the problem persists, replace the fuse.
Eth Quiet	410, F00	U16—Ethernet controller chip ***Note:*** An error code of F00 indicates that this test could not be run. Check the SIMMs in Bank 0 (J6-J9) first. See "SIMMs" on page 5-31.	• Check motherboard switch settings for S2 and S3. • If the switches are set incorrectly, change the settings. • If this does not correct the problem, you may need to replace the motherboard.
Eth Idle	420, F00		
Eth Self	450, F00		
Eth IntLpBk	440-442, 460-462, 470-472, 490, 4A0-4A2, 4B0-4B3, 4D0, 4E0, 4F0		
SCSI Fuse	600	FU1—SCSI fuse	• Make sure the fuse is installed. • If the fuse is installed and the problem persists, replace the fuse.
SCSI Quiet	650	U15—SCSI controller chip	• Replace the motherboard.
SCSI Cmd Reg	640		
SCSI R/W Reg	630		
SCSI Rupt Rst	610		
SCSI Rupt II	611		
DUART Int LpBk	250 or 270	U28—DUART chip	• Replace the motherboard.

General Fiery XJ BP100 system error conditions

When you startup the Fiery XJ BP100 or when you install system software, you may encounter error conditions that are not reported during the Start-up diagnostics. Table 6-2 lists some of these error conditions and suggests corrective action.

If you encounter any of these error conditions, turn off the Fiery XJ BP100 and inspect the inside of the chassis for an obviously loose part or cable. Then check other components as suggested below. For service, refer to "Accessing Fiery XJ BP100's internal components" on page 5-3. When you are done, refer to "Restoring Fiery XJ BP100 functionality after service" on page 5-11.

Table 6-2 General Fiery XJ BP100 system error conditions

Symptom	Probable cause	Suggested action	References
No fan sound and Fiery XJ BP100 does not start up.	Power connectors to the power switch are loose or have come off.	• Check power connections to the power switch.	See "Power switch" on page 5-38.
	Power supply has failed.	• Replace the power supply.	See "Power supply" on page 5-39.
No fan sound, but Fiery XJ BP100 powers up.	Fan wires are not connected.	• Check fan connection.	See "Intake fan" on page 5-37.
	Red and blue (or black) fan wires are reversed in the fan connector on the motherboard.	• Remove red and blue (or black) fan wires and insert them into the connector with the red wire on the left and the blue or black wire on the right.	
	Fan motor is failing.	• Replace the fan.	
Fan blows air out the back panel of the Fiery XJ BP100.	Fan is installed backwards.	• Remove the fan and make sure the front of the fan faces the inside of the Fiery XJ BP100 chassis.	See "Intake fan" on page 5-37.
Buttons don't work on the Control Panel.	Connection to the user interface board is faulty or the user interface board is bad.	• Check connections to the user interface board. • If the problem persists, replace the user interface board.	See "User interface board" on page 5-15.
	Faulty chip on the motherboard.	• Replace the motherboard.	See "Replacing the motherboard" on page 5-27.

Table 6-2 General Fiery XJ BP100 system error conditions *(continued)*

Symptom	Probable cause	Suggested action	References
Nothing appeared on the Control Panel when the Fiery XJ BP100 was turned on or the backlighting on the Control Panel is discolored.	Connections to the user interface board are faulty or the user interface board is faulty.	• Check the user interface cable connection on the motherboard and on the user interface board. • If the problem persists, replace the user interface board.	See "User interface board" on page 5-17.
	Faulty power supply.	• Replace the power supply.	See "Power supply" on page 5-39.
	EPROM/EEPROM is not installed correctly on the motherboard or has been corrupted. ***Note:*** If you plug in EPROM or EEPROM backwards and turn on the Fiery XJ BP100, the chip will no longer function.	• Make sure EEPROM is installed in socket U11 and EPROM is installed in socket U5. • If the problem persists, try replacing the EEPROM or the EPROM on the motherboard. Call your authorized service/support center for more information.	See "EPROM and EEPROM" on page 5-31.
	Motherboard switch settings for S1-S4 are configured incorrectly.	• Check switch settings for S1-S4. • If settings are set incorrectly, change the settings.	See "Motherboard switches" on page 5-36.

Table 6-2 General Fiery XJ BP100 system error conditions *(continued)*

Symptom	Probable cause	Suggested action	References
Fiery XJ BP100 hangs at the EFI logo when turned on.	Replacement hard disk drive has the wrong SCSI ID setting.	• Call your authorized service/support center to get the correct jumper setting for the SCSI ID on the replacement hard disk drive.	
	CD-ROM drive has a SCSI ID setting of 0.	• Check the back of the CD-ROM drive and change the SCSI ID setting to something other than 0 or 7.	
	Motherboard switch settings for S2 and S3 are set incorrectly.	• Check settings for motherboard switches S2 and S3. • If the switches are set incorrectly, change the settings.	See "Motherboard switches" on page 5-36.
	Fiery XJ BP100 system software is not installed on the hard disk drive.	• Format the Fiery XJ BP100 hard disk drive and install system software.	See "Installing Fiery XJ BP100 system software" on page 5-47.
	Power connector P3 or the SCSI connector is not plugged into the hard disk drive.	• Check the hard disk drive cable connections.	See "Hard disk drive" on page 5-43.
	Transceiver is installed on the AUI connector and the network is not connected to it.	• Turn off the Fiery XJ BP100 and remove the transceiver or connect the Fiery XJ BP100 to the network. • If the Fiery XJ BP100 is connected to the network, make sure the rest of the network is live.	See "Ethernet network connections" on page 3-8.
Fuse is blown in the wall where the Fiery XJ BP100 is installed.	Power supply connectors are installed on the switch incorrectly.	• Remove switch connectors and install them correctly.	See "Power switch" on page 5-38.
Fiery XJ BP100 hangs at the Loading system... or the Loading settings... screen.	System software is not installed on the hard disk drive.	• Install system software.	See "Installing Fiery XJ BP100 system software" on page 5-47.
	Motherboard switch S1 is set incorrectly.	• Check the settings for motherboard switch S1. • If the switch is set incorrectly, change the setting.	"Motherboard switches" on page 5-36.
	Serial numbers read from EEPROM and the Real Time Clock don't match.	• Run diagnostics and check the serial numbers listed in the diagnostic report Info screen. • If the two numbers don't match, call your authorized service/ support center.	See "Viewing the diagnostic report" on page 6-29.

Table 6-2 General Fiery XJ BP100 system error conditions *(continued)*

Symptom	Probable cause	Suggested action	References
Error: 3 appears on the Control Panel when installing System Software from the CD.	SCSI bus is not properly terminated.	• Make sure the CD-ROM drive is properly terminated.	See "Connecting a CD-ROM drive to the Fiery XJ BP100" on page 3-12.
	Faulty System Software CD, HDD, or CD-ROM drive.	• Check HDD and CD-ROM drive connections. • If the problem persists, try installing software using a new System Software CD. • If the problem still persists, you may need to replace the HDD or the CD-ROM drive.	See "To check motherboard SIMM connections" on page 5-10 and "Connecting a CD-ROM drive to the Fiery XJ BP100" on page 3-12
	Replacement hard disk drive has a SCSI ID other than 0.	• Call your authorized service/support center to get the correct SCSI ID jumper setting for your hard disk drive.	
Error 52 appears on the Fiery XJ BP100 Control Panel when installing system software using the CD-ROM drive.	The CD-ROM drive is not connected or is not turned on.	• Turn off the Fiery XJ BP100. • Connect the CD-ROM drive and turn it on. • Insert the System Software CD. • Turn on the Fiery XJ BP100.	See "Connecting a CD-ROM drive to the Fiery XJ BP100" on page 3-12 and "Installing Fiery XJ BP100 system software" on page 5-47.
	No CD is inserted or the wrong CD is inserted in the CD-ROM drive.	• Check the CD inserted in the CD-ROM drive.	
	CD-ROM drive activity light was on when you tried to install the system software.	• Wait until the activity light is off before you install the system software.	
Check power & cable appears in the Fiery XJ BP100 Control Panel.	Problem with the connection between the Fiery XJ BP100 and the copier.	• Make sure the copier interface cable is connected to the Fiery XJ BP100 and the copier. • Print a test page.	See "Connecting the Fiery XJ BP100 to the copier" on page 3-5 and "To print a test page from the Control Panel" on page 3-7.
	Copier is not turned on when trying to print.	• Turn on the copier and print a test page.	
	The Printer Model selected in Printer Setup does not match the copier type attached to the Fiery XJ BP100.	• Check the Printer Model listed on the Configuration Page. • If the Printer Model listed is incorrect, change the setting in Printer Setup.	See the *Administrator Guide*.

Fiery XJ BP100's diagnostic sets

Fiery XJ BP100 diagnostic sets are available to test components on the Fiery XJ BP100 motherboard. Fiery XJ BP100 diagnostic sets are divided into four groups: Custom, Board, Burn-in, and Start-up. The sets of Custom, Board, and Start-up diagnostics are described in more detail below. Note that Start-up diagnostic tests are the same tests that are run automatically when the Fiery XJ BP100 is turned on. Burn-in diagnostic tests are for factory use only.

To run Fiery XJ BP100 diagnostics manually

1. ***If the Fiery XJ BP100 is on, turn off the power switch on the back panel of the Fiery XJ BP100.***
2. ***Press and hold the up arrow button on the front of the Fiery XJ BP100 Control Panel.***
3. ***Turn on the Fiery XJ BP100.***
4. ***Release the up arrow button as soon as you see the Diagnostic Sets display window. See Figure 6-4.***

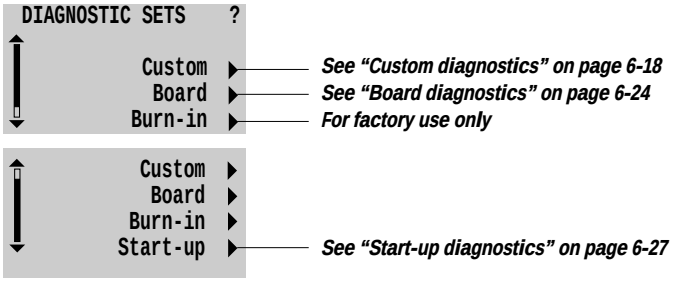


Figure 6-4 Fiery XJ BP100 diagnostic sets

Some menu options have the **?** symbol in the upper right corner of the Control Panel. Whenever you see the **?** symbol, information describing the displayed option is available. Press the line selection button next to the **?** symbol to view the information.

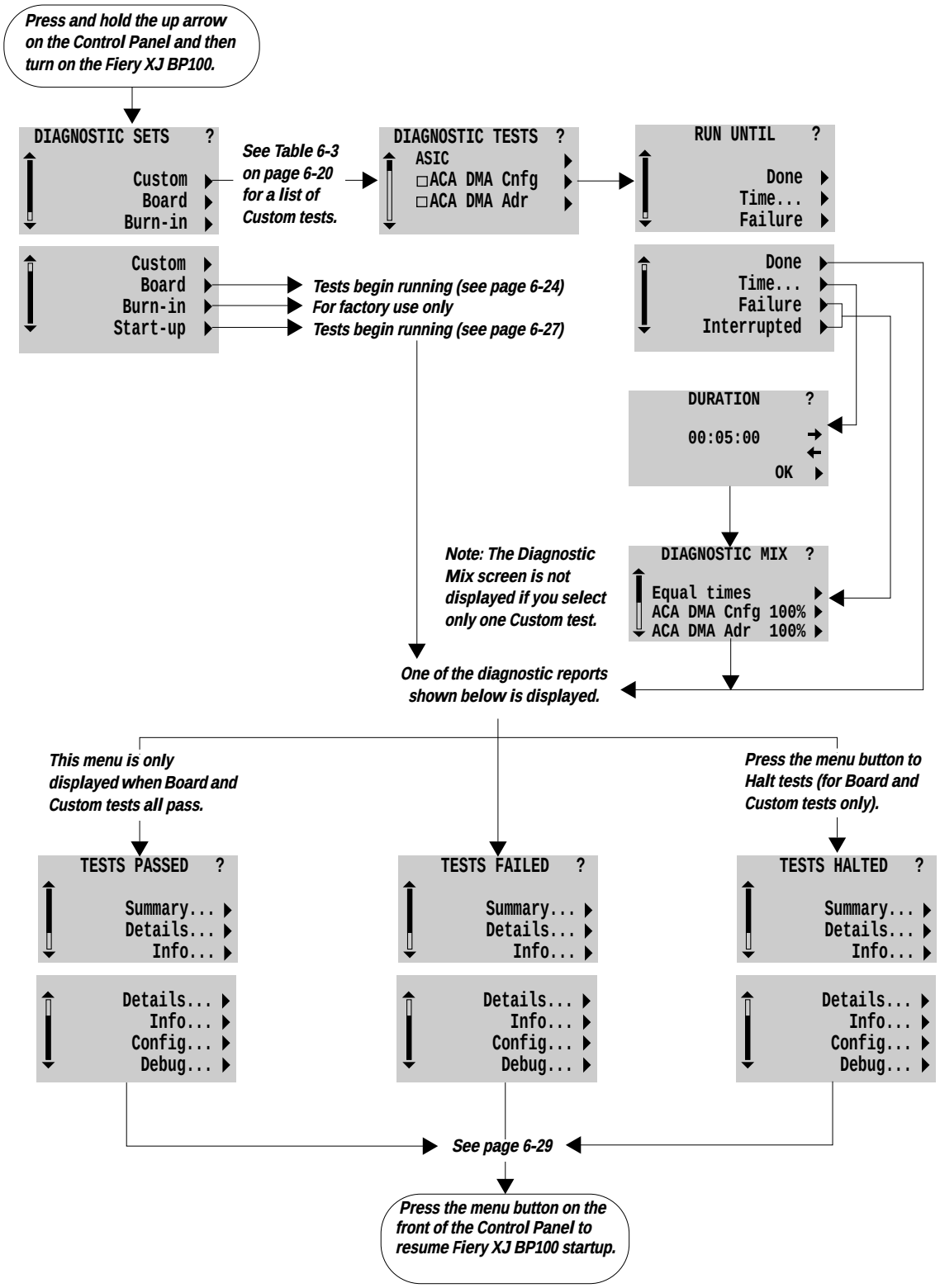


Figure 6-5 Fiery XJ BP100 diagnostic summary

Custom diagnostics

Custom diagnostics allow you to run individual tests in order to identify and isolate problems with the Fiery XJ BP100. Custom diagnostic options include the set of tests run at startup that focus on testing components on the motherboard, as well as a set of network connection tests and video interface board controller tests. When you select Custom from the list of Diagnostic Sets, a scrolling list of tests appears on the Control Panel (see Figure 6-6). For a complete list of Custom tests, see Table 6-3 on page 6-20.

To run Custom diagnostics

1. ***At the Diagnostic Sets screen, press the line selection button next to Custom.***

   See "Fiery XJ BP100's diagnostic sets" on page 6-16 to access the Diagnostic Sets screen.

2. ***Select the tests that you want to run (see Table 6-3 on page 6-20 for a list of all the tests). Use the up and down arrow buttons to scroll through the list.***

   To select a particular test, press the line selection button next to the test you want to run. If you decide you don't want to run a test that is already selected, press the corresponding line selection button again. To run a group of tests, press the line selection button next to the main heading. For example, if you press the line selection button next to ROM, EPROM and EEPROM tests are both selected. A filled-in box next to the test name indicates that the test has been selected; a hollow box means that the test is not selected (see Figure 6-6 below).

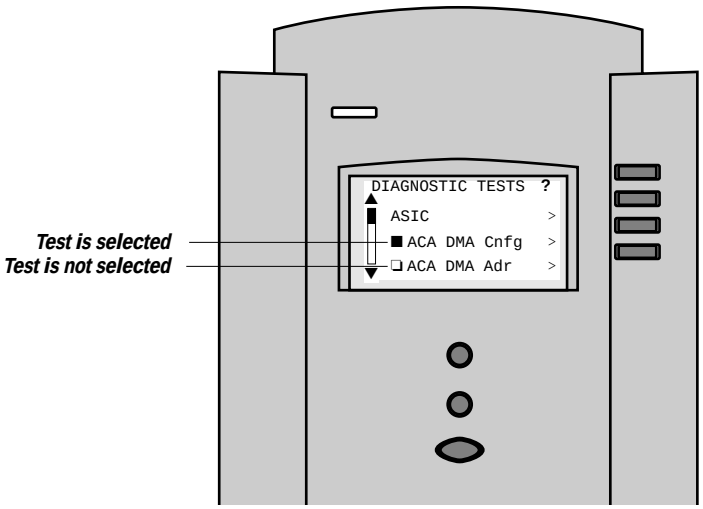


Figure 6-6 Custom diagnostics window

3. ***Press the menu button when you are finished selecting the tests you want to run.***
4. ***At the next screen, RUN UNTIL, select how long you want to run the tests. The following list of options is displayed:***

   - Done—The selected tests run through once. When you select this option the tests start running immediately.
   - Time...—Tests run for a specified amount of time. The length of time is set on the next screen in the Duration menu and is entered in the form HH:MM:SS (hours, minutes, and seconds). Use the up and down arrows to change the time and the line selection button to advance to the next field. After you set the time, select OK.
   - Failure—The selected tests repeat until a failure is detected.
   - Interrupted—The selected tests run until you press the menu button on the Control Panel.

5. ***At the DIAGNOSTIC MIX screen (only appears if you selected more than one test and you selected Time..., Failure, or Interrupted for the RUN UNTIL option), select the percentage of repetition for each test and then press the menu button. If you select the Equal Times option the tests begin running immediately.***

   Use the line selection buttons next to each test to change the percentage of repetition for each test (percentages are available in increments of ten). To scroll through the list, use the up and down arrow buttons. If you want to run all tests for an equal amount of time, select the Equal Times option.

   If you change the percentage of repetition for the Custom tests, make sure that at least one of the tests has a value of 100%.

6. ***If any of the tests fail, check the Details option in the diagnostic report for more information about the failing test (see "Viewing the diagnostic report" on page 6-29). Then shut off the Fiery XJ BP100, and perform the recommended service for the failed test or replace the failed component.***
7. ***If the Custom diagnostics all pass, the Control Panel indicates that all tests passed. Press the menu button to restart the Fiery XJ BP100.***

Table 6-3 Summary of Custom diagnostic tests

Group	Test name	Error code	Area tested	Suggested action
ASIC	ACA DMA Cnfg	B00	U40–RipChips on the motherboard	• Replace the motherboard.
	ACA DMA Adr	B10		
	ACA Cntl Reg	A00		
	ACA VAdr Reg	5A0		
	ACA VCnt Reg	B50		
MIPS	MIPS FPU	900	U3–CPU on the motherboard	• Replace the motherboard.
Ethernet	Eth Fuse	400	FU2–Ethernet fuse on the motherboard	• Make sure the Ethernet fuse at FU2 is installed. • If the fuse is installed and the problem persists, replace the fuse.
	Eth Quiet	410, F00	U16–Ethernet Controller chip on the motherboard ***Note:*** An error code of F00 indicates that this test could not be run. Check the SIMMs in Bank 0 (J6-J9) first. See "SIMMs" on page 5-31.	• Check motherboard switch settings for S2 and S3. • If the switches are set incorrectly, change the settings. • If this does not correct the problem, you may need to replace the motherboard.
	Eth Idle	420, F00		
	Eth Self	450, F00		
	Eth Int LpBk	440-442, 460-462, 470-472, 490, 4A0-4A2, 4B0-4B3, 4D0, 4E0, 4F0, F00		
	Eth Ext TDR	480, 481	Checks the Ethernet network connections. ***Note:*** The Fiery XJ BP100 must be connected to the network in order to get accurate results from these tests.	• If all other Ethernet tests pass, there may be a problem with the network. Ask the network administrator at the customer site to connect a functioning printer to that node in the network. • If the printer does work, there may be a problem with the Fiery XJ BP100 Ethernet connection and you may need to replace the Fiery XJ BP100's motherboard. • If the printer doesn't work, there may be something wrong with the network.
	Eth Ext Rcv	490, 4A0-4A2, 4D0		
	Eth Ext Tx	4B0-4B3		
	Eth Ext LpBk	4A0		

Table 6-3 Summary of Custom diagnostic tests *(continued)*

Group	Test name	Error code	Area tested	Suggested action
100 BASE T*	100BT Quiet	380	Interrupt line in the 100BaseT board.	• Replace the 100BaseT board.
	100BT Idle	381	100BaseT board	• Replace the 100BaseT board.
	100BT Self	382, 384		
	100BT RAM	386, 388, 390, 394, 396, 398		
	100BT Int LpBk	388, 39A, 39C, 39F		
	100BT Ext Rcv	39E	100BaseT board	• If all other 100BaseT tests pass, there may be a problem with the network. Ask the network administrator at the customer site to make sure that other workstations on the network are able to transmit data over the network. • If other workstations are functioning properly on the network, there may be a problem with the 100BaseT board and you may need to replace it. • If other workstations are not functioning over the network, there may be something wrong with the network.
	100BT Ext Tx	388, 39F	100BaseT board	• Replace the 100BaseT board.
	100BT PMD LpBk	388, 39A, 39C, 39F		

**Note:* The optional 100BaseT board must be installed in order to get accurate results from these tests. The tests fail when run without a 100BaseT board installed.

Table 6-3 Summary of Custom diagnostic tests *(continued)*

Group	Test name	Error code	Area tested	Suggested action
RAM	DRAM SIMM	310	J6-J21–SIMMs on the motherboard	• Check the diagnostic report to determine the faulty SIMM (see "Viewing the diagnostic report" on page 6-29). • When you locate the faulty SIMM, reseat the SIMM in its socket. • If the problem persists, clean the gold contacts on the edge of the SIMM strip with a pencil eraser and insert the SIMM strip into another socket. • If it fails in the second location, replace it. ***Note:*** Incorrect S1 switch settings can cause DRAM error code 340. Check the settings for S1 before replacing any SIMMs (see "Motherboard switches" on page 5-36).
	DRAM Slot	320		
	DRAM Config	330 or 350		
	DRAM 64K	D00	J6-J9–First four SIMM strips on the motherboard	
	DRAM	340	J6-J21–SIMMs on the motherboard	
	DRAM CB			
	DRAM AD			
	DRAM RA			
	DRAM RD			
	DRAM MMP			
	DRAM IFA			
ROM	EPROM	100	U5–EPROM on the motherboard	• Make sure the EPROM is installed correctly. • If the problem persists, you may need to replace the EPROM (call your authorized service/support center for more information).
	EEPROM	200	U11–EEPROM on the motherboard	• Make sure the EEPROM is installed correctly. • If the problem persists, you may need to replace the EEPROM (call your authorized service/support center for more information).
RTC (Real Time Clock)	RTC Self	700	U9–Real Time Clock chip on the motherboard	• Replace the motherboard.
	RTC R/W Reg	710		
	RTC Start	730		
	RTC Set	740		

Table 6-3 Summary of Custom diagnostic tests *(continued)*

Group	Test name	Error code	Area tested	Suggested action
SCSI	SCSI Fuse	600	FU1–SCSI fuse on the motherboard	• Make sure the fuse is installed. • If the fuse is installed and the problem persists, replace the fuse.
	SCSI Quiet	650	U15–SCSI controller chip on motherboard	• Replace the motherboard. ***Note:*** For error code 621, check the settings for motherboard switches S2 and S3 before replacing the motherboard.
	SCSI Cmd Reg	640		
	SCSI R/W Reg	630		
	SCSI Rupt Rst	610		
	SCSI Rupt II	611		
	SCSI FIFO	621		
	SCSI Device	660	Checks for the hard drive.	• Check the connections to the hard disk drive. • If all the connections are in place and the problem persists, replace the hard disk drive.
UI (User interface)	UI LCD	800, F00	J27–User interface board connector on the motherboard. Also checks the cable and the user interface board. ***Note:*** An error code of F00 indicates that this test could not be run. Check the SIMMs in Bank 0 (J6-J9) first. See "SIMMs" on page 5-31.	• Check the user interface cable connection on the motherboard and on the user interface board. • If all the connections are installed correctly and the problem persists, first try replacing the cable and then the user interface board.
VMC (Video interface board microcontroller)	VMC0 Respond	F01-F04, F06	Interface between the motherboard and the video interface board installed in slot J23. Also checks the microcontroller on the video interface board.	• Reseat the video interface board in slot J23. • If the problem persists, replace the video interface board.
	VMC0 Data Bus			
	VMC0 Memory			
DUART (Dual Universal Asynchronous Receiver/Transmitter)	DUART Ext LpBk	260	***Note:*** This test is for factory use only. A special tool is required in order to perform this test.	
	DUART Int LpBk	250 or 270	U28–DUART chip on the motherboard.	• Replace the motherboard.

Board diagnostics

Board diagnostics include the set of tests run at startup, as well as a more detailed set of SIMM tests. Board tests run for 10 minutes and focus on testing components on the Fiery XJ BP100 motherboard. For the complete list of Board tests, see Table 6-4 below.

To run Board diagnostics

1. ***At the Diagnostic Sets screen, press the line selection button next to Board. See "Fiery XJ BP100's diagnostic sets" on page 6-16 to access the Diagnostic Sets screen.***

   The tests begin running immediately. Board tests run for approximately 10 minutes.

2. ***If any of the tests fail, check the Details option in the diagnostic report menu for more information about the failing test (see "Viewing the diagnostic report" on page 6-29). Then shut off the Fiery XJ BP100, and perform the recommended service for the failed test or replace the failed component.***

3. ***If the Board diagnostics all pass, the Control Panel indicates that all tests passed. Press the menu button to restart the Fiery XJ BP100.***

Table 6-4 Summary of Board diagnostics

Test name	Error number	Area tested on motherboard	Suggested action
UI LCD	800, F00	J27—User interface board connector ***Note:*** An error code of F00 indicates that this test could not be run. Check the SIMMs in Bank 0 (J6-J9) first. See "SIMMs" on page 5-33.	• Check the user interface cable connection on the motherboard and on the user interface board. • If the problem persists, try replacing the user interface cable and then the user interface board.
EPROM	100	U5—EPROM	• Make sure the EPROM is installed correctly. • If the problem persists, you may need to replace the EPROM (call your authorized service/support center for more information).
EEPROM	200	U11—EEPROM	• Make sure the EEPROM is installed correctly. • If the problem persists, you may need to replace the EEPROM (call your authorized service/support center for more information).
MIPS FPU	900	U3—CPU	• Replace the motherboard.

Table 6-4 Summary of Board diagnostics *(continued)*

Test name	Error number	Area tested on motherboard	Suggested action
RTC Self	700	U9—Real Time Clock chip	• Replace the motherboard.
RTC R/W Reg	710		
RTC Start	730		
RTC Set	740		
DRAM SIMM	310	J6-J21—SIMMs	• Check the diagnostic report to determine the faulty SIMM (see "Viewing the diagnostic report" on page 6-29). • When you locate the faulty SIMM, reseat the SIMM in its socket. • If the problem persists, clean the gold contacts on the edge of the strip with a pencil eraser and insert the SIMM into another socket. If the SIMM fails in the second location, replace it. ***Note:*** Incorrect S1 switch settings can cause DRAM error code 340. Check the settings for S1 before replacing any SIMMs (see "Motherboard switches" on page 5-36).
DRAM Slot	320		
DRAM Config	330 or 350		
DRAM 64K	D00	J6-J9—SIMMs	
DRAM CB	340	J6-J21—SIMMs	
DRAM AD			
DRAM RA			
DRAM RD			
DRAM MMP			
DRAM IFA			
ACA DMA Cnfg	B00	U40—RipChips	• Replace the motherboard.
ACA DMA ADR	B10		
ACA Cntl Reg	A00		
ACA VAdr Reg	5A0		
ACA VCnt Reg	B50		
Eth Fuse	400	FU2—Ethernet fuse	• Make sure the fuse is installed. • If the fuse is installed and the problem persists, replace the fuse.
Eth Quiet	410, F00	U16—Ethernet controller chip ***Note:*** An error code of F00 indicates that this test could not be run. Check the SIMMs in Bank 0 (J6-J9) first. See "SIMMs" on page 5-33.	• Check motherboard switch settings for S2 and S3. • If the switches are set incorrectly, change the settings. • If this does not correct the problem, you may need to replace the motherboard.
Eth Idle	420, F00		
Eth Self	450, F00		
Eth IntLpBk	440-442, 460-462, 470-472, 490, 4A0-4A2, 4B0-4B3, 4D0, 4E0, 4F0, F00		
SCSI Fuse	600	FU1—SCSI fuse	• Check the fuse to make sure it is installed. • If the fuse is installed and the problem persists, replace the fuse.

Table 6-4 Summary of Board diagnostics *(continued)*

Test name	Error number	Area tested on motherboard	Suggested action
SCSI Quiet	650	U15—SCSI controller chip	• Replace the motherboard. ***Note:*** For error code 621, check the settings for motherboard switches S2 and S3 before replacing the motherboard.
SCSI Cmd Reg	640		
SCSI R/W Reg	630		
SCSI Rupt Rst	610		
SCSI Rupt II	611		
SCSI FIFO	621		
DUART Int LpBk	250 or 270	U28—DUART chip	Replace the motherboard.

Start-up diagnostics

Start-up diagnostics include the set of Fiery XJ BP100 tests listed in Table 6-5. These tests are the same tests that are run when you turn on the Fiery XJ BP100 or reboot the system. The Start-up tests focus on testing components on the Fiery XJ BP100 motherboard.

To run Start-up diagnostics

1. ***At the Diagnostic Sets screen use the down arrow to scroll through the menu. Press the line selection button next to Start-up. See "Fiery XJ BP100's diagnostic sets" on page 6-16 for information on how to access the Diagnostic Sets screen.***

   The tests begin running immediately.

2. ***If any of the tests fail, check the Details option in the diagnostic report menu for more information about the failing test (see "Viewing the diagnostic report" on page 6-29). Then shut off the Fiery XJ BP100, and perform the recommended service for the failed test or replace the failed component.***

3. ***If the Start-up diagnostics all pass the Fiery XJ BP100 will automatically continue with the standard startup process.***

Table 6-5 Summary of Start-up diagnostics

Test name	Error number	Area tested on motherboard	Suggested action
UI LCD	800, F00	J27—User interface board connector ***Note:*** An error code of F00 indicates that this test could not be run. Check the SIMMs in Bank 0 (J6-J9) first. See "SIMMs" on page 5-31.	• Check the user interface cable connection on the motherboard and on the user interface board. • If the problem persists, try replacing the user interface cable and then the user interface board.
EPROM	100	U5—EPROM	• Make sure the EPROM is installed correctly. • If the problem persists, you may need to replace the EPROM (call your authorized service/support center for more information).
EEPROM	200	U11—EEPROM	• Make sure the EEPROM is installed correctly. • If the problem persists, you may need to replace the EEPROM (call your authorized service/support center for more information).
MIPS FPU	900	U3—CPU	• Replace the motherboard.

Table 6-5 Summary of Start-up diagnostics *(continued)*

Test name	Error number	Area tested on motherboard	Suggested action
RTC Self	700	U9—Real Time Clock chip	• Replace the motherboard.
RTC R/W Reg	710		
RTC Start	730		
RTC Set	740		
DRAM SIMM	310	J6-J21—SIMMs	• Check the diagnostic report to determine the faulty SIMM (see "Viewing the diagnostic report" on page 6-29). • When you locate the faulty SIMM, reseat the SIMM in its socket. • If the problem persists, clean the gold contacts on the edge of the strip with a pencil eraser and insert the SIMM into another socket. If the SIMM fails in the second location, replace it. ***Note:*** Incorrect S1 switch settings can cause DRAM error code 340. Check S1 settings before replacing any SIMMs (see "Motherboard switches" on page 5-36).
DRAM Slot	320		
DRAM Config	330 or 350		
DRAM 64K	D00	J6-J9—SIMMs	
DRAM	340	J6-J21—SIMMs	
ACA DMA Cnfg	B00	U40—RipChips	• Replace the motherboard.
ACA DMA ADR	B10		
ACA Cntl Reg	A00		
ACA VAdr Reg	5A0		
ACA VCnt Reg	B50		
Eth Fuse	400	FU2—Ethernet fuse	• Make sure the fuse is installed. • If the fuse is installed and the problem persists, replace the fuse.
Eth Quiet	410, F00	U16—Ethernet controller chip ***Note:*** An error code of F00 indicates that this test could not be run. Check the SIMMs in Bank 0 (J6-J9) first. See "SIMMs" on page 5-31.	• Check motherboard switch settings for S2 and S3. • If the switches are set incorrectly, change the settings. • If this does not correct the problem, you may need to replace the motherboard.
Eth Idle	420, F00		
Eth Self	450, F00		
Eth IntLpBk	440-442, 460-462, 470-472, 490, 4A0-4A2, 4B0-4B3, 4D0, 4E0, 4F0, F00		
100BT Quiet*	380	Interrupt line in 100BaseT board.	• Replace the 100BaseT board.
100BT Idle*	381	100BaseT board	• Replace the 100BaseT board.
100BT Self*	382, 384		
100BT RAM*	386, 388, 390, 394, 396, 398		
100BT Int LpBk*	388, 39A, 39C, 39F		

**Note:* If the optional 100BaseT board is installed, these tests are run in place of the Ethernet tests.

Table 6-5 Summary of Start-up diagnostics *(continued)*

Test name	Error number	Area tested on motherboard	Suggested action
SCSI Fuse	600	FU1—SCSI fuse	• Make sure the fuse is installed. • If the fuse is installed and the problem persists, replace the fuse.
SCSI Quiet	650	U15—SCSI controller chip	• Replace the motherboard. ***Note:*** For error code 621, check the settings for motherboard switches S2 and S3 before replacing the motherboard.
SCSI Cmd Reg	640		
SCSI R/W Reg	630		
SCSI Rupt Rst	610		
SCSI Rupt II	611		
SCSI FIFO	621		
DUART Int LpBk	250 or 270	U28—DUART chip	Replace the motherboard.

Viewing the diagnostic report

Results of the Fiery XJ BP100 Custom and Board diagnostics are displayed in the diagnostic report menu whether tests pass, fail, or are halted. Start-up diagnostic test results are available in the diagnostic report menu only when a test fails (see Figure 6-5 on page 6-17). The diagnostic report menu includes the following options:

Use the up and down arrows on the Control Panel to scroll through the screens and the menu button to exit any of the screens.

- Summary—Pressing the line selection button next to this option displays the name of each diagnostic test, how many times the test passed and how many times the test failed. Also included in this report, are the name of the test, the length of time each test ran, and the total time it took for all the tests to run.
- Details—Pressing the line selection button next to this option displays the message All tests that ran passed on the Control Panel if no errors are detected. If an error is detected, this option displays the diagnostic test that failed, the error number, and a description of the failing test.

- Info—Pressing the line selection button next to this option displays the following information about the Fiery XJ BP100 diagnostics and hardware:

Table 6-6 Information displayed in the Info option

Information displayed	Description
DIAGNOSTICS	Indicates the diagnostic revision and the date.
HARDWARE	Provides the SIMM configuration (for example 64MB) for memory installed on the motherboard.
SIMM	Gives the location and size of each SIMM strip. This information can be used to make sure the largest capacity SIMM strips occupy the lowest banks.
COPIER INTERFACE	Indicates the type of copier connected to the video interface board connector J23 (0).
SERIAL NUMBER	Gives the Fiery XJ BP100 serial number, which is also the Ethernet hardware address. This serial number is different from the serial number listed on the back of the Fiery XJ BP100 chassis. This number is listed twice because the Fiery XJ BP100 reads it from the Real Time Clock and the EEPROM on the motherboard. Both numbers should be the same.

- Config—Displays information about the amount of memory installed on the Fiery XJ BP100 and how it is arranged on the motherboard. This option also displays information about what copier is connected to video slot 0 (J23).
- Debug—For factory use only.

Video interface board diagnostics

If you suspect there might be a problem with the video interface board (for example, the print quality of output is poor), you can run the video board diagnostics to test components on the video interface board. Video Diagnostics loop data internally on the Fiery XJ BP100's video interface board. The Fiery XJ BP100 compares the data sent with the data received to make sure no errors have occurred. You can run Video Diagnostics once or you can select a time interval and run the video diagnostics repeatedly.

To run Video Diagnostics

1. ***At the Fiery XJ BP100 Idle screen, press the menu button once.***

   The Functions menu displays a scrolling list of options. The full list of options is shown below:

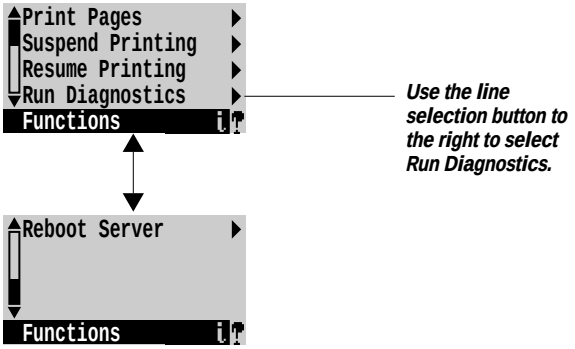


Figure 6-7 Run Diagnostics option on the Functions menu

2. ***Select Run Diagnostics from the Functions menu.***
3. ***At the screen shown in Figure 6-8, select Video Diagnostics.***

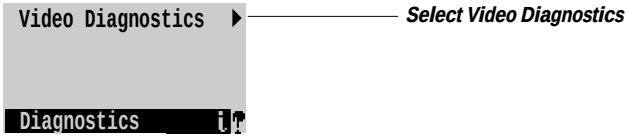


Figure 6-8 Video Diagnostics option

4. ***Select Single Pass or Multiple Pass at the screen shown in Figure 6-9.***

   If you select Single Pass, the Video Diagnostics run through once. Selecting Multiple Pass runs the Video Diagnostics repeatedly.

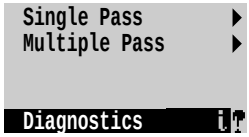


Figure 6-9 Video Diagnostics single pass or multiple pass

5. ***If you selected Multiple Pass, enter how long you want to run the Video Diagnostics and then select OK to start the diagnostics.***

   Use the up and down arrow buttons on the Control Panel to select the correct number and the line selection buttons to advance to the next space. The time interval is set in minutes.

   This option should be set to a value between 1 minute and 8 hours.

6. ***If the Video Diagnostics fail, the screen displays the message* Video diags failed.**

   You should:

   - Turn off the Fiery XJ BP100 and open the chassis (see "Accessing Fiery XJ BP100's internal components" on page 5-3).
   - Reseat the video interface board.
   - Turn on the Fiery XJ BP100 and run Video Diagnostics again. If the tests still fail you may need to replace the video interface board.

7. ***If the video interface board diagnostics all pass, the Control Panel indicates that the video diagnostics passed. Press the line selection button next to OK to reboot the Fiery XJ BP100.***

8. ***If the video interface board is still suspect, run the VMC custom tests (see Table 6-6 on page 6-30 for information about these tests).***

Checking the entire Fiery XJ BP100 system

This phase of troubleshooting deals with problems with the entire system, once the Fiery XJ BP100 functions as a stand-alone unit.

Checking the copier interface

After the Fiery XJ BP100 starts up successfully as a stand-alone unit, turn off the Fiery XJ BP100 and connect the copier interface cable. You should make sure the Fiery XJ BP100 is working properly with the copier before you connect it to the network. See “Connecting the Fiery XJ BP100 to the copier” on page 3-5.

Once you have connected the Fiery XJ BP100 to the copier you should print the test page to make sure that the interface between the copier and the Fiery XJ BP100 is working properly.

To print a test page

The test page is a color PostScript file resident on the Fiery XJ BP100 hard disk drive. The test page is printed to the copier using the settings configured in Setup.

1. ***Make sure the copier is on.***
2. ***Turn on the Fiery XJ BP100 from the power switch on the back panel.***

   Messages will appear on the Control Panel as the Fiery XJ BP100 runs through its startup tests.
3. ***Before proceeding, make sure that the copier is not in use.***

   The Fiery XJ BP100 Info screen should read Idle.
4. ***Press the menu button once to display the Functions menu.***

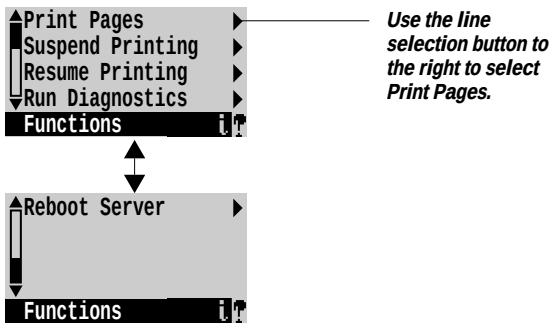


Figure 6-10 Functions menu options

5. ***Press the line selection button to the right of Print Pages and then select Test Page from the menu.***

   The Fiery XJ BP100 sends the test page to the copier and displays the RIP and Print status screens so you can monitor the job.

6. ***Examine the test page from the copier.***

   If the test page prints successfully, the Fiery XJ BP100 connection to the copier is working properly.

   If the test page does not print at all or has a low-quality image, you may have a faulty video interface board or copier interface cable, or the copier may not be functioning properly. In these cases, you should first check Fiery XJ BP100 connections and then run the Fiery XJ BP100 video interface board diagnostics (see "Video interface board diagnostics" on page 6-31) and the Board diagnostics (see "Board diagnostics" on page 6-24) to locate the problem.

Checking network connections

After the Fiery XJ BP100 is connected to networked computers, printing problems may arise if the network hardware or software is not set up properly or doesn't match network settings on the Fiery XJ BP100. 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 XJ BP100 malfunction. The customer's network administrator can eliminate many printing problems without requiring you to make a service call. The network administrator deals with:

- Copier error conditions.
- Network connection problems that result in the Fiery XJ BP100 not appearing in printer list on the customer's workstation.

  If the Fiery XJ BP100 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. Check the serial number in the diagnostic report Info menu (see "Viewing the diagnostic report" on page 6-29). If the serial number (also the Ethernet address) in this menu is the same as another device on the network, the Fiery XJ BP100 may not appear in the list of printers.
- Conflicting network settings in Setup and on the customer's workstation.

- Printing problems caused by the inappropriate Setup options.
- Application-specific printing errors caused by missing or incorrectly placed printer description files.

Printing to the Fiery XJ BP100

If the user can print a Fiery XJ BP100 test page, but cannot print a job from a workstation 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 the *User 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, visually check the back panel of the Fiery XJ BP100 to make sure that the appropriate network connections are in place.

Intermittent print quality and color quality problems are difficult to trace. Before you try to troubleshoot print quality problems, copy a color test page to make sure that the copier itself does not need servicing or adjusting.

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

General printing problems

If the copier is working properly, and the corrective actions listed in the *User Guide* have not solved a printing problem, check the items listed in Table 6-7.

Table 6-7 Printing problems - General

Symptom	Possible cause	Suggested action
Fiery XJ BP100 appears in the list of printers on the customer's workstation, but certain jobs do not print.	A PostScript error.	• Make sure Print up to PostScript Error in Setup is set to Yes. Check for error messages on the Fiery XJ BP100 output.
	An application problem.	• Try printing a job from a different application to determine if the problem is associated with a particular application.
	A faulty cable between the Fiery XJ BP100 and the workstation.	• Make sure the connection between the Fiery XJ BP100 and the workstation is working by downloading a test page from the workstation, or by printing a simple file such as a text file. • Resend the problem file.
A print job stalls.	A PostScript or application error.	• Cancel the Fiery XJ BP100 print job. • If this fails to clear the problem, reboot the Fiery XJ BP100.
Printing stops after one or a few pages.	Faulty SIMM(s).	• Run the SIMM diagnostics from the Custom diagnostic menu. If faulty SIMMs are detected, replace the faulty SIMMs.
Color quality is uneven.	A copier problem.	• Use the copier to copy a sample copier test page. If the quality is not good, service the copier.
	A file or application problem.	• Print a Fiery XJ BP100 test page. • If the quality of the Fiery XJ BP100 test page is good, there may be a file or an application problem.
Print quality is poor.	A missing or outdated printer description file.	• Make sure the appropriate printer description file is installed. See Fiery XJ BP100 *Getting Started* for a list of printer files used by various applications.
	The application cannot find the appropriate printer description file.	
Pages have the wrong ink colors.	A faulty video interface board.	• Run the video interface board diagnostics manually (see "Video interface board diagnostics" on page 6-31). If the test fails, you may need to replace the video interface board.
Pages come out blank, or tinted with green or some other color.	A loose cable connection between the Fiery XJ BP100 and the copier.	• Check and tighten the copier interface cable at the back of Fiery XJ BP100 and at the copier.
Job never prints and the Fiery XJ BP100 activity light flashes green and the RIP screen indicates Busy.	The copier interface cable or the network cable was plugged in when the Fiery XJ BP100 was turned on.	• Turn off the Fiery XJ BP100 and turn it back on again.

Table 6-7 Printing problems - General *(continued)*

Symptom	Possible cause	Suggested action
Fiery XJ BP100 system locks up completely while printing a page.	A faulty video interface board.	• Remove the video interface board and check for bent pins on the connector that plugs into the motherboard. • Make sure that the video interface board and the copier interface cable are plugged in properly. • If this problem persists and the copier test page looks normal, run the video diagnostics (see "Video interface board diagnostics" on page 6-31). • If the video diagnostics fail, replace the video board.
Color has shifted, or the registration is off.		
Page is totally black, blank, fully discolored, or unintended repetitive patterns appear over the entire page.		

Appendix A: Specifications

Hardware features

The Fiery XJ BP100 has the following hardware features:

- MIPS R4700 175MHz CPU
- 64MB memory
- Supports AppleTalk, TCP/IP, and IPX protocols simultaneously
- Parallel port for direct connection printing
- 2GB hard disk drive, standard

Networking and connectivity

The Fiery XJ BP100 has the following networking features:

- AUI connector for thin or thick Ethernet.
- RJ-45 connector that supports twisted pair network connectivity.
- Novell network servers and other PC-based servers can be connected to the Fiery XJ BP100 via the Fiery XJ BP100's parallel port.
- Optional 100BaseT board for 100BaseT network connectivity.
- Optional Token Ring interface using the Token Ring kit.
- An optional CD-ROM drive can be connected to the Fiery XJ BP100 via the Fiery XJ BP100's SCSI port.

Fiery XJ BP100 user software

A complete description of Fiery XJ BP100 user software is provided in the *User Guide*. For optimal Fiery XJ BP100 performance, current versions of the Fiery XJ BP100 user software should be maintained on every network computer that might print to the Fiery XJ BP100.

Safety and emissions compliance

The Fiery XJ BP100 has been certified to meet or surpass the following government standards:

Safety approvals

- UL 1950
- CSA 22.2 #950
- EN 60950 (TUV/GS mark)

EMI approvals

- FCC Class A
- VDE Class B (VFG 243)
- EN55022 Class B

Appendix B: Assembling the Fiery XJ BP100 Furniture

This appendix describes how to assemble the Fiery XJ BP100 furniture, if necessary. The Fiery XJ BP100 furniture is configured as shown in Figure B-1 below.

Note: The Fiery XJ BP100 can be placed in the brackets or on the accessory shelf. If you place the Fiery XJ BP100 in the brackets, you do not need to attach the stand to the bottom of the Fiery XJ BP100 chassis.

The oblong box containing the Fiery XJ BP100 furniture includes the following:

- Base assembly
- Accessory shelf
- Four flat-head screws (#10-32)

You will need a #1 Phillips-head screwdriver no more than 6" long to assemble the furniture.

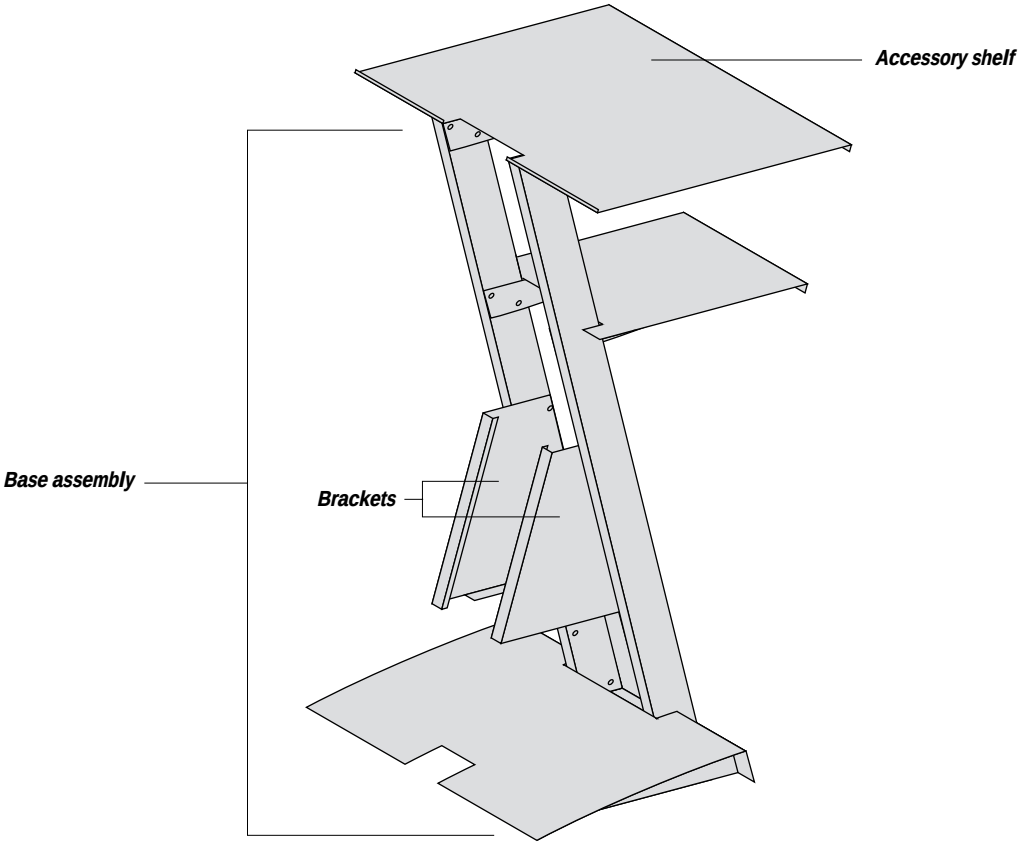


Figure B-1 Fiery XJ BP100 furniture assembled

To assemble the furniture

1. ***Unpack the oblong box containing the Fiery XJ BP100 furniture.***
2. ***Set the base assembly on the floor.***

   The base assembly is heavy. Be careful lifting it from the box.
3. ***Place the large accessory shelf on top of the two support columns on the base assembly. Line up the screw holes in the shelf with the screw holes in the support columns.***
4. ***Attach the large accessory shelf to the support columns using the four flat-head screws (see Figure B-2 below).***

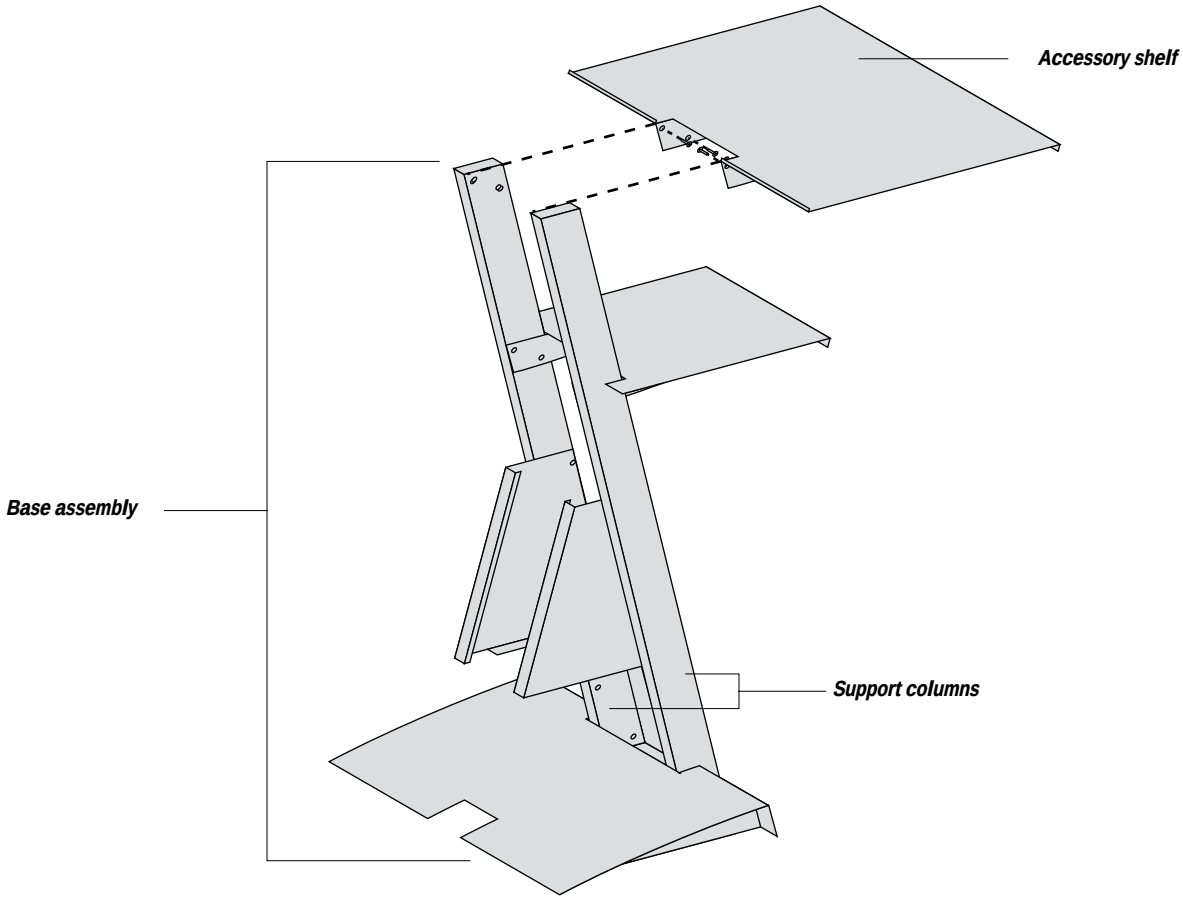


Figure B-2 Fiery XJ BP100 furniture — exploded view

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