efi®

Printer Controller EB-34

Installation and Service Guide

A guide for service technicians

Replacement parts and specifications are subject to change. For a current parts list, contact your authorized service/support center.

Contents

List of Figures

Introduction

This document includes information about servicing the Printer Controller EB-34, which is referred to in this document as the "EB-34."

Document conventions

Note: The NOTE format highlights important messages and additional information.

⚠️ **Warning:** The WARNING icon indicates a warning concerning operations which, if not performed correctly, may lead to death or injury. To use the EB-34 safely, always pay attention to WARNING icons and messages.

⚠️ **Caution:** The CAUTION icon indicates a caution concerning operations which, if not performed correctly, may lead to injury. To use the EB-34 safely, always pay attention to CAUTION icons and messages.

⚠️ **Important:** The IMPORTANT icon indicates operational requirements and restrictions. To operate the EB-34 correctly and avoid damage to the EB-34 or other property, always pay attention to IMPORTANT icons and messages.

About the EB-34

The EB-34 adds computer connectivity and highly efficient PostScript and PCL printing ability to the Pro 8220S/8210S/8200S/8120S/8110S/8100S and Pro 8220/8210/8120/8110.

With the EB-34, customers can use the copier as a PostScript printer and scanner. Once it is connected to the copier through the network, customers can print to the EB-34 from supported client computers on the network.

The EB-34 ships with software preinstalled so that customers can use it immediately. However, as part of servicing the EB-34, you may need to reinstall software.

How the EB-34 operates

When a customer prints, the motherboard and copier interface board process image data.The copier interface board is a custom board and allows the EB-34 to communicate with the copier. The CPU controls the transfer of image data to and from the motherboard and runs the PostScript interpreter. DIMMs hold image data during printing.

The interpreter rasterizes the page description file and compresses the image pattern into memory using compression technology. The interpreter outputs the compressed raster data through the image frame buffer memory to the copier interface board. The raster data is sent to the copier, which then renders the image on paper at maximum speed.

Before you service the EB-34

Before you service the EB-34, it is strongly recommended that you make sure that you have the required tools (page 9) and carefully review all precautions.

Also, keep in mind that the most common cause of a hardware problem is a faulty or loose connection. Before you replace an expensive component, check internal and external connections.

Tools you will need

To install or service the EB-34, you will need the following tools and parts:

- ESD wrist grounding strap and antistatic mat

- Flathead screwdriver

- #0, #1, and #2 Phillips head screwdrivers

- Needlenose pliers

- EB-34 documentation, including the customer media pack and any related service bulletins

⚠ **Important:** Avoid touching magnetic tools to storage media such as hard disk drives. Contact between magnetic tools and magnetic storage media may result in data corruption.

Precautions

Always observe the following general precautions when installing or servicing the EB-34:

⚠ **Warning:** The EB-34 contains hazardous moving parts. When servicing the EB-34, keep away from moving fan blades.

⚠ **Caution:** Avoid pressing the surface of the LCD.
Applying excessive pressure to the LCD window causes it to change color.

⚠ **Caution:** Use a soft cloth moistened with Lens and Mirror Cleaner to clean the surface of the EB-34 display window.
Other solvents, such as water, may damage the polarizer on the display window.

⚠ **Important:** When connecting or disconnecting the power cable:

- *Only use the power cable that shipped with the EB-34 or an appropriate replacement power cable available from an authorized provider.*

- *Always* disconnect the power cable from the EB-34 connector panel before opening the unit and servicing internal components.

- *Do not* pull on the power cable when unplugging the EB-34. Instead, pull the plug.

- *Do not* place objects on the power cable. Place the power cable away from foot traffic.

- *Do not* tamper with or disable the power cable grounding plug.

- *Do not* use a 3-prong adapter in a 2-hole, ungrounded outlet.

- *Do not* use an extension cord.

- *Do not* plug the EB-34 into a circuit with heating or refrigeration equipment (including water dispensers).

- *Do not* plug the EB-34 into a switchable power outlet. This can result in the EB-34 being turned off accidentally.

- Never set any liquid on or near the EB-34 or the copier. If liquid is spilled into the EB-34 or the copier, disconnect the power cable immediately.

- Do not attempt to open the power supply, DVD drive, or hard disk drive.

- Handle the EB-34 LCD window with care.

  If the EB-34 LCD window breaks and the liquid crystal inside leaks out, avoid contact. If you come in contact with the liquid crystal, immediately wash it off your skin with soap and water.

- Use care when handling parts of the EB-34, as some edges on the unit may be sharp.

- Do not install third-party applications onto the EB-34. Third-party applications are not supported and can cause system problems. Although virus scans are permitted on the EB-34, antivirus software should not be loaded in memory-resident mode.

- Do not change the Windows operating system software preference settings.

  Depending on the changes made, the EB-34 may become unstable or even unusable. If this occurs, we recommend that you reinstall the EB-34 System Software, which reliably restores the Windows operating system software to its factory defaults.

- Never alter an existing network without permission.

  The EB-34 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 explicit permission of the system or network administrator or shop supervisor.

- If you need to assign an IP address to the EB-34, consult with the network administrator at customer site.

  In a DHCP environment, the system assigns the IP address automatically. In a non-DHCP environment, enter only the IP address that has been assigned by the network administrator. Only the network administrator should assign an IP address to a network device. Assigning the EB-34 an incorrect IP address may cause unpredictable errors on any or all devices connected to the network.

- When recycling or disposing of any product or packaging, please comply with local guidelines or regulations.

- Do not use flammable sprays or solvents in the vicinity of this machine. Also, avoid placing these items in the vicinity of this machine. Doing so could result in fire or electric shock.

Creating an electrostatic discharge (ESD) safe environment

⚠ **Important:** Follow standard ESD precautions while working on the internal components of the EB-34.

Static is always a concern when servicing electronic devices. It is highly unlikely that the area around the copier and the EB-34 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 grounding strap, grounded at the same place as the antistatic mat. If that is not possible, do the following:

- Attach a grounding strap to your wrist. Attach the other end to a good ground.

- When you unpack the EB-34 from the carton for the first time, touch a metal area of the copier to discharge the static on your body.

- Before you remove any of the EB-34 panels and handle internal components, touch a metal part of the EB-34.

- 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 in an antistatic bag immediately. Do not walk across a carpet or vinyl floor while carrying an unprotected board.

- During service to the motherboard, avoid using excessive force and always place the motherboard on a grounded, non-metallic, antistatic surface. Never allow any metal to touch the solder contacts on the underside of the motherboard, especially beneath the battery socket. Improper handling can short circuit and permanently damage the motherboard.

Handle printed circuit boards by their opposing edges only and avoid touching the contacts on the edge of the board.

Power Supply Cord Notice

⚠️ **Caution:** The power supply cord is used as the main disconnect device. Ensure that the socket-outlet is located/installed near the equipment and is easily accessible.

Lithium Battery Notice

⚠️ **Caution:** There is a danger of explosion if the battery is replaced with an incorrect type. Replace a battery only with the same type recommended by the manufacturer. Dispose of used batteries according to local regulations.

Short Circuit Protection

⚠️ **Warning:** This product relies on the building's installation for short-circuit (overcurrent) protection. Ensure that a fuse or circuit breaker no larger than 120 VAC, 15A U.S. (240 VAC, 10A international) is used on the phase conductors (all current-carrying conductors).

Installing Hardware

This chapter includes the following topics:

- Checking the customer site

- Unpacking the EB-34

- Connecting the EB-34

- Completing installation and starting up

About the installation process

It is strongly recommended that you review this chapter before you install the EB-34. Also keep in mind that installation problems are easier to avoid and diagnose if you proceed from the component level to the system level, verifying functionality at each step.

Since the EB-34 is connected to the customer's network, be sure to coordinate your installation schedule with the network administrator at the customer site. For information about network setup, refer the network administrator to *Configuration and Setup*, which is part of the user documentation set.

Note: You can change the default language that is preinstalled at the factory, if needed (see Changing the factory default language on page 80).

To install the EB-34

1 Check installation requirements and verify site conditions.

If possible, obtain verification that the network is operational (see page 14).

2 Unpack the EB-34 (see page 16).

3 If applicable, connect the monitor, keyboard, mouse, and furniture to the EB-34.

For more information on setting up the furniture, see the documentation that comes with the furniture kit.

4 Do the following to prepare the copier for use with the EB-34:

- Install the Gigabit Ethernet board in the copier.

- Install the Fiery key top on the copier.

- Enter SP mode on the copier and specify the correct SP setting to enable communication between the copier and the EB-34.

  The following SP settings are needed for the EB-34:

  - SP5193-001:[1]

  - SP5895-001:[1]

  - SP5895-002:[0]

  - SP5985-001:[1]

  - SP4-201-011[1]

  - SP4-201-012[1]

- Apply the Fiery decal the copier.

⚠ **Important:** For more information about installing the Gigabit Ethernet board and the Fiery key on the copier, and changing the SP mode of the copier, see the Service Manual for the copier. This information is not found in the documentation for the EB-34.

5 Connect the following cables:

- Power cable (see page 17)

- Copier interface cable (*crossover* Ethernet cable) from the *lower* Ethernet port (see page 17)

- Network cable (*straight-through* Ethernet cable) from the *upper* Ethernet port (see page 19)

6 Complete the installation (see page 20).

Remind site administrator to install current user software on client computers that print to the EB-34 (see *Printing* and *Utilities*, which are part of the user documentation set).

Checking the customer site

Before you install the EB-34, check site conditions and inform the customer of any installation requirements.

To check the customer site

- Is the copier configured for use with the EB-34?

  For correct settings, see the documentation that accompanies the copier.

- Is there adequate space for the EB-34 near the copier?

  Make sure there is enough space at the back and on both sides so that cables do not interfere with use or service of the copier (for example, clearing a paper jam).

Figure 1:   Space requirement for the EB-34
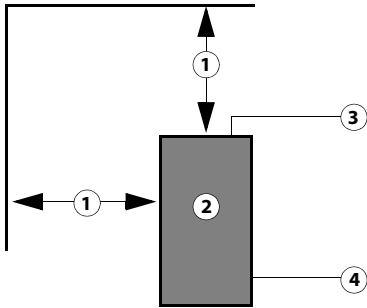
1	20cm+ (8 in.)
2	EB-34
3	Connector panel
4	Side panel

- Is a dedicated, grounded electrical outlet for the EB-34 available near the copier?

  Do not run the EB-34 and the copier on the same circuit. If the customer has provided one, use a surge suppressor for the EB-34.

  ⚠ **Important:** Will the network be available at the time of installation? (See the network administrator.)

- Is the network functioning? (See the network administrator.)

Setting customer expectations

When the site is ready, installation of the EB-34 takes about 1 hour. Inform the customer of the following:

- Some nodes on the network may be unavailable during service.

- The network administrator must 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 EB-34 and confirms network functionality with the connector in place before the date scheduled for the EB-34 installation.

- The network administrator must have a networked computer available during the installation. The appropriate software must be installed in advance. Documentation for the networked computer and the network operating software should be available.

- The network administrator must install the user software shipped with the EB-34 onto networked Windows and Mac OS computers that will print to the EB-34 (user documentation is also included).

Unpacking the EB-34

⚠️ **Warning:** Before you unpack the EB-34, it is strongly recommended that you review all Precautions on page 9 to avoid injury or damage to the EB-34.

The EB-34 is assembled and shipped from the factory with all necessary cables (except for the network cable) and documentation. For shipping contents, see the *Packing List*.

To unpack the EB-34

It is strongly recommended that you save all packing materials in case you need them later (for example, if you discover something is damaged and need to return it). Do not immediately discard packing materials.

1 Open the box and remove the packing material.

Save the original boxes and packing material in case you need to transport the EB-34 at a later date.

2 Remove the contents from the top accessory tray. Inspect the contents for visible damage.

3 Give the media pack to the customer or network administrator.

Let the customer or network administrator know that in order to take full advantage of the EB-34, the user software must be installed on computers that will print to the EB-34.

4 Remove the top accessory tray and any packing material.

Set aside the packing material and note the orientation of the EB-34 inside the shipping container, in case you need to repack it later.

5 Carefully lift the EB-34 out of the box.

If you notice shipping damage to any component, save the shipping container in case the carrier needs to see it. Call the carrier immediately to report the damage and file a claim.

6 Locate the EFI/Fiery decal in the shipping container and affix it to the copier as shown.

Figure 2:   Affixing the decal to the copier

EFI/Fiery decal
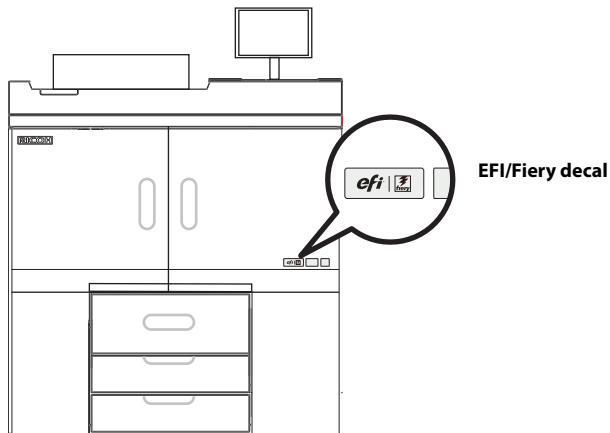
Connecting the EB-34

After you unpack the EB-34, do the following:

- Connect to power

- Connect to the copier

- Connect to the network

To connect to power

1 Connect one end of the EB-34 power cable to the power connector on the back of the EB-34 (see).

2 Connect the other end of the EB-34 power cable to a power outlet.

To connect to the copier

⚠ **Important:** For more information about installing the Gigabit Ethernet board and the Fiery key on the copier, and changing the SP mode of the copier, see the Service Manual for the copier. This information is not found in the documentation for the EB-34.

1 Make sure that the Gigabit Ethernet board is installed in the copier.

2 Enter SP mode on the copier and specify the correct SP setting to enable communication between the copier and the EB-34.

The following SP settings are needed for the EB-34:

- SP5193-001:[1]

- SP5895-001:[1]

- SP5895-002:[0]

- SP5985-001:[1]

- SP4-201-011[1]

- SP4-201-012[1]

3 Make sure that the EB-34 and the copier are powered off.

4 Connect the copier interface cable (*crossover* Ethernet cable) from the *lower* Ethernet port on the EB-34 connector panel to the copier (see Figure 6 on page 34).

⚠️ **Caution:** The copier interface cable included with the EB-34 is a *crossover* Ethernet cable that connects to the *lower* (crossover) Ethernet port on the EB-34 connector panel. The network cable at the customer site is a *straight-through* Ethernet cable that connects to the *upper* (straight-through) Ethernet port on the EB-34 connector panel. The cables look similar, but are not interchangeable. Make sure that you connect the cables to the correct ports (see Figure 6 on page 34).

To verify the cable type, align the connectors on each end of the cable as shown in Figure 3. On a straight-through cable, the wire arrangements are identical on both ends; on a crossover cable, the wire arrangements are different.

Figure 3: Straight-through and crossover Ethernet cables
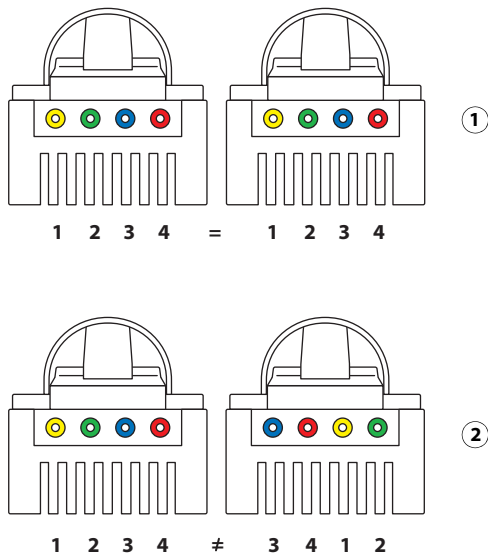
1   Straight-through cable: wire arrangements are identical on both connectors

2   Crossover Ethernet cable: wire arrangements are different (The wire arrangement shown
     here is an example; actual arrangements may vary.)

Note: Align cables side by side and examine wires.

To connect to the network

1 Make sure that the EB-34 is powered off.

2 Make sure that the network cable is connected to the customer site network.

3 Connect the network cable (*straight-through* Ethernet cable) to the *upper* Ethernet port on the back of the EB-34 (see Figure 6 on page 34).

The EB-34 provides twisted pair connectivity to an Ethernet network. When the network cable is connected, the Ethernet interface automatically detects the speed of the network environment. Depending on your network speed, the following unshielded twisted pair (UTP) network cables are supported:

- 10BaseT: Category 3 or higher

- 100BaseTX: Category 5 or higher (4-pair/8-wire, short-length)

- 1000BaseT: Category 5e or higher (4-pair/8-wire, short-length)

Note: Make sure that the network cable is a straight-through Ethernet cable. For more information, see Figure 3 on page 19.

After power on, the site administrator should perform network setup, verify the network connection, verify that the EB-34 appears in the list of printers, and then print a few test documents from a networked computer that will use the EB-34. For more information, see *Configuration and Setup*.

Configuring a static IP address for the EB-34

If the customer requires the EB-34 to be configured with a static IP address (for example, in a non-DHCP network environment), obtain a valid static IP address from the network administrator and configure the EB-34 as described in the following procedure.

To configure a static IP address for the EB-34

1 At the copier touch panel, press the Home button.

2 Press the Fiery icon.

3 Make sure that the EB-34 is not receiving, processing, or printing any files.

If the system has just finished processing, wait at least five seconds after the system reaches Idle before you proceed.

4 Press the Fiery tab.

5 Press Setup.

6 On the Login screen, press Password. Enter Fiery.1. Press OK.

Type Fiery.1 exactly as shown. The password is case-sensitive; for example, fiery.1 will not work.

7 On the Setup screen, do the following:

- Press WINS. If enabled (yellow), press Use WINS to disable this feature. Press Save.

- Press DNS. If enabled (yellow), press Get DNS address automatically to disable this feature. Press Save.

- Press IP Address > IPv4 Address > Manual Configuration.

8 On the Manual Configuration screen, enter an IP address, subnet mask IP address, and a default gateway IP address. Press Save and then press Go Back.

9 On the Setup screen, press Exit Setup.

10 Press Reboot Now.

Completing installation and starting up

To finish the installation of the EB-34 at the customer site, make sure to do the following:

1 Make sure that the copier is turned on.

2 Set the power switch to the ON position ("|" symbol).

3 Power on the EB-34 using the power button (see Figure 5 on page 33).

Press once and release the button to power on the system. The power supply automatically senses the correct voltage.

4   Wait for the EB-34 to power on and reach Idle.

The EB-34 takes approximately two minutes to power on and reach Idle.

5   Perform any required system software upgrades.

Updates to Fiery System and User Software may be available for the EB-34 from a variety of sources. For example, System Updates (see page 87), updates provided on CD, or updates downloaded by the customer.

Microsoft Windows operating system updates should be obtained from Microsoft directly. Because such updates are available directly from Microsoft, EFI does not maintain or provide them via the System Updates feature.

6   Print the Test Page and Configuration page and ask the customer to verify the output (see page 26).

Make sure that the correct date, time, and time zone are set. To change these settings, use Configure tool accessed from Command WorkStation or WebTools. Start Configure, choose Fiery Server > Regional Settings. Check all the settings under Date & Time, When you make changes on the settings, make sure to click Save, and reboot the EB-34.

Note: When you access WebTools, a security certificate error occurs. A common security certificate that works for all network environments cannot be installed on the EB-34, which results in the certificate error. This is expected behavior. You can safely continue and proceed with your work.

7   If the EB-34 requires a static IP address (for example, in a non-DHCP network environment), work with the network administrator to configure a static IP address (see page 20).

8   If needed, change the factory default language (see page 80).

9   Ask the network administrator to perform Setup and print some test documents over the network.

10 Store the output and the current Configuration page(s) near the copier.

11 Inform the site administrator that the EB-34 user software must be installed on networked computers that print to the EB-34.

12 Ask the site administrator to make sure that all media (DVDs and/or CDs) shipped with the EB-34 are stored in a safe location accessible to you.

Using the EB-34

You can interface with the EB-34 with the following:

- The EB-34 control panel

- The copier touch panel

- The Fiery Advanced Controller Interface (FACI), which includes a monitor, keyboard, and mouse.

Note: FACI is available as an option with this product, but is not a standard feature.

EB-34 control panel

The control panel allows you to access, execute, and monitor certain EB-34 functions, such as printing system pages and rebooting or shutting down the system. The control panel also displays the current status of the EB-34.

Figure 4: EB-34 control panel

1	Up button	5	Display window
2	Menu button	6	First
3	Down button	7	Line selection buttons
4	Activity light	8	Fourth
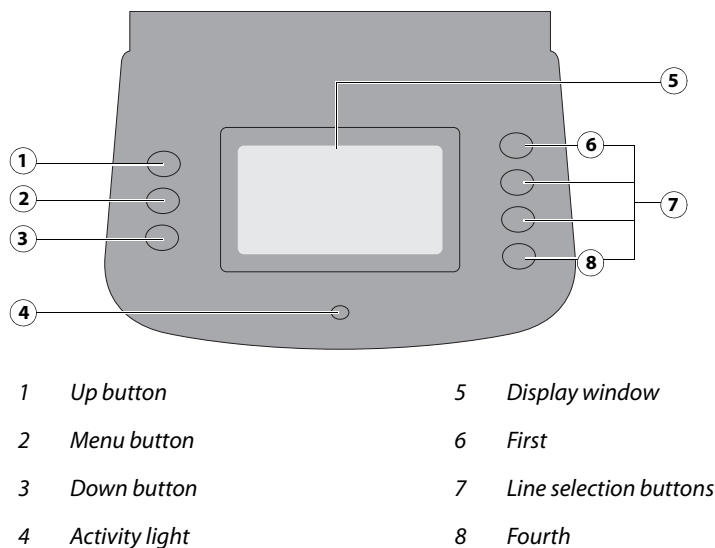
Activity light

The activity light indicates the status of the EB-34 the following ways:

- **Flashing amber:** The EB-34 is starting up and the BIOS has established communication with the User Interface Board (UIB).

- **Flashing green:** The EB-34 is continuing startup and the Windows operating system has established communication with the UIB.

- **Solid green:** The EB-34 is powered on and in the Idle state.

- **Solid amber:** The EB-34 is powered off, but the AC power cable is plugged into the power source. The control panel LCD continues to draw power when the EB-34 is powered off.

- **Flashing or solid red:** An error has caused printing to be disabled.

- **No light:** The EB-34 is powered off and the AC power cable is not connected to a power source.

Buttons

The following buttons are on the control panel:

- **Line selection buttons:** Use the four line selection buttons on the right side of the control panel to select the command displayed on the corresponding line of the LCD display.

- **Up and Down buttons:** Use these buttons to scroll to different screens in multi-screen lists or prompts.

- **Menu button:** Press this button to view other display screens. Several different display screens show different types of information about the EB-34.

Functions menu

The following options are available from the EB-34 Functions menu:

```
Eject CD/DVD          ▶
IP Address            ▶
Restart Server        ▶ ①
Shut Down System      ▶
Server name
```
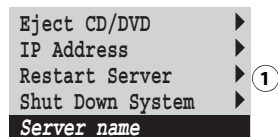
1   Use the line selection buttons to the right to select an option.

- **Eject CD/DVD** allows you to eject media from the DVD drive. Media is also automatically ejected whenever the EB-34 is restarted, shut down, or rebooted. A hardware eject button is also located below the disc slot.

- **IP Address** displays the current IP address of the EB-34.

- **Restart Server** includes options to Restart (soft reset) or Reboot (hard reset) the EB-34. Selecting Restart resets the EB-34 server software, but does not reboot the entire system. Selecting Reboot shuts down all EB-34 activity and reboots the system. When you select Restart or Reboot, network access to the EB-34 is temporarily interrupted and all currently processing jobs are aborted and may be lost.

- **Shut Down System** shuts down all EB-34 server software and powers off the system. Always select this option before turning off the system.

Avoid using the reset button on the front panel, as doing so may cause the system to operate unpredictably. Use the reset button on the front of the EB-34 only if the system is unresponsive to keyboard or mouse actions.

Using the copier touch panel

There are tabs on the copier touch panel that are specific to the EB-34. They provide many of the same controls available from Command WorkStation and allow you to view status information, print system pages, and set up printing. For information about the job management features, see *Utilities*.

Main tab

The Main tab is displayed as the starting point. It summarizes held and printed jobs, displays paper tray status, and other information.

Suspend Printing	Suspend print activity between the EB-34 and the copier. Use this command to interrupt the current EB-34 job so that you can perform maintenance tasks. Jobs continue to process on the EB-34. After you complete maintenance, choose Resume Printing to continue printing jobs from the EB-34.
Resume Printing	Resume print activity between the copier and the EB-34 after you select Suspend Printing.
Start Sample Print	Print extra pages to an easily accessible output tray during a long print job, to verify that the copier is performing as expected.

PrintMe tab

The PrintMe tab allows you to submit print jobs using Document IDs if you have a PrintMe subscription.

Note: PrintMe cloud printing must be enabled in Configure for the PrintMe tab to display in the menu.

Job List tab

The Job List tab provides access to jobs according to the status of the job, similar to the Active and Printed Jobs windows in Command WorkStation.

Active	Jobs currently waiting to print.
Held	Held jobs.
Printed	Printed jobs.
Secure	Allows you to log on to display secure print jobs.

To change from one list to another, press the tab at the bottom of the copier touch panel.

On each of these lists, you can scroll up and down one line at a time, or advance to the top or bottom of the list. Select a job, and choose the appropriate button to Print, Print and Hold, Delete, or display the job properties. On the Properties tab, you can change the number of copies, but not any other job properties.

Tools tab

The Tools tab allows you to perform tray alignment.

Tray Alignment	Adjust the placement of text and images on a page so that they are correctly aligned on the sheet of paper and both sides of a duplex sheet have exactly the same alignment. For more information, see *Command WorkStation Help*.

Scan tab

The Scan tab allows you to scan documents. Depending on the copier model, Scanning may not be supported and the Scan tab may not appear on the copier touch panel. For more information, see *Utilities*.

Fiery tab

The Fiery tab contains most of the administrative features, especially entering settings for Setup options.

Fiery Info	Displays information about the current configuration of the EB-34.
Printable Info	Print these system pages from the EB-34:

PS/PCL Test Page: Confirms that the EB-34 is properly connected to the copier, and provides grayscale samples to troubleshoot problems with the copier or the EB-34. Settings on the Test Page may include: Server Name, printer model, and date and time the Test Page was printed.

PS Font List: Prints a list of all fonts currently on the EB-34 hard disk.

Configuration: Provides general information about the hardware and software configuration of the EB-34, the current Setup options, the current calibration, and the IP address of the EB-34.

Custom Paper Instruction: Prints a procedure for creating a custom paper entry.

Job Log: Prints a list of the last 55 jobs.

E-mail Log: Prints a list of recent e-mail activity.

FTP Log: Prints a list of recent FTP activity.

Note: To print the E-mail or FTP Log, you must first enable the appropriate service. For more information, see *Configuration and Setup.*

Setup	Enters the Setup menu to change Setup option settings.
Clear Job Log	Clears the Job Log from the EB-34.
Clear Server	Clears all jobs in all server queues, as well as all jobs archived on the EB-34 hard disk, the index of archived jobs (in the Archive window), all FreeForm masters, and the index of FreeForm masters (in the FreeForm window). Consult with your administrator or operator before choosing Clear Server.
Run Diagnostics	To troubleshoot e-mail printing issues, choose this menu and then choose Check E-mail System. For more information, see *Configuration and Setup.* The Check Video Board option is available for service technicians to run diagnostics on the video board.

Restart Fiery   Shuts down all EB-34 activity in the correct manner and then restarts. The following
options are available from the submenu that appears:

Restart Fiery Service: Resets the server software but does not reboot the entire system.
Network access to the EB-34 is temporarily interrupted and all currently processing jobs are
aborted and may be lost.

Restart System: Shuts down and then reboots the EB-34.

Shut Down: Shuts down all EB-34 activity properly.

Printing EB-34 pages

You can print the following pages:

- **PS and PCL Test Pages:** Lets you confirm that the EB-34-to-copier interface is working properly. The Test Pages
provide black and white and grayscale samples helpful when troubleshooting problems with the copier or the EB-
34. The following information is also listed: server name, date and time printed, and compression information.

  When you print a Test Page to confirm that the EB-34-to-copier connection is operating properly, keep in mind
  that:

  - All patches should be visible, even though they may be very faint in the 5% and 2% range.

  - Each patch set should show uniform gradation from patch to patch as the shade lightens from 100% to 0%.

    Poor image quality may indicate a need to service the copier. For more information, see the documentation
    provided with the copier.

    If the Test Page fails to print, look up printing problems in "Table 4: EB-34 error messages and conditions" on
    page 102.

- **Configuration:** Prints the current server and device configuration. This includes information about all current
Setup settings, and the Ethernet address of the EB-34. The Configuration page also provides version information
for the BIOS chip and information about any options installed in the EB-34.

  Printing the Configuration page can be helpful during installation, Setup, and service. After installing the EB-34
  (including connecting to the network) and before default settings are changed in Run Setup, you can obtain a
  record of the defaults by printing the Configuration page.

- **Job Log:** Prints the log of the last 55 jobs by default. For more information, see *Configuration and Setup*.

- **PS Font List:** A list of all PostScript fonts resident on the HDD.

- **PCL Font List:** A list of all PCL fonts resident on the HDD.

- **E-mail Log:** Lists jobs scanned on the copier and emailed over the network as well as jobs submitted to the copier
as e-mail attachments. The log is available only when Print via E-mail is enabled in Setup. For more information,
see *Configuration and Setup*.

- **FTP Log:** Lists jobs scanned on the copier and sent to the FTP site designated in the setup options. The log is available only when Scan to FTP is enabled in Setup. For more information, see *Configuration and Setup.*

To print EB-34 pages from the copier touch panel

1   On the copier touch panel, press the Home button.

2   Press the Fiery icon.

3   Press the Fiery tab.

4   Press Printable Info.

5   Press the name of the page you want to print.

Network Status LEDs

Two LEDs next to the Ethernet network port indicate the network speed. When data transfer occurs between the EB-34 and the network, the appropriate LED(s) blink to indicate network activity.
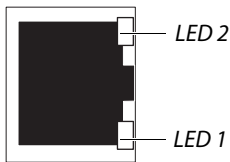
LED 2

LED 1

Ethernet network port (Upper RJ-45)

Network link speed	LED 1	LED 2
10 Megabits/second	Off	Green
100 Megabits/second	Green	Green
1000 Megabits/second	Amber	Green

⚠ **Caution:** The copier interface cable included with the EB-34 is a *crossover* Ethernet cable that connects to the *lower* (crossover) Ethernet port on the EB-34 connector panel. The network cable at the customer site is a *straight-through* Ethernet cable that connects to the *upper* (straight-through) Ethernet port on the EB-34 connector panel. The cables look similar, but are not interchangeable. Make sure that you connect the cables to the correct ports (see Figure 6 on page 34).

About Configure

You can access Configure from Command WorkStation or WebTools, and you can find information about using it the following ways:

- When you access Configure from an Internet browser, in WebTools, on the Configure tab, click the Help icon.

- When you access Configure from Command WorkStation, see *Command WorkStation Help*.

To access Configure from an Internet browser

1   Open an Internet browser and type the IP address of the EB-34.

2   In WebTools, on the Configure tab, click Launch Configure.

3   Log on with Administrator privileges.

To access Configure from Command WorkStation

1   In Command WorkStation, as Administrator, do one of the following:

  •   In the Server menu, click Configure.

  •   In Device Center, on the General or Users tabs, click Configure.

2   If the Fiery Setup dialog box displays, click Configure.

If you have not completed initial setup, you may want to click Fiery Setup Wizard instead. For more information, see *Configuration and Setup*.

If you use the Fiery Setup Wizard (from Command WorkStation or WebTools) and click Finish at the end of the wizard, the Fiery Setup dialog box does not display again in any location.

Starting, shutting down, restarting, and rebooting

The customer will generally leave the EB-34 on all the time. Remember that when the EB-34 is powered off, network access to the copier is interrupted. Power off the EB-34 when you need to service it and before you remove or attach any cables to it.

Keep in mind the following terms:

•   **Restart Fiery Service (on the copier touch panel)/Restart Server (on the control panel)**

Resets the EB-34 server software but does not reboot the entire system. Network access to the EB-34 is temporarily interrupted and all currently processing jobs are aborted and may be lost. If you choose this option, you may need to wait 1 minute or more for the server software to reset.

•   **Restart System (on the copier touch panel)/Reboot System (on the control panel)**

Shuts down all EB-34 activity properly and then reboots. Network access to the EB-34 is temporarily interrupted and all currently processing jobs are aborted and may be lost.

•   **Shut Down (on the copier touch panel) and Shut Down System (on the control panel)**

Shuts down all EB-34 server software and powers off the system. We recommend that you always select this option when you want to power off the system. Network access to the EB-34 is terminated and all currently processing jobs are aborted and may be lost.

Shutting down

⚠ **Caution:** Remember that when the EB-34 is powered off, network access to the copier is interrupted. Always obtain permission from the network administrator before you take the EB-34 off the network.

If you are cycling power, wait at least 10 seconds before powering back on.

If you are unable to shut down the EB-34 through the copier touch panel, power off by holding down the power button on the front of the EB-34 for up to eight seconds.

Note: Avoid using the reset button, as doing so may cause the system to operate unpredictably. Use the reset button only if the system is unresponsive to keyboard or mouse actions.

To start the EB-34

1 Make sure that the copier is turned on.

2 Make sure that the power cable is attached and that the power switch is in the ON position.
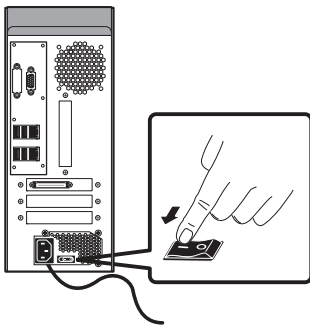
3 Press the power button.
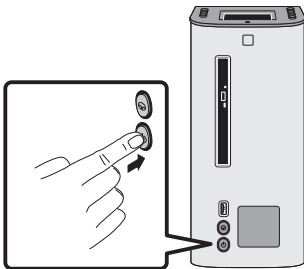
4 Check the Activity light on the control panel.

The power supply automatically senses the correct voltage. Allow startup to proceed without interruption. Do not press any buttons on the control panel while the system is starting.

To shut down, restart, or reboot from the control panel

Always verify that the EB-34 is not in use before you begin the following procedure.

1   Make sure that the EB-34 is not receiving, processing, or printing any files.

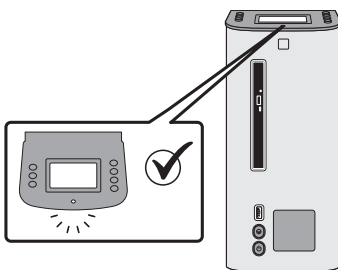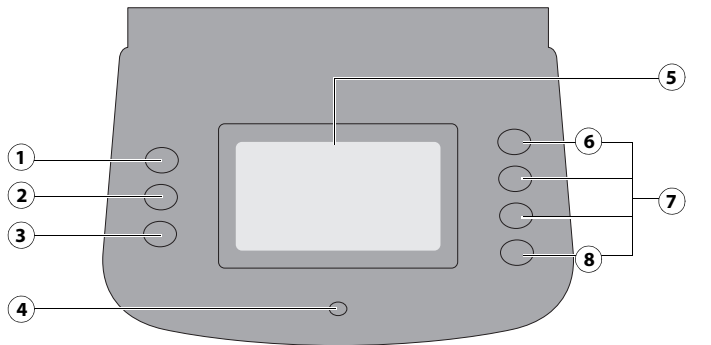   If the system has just finished processing, wait at least five seconds after the system reaches Idle before you proceed.

2   On the control panel, on the Idle screen, press the Menu button.

1	Up button	5	Display window
2	Menu button	6	First
3	Down button	7	Line selection buttons
4	Activity light	8	Fourth

3   On the Functions menu, select one of the following:

•   Restart Server

    On the next screen, select one of the following:

    •   Restart Server

        Restarts the EB-34 system software, but not the Windows operating system software on the EB-34.

    •   Reboot Server

        Completely restarts the EB-34, both the EB-34 system software and the Windows operating system software on the EB-34.

•   Shut Down System

    Completely shuts down the EB-34.

To shut down, restart, or reboot from the copier touch panel

1   At the copier touch panel, press the Home button.

2   Press the Fiery icon.

3 Make sure that the EB-34 is not receiving, processing, or printing any files.

If the system has just finished processing, wait at least five seconds after the system reaches Idle before you proceed.

4 Press the Fiery tab and then Restart Fiery.

5 Choose one of the following:

- **Restart Fiery Service**

   Restarts the EB-34 system software, but not the Windows operating system software on the EB-34.

- **Restart System**

   Completely restarts (reboots) the EB-34, both the EB-34 system software and the Windows operating system software on the EB-34.

- **Shut Down System**

   Completely shuts down the EB-34.

6 If you shut down the EB-34, do the following:

- Press the orange Operation button on the top of the copier, after shutting down the EB-34.

- Turn off the copier using the main power switch inside the front of the copier.

To shut down, restart, or reboot from the Fiery Advanced Controller Interface (FACI)

Note: FACI is available as an option with this product, but is not a standard feature.

1 Make sure that the EB-34 is not receiving, processing, or printing any files.

If the system has just finished processing, wait at least five seconds after the system reaches Idle before you proceed.

2 Close all applications except FieryBar.

3 Do one of the following:

- Click the Windows Start button and select Shut Down.

- Click the Windows Start button, click the arrow next to Shut Down, and select Restart.

- Right-click FieryBar and, in the shortcut menu, select Restart Fiery. Click OK.

Replacing Parts

Generally, the EB-34 requires no regular service or maintenance. Use the procedures in this chapter to inspect, remove, reseat, and replace major hardware components, as well as install system software.

Overview

This chapter includes information about servicing the following components:

- Boards and cables

- Motherboard components (DIMMs, CPU, battery, and jumpers)

- Fan

- Power supply

- Hard disk drive

- DVD drive

Replacement parts are available from your authorized service representative. The terms "replace" and "replacing" are used throughout this document to mean the reinstallation of existing components. Install new components only when necessary. If you determine that a component you have removed is not faulty, make sure to reinstall it.

Replacement parts and specifications are subject to change. When ordering replacement parts, refer to the current parts list maintained by your authorized service/support center. Install the correct parts as directed by your service/support center.

⚠️ **Caution:** When performing the service procedures described in this chapter, follow the precautions listed on page 9.

The tools required to service the EB-34 are listed on "Tools you will need" on page 9.

EB-34 diagrams

The following figures provide an overview of EB-34 components.

Figure 5:   EB-34 front panel
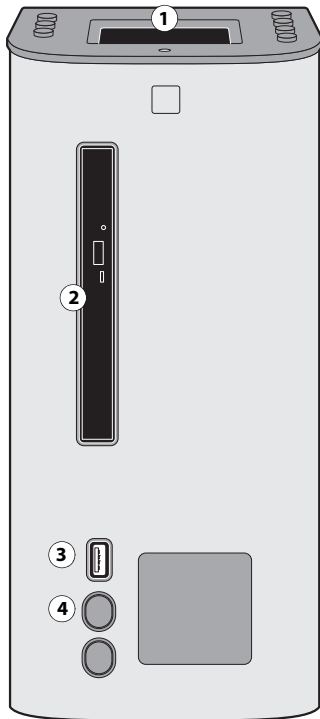
1	Control panel	4	Reset button
2	DVD drive	5	Power button
3	USB ports		

Figure 6: EB-34 connector panel
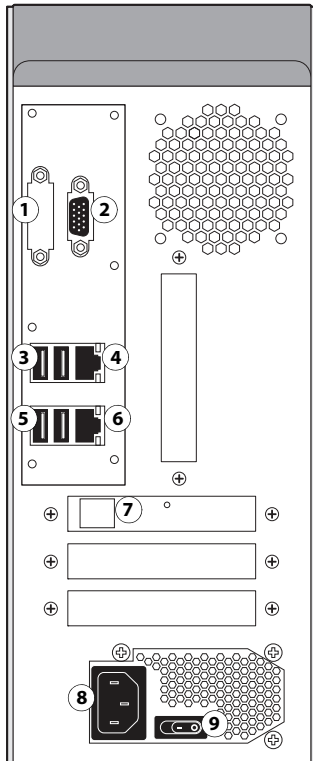
1	*DVI port (unused)*	*6*	*Copier interface port (crossover Ethernet port)*
2	*Monitor (VGA) port*	*7*	*Video interface port (not used)*
3	*USB ports (x2)*	*8*	*Power cable*
4	*Network port (straight-through Ethernet port)*	*9*	*Power switch*
5	*USB ports (x2)*		*I: Power ON* *O: Power OFF*

Figure 7:   Internal side view of the EB-34
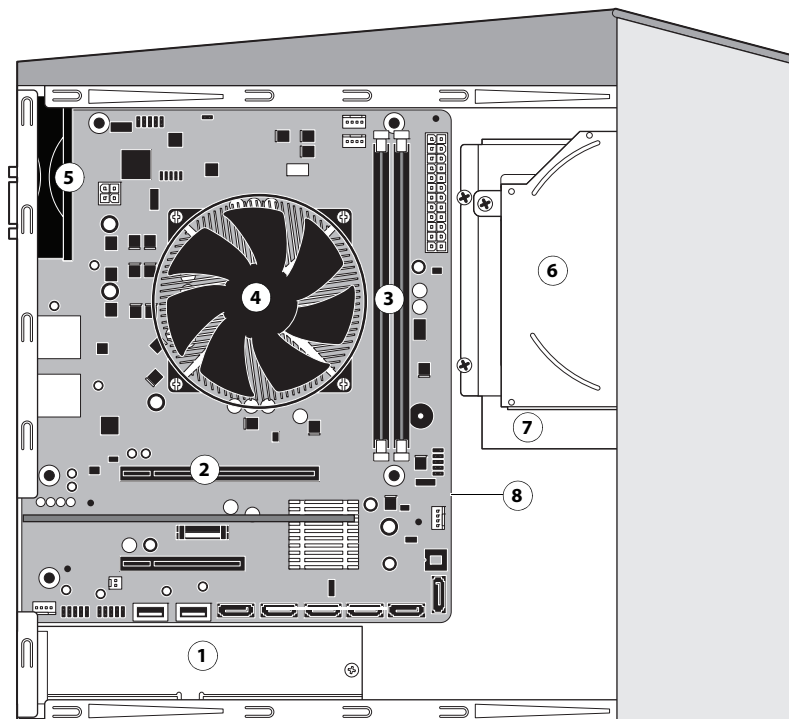
1	Power supply	5	Chassis fan
2	Copier interface board slot	6	DVD drive
3	DIMM slots	7	Hard disk drive
4	CPU cooling assembly	8	Motherboard

Note: Cables, UIB, or front panel USB port are not shown

Figure 8:   Exploded view of EB-34 components
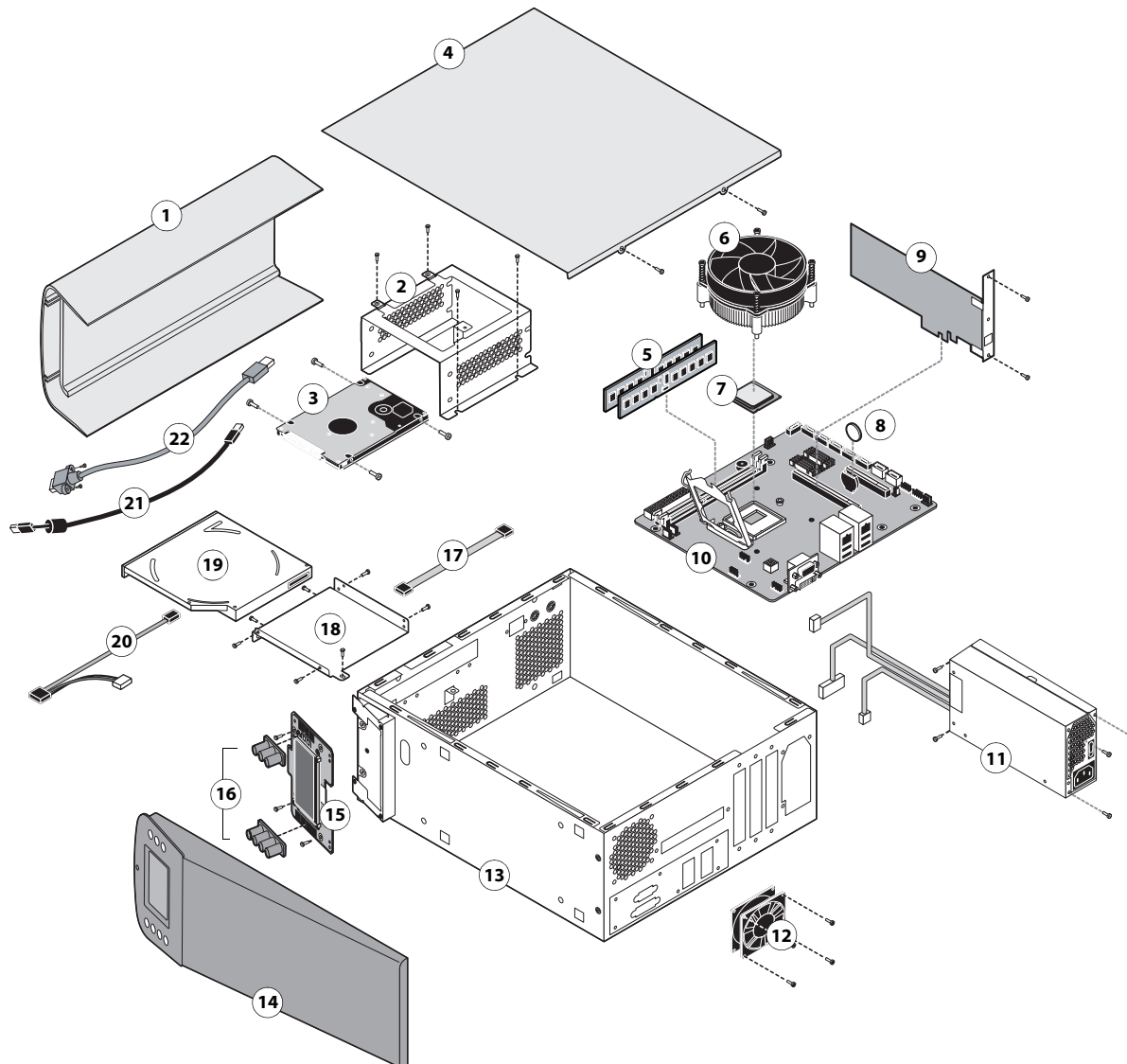
1	Front panel	9	Copier interface board
2	Hard disk drive bracket	'0	Motherboard
3	Hard disk drive	11	Power supply
4	Side panel	12	Chassis fan
5	DIMMs	13	Chassis
6	CPU cooling assembly	14	Top panel
7	CPU	15	UIB
8	Battery	16	UIB buttons

17	Hard disk drive SATA cable
18	DVD drive bracket
19	DVD drive
20	DVD drive power/data combo cable
21	UIB cable
22	Front panel USB port and cable

Note: Tie-wraps, cable clamps, dongle(s), or external cables not shown.

Figure 9: Data cable connections inside the EB-34
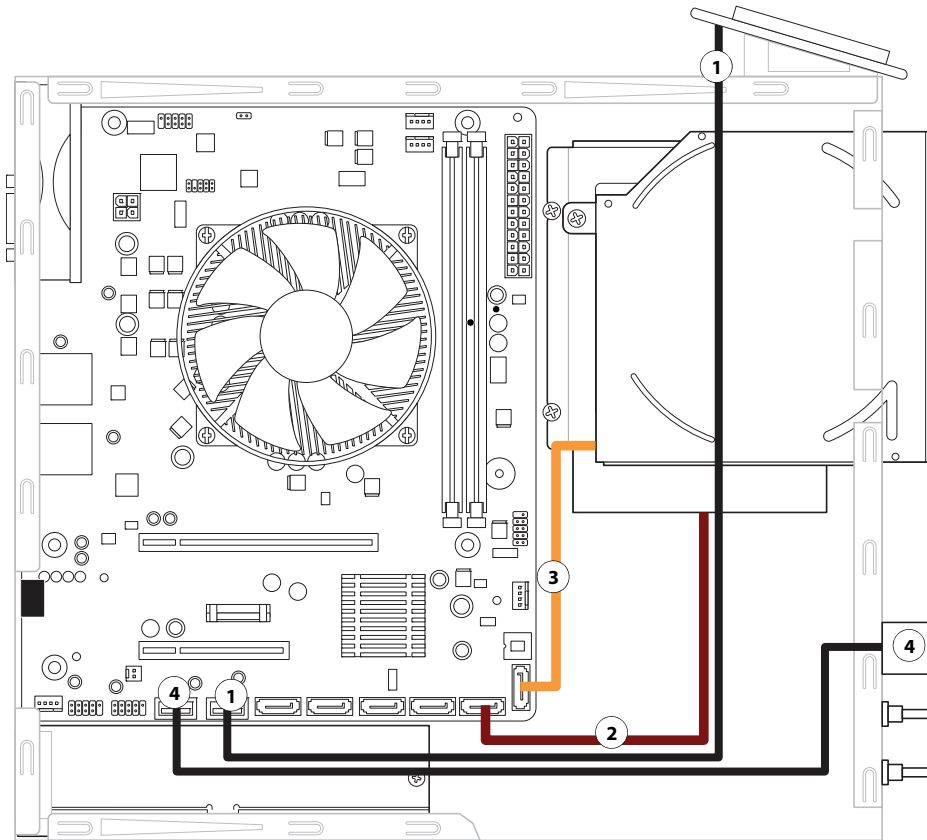
	Cable	From	To
1	UIB cable	User Interface Board	Motherboard connector USB A1
2	Hard disk drive data cable	Hard disk drive	Motherboard connector SATA1
3	DVD data combo cable	DVD drive	Motherboard connector SATA0
4	Front panel USB port cable	Front panel USB port	Motherboard connector USB A2

Figure 10: Power cable connections inside the EB-34
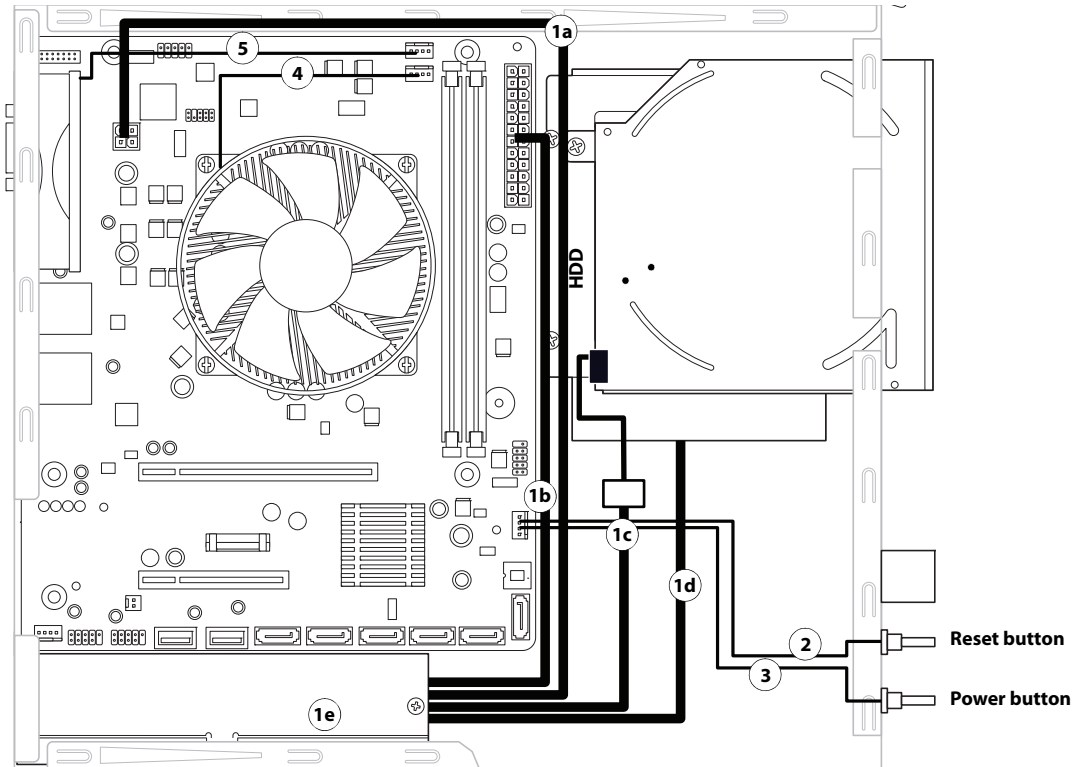
	Cable	From	To
1	Power supply cable	Power supply	a. 4-pin motherboard connector J24
			b. 20-pin motherboard connector ATX24P_1
			c. DVD drive power connector
			d. Hard disk drive power connector
2	Reset cable	Reset button	Motherboard connector J20, pins 5 (green cable) and 7 (white cable) (see Figure 18 on page 49)
3	Power cable	Power button	Motherboard connector J20, pins 6 (red cable) and 8 (white cable) (see Figure 18 on page 49)
4	CPU fan cable	CPU fan	Motherboard connector CPUFAN
5	Chassis fan cable	Chassis fan	Motherboard connector SYSFAN

Accessing internal components

This section describes how to shut down and open the EB-34. Always use the following procedures when opening the EB-34 for inspection or service.

Shutting down the system

If the EB-34 is powered on, you must shut it down before you access internal components. See "Starting, shutting down, restarting, and rebooting" on page 28.

Opening the EB-34

Before you open the EB-34, it is strongly recommended that you review "Precautions" on page 9 to avoid injury or damage to the EB-34.

To open the EB-34

1 Shut down the EB-34 (see page 38).

2 Remove all cables from the back of the EB-34.

3 Remove all panels necessary to access the component that you want to service.

For guidelines on which panels to remove, see the service procedure for the component that you want to service.

Note: When removing multiple panels from the EB-34, use the following order:

- Side panel (see page 39)

- Top panel (see page 40)

- Front panel (see page 41)

Note: When replacing panels, reverse the order.

4 Place the EB-34 on a flat surface. Attach an ESD wrist strap before handling internal parts (see "Precautions" on page 9).

5 Carefully position the EB-34 so that it is resting on its side and the internal components are facing up.

Place removed components on a grounded, antistatic surface.
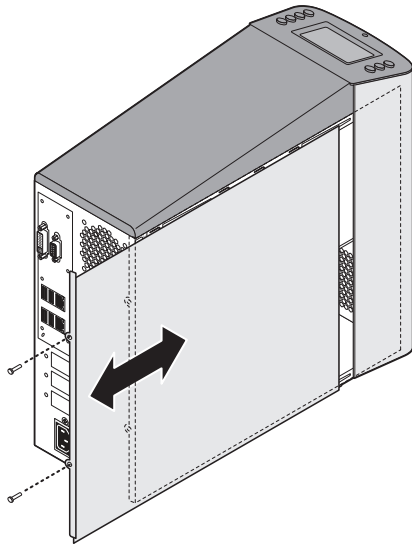
To remove and replace the side panel

1 Shut down the EB-34 (see page 38).

2 Remove the 2 screws that attach the side panel to the back of the chassis.

Set aside the screws so that you can replace them later.

3 Slide the side panel toward the connector panel.

It may help to use the palm of your hand to press down on the side panel as you slide it.

4 Lift the side panel off the chassis.

Figure 11: Removing/replacing the side panel

Note: Before you replace the side panel, make sure the top and front panels are installed.

5 To replace the side panel, fit the front edge of the panel under the front panel, and then slide the side panel in place. Replace the screws that you removed earlier.

Make sure not to damage cables as you replace the panel. Fold all cables inside the chassis before closing the panel against the chassis.

To remove and replace the top panel

Note: To remove the top panel, you must first remove the side panel.

1 Shut down the EB-34 (see).

2 From inside the chassis, bend the four tabs that secure the top panel to the chassis until they disengage the slots in the chassis, and then lift the top panel away from the chassis.

It may help to partially loosen the tabs one at a time as you disengage them from the chassis.

Figure 12: Removing/replacing the top panel

1   Top panel

2   Tab and slot (1 of 4)

3 To replace the top panel, align the tabs on the underside of the panel with the slots on the top of the chassis.

4 Press the top panel against the chassis and snap it into place.

Snap the tabs into place one at a time until all four tabs have engaged the chassis.

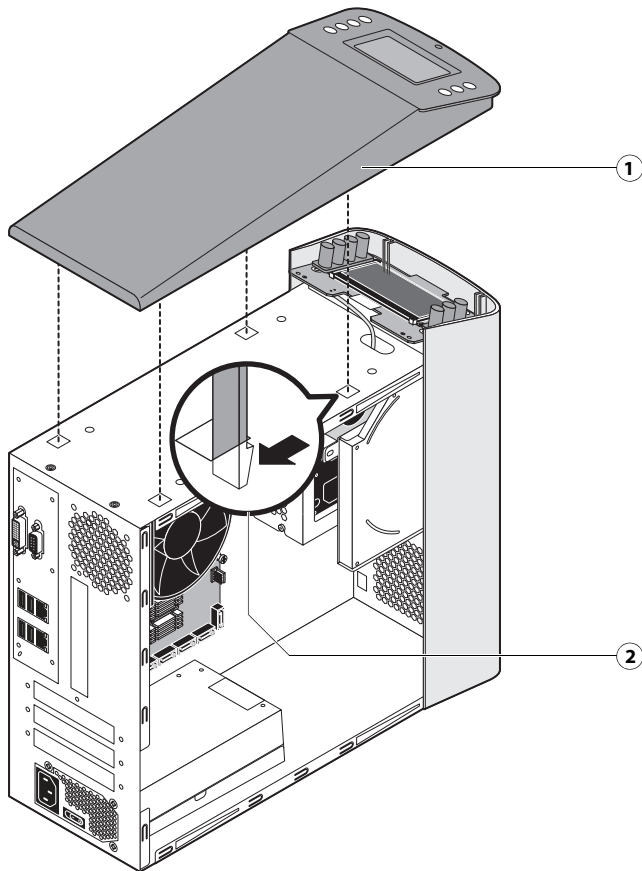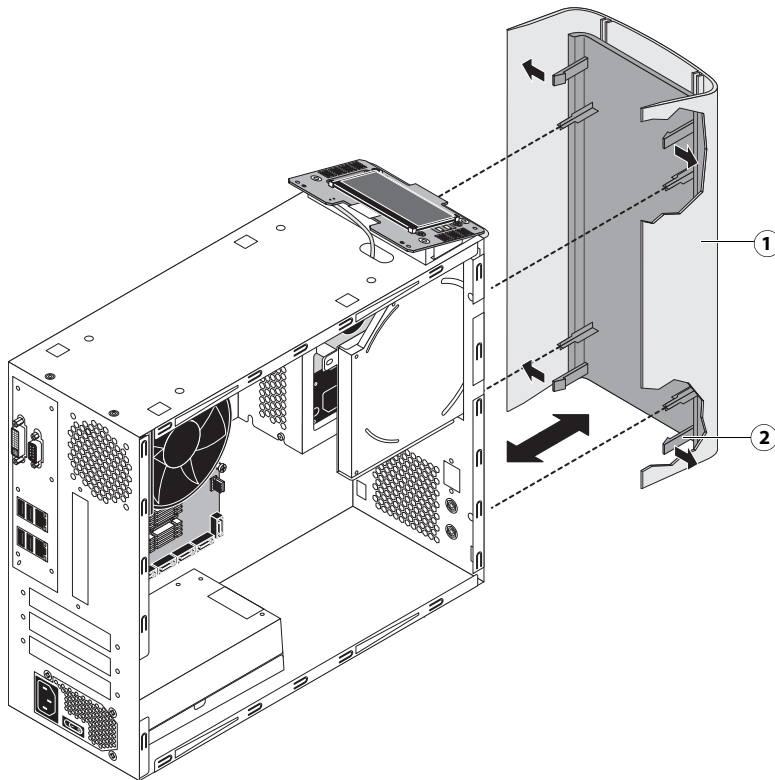**To remove and replace the front panel**

Note: To remove the front panel, you must first remove the side and top panels.

1 Shut down the EB-34 (see page 38).

2 From inside the chassis, bend outward on the four tabs that secure the front panel to the chassis, and then lift the panel away from the chassis.

It may help to partially loosen the tabs one at a time as you disengage them from the chassis.

Figure 13: Removing/replacing the front panel

1   *Front panel*

2   *Tab (1 of 4)*

3 To replace the front panel, align the openings in the panel with the DVD drive, power and reset buttons, and USB port.

4 Press the panel against the chassis and snap it into place.

Snap the tabs into place one at a time until all four tabs have engaged the chassis.

Removing and replacing EB-34 components

Before replacing costly components, be sure to verify the connections between the copier and the EB-34. Also, verify the connections of each replaceable EB-34 component. For more information about troubleshooting, see "Troubleshooting" on page 93.

The following sections describe how to remove and install replaceable parts on the EB-34:

• Copier interface board

• User Interface Board

- Motherboard

- Battery

- DIMM(s)

- CPU and CPU cooling assembly

- Chassis fan

- Power supply

- Hard disk drive

- DVD drive

For information about replacing other components, see the copier manufacturer's documentation.

⚠️ **Caution:** Be sure to use an ESD grounding wrist strap and follow standard ESD (electrostatic discharge) precautions while performing these procedures. For details, see "Precautions" on page 9.

Copier interface board

The copier interface board processes the image data and sends it to the copier through a cable connected from the EB-34 to the copier.

Figure 14: Copier interface board
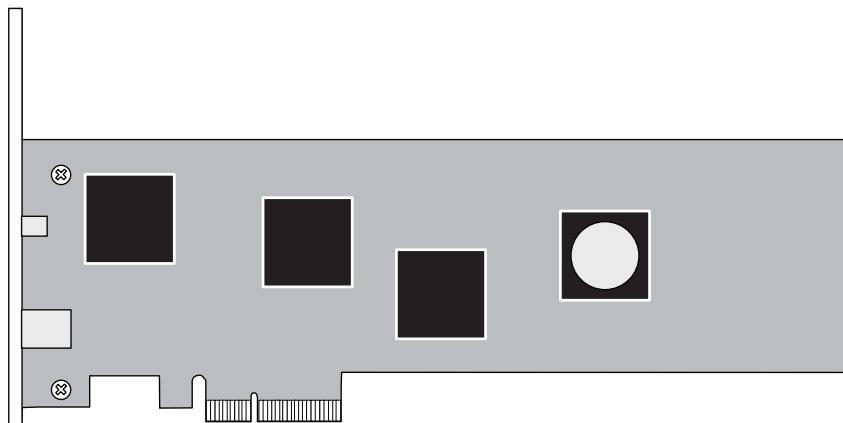
To remove the copier interface board

1   Shut down and open the EB-34 (see pages 38).

    To remove the copier interface board, you must remove the side panel.

2   Remove the two mounting bracket screws that attach the copier interface board to the chassis.

3   Remove the copier interface board from the motherboard.

    Grasp the board at the front and back edges and gently pull the board straight out of its motherboard connector.

4   Place the copier interface board in an antistatic bag.

To replace the copier interface board

1   Seat the copier interface board in connector PCI-E on the motherboard.

The board connector is keyed to fit in the motherboard only when properly oriented.

2   Secure the copier interface board to the chassis with the two mounting bracket screws that you removed earlier.

3   Reassemble the EB-34 and verify its functionality (see).

User Interface Board

The User Interface Board (UIB) provides the interface between the EB-34 and the user. The front of the UIB contains circuitry for the following:

- Activity lights (amber, green, and red LEDs)

- Display window (LCD)

- Four line selection buttons

- Up and Down buttons

- Menu button

- Jewel lights

The UIB cable is routed from a connector on the User Interface Board to a USB connector on the motherboard (see Figure 19 on page 49).

Figure 15: Diagram of the User Interface Board (front and back)
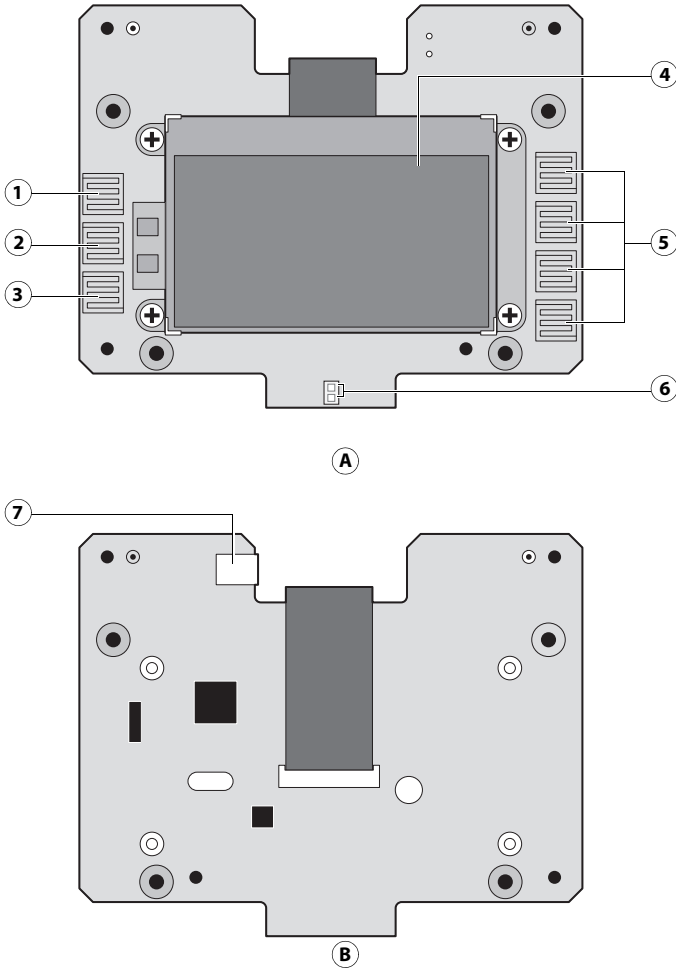
A	Front			B	Back
1	Up button pad	4	Display window	7	UIB cable connector
2	Menu button pad	5	Line selection button pads		
3	Down button pad	6	Activity lights (LEDs)		

To remove the User Interface Board

1 Shut down and open the EB-34 (see pages 38).

To access the User Interface Board, you must remove the side, top, and front panels.

2 Detach the UIB cable from the connector on the top of the UIB.

Detach the UIB cable by grasping the cable connector. Avoid pulling on the cable.

3 Remove the four screws that secure the UIB to the mount on the top panel.

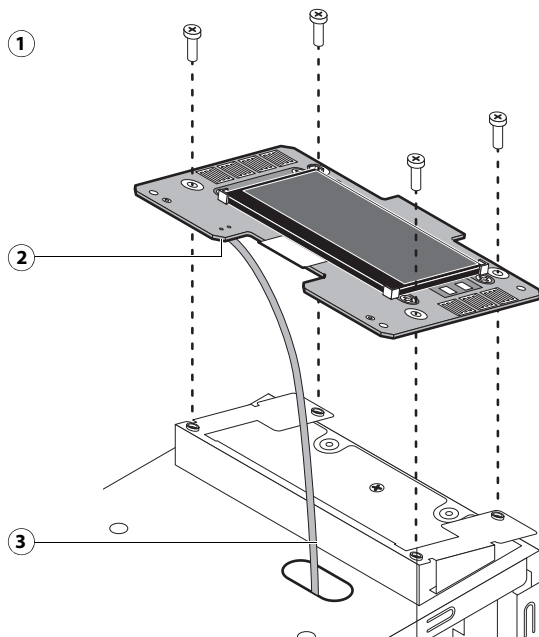**4** Lift the UIB off the mount.

Figure 16: Removing/replacing the User Interface Board

1　Screw (1 of 4)

2　UIB cable connector

3　UIB cable

5 Place the UIB in an antistatic bag.

6 Attach the UIB cable to the connector on the top of the UIB (see).

7 Secure the UIB to the mount on the top panel.

Replace the four screws that secure the UIB to the mount on the top panel. Be sure to use the same screws that you removed earlier.

8 If you are replacing the UIB cable with a new cable, attach the new UIB cable to the connector on the top of the UIB, and then route the cable through the hole in the top of chassis and connect it to a USB port on the motherboard.

9 Replace the top panel (see).

10 Reassemble the EB-34 and verify its functionality (see).

Motherboard

This section describes the battery and default jumper settings on the EB-34 motherboard, as well as procedures for removing and replacing the motherboard.

Note: Do not move or change any of the default jumper configurations on the motherboard.

Battery

The battery is located on the motherboard. Spare batteries are not provided by your authorized service/support center. If you must replace the battery, use a 3V manganese dioxide lithium coin cell battery (Panasonic CR2032 or equivalent).

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

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

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

ADVARSEL!: Lithiumbatteri - Eksplosionsfare ved fejlagtig håndtering Udskiftning må kun ske med bat-teri af samme fabrikat og type. Levér det brugte batteri tilbage til leverandøren.

VAROITUS: Paristo voi räjähtää, los se on virheellisesti asennettu. Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin. Hävitä Käytetty paristo valmistajan ohjeiden mukaisesti.

ADVARSEL: Eksplosjonsfare ved feilaktig skifte av batteri. Benytt samme batteritype eller en tilsvarende type anbefalt av apparatfabrikanten. Brukte batterier kasseres i henhold til fabrikantens instruksjoner.

VARNING: Explosionsfara vid felaktigt batteribyte. Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparat-tillverkaren. Kassera använt batteri enligt fabrikantens instruktion.

To replace the battery

1 Access and open the EB-34 as described on .

2 Locate the battery on the motherboard (see).

3 Carefully push the clip away from the battery until the socket ejects the battery.

Figure 17: Motherboard battery
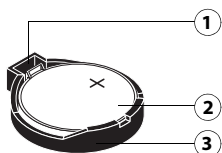
1 Clip

2 Battery

3 Socket

4 Slide the battery out of its socket.

5 To insert a new battery, slide it into the socket so that the positive (+) side of the battery faces up.

6 Press the battery down into the socket until it snaps into place.

Make sure that the battery is securely installed in the socket.

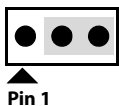**7** Reassemble the EB-34 and verify functionality (see page 72).

8 Configure the date and time in Setup (see page 48).

To configure the system date and time

1 On a client computer that is connected to the same network as the EB-34, open a Web browser window.

2 In the URL field of the browser, type the IP address or DNS name of the EB-34, and press Enter.

The IP address is listed under the Network Setup section of the EB-34 Configuration page.

3 On the WebTools home page, click the Configure tab.

4 Click Launch Configure, type the Administrator password for the EB-34, and then click OK.

The default Administrator password is Fiery.1. However, the network administrator may have configured a new password for the EB-34.

5 Expand the Server item in the left pane, and click Regional Settings.

6 Click the Set button next to Date and Time.

7 In the dialog box that appears, specify the current date and time, and click OK.

8 In the Configure window, click Apply.

9 Click Reboot.

Motherboard jumpers

⚠ **Important:** Jumper configuration should not be changed.

Jumper	Description
J4 ● ● ● ▲ **Pin 1**	J4 is the Clear CMOS and Password jumper. Default configuration: jumper cap installed on pins 2 and 3. **Note:** Because the jumper cap is very small, it is not necessary—and could introduce an error—to remove the jumper cap in order to clear the CMOS settings.

Power and reset buttons

Align the triangle on each cable connector with the correct pin as shown in Figure 18.

• Power button: J20, pins 6 (red cable) and 8 (white cable)

- Reset button: J20, pins 5 (green cable) and 7 (white cable)

Figure 18: Cable connections for power button
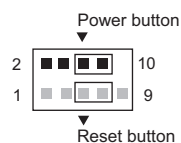
Figure 19: Diagram of the EB-34 motherboard
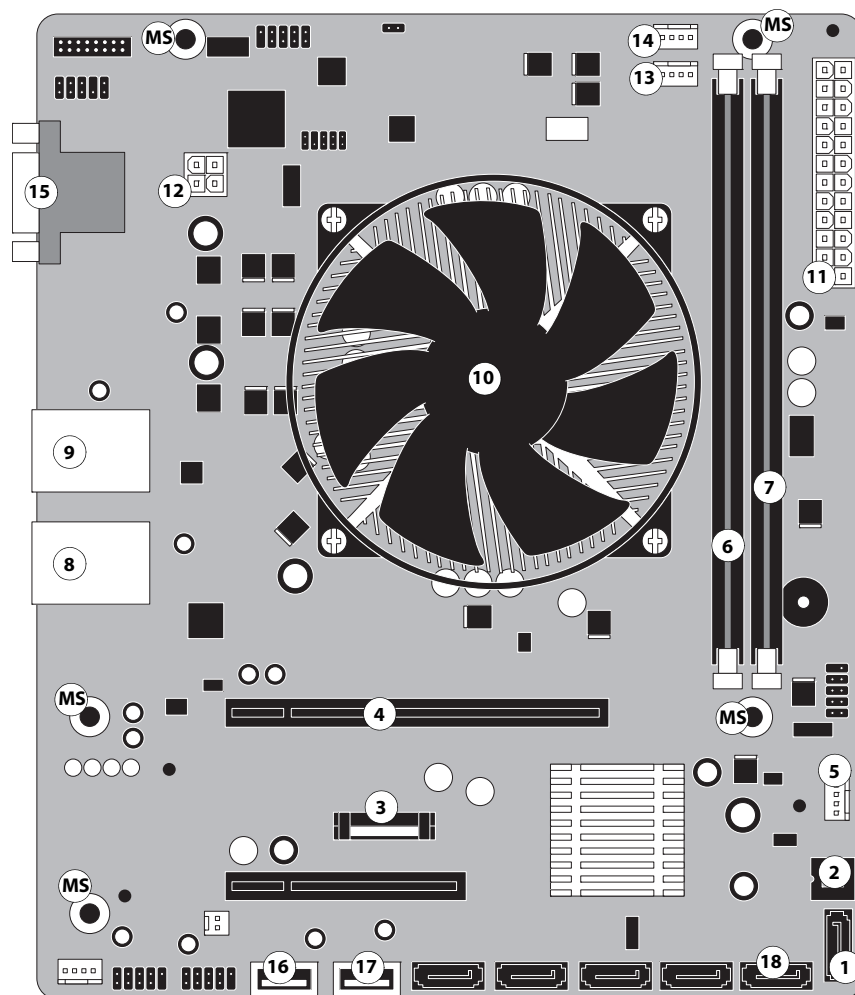
1	DVD drive connector (SATA0)	8	Scan crossover connector (10/100BaseT), USB connectors (x2)	13	CPU fan connector (CPUFAN J17)
2	Security chip (J12)			14	Chassis fan connector (SYSFAN J23)
3	Battery (BT1)	9	Network connector (10/100/1000BaseT), USB connectors (x2)	15	DVI+VGA port
4	Copier interface board (PCIE x16)			16	For front panel USB port (USB A2)
5	Power and reset button pins (J20)	10	CPU and cooling assembly	17	For UIB cable (USB A1)
6	DIMM (DIMM A1)	11	24-pin power connector (ATX24P_1)	18	For hard disk drive data cable (SATA1)
7	DIMM (DIMM A0)	12	4-pin power connector (J24)	MS	Mounting screws

Note: Any connectors not listed above are not used.

Removing the motherboard

⚠️ **Caution:** Follow standard ESD precautions while handling the motherboard and all components. For details, see "Precautions" on page 9.

To remove motherboard components from the motherboard

1 Access and open the EB-34, as described on page 39.

2 Remove the following cables attached to the motherboard:

- Reset button cable

- Power button cable

- Front panel USB port cable

- UIB cable

- DVD data cable

- Hard disk drive data cable

- Motherboard power cable

- CPU power cable

- Chassis fan power cable

For the location of each connector on the motherboard, see Figure 19 on page 49.

3 Remove the copier interface board (see page 43).

To remove the motherboard

⚠️ **Caution:** Follow ESD and other safety precautions when handling the motherboard. Do not touch the contacts and avoid using excessive force. Place the motherboard on a grounded, antistatic surface.

1 Remove the power supply (see page 64).

2 Remove the five mounting screws that secure the motherboard to the base of the chassis (see Figure 19 on page 49 for the screw locations on the motherboard).

   To minimize tension on the motherboard, loosen all the screws partially before removing any one screw completely.

3 Remove the two screws from the coverplate on the unused DVI port on the connector panel (see page 34).

4 Lift the edge of the motherboard opposite the connector panel to release the motherboard from the chassis. Then gently slide the motherboard out of the chassis.

Make sure that the connectors on the motherboard clear the cutouts in the chassis as you remove the board. Avoid handling contacts or using excessive force.

Figure 20: Removing the motherboard from the chassis
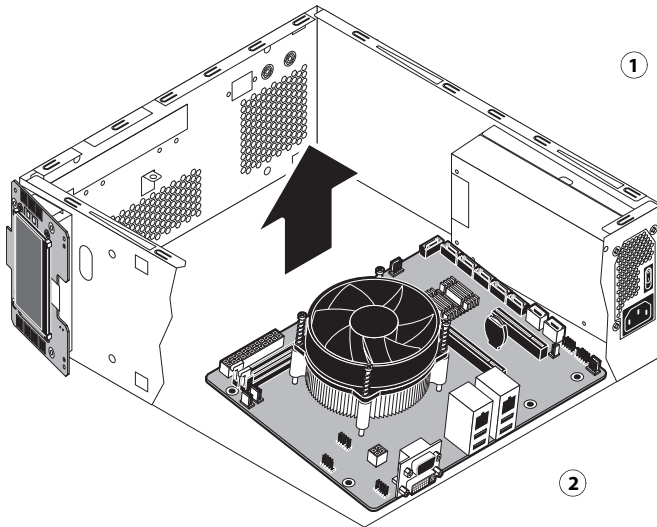
1   Lift edge of motherboard and remove from chassis.

2   Make sure that the motherboard connectors clear the cutouts in the chassis (cutouts not shown).

5 If you are replacing the motherboard with a new motherboard, remove the following from the old motherboard:

- DIMM(s) (see page 56)

- CPU (see page 58)

Replacing the motherboard

Use the following procedure to install the motherboard in the EB-34 chassis.

⚠ **Important:** Follow the procedures in this section to replace the motherboard. Failure to follow the instructions in this section may corrupt the system (not easily repaired in the field) or result in an incomplete installation.

Troubleshooting cautions

- Before deciding to install a new motherboard, consult "Troubleshooting" on page 93.

- Also review "Motherboard cautions" on page 52.

- Inspect all cables and internal components (see page 94). If these inspections do not solve the problem, locate symptoms in the troubleshooting table beginning on page 102, and perform the suggested actions in the order listed.

- **If troubleshooting strategies (checking cables and connections, reinstalling system software, and so forth) do not solve the problem and you suspect either the HDD or the motherboard is faulty, always troubleshoot in the following order:**

> ⚠ **Important:** Troubleshooting in the wrong order will cause the system to malfunction. In general, it is highly unlikely that both a HDD and the motherboard are defective; therefore, avoid replacing both to solve one problem.

  - **First, replace the HDD and install system software.**

    Always replace a faulty HDD with a new HDD. Transferring a HDD from one EB-34 to another is incorrect and strongly discouraged.

  - **If the problem persists, reinstall the original HDD in the system, and then replace the motherboard.**

Motherboard cautions

If you have exhausted all other troubleshooting remedies and determined that you need to install a new motherboard, be sure to observe the following cautions:

> ⚠ **Caution: Follow ESD and other safety precautions when handling the motherboard. If you need to remove the motherboard during service, place it on a grounded, anti-static surface.**

- **Transfer the DIMM, CPU, and CPU cooling assembly from the old motherboard onto the new motherboard.**

> ⚠ **Caution:** *Do not* **transfer the BIOS chip from the old motherboard onto the new motherboard.**

  BIOS chips are not interchangeable.

> ⚠ **Caution:** *Do not* **replace the HDD and the motherboard at the same time.**

  Replacing both in the wrong order, without updating the system, will cause the system to malfunction. For the correct order, see "Troubleshooting cautions" on page 51.

- *Do not* **reinstall system software at this time.**

  Reinstalling system software is not necessary when installing a new motherboard and can result in an error if done before transferring options to the new motherboard (described on page 56.)

To replace the motherboard

1 If you are installing a new motherboard, do the following:

- Install the DIMM(s) from the old motherboard onto the new motherboard (see page 56).

- Install the CPU from the old motherboard onto the new motherboard (see page 58).

When installing these components, make sure that the motherboard is placed on an antistatic surface with some padding.

Do not transfer the BIOS chip from the old motherboard onto the new motherboard. Doing so can cause the system to shut down due to incompatibility issues.

2 Angle the motherboard so that the connectors on the motherboard fit into the cutouts in the connector panel of the chassis, and gently slide the motherboard into the chassis (see Figure 20 on page 51).

> ⚠ **Important:** Be sure to fit the motherboard Ethernet connectors under the metal grounding tabs in the cutouts. Failure to position the grounding tabs correctly may result in permanent damage to the motherboard and power supply.

3 Align the mounting holes on the motherboard with the screw holes located in the base of the chassis (see Figure 19 on page 49 for the mounting hole locations).

4 Insert the five mounting screws that attach the motherboard to the chassis.

Partially tighten each screw before completely tightening any one screw. Do not overtighten the screws; doing so could damage traces on the motherboard.

5 Replace the coverplate on the unused DVI port with the two screws you removed earlier (see page 34).

6 Replace the power supply (see page 63).

Now you are ready to replace the remaining motherboard components to complete the motherboard installation.

To replace motherboard components

1 Replace the following cables to the motherboard (for the location of each connector on the motherboard, see Figure 9 on page 37 and Figure 10 on page 38):

- Reset button cable

- Power button cable

- Front panel USB port cable

- UIB cable

- DVD data cable

- Hard disk drive data cable

- Motherboard power cable

- CPU power cable

- Chassis fan power cable

2 Reinstall the copier interface board (see page 43).

3 Reassemble the EB-34 (see page 72).

Verifying new motherboard installation and transferring options

After you install a new motherboard and reassemble the system, do the following:

- Verify all functionality by using the motherboard replacement dongle to enter Service Mode. (Service Mode is not indicated on the monitor or LCD, but is entered once you power on with a new motherboard installed and the motherboard replacement dongle installed on a USB port.)

    Service Mode is a temporary state that allows you to make sure that the motherboard solves the problem that you are troubleshooting. Service Mode is exited automatically when you expend the motherboard replacement dongle to transfer options to the new motherboard (see "Entering Service Mode" on page 55).

    Note: Features of Fiery Impose-Compose are not available while in Service Mode.

- If the new motherboard solves the problem that you are troubleshooting, use the motherboard replacement dongle to transfer options to the new motherboard.

    If you determine while in Service Mode that the problem you are troubleshooting was not fixed by installing a new motherboard, do not expend the motherboard replacement dongle to transfer options to the new motherboard (described below), do not install system software, and do not replace the hard disk drive. Reinstall the old motherboard and return the new motherboard and the unused motherboard replacement dongle to inventory. You may then perform additional service and troubleshooting procedures.

    Transferring options (for example, FACI Enablement) expends the motherboard replacement dongle. For details, see "Entering Service Mode" on page 55.

⚠ **Important:** *Do not* transfer options to the new motherboard prematurely. Do so only after you verify the new motherboard in Service Mode. Remember that once options are transferred to the new motherboard using the motherboard replacement dongle, the motherboard is customized and cannot be used in another system.

Entering Service Mode

Use the following procedure to verify that the system functions properly after installing a new motherboard.

To enter Service Mode and verify the system

Note: This procedure assumes that the EB-34 is powered off, no media is in the DVD drive, you have installed a new motherboard, and that you have reassembled the EB-34 and attached external cables.

1 Make sure the EB-34 is connected to the copier.

2 Locate the motherboard replacement dongle provided with the new motherboard and connect it to a USB port.

3 Remove all USB devices (except for the keyboard and mouse) that may be currently connected to any other USB port.

    Reconnect other dongles and USB devices only after you verify that the EB-34 starts up successfully in Service Mode.

4 Power on the EB-34 and allow it to boot without interruption.

    At this point the EB-34 is in Service Mode, so you can verify that the new motherboard solves the problem that you are trying to troubleshoot. Service Mode is not indicated on the monitor or on the EB-34 control panel.

5 Print the EB-34 Test Page from the copier touch panel (see page 27).

6 Ask the network administrator to connect the EB-34 to the network and download a print job over the network (see *Configuration and Setup*, which is part of the user documentation set).

If the problem that you are troubleshooting persists, or if you are unable to perform steps 4 through step 6 above while in Service Mode, you may conclude that the old motherboard was not the source of the problem and does not need to be replaced. If so, do not transfer options to the new motherboard (described on page 56), do not install system software, and do not replace the hard disk drive. Reinstall the old motherboard and return the new motherboard with the unexpended motherboard replacement dongle to inventory. For more information about troubleshooting system problems, see "Troubleshooting" on page 93.

If installing a new motherboard solved the problem that you are troubleshooting and you are able to print a Test Page and send a print job over the network, you are ready to transfer options to the new motherboard. Service Mode ends automatically when you transfer options to the new motherboard.

Transferring options to the new motherboard

After you verify that the new motherboard solves the problem that you are troubleshooting, you must use the motherboard replacement dongle to transfer options to the new motherboard.

To transfer options and BIOS information to the new motherboard

Note: This procedure, which takes approximately 15-20 minutes, assumes that the EB-34 is fully assembled with the new motherboard, and verified in Service Mode (see).

1 Verify that all power is turned off on the EB-34.

2 Insert the motherboard replacement dongle into a USB port.

3 Turn on the EB-34.

Wait until the FieryBar reaches Idle.

4 On the EB-34 control panel, select MB Replacement.

The control panel displays "Reading dongle...", then displays the number of licenses left to apply to the transfer.

5 Select Yes to confirm the license transfer.

The control panel displays "Applying" to indicate the transfer of options and the backup BIOS from the hard disk drive to the BIOS chip on the replacement motherboard.

Note: If you select "No" the process ends and you return to the Functions menu.

6 Reboot the EB-34.

7 Remove the motherboard replacement dongle after the EB-34 reaches Idle on the copier touch panel.

8 Reinstall system software.

Replacing parts on the motherboard

This section describes how to remove and replace the DIMM(s), CPU, and battery on the motherboard. Before you perform any of these procedures, shut down and open the EB-34 (see).

DIMM(s)

Each DIMM (dual in-line memory module) is held in place by a lever at each end of the DIMM socket. The motherboard contains two DIMM sockets (DIMM A0 and DIMM A1). The standard configuration includes two 2GB DIMMs.

If you are installing DIMMs of different capacities, be sure to install the lower-capacity DIMM in socket DIMM A1.
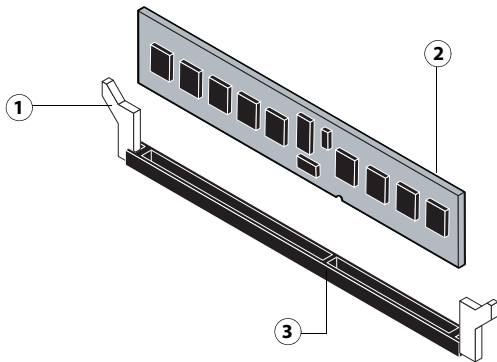
To remove or replace a DIMM

1 Shut down and open the EB-34 (see pages 38).

To remove a DIMM, you must remove the side panel.

2 To release a DIMM, push outward on the levers on each side of the DIMM.

Figure 21: Removing or replacing a DIMM

1   Lever

2   DIMM

3   Socket notch

3 Lift the DIMM straight out of the socket.

4 To replace a DIMM, position the DIMM in the socket and press the DIMM straight down into the socket so the levers lock the DIMM into place.

Note: DIMMs fit in the socket only one way. The notch on the bottom of each DIMM should line up with the notch in the socket.

Make sure that the levers close securely around the ends of the DIMM and each DIMM is fully seated in its socket.

5 Reassemble the EB-34 and verify functionality (see page 72).

6 If you installed a new DIMM, make sure to reset the date and time in Setup. For more information, see *Configure Help*.

CPU and CPU cooling assembly

The CPU is installed in a socket on the motherboard. Before removing the CPU from its socket, remove the motherboard from the chassis (see page 50), disconnect the CPU fan cable from the motherboard, and remove the cooling assembly from the CPU socket (see page 58). The CPU cooling assembly consists of a fan and a heatsink.

Note: Do not remove the CPU fan from the heatsink.

Figure 22: CPU cooling assembly
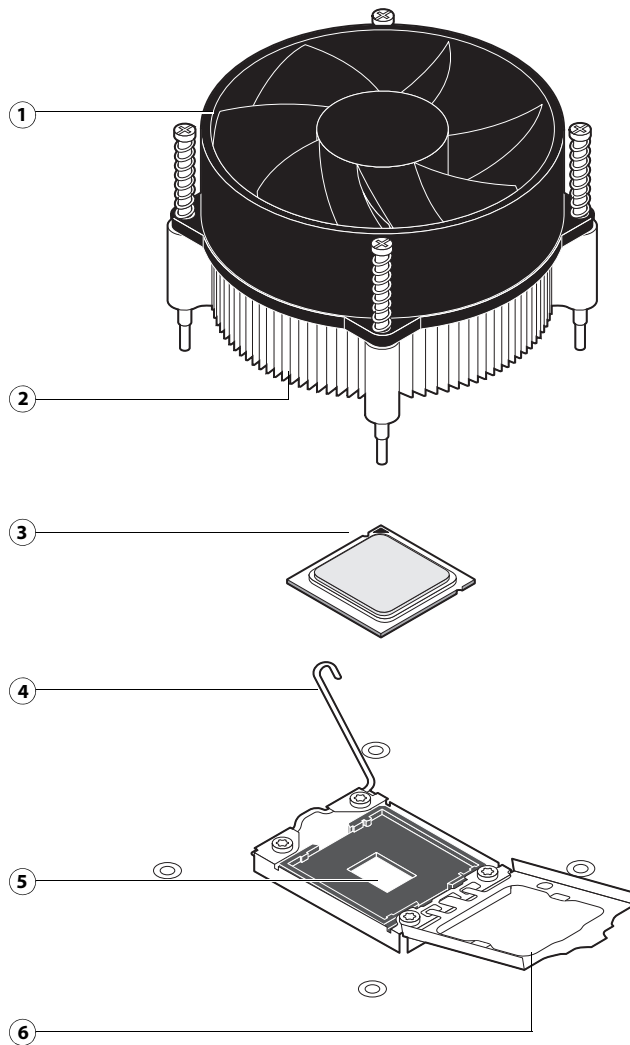
1	CPU fan	4	Socket lever
2	Heatsink	5	CPU socket on motherboard
3	CPU	6	Load plate

To remove a CPU

1 Access and open the EB-34, as described on page 39.

2 Remove the motherboard components (see page 50).

3 Remove the power supply (see).

4 Remove the motherboard from the chassis (see).

Place the motherboard on a flat, antistatic surface.

5 Remove the CPU fan cable from motherboard connector CPUFAN.
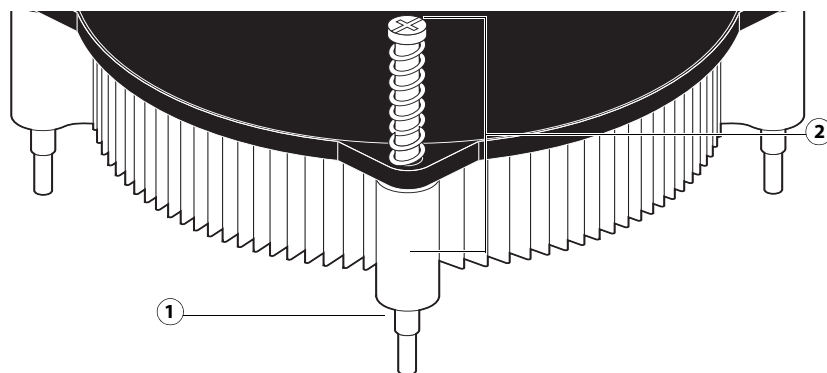
6 Remove the CPU cooling assembly:

⚠️ **Caution:** Be aware that both the cooling assembly and the CPU may be very hot. You may need to allow the components to cool before you attempt to remove them.

- Rotate each fastener one quarter-turn counterclockwise to the position shown below.

- Pull straight up on each fastener cap until the retaining tang at the tip of the peg is released from the motherboard.

⚠️ **Important:** You may need to use moderate force to pull the pegs and pins out of the motherboard. Be careful not to damage nearby components on the motherboard or the CPU cooling assembly when pulling up on the fasteners.

Figure 23: Removing the CPU cooling assembly

1   *Screw (1 of 4)*

2   *Loosen each screw to this position.*

**7** Lift the cooling assembly off the CPU socket and set it aside.

⚠️ **Important:** Use caution when lifting the cooling assembly off the CPU, because the thermal compound at the base of the heatsink may damage the CPU if the heatsink is removed too forcefully.

8 Unlock the CPU socket lever and raise it into the open position (flex the lever away from the retention post, and then raise it).

9 Open the load plate (see Figure 24).

Figure 24: Removing/replacing the CPU
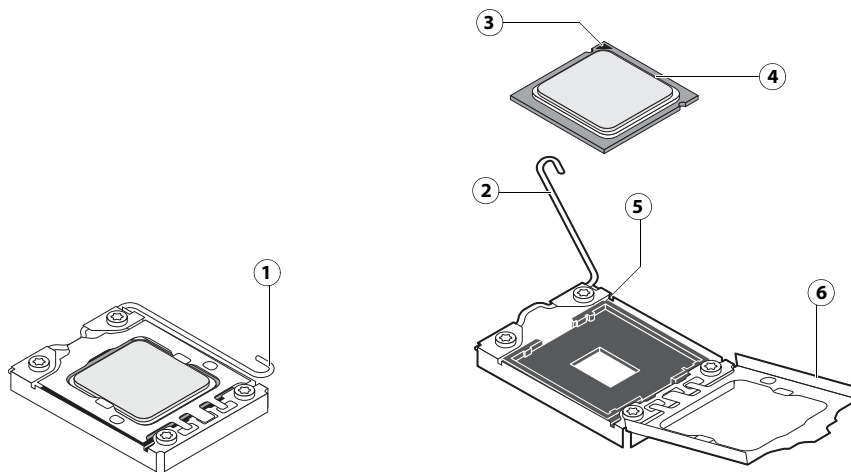
1	*Socket lever in the locked position*	*4*	*CPU*
2	*Socket lever in the open position*	*5*	*Flat corner of socket border*
3	*Yellow triangle*	*6*	*Load plate open*

10 Grasp the CPU by its edges, lift it out of the socket, and then place the CPU in a safe place.

Note: If you remove the CPU from the motherboard to install it on a new motherboard, unpack the new motherboard and remove the protective plastic cover from the CPU socket. Transfer the protective cover to the CPU socket of the old motherboard to protect the circuitry.

To replace a CPU

1 Do one of the following:

- If you are installing a new CPU cooling assembly on an existing CPU, clean the contact surface of the CPU to remove any old thermal compound residue. A thermal pad is preinstalled on the underside of the new CPU cooling assembly.

  ⚠ **Important:** Be sure to remove all thermal compound residue from the surface of the CPU. It may help to scrape all the residue off the surface using the flat edge of a non-conductive tool. Then use a lint-free cloth moistened with alcohol to clean the surface.

- If you are installing the existing CPU and CPU cooling assembly on a new motherboard, clean the contact surfaces of the CPU and cooling assembly as described above. Then apply fresh thermal compound to the contact surface of the CPU using the applicator provided with the new motherboard.

2 Prepare the CPU socket by ensuring that:

- The socket lever is in the open position.

- The load plate is open.

3 Place the CPU in the socket (see Figure 24 on page 60).

The CPU and the socket are keyed to ensure correct installation. The notches on the edges of the CPU correspond with the two small posts inside the socket. Align the yellow triangle on the CPU with the yellow arrow stenciled on the motherboard next to the socket. Do not force the CPU.

Figure 25: Locating the flat corner of the CPU socket
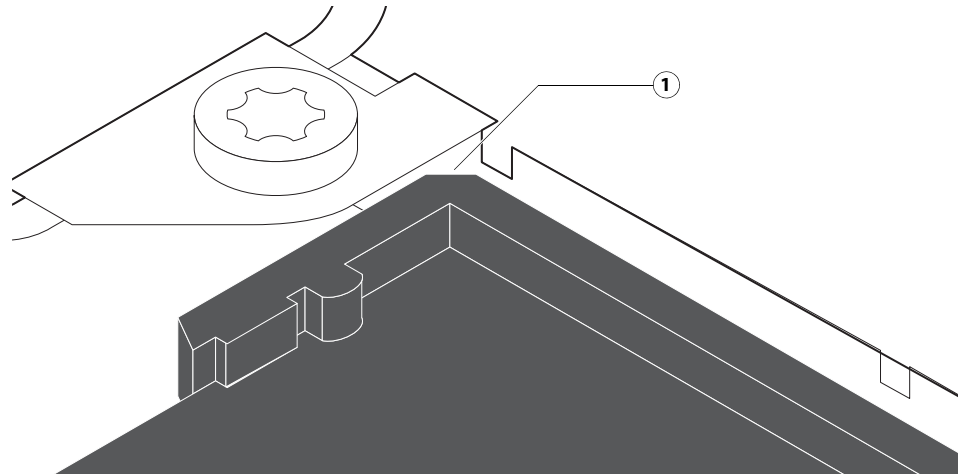
1   Flat corner of socket

4 Close the load plate.

5 Lower the socket lever and place it in the locked position under the retention post.

6 Prepare the CPU cooling assembly for installation.

- Make sure that the motherboard is placed on a padded, antistatic work surface.

- Apply the fresh thermal compound square, as described in step 1 on page 60.

- Align the cooling assembly so that when it is installed, the fan cable easily reaches the CPU fan power connector CPUFAN on the motherboard.

7 Place the cooling assembly on the CPU.

- Make sure that the thermal pad on the underside of the heatsink is positioned on top of the CPU.

  ⚠️ **Caution:** Be sure to remove any protective material that may be covering the surface of the thermal pad. Otherwise, the CPU may overheat.

- Align the four screws with the four screw posts.

- Tighten the screws. Partially tighten all the screws before tightening any one screw all the way.

8 Connect the CPU fan cable to the motherboard connector CPUFAN.

The cable connector is keyed to fit only one way. Make sure that the connector on the cable is securely attached to connector CPUFAN on the motherboard.

9 Install the motherboard in the chassis (see page 53).

10 Replace the motherboard components (see page 56).

11 Reassemble the EB-34 and verify its functionality (see page 72).

12 If you installed a new CPU, configure the time and date in Setup (see page 48).

Chassis fan

A fan mounted inside the chassis blows air out of the EB-34 to cool components. The chassis fan runs continuously when the system is on. You should hear the chassis fan start as soon as you power on the EB-34. If you do not hear the chassis fan, there may be a faulty power connection (see Figure 10 on page 38).

The following procedures describe how to remove and replace the chassis fan.

To remove and replace the chassis fan

1 Shut down and open the EB-34 (see pages 38).

To access the chassis fan, you must remove the side panel.

2 Remove the fan cable from the motherboard

3 Remove the four plastic rivets that attach the chassis fan to the chassis, and then remove the fan.

Set the screws aside so that you can replace them later.

Figure 26: Removing/replacing the chassis fan
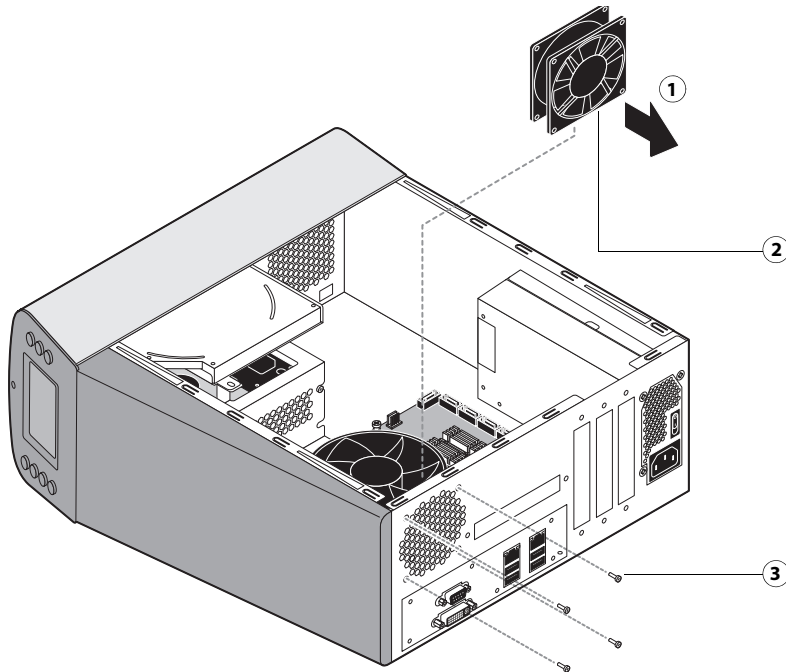
1	Airflow direction
2	Chassis fan
3	Rivet (1 of 4)

4 To replace the chassis fan, reverse the removal steps.

An arrow on the side of the chassis fan indicates the airflow direction. Make sure that the chassis fan is positioned with the label against the chassis.The chassis fan should blow air out of the vents in the connector panel when the system is reassembled and powered on (see Figure 26).

5 Verify EB-34 functionality (see page 72).

Power supply

This section describes how to remove and replace the EB-34 power supply. For more information on the power supply, see "Specifications" on page 112.

You can check power supply functionality using a multimeter at the power cable connectors supplying power to the motherboard, CPU, HDD, and DVD drive. Test voltages on the connectors of the power supply cables, not on the board or component connectors.

⚠ **Caution:** Do not open the power supply for service or troubleshooting. Opening the power supply will void the warranty.

To remove the power supply

1   Shut down and open the EB-34 (see pages 38).

    To access the power supply, you must remove the side panel.

2   Remove the following cables and components from the motherboard to provide room for removing the power supply:

    • Copier interface board

    • Power and reset button cables

    • DVD drive and hard disk drive SATA cables

    • UIB cable and front panel USB port cable

3   Remove the power cable from the hard disk drive.

4   Disconnect the power supply cable from the DVD drive power and data combination cable.

5   Remove the 20-pin motherboard power cable from the motherboard.

6   Remove the 4-pin CPU power cable from the motherboard.

7   Remove the power supply cables secured by the cable harness in the chassis.

8   Remove the five screws that attach the power supply to the chassis (see Figure 27 on page 65).

    Set the screws aside so that you can replace them later.

9 Lift the power supply out of the chassis, taking care to gather the power supply cables.

Figure 27: Removing/replacing the power supply
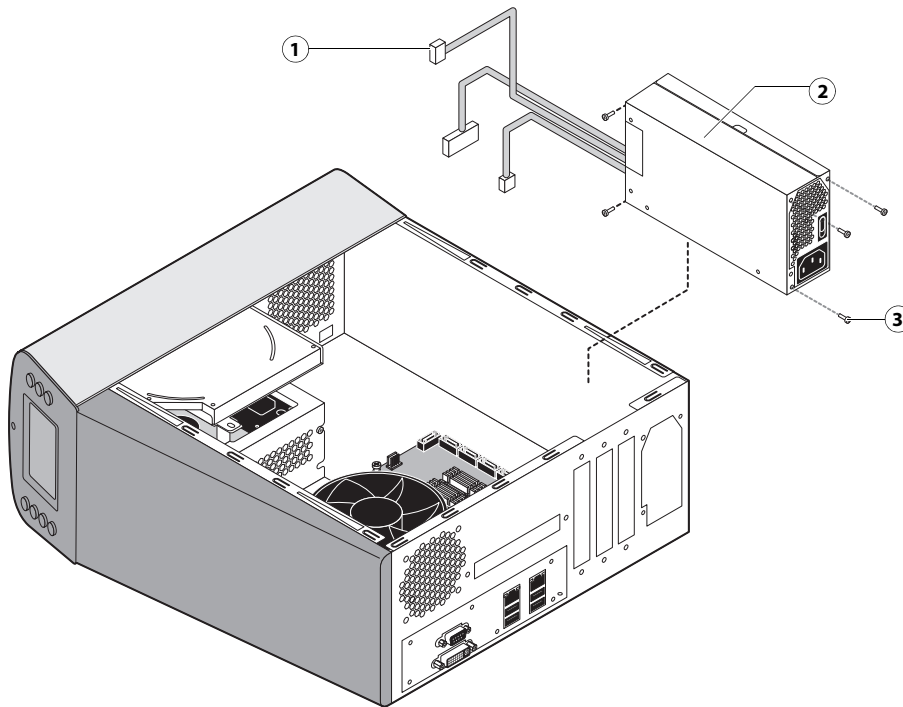
1	Power supply cables
2	Power supply
3	Screw (1 of 5)

To replace the power supply

1 Attach the power switch leads to the terminals on the power switch.

You can attach the power leads to either terminal on the power switch.

⚠ **Important:** If you are replacing the power supply with a new one, you do <u>not</u> need to remove the original power switch and replace it with the switch provided with the new power supply. The original switch is designed to remain mounted inside the chassis.

2 Place the power supply inside the chassis and align the mounting holes.

3 Attach the power supply to the chassis with the five screws that you removed earlier (see Figure 27 on page 65).

If you are installing a new power supply, make sure to use the screws that came with it to attach the new power supply to the chassis.

4 Connect the 4-pin CPU power cable to the motherboard (for location, see Figure 19 on page 49).

5 Connect the 20-pin motherboard power cable to the motherboard (for location, see Figure 19 on page 49).

6 Connect a white, 4-pin power supply cable to the DVD drive power and data combination cable.

7 Connect the power cable to the hard disk drive.

⚠️ **Caution:** Connect the thin, black SATA power cable connector to the hard disk drive. Do not connect the white, 4-pin power cable connector. Connecting both types of power cables will damage the hard disk drive.

8 Secure the power supply cable in the cable harness in the chassis.

9 Replace the following cables and components to their connectors on the motherboard:

- UIB cable and front panel USB port cable (see Figure 9 on page 37)

- DVD drive and hard disk drive SATA cables (see Figure 9 on page 37)

- Power and reset button cables (see Figure 10 on page 38)

- Copier interface board (see page 43)

10 Reassemble the EB-34 and verify its functionality (see page 72).

Hard disk drive

The factory-installed hard disk drive is formatted and loaded with system software, network drivers, and printer fonts. The hard disk drive is also used to store spooled print jobs. Available space on the hard disk drive is displayed on the Info screen of the copier display panel and in Command WorkStation.

If you replace the hard disk drive with a new one, you must install system software as described on page 78. (Spare hard disk drives are hard disk drives shipped without system software installed.)

⚠️ **Caution:** Do not replace the hard disk drive and the motherboard at the same time. Doing so in the wrong order, without updating the system (see page 54), will cause the system to malfunction.

It is unlikely that both the hard disk drive and the motherboard are defective. Avoid replacing both to solve one problem. If troubleshooting strategies (such as checking cables and connections; see pages 94 and 94) do not solve the problem, and you suspect the hard disk drive or the motherboard is at fault, use the following order to troubleshoot: replace the hard disk drive, install system software, and then check to see if the problem persists. If it does, perform other procedures, such as replacing the motherboard (see page 46).

Proper handling

Improper handling can damage a hard disk drive. Handle hard disk drives with extreme care.

- Use proper ESD practices when grounding yourself and the EB-34.

- Keep magnets and magnetic-sensitive objects away from the hard disk drive.

- Do not remove the screws on top of the hard disk drive. Loosening these screws voids the warranty.

- Never drop, jar, bump, or put excessive pressure on the hard disk drive.

• Handle the hard disk drive by its sides and avoid touching the printed circuit board.

• Allow the hard disk drive to reach room temperature before installation.

Hard disk drive problems may be caused by the following:

• Loose or faulty connection

• Faulty data cable

• Faulty hard disk drive

⚠ **Caution:** Make sure that you attach an ESD grounding wrist strap and follow standard ESD precautions before handling EB-34 components.

The hard disk drive is mounted inside a bracket.

If you are replacing the hard disk drive with a new one, you will need:

• The appropriate system software and documentation for the EB-34.

• A compatible version of the user software for the networked computers that will print to the EB-34.

To remove the hard disk drive

1 If you are removing the hard disk drive in order to install a new drive, give the network administrator the opportunity to print the Job Log and save any custom simulations. If possible, print the Configuration page and the Font Lists.

   If desired, back up the system configuration (see page 80).

2 Shut down and open the EB-34 (see pages 38).

   To access the hard disk drive, you must remove the side and front panels.

3 Remove the DVD drive (see page 70).

4 Remove the power supply cable from the hard disk drive.

5 Remove the hard disk drive data cable from the hard disk drive.

6 Remove the four screws securing the hard disk drive bracket to the chassis.

7 Lift the hard disk drive bracket out of the chassis (see Figure 28).

⚠️ **Caution:** Avoid striking the motherboard as you remove the hard disk drive bracket.
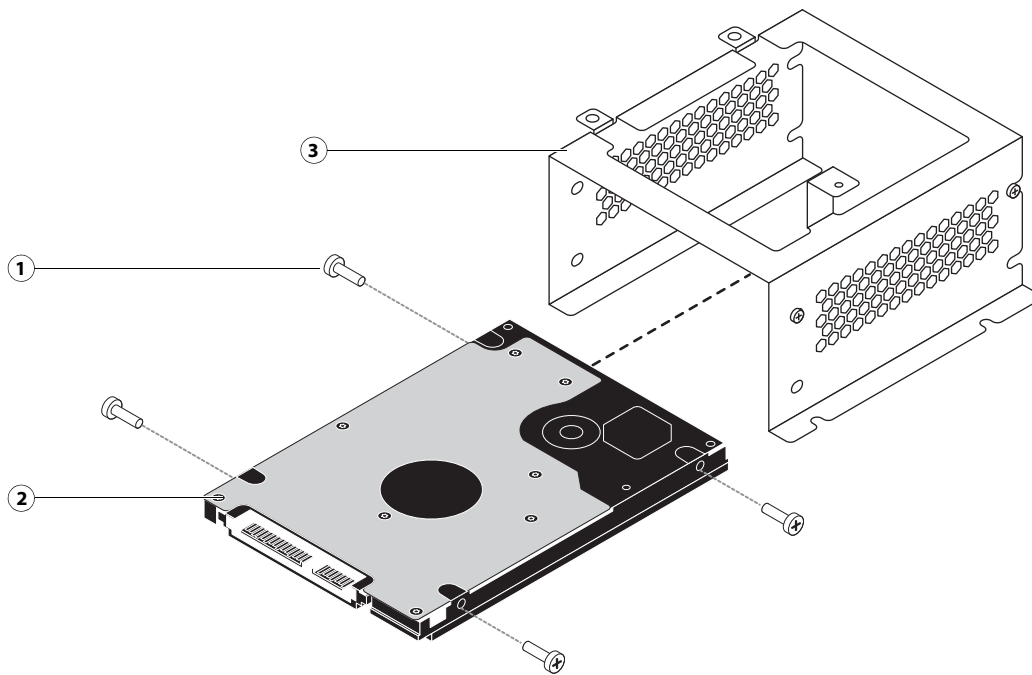
Figure 28: Removing/replacing the hard disk drive bracket
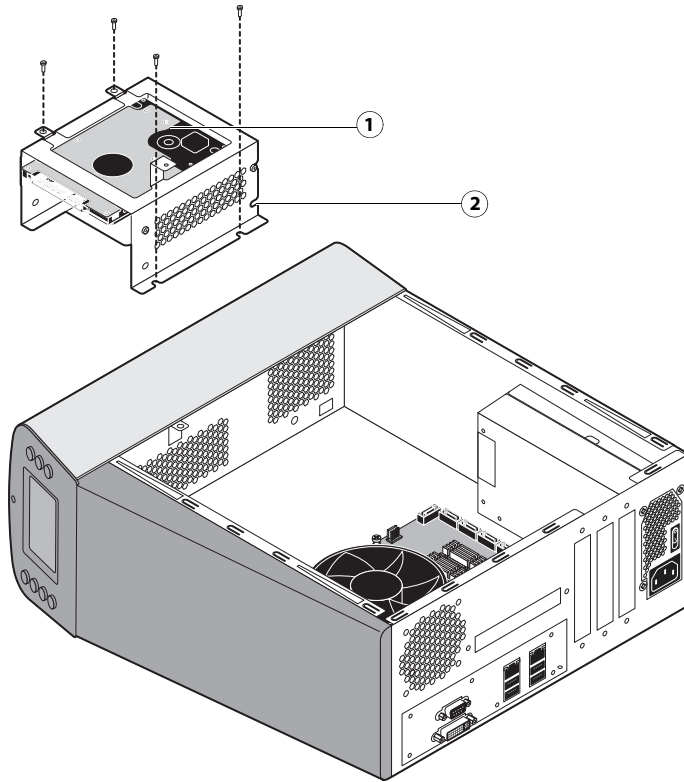
1   *Hard disk drive*

2   *Hard disk drive bracket*

8 Remove the four screws that attach the hard disk drive to the hard disk drive bracket (see Figure 29 on page 68).

Figure 29: Removing/replacing the hard disk drive from the hard disk drive bracket

1   Screw (1 of 4)

2   Hard disk drive

3   Hard disk drive bracket

9 Remove the hard disk drive from the hard disk drive bracket and place it in an antistatic bag.

⚠️ **Caution:** Do not unscrew the screws on the hard disk drive cover. Loosening these hard disk drive screws breaks the seal and voids the hard disk drive 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 hard disk drive.

Replacement hard disk drives are not shipped with system software preinstalled. After you install the drive, you must install the appropriate system software.

To replace the hard disk drive

⚠️ **Caution:** Do not install a new hard disk drive and a new motherboard at the same time. If you suspect that the EB-34 needs a new hard disk drive and a new motherboard, first install the new hard disk drive and install system software (see page 78), and then install a new motherboard (see page 46).

1 If you are installing a new hard disk drive, unpack the drive.

Do not drop, jar, or bump the hard disk drive. Do not touch the hard disk drive with magnetic objects or place objects sensitive to magnets near the hard disk drive.

2 Position the hard disk drive inside the hard disk drive bracket and align the mounting holes on the hard disk drive with the four holes in the bracket (see Figure 29 on page 68).

When correctly installed, the hard disk drive extends about an inch past the rear of the bracket.

3 Attach the hard disk drive to the bracket using the four screws that you removed earlier.

4 Place the bracket inside the chassis and secure it using the four screws that you removed earlier.

⚠ **Caution:** Avoid striking the motherboard as you replace the hard disk drive bracket.

5 Connect one end of the hard disk drive data cable to the hard disk drive.

6 Connect the other end of the hard disk drive data cable to SATA1 on the motherboard (see Figure 9 on page 37).

7 Connect the power cable to the hard disk drive.

⚠ **Caution:** Connect the thin, black SATA power cable connector to the hard disk drive. Do not connect the white, 4-pin power cable connector. Connecting both types of power cables will damage the hard disk drive.

8 Reassemble the EB-34 (see page 72).

9 If you replaced the hard disk drive with a new hard disk drive, install system software (see page 78).

If a startup error displays on the control panel when you power on the EB-34, check the connections.

10 If you installed a new hard disk drive, make sure to reset the date and time in Setup. For more information, see Configure Help.

11 Verify functionality (see page 72).

DVD drive

The DVD drive is attached to a bracket mounted to the hard disk drive bracket and the chassis. The DVD drive is used to install system software onto the hard disk drive and archive data onto writable media.
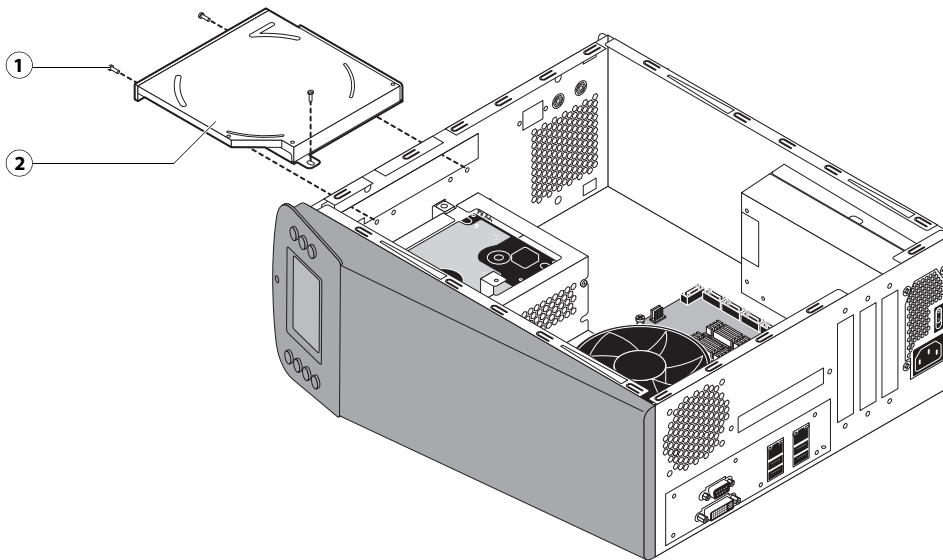
To remove the DVD drive

1 Shut down and open the EB-34 (see pages 38).

To remove the DVD drive, you must remove the side and front panels.

2 Remove the DVD drive power/data combination cable from the back of the DVD drive.

3 Remove the screw that attaches the DVD drive bracket to the hard disk drive bracket.

4 Remove the two screws that attach the DVD drive bracket to the chassis.

Set aside the screws so that you can replace them later.

5 Slide the DVD drive bracket out the front of the chassis.

Figure 30: Removing/replacing the DVD drive bracket
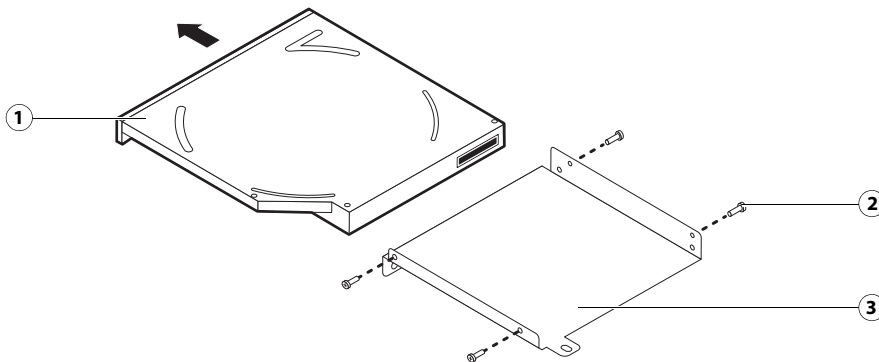

1   Screw (1 of 3)

2   DVD drive attached to the bracket

6 Remove the four screws that attach the DVD drive to the bracket.

Set aside the screws so that you can replace them later.

7 Lift the DVD drive out of the bracket.

Figure 31: Removing/replacing the DVD drive

1   DVD drive

2   Screw (1 of 4)

3   Bracket

To replace the DVD drive

1 Position the DVD drive inside the bracket and align the mounting holes on the DVD drive with the four holes in the bracket (see Figure 30 on page 71).

2   Place the bracket inside the chassis and secure it using the three screws that you removed earlier.

3   Attach the power and data combination cable to the back of the DVD drive (see Figure 9 on page 37 and Figure 10 on page 38).

4   Reassemble the EB-34 and verify functionality (see page 72).

5   If you installed a new DVD drive, make sure to reset the system date and time. For more information, see "To configure the system date and time" on page 48.

Restoring and verifying functionality after service

Before you leave the customer site, make sure that you complete the following steps. If you cannot complete a step, determine the reason and correct the problem before continuing. For more information, see "Troubleshooting" on page 93.

To reassemble the EB-34 and verify functionality

1   Reseat all boards, cables, connectors, and other parts loosened or removed during service.

When routing cables inside the EB-34, make sure that:

- Cables are securely installed after routing cables

- Cable routing does not interfere with the operation of internal components nor interfere with removing or replacing components

- Cables are not tangled nor looped around internal circuit boards, or components (such as capacitors and resistors)

- Cables do not lie on or against any internal heating element

- Cables do not interfere with opening or closing EB-34 panels

- Cable slack is secured with a tie-wrap

2   Restore the EB-34 to the upright position.

3   Replace any panels that you removed earlier, as described on page 39.

4   If you replaced the motherboard, make sure that the new motherboard solves the problem that you are troubleshooting, and then transfer options to the new motherboard (see page 56).

5   Connect the power cable to the EB-34 (see page 17).

6   Connect the EB-34 to the copier (see page 17).

7 Print the Test Page and Configuration page.

- If the EB-34 does not start up, see startup problems on .

- If pages do not print, verify that the interface cables are properly connected (see printing problems on).

- If image quality is poor, test the copier. (See the service documentation that accompanies the copier.)

8 Connect to the network (see).

9 Ask the network administrator to download a test job over the network.

If the job does not print or has poor image quality, see printing problems on and the Troubleshooting sections of the user documentation.

Performing Backup and Restore

This chapter provides information about how to back up or restore information to the system. The EB-34 ships with system software pre-installed on the hard disk drives (HDDs). A factory-installed backup partition is available for restore if there is no on-site usable backup.

You can use three features to create backups and restore the backup images:

- Fiery System Installer

  You need to have the System Software DVD 1 to start the Fiery System Installer.

- Fiery System Restore

  You can access Fiery System Restore from the WebTools Home tab.

  See Table 1 for more detailed information on the Fiery System Installer and Fiery System Restore.

- Command WorkStation and Configure WebTools

  Using these feature makes you create a single backup file that contains the system configurations.

Note: The system image does not include VDP/FreeForm resources. To back up the FreeForm masters 1 and 2, save the configuration settings as described in "Backing up the system configuration" on page 76.

Table 1:   Details of the backup and restore using Fiery System Installer and Fiery System Restore

Backup method	Description of backup image	Bootable option	Possible destination	Restore method
Fiery System Restore in WebTools: Home Tab > Fiery System Restore > Create Backup (Fiery factory image)	Factory default image, manually backed up. Includes factory default version of software and configuration settings. Does not include print job information (print jobs, job logs, and job settings such as paper size).	Factory default image can only be saved as a bootable image, and requires a bootable USB device.	USB device only.	• Can restore directly from image • Fiery System Restore • Fiery System Installer
Fiery System Restore in WebTools: Home Tab > Fiery System Restore > Create Backup (New image)	Customized image, manually backed up. Includes contents of C drive (except for items excluded by standard Windows back up process, such as items in recycle bin). Includes software updates and current configuration settings. Does not include print job information (print jobs, job logs, and job settings).	Bootable option supported for USB devices only. Can also create a non-bootable image.	USB device or internal hard disk.	• If bootable, can restore directly from image • Fiery System Restore • Fiery System Installer

Backup method	Description of backup image	Bootable option	Possible destination	Restore method
Fiery System Restore in WebTools: Home Tab > Fiery System Restore (Schedule automatic backup)	Customized image, automatically backed up. Includes same content as manually-backed up customized image (described in previous row).	Non-bootable image only.	Internal hard drive.	• Fiery System Restore • Fiery System Installer
Fiery System Installer on DVD: Fiery System Installer > Backup Hard Disk Drive(s)	Customized image, manually backed up. Includes contents of C drive (except for items excluded by standard Windows back up process, such as items in recycle bin). Includes software updates and current configuration settings. If jobs option is selected, also includes print jobs, job log, and job settings (such as paper size).	Can create a bootable or non-bootable image.	Bootable image: USB device only. Non-bootable image: Network location, local folder, external hard disk, or USB device.	• If bootable, can restore directly from image • Fiery System Restore (can restore images that include print job information) • Fiery System Installer
Additional Fiery System Installer option: A factory default backup image is included on the EB-34 hard disk (Restore from recovery partition).	Factory default image. Includes factory default version of software and configuration settings. Does not include print job information (print jobs, job logs, and job settings).	If the hard disk is still viable, System Software 1 DVD can boot from this factory default image.	Included as part of original system image. If the hard disk is crashed, this image is not accessible.	• Fiery System Installer

Backup recommendations

Even though the server maintains a backup you can use for recovery of the factory installation, creating a separate backup provides the ability to retrieve customized settings and job information if a recent backup is needed. You can create a backup by using Command WorkStation, WebTools (including Fiery System Restore), or Fiery System Installer.

- To create a backup using Command WorkStation, or from a a remote location using WebTools, see "Backing up the system configuration" on page 76.

- To create a backup using Fiery System Restore, see "Using Fiery System Restore" on page 78.

- To create a backup using Fiery System Installer, see "Using Fiery System Installer" on page 80.

When backing up an existing EB-34 installation

- For an existing EB-34 installation, first check if a backup image exists either on the server or an external location.

  - If a backup image exists, check if it is up to date. Compare the date stamp of the existing backup image to the date of the last patch installation.

  - If a backup image does not exist, create a new one after installing all available software updates.

- The backup image may be saved to or found in any of the following locations:

  - Local Disk

  - USB drive

  - External hard disk drive

  - Network

- If you do not have a backup with the system settings and jobs, the system can access a preinstalled recovery backup on the hard disk drive provided with the EB-34. See "To restore the system using Fiery system installer" on page 82.

  ⚠ **Important:** If you restore the system using the pre-installed recovery backup, the system and configuration will be reset to the factory default.

- If you have a system backup that includes your settings and jobs, you can recover them from your backup media you have created with Fiery System Installer.

  ⚠ **Important:** Backed up data can be only restored to the same EB-34.

- Use a descriptive and consistent naming convention when saving image files (such as date, product name, product version, and short description).

After creating a backup image file, it is recommended that you transfer the image file to an external location, such as a network location or external drive.

  ⚠ **Important:** If you select USB drive or external hard disk drive as a destination and select to make a bootable image, all the existing data in the drive will be lost when you create a backup on these media.

Backing up the system configuration

If you back up the system configuration, you can restore that configuration after reinstalling or upgrading system software.

When you back up the system configuration, you save a configuration file that includes one or more of the following:

- Fiery System Settings

- Scan Settings

- Command WorkStation settings (Fiery Advanced Controller Interface only)

- FreeForm/VDP resources

- Paper Catalog

- Virtual Printers

- Server Presets

- Fonts

- Job Log

Note: Those settings you do not choose are not saved for restore.

If you cannot create a configuration file, ask the site administrator to archive FreeForm masters, customer-installed fonts, and the Job Log to removable media or a network location.

To save the system configuration using Command WorkStation

1   Ask the site administrator to print the Job Log, Server Configuration page, and Font List (if possible).

2   Launch Command WorkStation and connect to the EB-34 with Administrator privilege.

    The default Administrator password is Fiery.1 (case-sensitive), but the site administrator may have changed the password.

3   Select Device Center > General > Tools > Backup & Restore, and click Backup > Next.

4   In the Backup & Restore dialog box, select the settings you want to back up.

5   Enter a file name and location, specify if you want to add the date to the file name, and then click Backup.

6   Click Finish.

To save the system configuration using Configure

1   Ask the site administrator to print the Job Log, Server Configuration page, and Font List (if possible).

2   Start a web browser and access the EB-34 by entering the server name or IP address of the EB-34.

3   From WebTools, select Configure tab > Launch Configure.

4   Log on with Administrator privileges and click OK.

    The default Administrator password is Fiery.1 (case-sensitive), but the site administrator may have changed the password.

5   On the left side, choose Fiery Server > Backup.

6   In the Backup dialog box, select the settings you want to back up.

7   Enter a file name and location, specify if you want to add the date to the file name, and then click Backup.

8   Click OK.

Restoring the system configuration

You can restore the system configuration of the EB-34 to its previous state using a previously-saved system configuration file. For more information about the system configuration file, see page 77.

If you could not save a system configuration file, you must configure Setup. After you exit Setup and the EB-34 reboots, ask the site administrator to restore any archived settings and files. For more information, see *Configuration and Setup*, which is part of the user documentation set.

To restore the system configuration from Command WorkStation

1 Launch Command WorkStation and connect to the EB-34 with Administrator privilege.

The default Administrator password is Fiery.1 (case-sensitive), but the site administrator may have changed the password.

2 Select Device Center > General > Tools > Backup & Restore, and click Restore > Next.

3 Select the item to restore, and click Next.

You can specify the backup file using the Browse button, or you can select a recent backup.

4 Select settings to restore and click Next.

5 Click Finish.

To restore the system configuration using Configure

1 Start a web browser and access the EB-34 by entering the server name or IP address of the EB-34.

2 From WebTools, select Configure tab > Launch Configure.

3 Log on with Administrator privileges and click OK.

The default Administrator password is Fiery.1 (case-sensitive), but the site administrator may have changed the password.

4 On the left side, choose Fiery Server > Restore.

5 Select the reference file and data file. Click Next.

For more information, see page 77.

6 Select settings to restore and click Next.

7 Click Reboot.

Using Fiery System Restore

Fiery System Restore allows you to create a backup of the EB-34 for quick recovery later when any problem happens. You can restore the EB-34 either from images stored on the local hard disk, or from a USB drive. Fiery System Restore also provides the feature of creating the scheduled backups. You can access the Fiery System Restore from the WebTools Home tab.

You must login to the system as a system administrator to use the Fiery System Restore features.

Note: Depending on the system, the capacity required for a backup image varies. Check the Estimated side field displayed in Create USB Backup dialog box, which you can access by selecting WebTools Home > Create Backup.

To access the Fiery System Restore features

1 From a client computer, start a web browser and enter the IP address or the DNS name of the EB-34.

2 Select Home tab.

The available features are listed under Fiery System Restore section.

You must log in to the system as a system administrator before performing any of the backup/restore process.

To setup automatic scheduled backup

Note: When you set up the scheduled backup, only the latest backup will be stored. Previous backups will be deleted.

Note: Ensure that the EB-34 remains powered up during the scheduled backup times, allowing enough time for the backup to complete.

1 In the WebTools Home tab, select Schedule Automatic Backup.

2 Select Enable automatic backup, and select when you want to start the backup process on the EB-34.

Note: The backup process takes more than an hour to complete and it requires the EB-34 to be Idle status. If the EB-34 is not in Idle status, the backup process does not start.

3 Click Save.

To create a backup

1 In the WebTools Home tab, select one of the options below.

- **Create Backup** > **USB**: Select this option when you create a backup on a USB drive (flash drive or hard disk drive). If you want to create a backup of the current EB-34 on the USB drive, select New image. You can select Create bootable image to make the USB drive a bootable media.

  If you want to create a factory image backup on a USB drive, select Fiery factory image. The Create bootable image option will be automatically turned ON.

  If you select Create bootable media, the USB device or hard disk drive specified as a destination becomes a bootable media. Select this option when you want to boot the EB-34 from the backup media to avoid the situation where the HDD fails and cannot boot the EB-34. See for booting from the bootable media. Bootable media is used for system restoration when a hardware failure occurs.

  Note: The minimum size for the USB drive depends on the actual size of the backup file. You can determine the size of the backup file by checking the Estimated size: field in the Create USB Backup dialog box. Prepare the USB drive with enough capacity.

Note: Due to a file system restriction, the maximum size of the USB flash drive is 32GB if the Create bootable image option is ON. You can use a USB flash drive with more than 32GB capacity if the Create bootable image is OFF.

- **Create Backup** > **Internal hard drive**: Select this option when you create a backup on the HDD of the EB-34. You must specify the file name of the backup image. The default image name is the server name of the EB-34.

2   Make sure to connect the USB drive to the USB connector on the EB-34.

Note: If the capacity of the USB drive is less than size of the value listed in Estimated size: field, the backup process will not take place.

3   Click Continue.

To restore the backup image

1   In the WebTools Home tab, select Restore.

2   Make sure that your backup image is accessible from the EB-34.

If you restore a backup image stored on the USB drive, be sure to attached the USB drive to one of the USB drive on the EB-34.

3   Select one of the following restore options:

- Restore from a local image

- Restore from a USB storage device

- Restore from the factory default image

4   If you select a restore from a USB drive, make sure to connect the USB drive to the USB connector on the EB-34.

5   Click Continue.

To restore the system by booting from a bootable USB flash drive

- Follow the instructions described in You need to connect a monitor, keyboard, and mouse to the EB-34.

Using Fiery System Installer

You can create the system backup or restore from the backup using Fiery System Installer provided with the System Software DVD 1.

⚠ **Important:** It is recommended that you create system backups periodically.

You can perform the following tasks from Fiery System Installer;

- **New Installation:** Installs the system software from the media shipped with the EB-34. Use this option only when the system backup is not available. See also

- **Restore from backup or recovery partition:** You can restore the system by selecting the backups that you created using the Fiery System Installer or the Fiery System Restore. If there is no backup available in the system or in any attached devices, you can only perform the restore from the recovery partition.

- **Back up hard disk drive(s):** Use this option when you create the system backups. You can specify the location of the backup, file name, and other attributes of the backups.

- **Platform Utilities:** You can perform the backup management tasks from this option such as erasing hard disks or using Windows Task Manager to explore the system.

Note: You can use the EB-34 control panel to operate Fiery System Installer. You can also use a monitor, mouse, and keyboard attached if available.

Backup with Fiery System Installer

You must back up your system and create a backup image to recover from any unexpected system crashes and the hard disk drive failure.

To create a system backup

1 Start Fiery System Installer.

- Insert the System Software DVD 1 into the DVD drive of the EB-34.

- Reboot the EB-34 (see page 28).

- When the server finishes the reboot, select the language you use for the backup or restore session.

2 From "What do you want to do?" screen, select Back up hard disk drive(s).

3 Enter the backup settings.

Because settings vary depending on the destination you select, make sure that you specify valid settings.

The Backup settings window appears. In this window, do the following:

- Select a backup destination from one of the following locations: Local Disk, USB drive, External hard disk drive, or Network.

⚠ **Important:** If you select USB drive or external hard disk drive as a backup destination and select to make it bootable, all the existing data in the drive will be lost when you create a backup on these media.

- Specify the name of the backup file in the Folder Name field.

  Fiery System Installer creates a folder with the name containing the file name and a time stamp to help you distinguish the backup images. The default file name is the server name. The installer automatically generates the time stamp.

  - If you select "Include Fiery job files in backup," jobs archived in the server are included in the backup.

  - If you select "Create bootable media," the USB device or hard disk drive specified as a destination becomes a bootable media. Select this option when you want to boot the EB-34 from the backup media to avoid the situation where the HDD fails and cannot boot the EB-34. See page 82 for booting from the bootable media. Bootable media is used for system restoration when a hardware failure occurs.

⚠ **Important:** All the existing data in the external hard disk drive will be lost when you select Create bootable media option.

- Enter a description of the backup.

- If you select Save in the backup settings, the system saves the specified backup setting for a subsequent "Load." Only the specified setting is saved.

4 If you select USB Drive or External Hard Disk as a destination in step 3, make sure you attach the appropriate device to the EB-34.

5 Click Start backup to begin the backup process.

If there is a need to stop the backup process, press the cancel icon. Fiery System Installer displays a message allowing you to restart or shutdown the server. You can specify a backup log to be saved, if desired.

Restore with Fiery System Installer

To recover from a system crash, you must restore the system with a backup image.

Note: Backed-up data can be only restored to the same EB-34.

To restore the system using Fiery system installer

You will access your backup media (USB drive, local hard disk drive or external hard disk drive) to restore the system.

1 Start Fiery System Installer.

- Insert System Software DVD 1.

- Reboot the EB-34 (see page 28).

- When the menu appears, specify a language.

2 If your backup file is stored in the USB drive or external hard disk, attach the device to the EB-34.

3 From "What do you want to do?" screen, select Restore from backup or recovery partition.

The Select backup source dialog appears. You can choose one of the following:

- **Backup**

   If present, previous backups are listed for you to choose.

- **Restore from recovery partition**

   This restores the server from a hard disk drive partition to its factory-built settings. It takes approximately one hour to complete the restoration.

   ⚠ **Important:** Any custom settings you have specified after installation are over-written.

- **Search for backups from this system**

   This lets you select a backup from a displayed list. Alternatively, you can select Refresh, Import backup history, or Search the network for backups.

   If a backup image exists, the installer lists information about each backup image:

   - The time and date in which you created the backup.

   - The location of the backup image: Local Disk, USB drive, External hard disk drive, or Network.

   - Alternatively, you can also choose to Refresh, Import backup history, or Search network.

4 Select the source of the backup and click OK.

When a message appears indicating that all the data will be erased, click Continue to proceed the restore.

Using bootable backup media to restore

Use the following procedure when you restore the system without using the System Software DVD 1, or when the EB-34 does not boot from the built-in hard disk drive. You can use this procedure when you replaced the HDD with a new one.

You can restore from the bootable backup media (including the Fiery factory image) created by either Fiery System Installer or Fiery System Restore.

To restore the system from bootable backup media

To restore from the bootable media, you must have created a backup with the "Create bootable media" option. If you have created a backup as bootable backup media, follow these instructions. You can use this procedure to install the system software after you replaced the new hard disk drive.

⚠ **Important:** This procedure requires a monitor, mouse, and keyboard to be attached to the EB-34.

1 Shut down the EB-34.

2   Attach the bootable backup media to the EB-34.

3   Press the power button to turn on the EB-34.

4   Press F11 repeatedly during the startup sequence.

The boot device selection screen appears. If you see the Windows startup screen, reboot the EB-34 and repeat this step.

5   Using the up or down arrow key, move the cursor to the USB device that you attached to the EB-34. Select the item that starts with "UEFI:".

This change will take effect only next time you reboot the EB-34.

6   Press Enter to make the selection and exit the boot device selection screen.

Fiery System Installer starts in the same language that the backup was created in. You cannot choose another language.

7   Follow the instruction on the screen to complete the restoration.

Platform Utilities

Use Fiery System Installer for advanced procedures, such as erasing hard disks, or launching Windows Task Manager. These utilities are available when you select Platform Utilities.

Erase data from hard disk drive(s)

If selected, the following methods are provided:

- Randomized erase for writing random data to all disk sectors before writing zero.

- Quick erase for writing zeroes to all disk sectors.

Advanced backup management

Allows the Administrator to:

- Load backup settings from a USB drive to apply to system backup images.

- Save or restore backup history files.

- Search for backup images created on a replaced system to be applied to the current one.

Launch Windows Task Manager

Starts the Windows Task Manager.

Installing System Software

This chapter provides information about how to install system software.

The EB-34 ships with system software pre-installed on the hard disk drives (HDDs).

A reinstallation of the system software DVDs will be required if:

- You have replaced the hard disk drive.

- Restoring the system from backup images did not solve the problem you are troubleshooting.

When you reinstall from the System Software DVDs

The following issues apply to the scenario where you reinstall the system from the System Software DVDs.

- **Jobs:** When you reinstall system software, all jobs in all print queues and all jobs archived locally on the EB-34 hard disk are deleted. To save jobs, ask the site administrator to save them to removable media or a network location, so they can be re-imported to the EB-34 after system software installation. For more information, see Command WorkStation Help.

- **Job Log:** When you reinstall system software, the list of jobs in the Job Log and any jobs in the queues are deleted. The site administrator can use Command WorkStation to save a current list of jobs (not the actual jobs) from the Job Log.

- **Fonts:** When you reinstall system software, all fonts on the hard disk drives are deleted. Resident fonts are reinstalled when you reinstall system software. Any customer-supplied fonts must be reinstalled by the site administrator (see Command WorkStation Help).

  To determine which additional fonts were downloaded to the EB-34, print the Font List before you reinstall the system software and again after you complete the system software installation. Any fonts *not listed* after installation will need to be reinstalled. For more information about managing fonts, see *Command WorkStation* Help.

- **User software:** The EB-34 ships with preinstalled user software on the hard disk drives. During system software reinstallation, you are prompted to reinstall user software (including Command WorkStation) using the User Software DVD.

- **Server Configuration page:** Before you reinstall a new version of system software, print the Server Configuration page. The Server Configuration page provides a record of the customer's current Setup configurations.

- **Backing up and restoring the configuration:** All Setup configurations, as well as all custom files and templates stored on the hard disk drives, are deleted when you reinstall system software. Always back up the current EB-34 configuration before you reinstall system software. After the installation is completed, be sure to restore the configuration that you saved earlier.

- **Monitor profiles:** When you reinstall system software, monitor profiles saved on the hard disk drives are deleted. Monitor profiles for the EB-34 monitor are automatically reinstalled when you reinstall Command WorkStation on the system.

- **Compatibility:** After you upgrade system software, remind the site administrator to upgrade user software on all computers connected to the EB-34. Using old user software with new system software may negatively affect the system.

Installing system software

Install both system software DVDs when you replace a hard disk drive or upgrade to the latest version of the EB-34 software. You can install software from the following disks:

- System Software DVD 1— Fiery System Software for the EB-34.

- System Software DVD 2 and 3—Windows operating system.

- User Software DVD 4—Fiery User Software for installation on the EB-34 and client computers.

To install and verify the system software installation

Follow these instructions to complete the system software installation:

- "Before you install or upgrade system and user software" on page 86.

- "Installing or upgrading the system and user software with Fiery System installer" on page 86.

- "After installing or updating the system software" on page 87.

- "Verify the EB-34 operation" on page 88.

- "Before you leave the customer site" on page 88.

Before you install or upgrade system and user software

1 Before you proceed, do the following:

- Ask the site administrator to

  - Print the Job Log, Server Configuration page, and Font List, if possible.

  - If any options are activated on the server, you must deactivate them prior to reinstalling.

  - Archive and export to an external hard drive, USB storage device or network folder any customer-installed fonts and FreeForm masters, if possible.

  ⚠ **Important:** Remove all dongles and devices, on the EB-34 except the keyboard and mouse. If you do not remove dongles or devices, the system software installation may fail.

2 If you are installing system software, back up the system configuration (if possible).

For more information, see page 76.

Installing or upgrading the system and user software with Fiery System installer

Note: You can use the EB-34 control panel to operate Fiery System Installer. You can also use a monitor, mouse, and keyboard attached if available.

The System Software installation takes approximately 1.5 hours to complete.

1 Insert System Software DVD 1 into the DVD drive.

2 Reboot the EB-34.

Wait while the system boots from the DVD.

3 When the language selection screen displays, select a language.

4 When "What do you want to do?" screen displays four choices, select New Installation.

5 When "This installation will erase all data on the hard disk drive(s). Continue?" message displays, select Continue.

6 After copying the System Software DVD 1 contents to the hard drive, the DVD ejects (approximately five to seven minutes), insert System Software DVD 2.

7 After copying the System Software DVD 2 contents to the hard drive, the DVD ejects (approximately five to ten minutes), insert System Software DVD 3.

8 After copying the User Software DVD 3 contents to the hard drive, the DVD ejects (approximately eight minutes), insert User Software DVD 4.

When User Software DVD 4 ejects (approximately eight minutes after copying the contents to the hard drive), the EB-34 reboots to begin the software installation.

9 Wait while the EB-34 complete the installation. This will take about 45 minutes.

The following steps are for use with the Fiery Advanced Controller Interface. If you are not using this interface, skip to .

10 When the EB-34 becomes Idle, click the mouse to show the login screen on monitor. Enter the Administrator's password and then press Enter.

Fiery.1 is the default password and is case-sensitive.

11 Ask the site administrator to follow the on-screen instructions in the Fiery Setup Wizard to configure the EB-34 for the customer's print environment.

Once the configuration in the Fiery Setup Wizard is done, you must restart the server for the changes to take effect. If desired, you can print a Server Configuration page after the restart to confirm the default settings.

For more information about the Fiery Setup Wizard, see *Configuration and Setup,* which is part of the user documentation.

12 Shut down the EB-34 (see).

After installing or updating the system software

1 Restore the dongles and devices that you removed in a previous step.

2 Start the EB-34 (see).

3 Install any required software patches by System Updates (see).

4 (Optional) Set up the proxy configuration if you have a proxy server.

In Configure, click Server > System Updates > Proxy Settings, and enter the proxy server information. Save your changes and reboot the EB-34.

For more information on setting up proxy configuration, see *Configuration and Setup*, which is part of the user documentation.

Verify the EB-34 operation

1 Print the Test Page and the Server Configuration page.

If the Test Page does not print, verify that the copier interface cables are securely connected and on the correct ports; verify that the copier interface board is securely connected to the motherboard; look up printing problems in "Table 4: EB-34 error messages and conditions" on page 102.

If image quality is poor, test the copier (see the service documentation that accompanies the copier).

2 Verify that the EB-34 is connected to the network (see page 27).

3 Ask the site administrator to download a test job over the network.

If the job does not print or has poor image quality, look up print problems in "Table 4: EB-34 error messages and conditions" on page 102 and the user documentation Troubleshooting topics.

Before you leave the customer site

1 Remind the site administrator to do the following:

- Import archived jobs.

  Please note that some archived jobs may not print if you have upgraded the EB-34 to the newer version.

- (Optional) Register Adobe Acrobat the first time you use it.

2 Reinstall the following:

- Fonts

- Custom simulations

Note: This upgrade may not be compatible with old user software.

3 Back up the EB-34 hard disk drives.

System software installation error messages

If an error message displays when you install or upgrade system software, do the following:

• If prompted, save the log.

• If you are not prompted to save the log, record the error message.

• If the network cable and copier interface cables are still connected to the EB-34, disconnect the cables and perform the installation again, starting from "Installing or upgrading the system and user software with Fiery System installer" on page 86.

If you cannot correct the error, contact your authorized service/support center. A log or error message may help to solve the problem. Provide as much specific information as possible.

System updates

Advise the site administrator that the System Updates feature available through the Windows Apps screen allows customers to schedule and accept installation of certain EB-34 software updates from a secure site on the Internet. By default, the feature is configured to display a notification on the monitor that software updates are available for the EB-34. You can also check for system updates by choosing Start > arrow button > Fiery > System Updates, and then clicking Check Now. Depending on how it is configured, System Updates operates manually or automatically. For more information about how to schedule System Updates, see *Configuration and Setup*, which is part of the user documentation.

Since you can obtain Windows updates directly from Microsoft, EFI does not provide them by means of System Updates.

Check for Product Updates (Software Downloads Site)

The Check for Product Updates URL (also known as the Software Downloads Site) allows you to access the Update Server to view and manually download all available updates for EB-34 System and User Software. You can access Check for Product Updates by copying and pasting a unique URL into a web browser from a client computer.

Check for Product Updates is especially useful if your EB-34 cannot access the Internet, is behind a firewall, or is otherwise unable or not configured to seek and accept automatic updates from the Update Server (for instance, if you do not want—or the EB-34 is unable—to take advantage of the auto-download/auto-installation/auto-notification features available through System Updates).

To install updates using Check For Product Updates

1 From a client computer, open a web browser, copy-and-paste or type the following URL, and then press Enter.

https://liveupdate.efi.com/webupdater/default.aspx?sid=104d0da45225c4a7d1865604e773aef7EF715126.PPD

A window appears, listing available updates.

Note: The list that displays when you access Check for Product Updates may include:

- Updates that are unavailable through System Updates and/or are not approved for all users.

- Updates that may already be installed on some EB-34 print servers. To help you choose which updates to download, compare the list displayed with the EB-34 print server's Configuration Page > Updates log.

Figure 32: Software Download Site example (page varies by product)
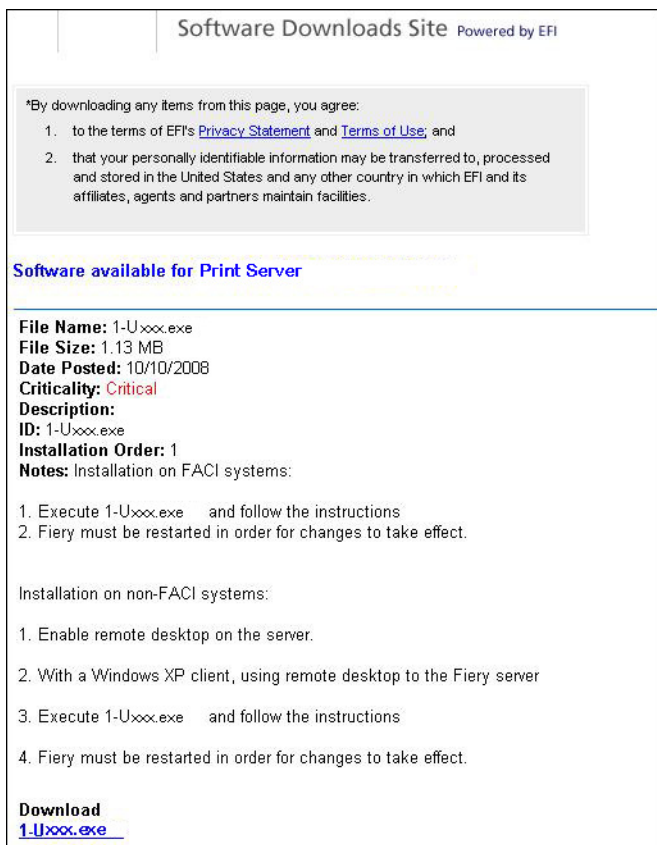
2 For each update that you want to download, click the file name under Download and then select Save to download the update file to a location on the client computer.

3 When the updates files have been downloaded, browse to the location of the update file on the client computer and handle it according to the file type, circumstances, and site conditions.

Installing and activating Fiery options

This section describes how to install and activate server-based and client-based Fiery options.

Activating a server-based Fiery option

To use a server-based Fiery option (such as Fiery ImageViewer), you must first activate it. No additional software installation is required.

To activate a server-based option:

1 On the EB-34 with a monitor, keyboard, and mouse, click Start > All Programs > Fiery > Fiery Command WorkStation.
Or, from a client computer with the user software installed, click Start > All Programs > Fiery > Fiery Command WorkStation.

2 Connect to the EB-34.

For details, see the Command WorkStation Help.

3 Choose Administrator from the user menu and type the appropriate password. Then click Login.

The default Administrator password is "Fiery.1", but may have been changed by the site administrator.

4 Go to Device Center > General > General Info, and click Manage.

5 Use the controls in the activation window to activate the Fiery option.

You will need the License Activation Code (LAC) that is provided with the Fiery option kit. For help with the activation process, click the "?" link in the activation window.

- If the EB-34 has an Internet connection, see the help topic on automatic activation.

- If the EB-34 has an Internet connection but cannot connect to the licensing server, see the help topic on configuring a proxy server.

- If the EB-34 does not have an Internet connection, see the help topic on manual activation.

Installing a client-based Fiery option

To install a client-based Fiery option (such as Fiery Impose or Fiery Compose), you must:

- Activate the Fiery option on the computer that will be using the Fiery option

- Install Adobe Acrobat and Enfocus PitStop Edit on the computer

Note: You must activate the client-based Fiery option and install software on each computer that will be using the Fiery option.

To activate a client-based Fiery option:

1 Make sure that Command WorkStation is installed and configured on the computer.

For detailed installation and configuration instructions, see *Utilities*, which is part of the user documentation set.

2 On the computer, click Start > All Programs > Fiery > Fiery Command WorkStation.

3 In the server list, select the EB-34.

4 Choose Administrator from the user menu and type the appropriate password. Then click Login.

The default Administrator password is "Fiery.1", but may have been changed by the site administrator.

5 Right-click a held job and choose Preview.

6 In the Preview window, choose Help > Manage License.

7 Use the controls in the activation window to activate the option.

You will need the License Activation Code (LAC) that is provided with the Fiery option kit. For help with the activation process, click the "?" link in the activation window.

- If the computer has an Internet connection, see the help topic on activating the Fiery option automatically.

- If the computer has an Internet connection but cannot connect to the licensing server, see the help topic on configuring a proxy server.

- If the computer does not have an Internet connection, see the help topic on activating the Fiery option manually.

To install Acrobat and PitStop Edit:

1 If needed, uninstall all versions of Acrobat and PitStop Edit that currently reside on the computer.

Be sure to restart the computer after uninstalling any applications.

2 Close all open applications.

3 Insert the Adobe Acrobat/Enfocus PitStop disc (Windows or Mac OS) into the media drive of the computer.

The Adobe Acrobat/Enfocus PitStop disc is provided with the Fiery option kit.

4 If the installer does not start automatically, navigate to the root level of the disc and double-click Setup.exe (Windows) or Setup.app (Mac OS).

5 Click Install and follow the on-screen instructions.

6 (Mac OS only) Start Acrobat. When prompted, type the license number from the license.txt file that is located on the root level of the disc.

The client-based Fiery option is now ready for use on the computer.

Troubleshooting

This chapter identifies the source of common problems that may occur with the EB-34 and suggests ways of correcting the problems.

Troubleshooting process

Problems with the EB-34 configuration may occur in one of three areas:

- Inside the EB-34

- In the interface between the EB-34 and the copier

- In the interface between the EB-34 and the workstations or computers to which it is connected

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

⚠ **Caution:** When performing the service procedures described in this chapter, follow the precautions listed in page 9.

The terms "replace" and "replacing" are typically used throughout this document to mean reinstallation of existing components. Install new components only when necessary. If you determine that a component you have removed is not faulty, reinstall it. Replacement parts and specifications are subject to change. Refer to the current parts list maintained by your authorized service/support center. Install the correct parts as directed by your authorized service/support center.

Preliminary on-site checkout

Most problems with the EB-34 are caused by loose board or cable connections. This section describes the quick checks you can do to locate and fix obvious problems. It describes how to eliminate any problems with external connections to the back of the EB-34, and then addresses checking internal board and cable connections. Check external and internal connections before replacing any components.

Note: Verify that the network is functioning, no unauthorized software or hardware is installed on the EB-34, and no problems have occurred with a particular print job or application. The on-site administrator can help you verify these issues.

For problems that persist after you check the external and internal connections, this section provides a comprehensive list of internal and external checks that may help you fix the problem.

This section includes the following:

- Checking external connections on page 94

    Describes the quick checks you can do to make sure that the problem is not caused by a loose connection at the back of the EB-34.

- Checking internal components on page 94

    Describes the quick checks you can do to make sure that the problem is not caused by a loose board or cable connection inside the EB-34.

- Inspecting the system on page 96

    Provides a more comprehensive checklist for checking the EB-34 internally and externally. If your initial checks fail, complete this checklist before concluding that you need to replace a cable or component.

To troubleshoot problems that present specific symptoms, see Table 4: EB-34 error messages and conditions on page 102. Locate symptoms listed in the table to help you determine possible causes and steps to remedy them.

Checking external connections

Before removing the side and front panels of the EB-34 to check internal components, eliminate the most obvious sources of problems. Make sure that:

- All interface cables to the system are plugged into the proper connectors (see Figure 6 on page 34).

- The power cable is plugged into the wall power outlet.

- The LED on the network port is blinking to indicate network activity.

⚠ **Caution:** The copier interface cable included with the EB-34 is a *crossover* Ethernet cable that connects to the *lower* (crossover) Ethernet port on the EB-34 connector panel. The network cable at the customer site is a *straight-through* Ethernet cable that connects to the *upper* (straight-through) Ethernet port on the EB-34 connector panel. The cables look similar, but are not interchangeable. Make sure that you connect the cables to the correct ports (see Figure 6 on page 34).

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

Checking internal components

To check the internal components, you must remove the side and front panels of the EB-34.

⚠ **Warning:** Before you remove the EB-34 panels, be aware of the safety precautions that you should take when handling the EB-34. Use ESD precautions when handling printed circuit boards and electronic components. To review the safety precautions, see page 9.

See the disassembly procedures on page 38 and the reassembly procedures on page 72.

To check internal components

1 Shut down and open the EB-34 (see pages 38).

> ⚠ **Caution:** Before you touch any components inside the EB-34, attach a grounding strap to your wrist and discharge any static electricity on your body by touching a metal part of the EB-34.

2 Inspect the inside of the EB-34.

Make sure that no foreign materials have been dropped into the chassis.

- Make sure that the power leads are attached to the connector panel power switch (see page 38).

- Make sure that the DVD and hard disk drive data cables are connected to the correct SATA connectors on the motherboard (see Figure 9 on page 37):

    - DVD drive power/data combination cable to motherboard connector

    - Hard disk drive data cable to motherboard connector

- Look for obviously loose boards and reseat each board securely in its connector on the motherboard.

- Look for obviously loose cables and reseat each cable connector firmly.

- Make sure that each connector is properly aligned with its mating connector. If the pins are offset from each other, the affected board will not function properly.

3 Reassemble the EB-34 and verify its functionality (see page 72).

Inspecting the system

⚠ **Caution:** If your initial checks of the cable and board connections do not fix the problem, you may need to inspect the system on a component-by-component basis, as described in "Table 2: Verifying the system." A comprehensive inspection allows you to verify that each hardware component is properly installed and configured, and helps you avoid replacing expensive components unnecessarily.

If the system you are servicing does not meet a condition listed in Table 2 and it is not obvious what action(s) you should take to fix the problem (for example, if the system hangs before reaching Idle), locate the symptom in Table 4: EB-34 error messages and conditions on page 102 and perform the suggested action(s) for the condition.

Table 2: Verifying the system

Conditions to verify	Part and additional page references
When problem occurs, verify that: • Power cable is connected properly into the power outlet. • Chassis fan is operating. • Network link activity LED on network port is blinking. • All external cables required are present, in correct connectors, and well-seated. • Cables, cable connectors, and mating connectors appear undamaged.	External connectors, chassis fan, and power button, Checking external connections on page 94 and Checking internal components on page 94.
If problem occurs at power up or reboot, verify that: • Activity light on the control panel illuminates. • Display window lights up. • The system does not hang, nor do error messages occur before the systems reaches Idle. • DVD drive is present and no disk is in the drive. • DVD LED blinks briefly. • After the system reaches Idle, the control panel buttons function.	Control panel, page 22

• All replaceable parts are:
  • Present
  • Properly aligned
  • Installed securely
  • Installed on the appropriate site
  • The correct part for the system
  • Properly configured, if configurable (such as hard disk drive jumper)
  • Appear undamaged
• Chassis and contents have not been tampered with.
• Chassis does not contain any foreign objects.
	Chassis

Table 2:   Verifying the system

Conditions to verify	Part and additional page references
• Motherboard, including components and traces, appears undamaged, and no foreign objects are evident. • CPU is present, well-seated, and appears undamaged. • CPU cooling assembly is well-aligned and firmly attached. • Each fan required (including fan cable) is well-positioned (not upside down), powered by the correct motherboard connector, and appears undamaged. • Boards required on the motherboard are present, well-seated, and in the correct slots. • Each DIMM is well-seated. • Battery is installed. • BIOS is well seated.	Motherboard, page 46
• Each DIMM is well-seated. • DIMM edge connectors are not oxidized.	DIMM(s) for EB-34, page 56
Copier interface board is: • Present • Well-seated and installed in the correct slot5 • Appears undamaged	Copier interface board, page 43
User Interface Board (UIB) is: • Present • Correctly attached to its bracket • Appears undamaged UIB cable is: • Present • Firmly connected in the correct connector on the motherboard and the back of the UIB • Appears undamaged	User Interface Board page 44
CPU is: • Present • Well-seated • Appears undamaged The CPU cooling assembly is: • Well-aligned • Firmly attached	CPU with cooling assembly, page 58
Fan is: • Properly positioned (not backwards) • Installed in the correct connector Fan, fan cable, cable connector, and mating connector appear undamaged	Chassis fan, page 62

Table 2:   Verifying the system

Conditions to verify	Part and additional page references
The power supply required is: • Present • Correctly installed • Appears undamaged Cable connectors are: • Firmly connected • Appear undamaged • Installed in the correct devices	Power supply, page 63
The hard disk drive required is: • Present • Correctly installed • Appears undamaged • Jumpered as the master (primary) according to label Hard disk drive data cable is: • Present • Firmly connected to the correct motherboard connector (see page 37) • Appears undamaged	Hard disk drive, page 66
The drive required is: • Present • Correctly installed • Appears undamaged • Jumpered as the master (secondary) according to label • Activity LED lights on power up DVD drive power/data combination cable: • Data segment is firmly connected to the correct motherboard connector (see page 37) • Power segment is firmly connected to an available 4-pin power supply wire • Appears undamaged	DVD drive, page 70

Table 2: Verifying the system
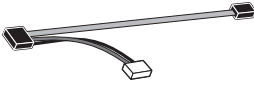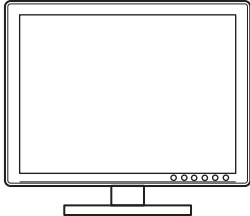
Conditions to verify	Part and additional page references
Each cable required is: • Present • The correct type • Installed in the correct connector • Well-seated • Appears undamaged (including connectors)	UIB cable, Figure 9 on page 37 Hard disk drive data cable, Figure 9 on page 37 DVD drive power and data combination cable, Figure 9 on page 37 Network cable (straight-through Ethernet cable), Figure 6 on page 34 Copier interface cable (crossover Ethernet cable), Figure 6 on page 34 Power cable(s), Figure 10 on page 38

Table 2:   Verifying the system

Conditions to verify	Part and additional page references
If included in the system, the required mouse, monitor, and keyboard are present and appear undamaged. The mouse and keyboard are connected to the correct ports on the EB-34 connector panel. The cables required are: • Present • Installed in the correct connector • Well-seated • Appear undamaged (including connectors)	For the following items, see the document that accompanies the optional components, if applicable. • Mouse (if applicable) • Monitor (if applicable) • Keyboard (if applicable) • Monitor power cable (not pictured)

Normal startup sequence

When you turn on or reboot the EB-34, the system runs the following startup routine on the EB-34 control panel. The sequence takes approximately two minutes to complete.

The following table lists the normal startup sequence as it appears on the EB-34 Control Panel and on the monitor.

Table 3: Boot sequence at power on

Process	Control Panel	FACI or Monitor
1. EB-34 is powered on.	No backlight	Black screen
2. Code in the motherboard BIOS tests, initializes, and configures areas on the motherboard.	Lights and then displays efi|fiery logo	Phoenix SecureCore Server screen
		Serial ATA AHCI BIOS screen
		Intel Matrix Storage Manager screen
3. Windows operating system starts up.	efi|fiery logo	Windows logo screen
		Windows Log On Windows desktop appears after you log on and type the Administrator password.
4. Server software on the hard disk drives completes startup process.	efi|fiery logo	FieryBar appears with the message Starting... Please wait
	fiery logo	FieryBar indicates Idle

Error messages and conditions

To address specific error messages or conditions, see Table 4: EB-34 error messages and conditions on page 102. Use the table to locate the problem or symptom that you want to fix, read about the possible causes, and then perform the suggested actions to solve the problem.

⚠️ **Caution:** Do not replace the hard disk drive and the motherboard at the same time. Doing so in the wrong order, without updating the system, will cause the system to malfunction.

If troubleshooting strategies (checking cables and connections, reinstalling system software, and so forth) do not solve the problem and you suspect either the hard disk drive or the motherboard is faulty, note that it is highly unlikely that the hard disk drive and the motherboard are both defective; therefore, avoid replacing both to solve one problem. Always troubleshoot in the following order.

• **First, replace the hard disk drive and install system software.**

   Always replace a faulty hard disk drive with a new hard disk drive. Transferring a hard disk drive from one EB-34 to another is incorrect and strongly discouraged.

• **If the problem persists, reinstall the original hard disk drive in the system, and then replace the motherboard.**

If replacing a component does not correct the problem, make sure that you reinstall the old component in the EB-34.

Table 4: EB-34 error messages and conditions

Symptom	Possible cause	Suggested action
Beep codes during startup		
1 beep	No error—the EB-34 is starting up normally.	None
6 long beeps	Missing, unmatched, incorrect, or faulty DIMM(s)	Check for missing, unmatched, incorrect or faulty DIMM(s) and reseat the DIMM(s) to remove any oxidation on the connector (see page 56).
Startup		
EB-34 does not start and the control panel is black. **Activity light status: Off.** **Note:** If the Activity light is solid yellow while the control panel is black, the EB-34 is in Sleep Mode.	Possibly one of the following: • Power cable is not plugged into the power connector on the EB-34 connector panel or into the wall power outlet. • The connector panel power switch is not in the ON position and/or the internal black and white power leads from the power supply are not connected to the correct prongs on the connector panel power switch. • UIB cable is not connected to the motherboard, the user interface board, or both. • Faulty power cable. • Faulty power supply (power supply may not be supplying power to the motherboard). • The CMOS jumper is not in the default position. • Faulty motherboard (motherboard power plane may not be supplying power to components).	1 Recheck all cables and connections. 2 Make sure the power switch on the connector panel is in the ON position (see page 29). 3 Listen for the power supply fan and feel for air at the back of the unit where the power supply is located. If air is not coming from the power supply fan, isolate possible faulty power cable as follows: • Power on using a different power cable. • Install a new or "known good" power supply. 4 Check the chassis and feel for air coming out of the back of the system. If air is coming out of the power supply fan vent but is not coming out of the connector panel fan vent, the motherboard may be faulty. You may need to replace the motherboard (see page 46). 5 Review the jumper section on page 48 and ensure that the jumper is in the default position.

Table 4: EB-34 error messages and conditions

Symptom	Possible cause	Suggested action
Startup (cont.)		
EB-34 is getting power, but the control panel is black. **Activity light status: Off.**	• UIB cable is not connected to the motherboard, the User Interface Board, or both. • Faulty UIB cable • Faulty User Interface Board	1 Recheck all cables and connections. 2 Use a different UIB cable. 3 If the problem persists and you have verified that the power supply and the motherboard are functioning properly as described above, replace the User Interface Board (see page 44).
Following installation of a new User Interface Board, the control panel remains blank, yet backlit, for more than five minutes. **Activity light status: N/A.**	• System software requires an additional reboot to synchronize with the firmware on the new User Interface Board.	Wait 5 minutes, power off using the power button, wait 10 seconds, and then press the power button to power on again.
NOT following installation of a new User Interface Board, system stops responding at this screen: *efi | fiery* **Activity light status: Off.**	Possibly one of the following: • Faulty BIOS • Faulty motherboard	1 Recheck all cables and connections. 2 Reboot the EB-34. 3 If the problem persists, replace the motherboard (see page 51).
System stops responding at this screen: *efi | fiery* STARTING UP.... **Activity light status: Blinking green.**	Problem with the Fiery application.	1 Recheck all cables and connections. 2 Reboot the EB-34. 3 If the problem persists, reinstall system software (see page 78).

Table 4:   EB-34 error messages and conditions

Symptom	Possible cause	Suggested action
Startup (cont.)		
Control panel screen and Activity light appear as follows: **Activity light status: Off, then solid red.**	Possibly one of the following: • Wrong, missing, incorrectly connected, or faulty DIMM(s) • Faulty motherboard	1 Recheck all cables and connections. 2 Reboot the EB-34. 3 If the problem persists, verify that the DIMM(s) are installed as described in the DIMM section on page 56. Check for incorrect type, wrong capacity, missing, or faulty DIMM(s). Reseat the DIMM(s) to remove any oxidation on the connector (see page 57). 4 If the problem persists, you may need to replace the motherboard (see page 51).
Control panel screen and Activity light appear as follows: **Activity light status: Blinking amber, then solid red.**	Possibly one of the following: • Faulty disk in the DVD drive • Faulty motherboard	1 Reboot the EB-34. 2 If the problem occurs when you are trying to install software from bootable media (DVD or CD), the media may be damaged. Try another DVD or CD. 3 If the problem persists, replace the motherboard. (see page 51).
Control panel screen and Activity light appear as follows: **Activity light status: Blinking amber.**	Possibly one of the following: • Faulty or incorrectly connected hard disk drive data cable • Hard disk drive power cable disconnected • Faulty hard disk drive • Faulty motherboard	1 Recheck all cables and connections. Make sure that the hard disk drive data cable is connected to the correct SATA connector on the motherboard (see Figure 9 on page 37). 2 Reboot the EB-34. 3 If the problem persists, replace the hard disk drive SATA cable. 4 If the problem persists, replace the hard disk drive (see page 66). If replacing the hard disk drive does not correct the problem, reinstall the old hard disk drive in the system. 5 If the problem persists, replace the motherboard. (see page 51).

Table 4: EB-34 error messages and conditions

Symptom	Possible cause	Suggested action
Startup (cont.)		
Control panel screen and Activity light appear as follows: *efi | fiery* STARTING UP... **Activity light status: Blinking green, then solid red.**	Problem with the Windows operating system	1 Recheck all cables and connections. 2 Reboot the EB-34. 3 If the problem persists, reinstall system software (see page 78).
Activity light status progresses from solid green to solid red. **Activity light status: Solid green, then solid red.**	Possibly one of the following: • Problem with system software • Print job is corrupt or too large • Faulty UIB cable • CPU overheated • Faulty motherboard	1 If you suspect that the problem may be caused by a print job, try printing a different job. 2 Recheck all cables and connections. 3 Reboot the EB-34 and check whether the CPU cooling assembly fan is operating. If the fan is properly connected to the motherboard but does not operate, replace the cooling assembly. 4 If the problem persists, reinstall system software (see page 78). 5 If the problem persists, try connecting another UIB cable (see Figure 9 on page 37). 6 If the problem persists, replace the motherboard (see page 51).
The system takes a long time to start up.	Possibly one of the following: • The system may be taking longer to boot up in order to finalize installation of a patch or update. • The hard disk drive may have fallen to the bottom of the boot order in the BIOS. This can happen if the system is powered on when the hard disk drive is missing, faulty, or not connected. • System software may be corrupted.	1 If the slow start up happens following installation of a software patch or update, shut down, and then restart to see if the problem persists. 2 If the problem persists, make sure that the hard disk drive is present and properly connected. When you reboot the EB-34, the hard disk drive will be moved to the top of the boot order in the BIOS. 3 If the problem persists, reinstall system software (see page 78).

Table 4: EB-34 error messages and conditions

Symptom	Possible cause	Suggested action
Control panel messages		

Check copier power & cable connections appears on the EB-34 control panel (and the optional monitor, if present).	Possibly one of the following:
	• Problem with the connection between the EB-34 and the copier.
	• The copier is not powered on.
	• The copier is on but is not ready to print.
		1 Make sure that the copier is powered on and ready to print.
		2 Make sure that the copier interface cable is the correct type and that the cable is correctly connected to both the copier and to the lower Ethernet port on the EB-34.
		3 If the problem persists:
		  • Recycle power on the copier.
		  • Recycle power on the EB-34 by shutting down the system, waiting 10 seconds, and then powering the EB-34 back on (see page 28).
		4 If the problem persists, replace the copier interface cable (see page 37).
		5 If the problem persists, replace the copier interface board (see page 44).
		6 If the problem persists, you may need to service the copier.

Control panel functions		
EB-34 is getting power, the Control panel is not black, but the buttons on the control panel do not function.	Possibly one of the following: • Problem with the Fiery application • Faulty User Interface Board	1 Recheck all cables and connections. 2 Reboot the EB-34. 3 If the problem persists, reinstall the system software (see page 78). 4 If the problem persists, replace the User Interface Board (see page 44).
DVD drive		
DVD drive is not responding, cannot be located by software, the disk will not eject, or the LED on the drive tray remains lit.	Possibly one of the following: • A disk is stuck in the DVD drive. • Cable connections to the DVD drive are loose or power/data combo cable is faulty. • Faulty DVD drive • Faulty motherboard	1 Press the eject button to open the drive tray. 2 Insert a paper clip into the small hole near the eject button to force the drive tray to open. 3 If the problem persists, check the cable connections to the DVD drive (see Figure 9 on page 37). 4 Check DVD drive data cable connection to the motherboard. 5 If the problem persists, you may need to replace the DVD drive (see page 70). 6 If the problem persists, you may need to replace the motherboard (see page 51).

Table 4: EB-34 error messages and conditions

Symptom	Possible cause	Suggested action
System performance		
System performs slowly and/or hangs periodically.	Possibly one of the following: • Board or cable connections are loose or faulty. • Corrupted system software • Missing or faulty DIMM(s) • Faulty or overheated CPU • Faulty motherboard	1 Recheck all cables and connections. 2 Make sure that the CPU is firmly seated in its socket and that the fan cable is connected to the motherboard. 3 If the problem persists, reinstall the system software (see page 78). 4 Check for missing or faulty DIMM and reseat the DIMM to remove any oxidation on the connector (see page 57). 5 If the problem persists, you may need to replace the motherboard (see page 51).
Clock is slow.	Possibly one of the following: • Missing or dead battery on the motherboard	If the problem persists, replace the battery on the motherboard and then update the date and time in the Windows Control Panel (if a monitor is connected), or in Command WorkStation or WebTools.
The EB-34 hangs during system software installation.	Possibly one of the following: • The system time and date need to be configured in the EB-34 BIOS. (If the battery was removed from the EB-34 motherboard during service and the time and date were not configured in Setup afterward, the EB-34 will hang during system software installation.) • One of the System Software DVDs is corrupted. • The DVD drive is faulty. • The hard disk drive is faulty.	1 Set the time and date in the BIOS: • Power off the EB-34 and remove any media from the DVD drive. • If not already connected, connect a keyboard and a monitor to the EB-34. • Power on the EB-34 and immediately press F2 repeatedly to launch the BIOS setup utility. • Configure the time and date. (To navigate, use the tab key and the -/+ keys). • Save changes and exit (F10). • When the EB-34 reaches Idle, power off and then begin a full software installation again starting with System Software DVD 1 (see page 78). 2 If the problem persists, obtain another set of System Software DVDs and begin a full software installation again starting with the System Software DVD 1. 3 If the problem persists, you may need to replace the DVD drive (see page 70). If replacing the DVD drive does not correct the problem, reinstall the old DVD drive in the system. 4 If the problem persists, replace the hard disk drive (see page 66). If replacing the hard disk drive does not correct the problem, reinstall the old hard disk drive in the system.

Table 4: EB-34 error messages and conditions

Symptom	Possible cause	Suggested action
Network		
If you suspect a network problem, keep in mind the following: • If the EB-34 does not appear in the list of printers on the network, there may be another device on the network with the same Ethernet hardware address. • Conflicting network settings may have been configured in Setup and on the customer's workstation. • Printing problems may be caused by inappropriate Setup options. • Application-specific printing errors may be caused by missing or incorrectly placed printer description files. • System software may be corrupted. For additional information, see *Configuration and Setup* from the user documentation set.		
Unable to connect to the network, or the green LED on the network port is not lit.	Possibly one of the following: • Network cable is connected to the wrong Ethernet port. • No cable/wrong type of cable is connected to the network port. • Network cable or connection is faulty. • Network is faulty. • System software is corrupted. • Network interface on the EB-34 motherboard is faulty.	1 Make sure that the correct cables are connected to the correct ports on the EB-34 connector panel. The upper Ethernet port is for the network straight-through cable; the lower Ethernet port is for the scan cable (crossover Ethernet). 2 If the green LED on the (upper) Ethernet network port is not lit, check the cable connection of the upper Ethernet network port and the network. Make sure that the cable is a straight-through cable, not a crossover cable (see page 94). 3 If the network cable is a straight-through cable and not a crossover cable and is properly connected to the (upper) Ethernet network port, connect a new network cable to the (upper) Ethernet network port. 4 If the problem persists, ask the network administrator to check Network Setup. 5 If the problem persists, make sure that the network administrator has checked other devices on the network. If other devices are not functioning, there could be a problem with the network. 6 If the problem persists, reinstall the system software (see page 78). Corrupt system software may cause the system to hang. 7 If the rest of the network is functioning properly and the problem persists, replace the motherboard (see page 51).

Table 4: EB-34 error messages and conditions

Symptom	Possible cause	Suggested action
Network (cont.)		
System starts up slowly then displays one or more DHCP error messages on the control panel.	Possibly one of the following: • Network cable is connected to the wrong Ethernet port. • No cable/wrong type of cable is connected to the network port. • Network cable or connection is faulty. • Network is faulty. • System searches for a nonexistent DHCP server because DHCP is enabled by default on the EB-34, but the customer's network is not using DHCP. • Ethernet interface on the EB-34 motherboard is faulty. • System software is corrupted.	1 Make sure that the correct cables are connected to the correct ports on the EB-34 connector panel. The upper Ethernet port is for the network straight-through cable; the lower Ethernet port is for the scan cable (crossover Ethernet). 2 If the green LED on the (upper) Ethernet network port is not lit, check the cable connection of the upper Ethernet network port and the network. Make sure that the cable is a straight-through cable, not a crossover cable (see page 94). 3 If the network cable is a straight-through cable and not a crossover cable and is properly connected to the (upper) Ethernet network port, connect a new network cable to the (upper) Ethernet network port. 4 If the problem persists, ask the network administrator to check Network Setup. 5 If the problem persists, ask the network administrator to check other devices on the network. If other devices are not functioning, the problem may be with the network. 6 If the problem persists, reinstall system software (see page 78). Corrupt system software may cause the system to hang. 7 If the rest of the network is functioning properly and the problem persists, replace the motherboard (see page 51).

Table 4: EB-34 error messages and conditions

Symptom	Possible cause	Suggested action
Printing		
Note: Intermittent print quality problems are difficult to trace. Before you try to troubleshoot print quality problems, print a Test Page to make sure that the copier does not need servicing or adjusting.		
Test Page fails to print.	The copier is not ready to print.	Make sure that the copier is turned on and ready to print.
	A problem exists with the connection between the EB-34 and the copier.	1 Recheck that the copier interface cable is present and properly connected to the EB-34 and the copier (see page 34). 2 If the problem persists: • Recycle power on the copier. • Recycle power on the EB-34 by shutting down through the Functions menu, waiting 10 seconds, and then powering the EB-34 back on (see page 30). 3 If the problem persists, replace the copier interface cable (see page 37). 4 If the problem persists, replace the copier interface board (see page 43). 5 If the problem persists, you may need to service the copier.
EB-34 appears in the list of printers on the customer's workstation, but certain jobs do not print.	A PostScript error	Make sure that Print to PostScript Error in Setup is set to Yes. Check for error messages on the EB-34 output.
	An application problem	1 Print a job from a different application to determine if the problem is associated with a particular application. 2 Make sure that the connection between the EB-34 and the workstation is working by downloading a Test Page from the workstation, or by printing a simple file such as a text file. 3 Resend the problem file.

Table 4: EB-34 error messages and conditions

Symptom	Possible cause	Suggested action
Printing (cont.)		
A print job stalls or stops after one or a few pages.	Possibly one of the following: • A PostScript or application error. • System software is corrupted.	1 Cancel the EB-34 print job. 2 If this fails to clear the problem, reboot the EB-34 (see page 28). 3 If the problem persists, select Clear Server from the control panel or Command WorkStation. 4 Set Print Cover Page to Yes and resend the problem job. The Cover Page will indicate "PS Error." For more information about the PostScript error, double-click the problem job in the Command WorkStation window. 5 If the problem persists, reinstall system software (see page 78). Corrupt system software may cause the system to hang at this screen.
	Incorrect or faulty DIMM or faulty DIMM connection	1 Reseat the DIMM(s) to remove any oxidation on the connectors (see page 57). 2 Verify memory amount on the Configuration page. 3 If the problem persists after replacing the DIMM, replace the motherboard (see page 51).
Quality is inconsistent.	A copier problem	Test the copier and if necessary service it (see the documentation that accompanies the copier).
Print quality is poor.	Possibly one of the following: • A file or application problem. • A missing or outdated printer description file.	1 Print the EB-34 Test Page. 2 If the quality of the EB-34 Test Page is good, the error condition may be a file or application problem. 3 Make sure that the appropriate printer files are installed. (For more information, see *Printing*.)
If the user can print the EB-34 Test Page but cannot print a job from a computer on the network, make sure that the network administrator has: • 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. • 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. **Note:** EPS file generation is not completely standardized among applications. Some users may encounter problems while printing certain EPS files.		

Specifications

This section provides an overview of EB-34 features, specifications, and safety certifications.

Note: Replacement parts and specifications are subject to change. When ordering replacement parts, refer to the current parts list maintained by your authorized service/support center. Install the correct parts as directed by your service/support center.

Hardware features

- 2.9 GHz Intel Pentium dual core G850 CPU

- Memory—4GB (2 x 2GB DIMMs)

- 500GB hard disk drive

- An Ethernet connector for 10BaseT/100BaseTX/1000BaseT Mbs connectivity over twisted pair cable (upper port)

- Built-in DVD-RW drive

Physical specifications

- Operating environment:

  - Temperature: +5°C to +40°C

  - Relative Humidity: 10%-85% (non-condensing)

- Power supply rating: 100-240V, 50-60Hz, 3A

- Rated Power Consumption: 180W

- Dimensions (height x depth x width):

  32.0 cm (12.5 in.) x 35.5 cm (14.0 in.) x 14.0 cm (5.5 in.)

- Weight: 6.8 kg (15.0 lbs.)

Networking and connectivity

- Supports AppleTalk and TCP/IP protocols simultaneously (for font download only).

- Ethernet connector (upper port) that supports 10BaseT/100BaseTX/1000BaseT twisted pair network connectivity.

- Ethernet connector (lower port) that provides the print and scan interface between the EB-34 and the copier.

User software

For optimal performance, maintain current versions of the user software on every network computer used to print to the EB-34. User software may be installed directly on client computers, or over a network via the Fiery User Software Installer that resides on the EB-34.

Safety and emissions compliance

The EB-34 has been certified to meet or surpass the following government standards.

Safety approvals

- UL 60950-1:2007 (TUV NRTL)

- CAN/CSA-22.2 #60950-1-07

- EN 60950-1:2006+A11+A1+A12

- CB scheme IEC 60950-1Amd1 (2nd edition)

- CCC

EMI/EMC approvals

- VCCI Class A

- FCC Part 15 Verification (NA) Class A

- ICES-003 (NA) Class A

- EN55022:2010 (EU) Class A

- EN55024:2010 (EU)

- EN 60950-1:2006+A11+A1+A12

- EN61000-3-2:2006 plus A1:2009 and A2:2009 (EU) Class A

- EN61000-3-3: 2008 (EU)

- EN62311:2008 (EU)

- C-Tick mark (Australia and New Zealand) Class A

- CCC Class A

Index