

# Installation and Service Guide

A guide for service technicians



Replacement parts and specifications are subject to change.



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# Introduction

This document includes information about servicing the E-43A. In this document, the Color Controller E-43A is referred to as "the E-43A."

### **Document conventions**

Note:

The NOTE format highlights important messages and additional information.



The WARNING icon indicates a warning concerning operations which, if not performed correctly, may lead to death or injury. To use the E-43A safely, always pay attention to WARNING icons and messages.



The CAUTION icon indicates a caution concerning operations which, if not performed correctly, may lead to injury. To use the E-43A safely, always pay attention to CAUTION icons and messages.

**IMPORTANT** 

The IMPORTANT icon indicates operational requirements and restrictions. To operate the E-43A correctly and avoid damage to the E-43A or other property, always pay attention to IMPORTANT icons and messages.

### About the E-43A

The E-43A adds computer connectivity and highly efficient PostScript and PCL printing ability to the Pro C7110/C7100 copier/printer.

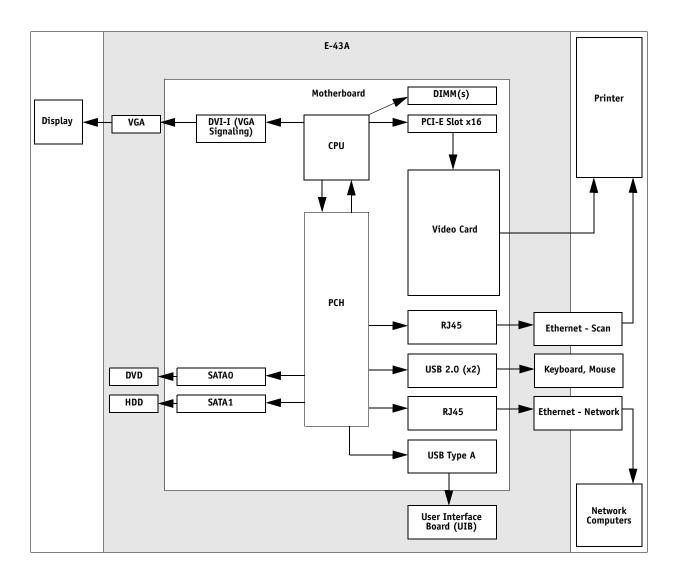
With the E-43A, customers can use the copier/printer as a PostScript printer and scanner. Once it is connected to the copier/printer through the network, customers can print to the E-43A from supported client computers on the network.

The E-43A ships with software pre-installed so that customers can use it immediately. However, as part of servicing the E-43A, you may need to reinstall software.

# How the E-43A operates

When a customer prints, the motherboard and printer interface board process image data. The printer interface board is a custom board and allows the E-43A to communicate with the copier/printer. 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 printer interface board. The raster data is sent to the copier/printer, which then renders the image on paper at maximum speed.



**FIGURE 1:** E-43A functional diagram

# Before you service the E-43A

Before you service the E-43A, it is strongly recommended that you make sure that you have the required tools (page 11) 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 (see page 39).

## Tools you will need

To install or service the E-43A, 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
- E-43A 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**

This section includes information about how to safely operate and service the E-43A and how to avoid damage to E-43A components.

#### Report shipping damage

If there is evidence of shipping damage, save the shipping boxes and damaged parts. Call the shipper immediately to file a claim and notify your authorized service/support center.

### Do not change an existing network

The E-43A is probably connected to an existing Local Area Network (LAN) based on Ethernet hardware. The network is the link between the customer's computer, existing laser printers, and other prepress equipment. Never disturb the LAN by breaking or making a network connection, altering termination, installing or removing networking hardware or software, or shutting down networked devices without the knowledge and express permission of the site administrator.

#### Do not assign an IP address to the E-43A

Only the site administrator should assign an IP address to a network device, including the E-43A. If you enter an incorrect IP address for the E-43A, errors may occur on connected devices.

### Handling boards

When handling a printed circuit board, do not bend it. Hold it by opposing edges, rather than by the corners.

### Handling the hard disk drive

To ensure that you do not damage the hard disk drive, do the following:

- Follow electrostatic discharge (ESD) precautions.
- Keep magnets and magnetic-sensitive objects away from the hard disk drive.

 Do not loosen or remove the screws on the top of the hard disk drive. Doing so voids the warranty.

- Handle the hard disk drive by its sides and avoid touching the printed circuit board.
- Do not drop, jar, or bump the hard disk drive.
- Before you remove or install a hard disk drive, allow it to reach room temperature.

#### **Avoid magnets**

Keep magnets and magnetic-sensitive objects away from electronic components, especially the hard disk drive.





#### Avoid fan blades

The E-43A contains hazardous moving parts. When servicing the E-43A, keep away from moving fan blades.

#### Use caution with sharp edges

The edges of some E-43A components are sharp.

### Electrostatic discharge

When you work with electronic components, electrostatic discharge is a concern since it can destroy circuits, or damage them, reducing their life span. The area around the copier/printer is most likely not static-free, and electrostatic discharge could occur.

Do the following to avoid damage due to electrostatic discharge:

- Work on a grounded antistatic mat.
- Wear an antistatic wristband, attached to the same location as the antistatic mat.
- Before you remove an electronic component from the shipping box, touch a metal area of the copier/printer to discharge static from your body.
- After you remove an electronic component from the shipping box, place it face up on a grounded antistatic surface.
- Leave electronic components in antistatic bags until you are ready to use them.
- Do not walk on carpet or vinyl while carrying an electronic component, unless it is in an
  antistatic bag.
- If you remove an electronic component from the copier/printer, immediately place it in an antistatic bag.

#### The power cable

Observe the following guidelines:

- Only use the power cable that shipped with the E-43A or an appropriate replacement power cable. For replacement parts, see your authorized service support center.
- Before you open the E-43A, unplug the E-43A.

- Keep the power cable away from foot traffic.
- Do not place objects on the power cable.
- Do not plug the E-43A into a 2-hole, ungrounded outlet by means of a 3-prong adapter.
- Do not plug the E-43A into a circuit connected to heating or refrigeration equipment (including a water dispenser).
- Do not plug the E-43A into a switchable outlet.
- Do not pull the cable to unplug the E-43A. Instead, pull the plug.
- Do not tamper with or disable the power cable grounding plug.
- Do not use an extension cord.

### Do not bring liquids near the E-43A

If liquid spills on the E-43A, immediately unplug the E-43A.

#### Do not open the power supply

For more information about the power supply, see "Power supply" on page 73.

#### Do not open the hard disk drive

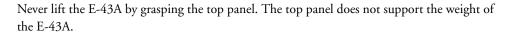
For more information about the hard disk drive, see "Hard disk drive" on page 75.



#### Lift the E-43A carefully

To avoid injury, do not lift the E-43A without assistance.

The E-43A weighs approximately 20kg. At least two persons are required to move the device.



ATTENTION: Ne jamais soulever le serveur d'impression par sa partie supérieure : celle-ci ne peut pas supporter le poids du système.

**AVVERTENZA:** Il server di stampa non deve essere mai sollevato afferrandolo dal pannello superiore, in quanto quest'ultimo non può sostenere il peso dell'intero sistema.

**WARNUNG:** Heben Sie den Druckserver nicht an der oberen Gehäuseabdeckung an. Die obere Gehäuseabdeckung ist nicht dafür ausgelegt, das Gesamtgewicht des Systems zu tragen.

**ADVERTENCIA:** No levante nunca el servidor de impresión agarrándolo por el panel superior. El panel superior no soporta el peso del sistema.

ADVERTÊNCIA: Nunca erga o servidor de impressão pelo painel superior. O painel superior não suporta o peso do sistema.

**WAARSCHUWING:** Til de afdrukserver nooit op door het bovenpaneel vast te nemen. Het bovenpaneel kan het gewicht van het systeem niet dragen.

### Power supply cord notice

The power supply cord is used as the main disconnect device. Ensure that the power outlet is located/installed near the equipment and is easily accessible.



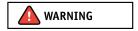
**IMPORTANT** 



### Lithium battery notice

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**



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**

Installation problems are easier to avoid and diagnose if you proceed from the component to the system level and verify functionality at each stage. The following procedure should take place:

- Preparing for hardware installation or service procedures (see page 10)
- Installation sequence (see page 15)
- Checking the customer site (see page 16)
- Unpacking the E-43A (see page 18)
- Installing the E-43A and connecting it to the copier/printer and the network (see page 19)
- Completing the installation (see page 24)
  - Print a Test Page and a Configuration page.
  - If the E-43A requires a static IP address (for example, in a non-DHCP network environment), work with the network administrator to configure it as described on page 23.
  - Remind the site administrator to install the current user software on networked computers that print to the E-43A (see *Printing* and *Utilities*, which are part of the user documentation set.

# **Installation sequence**

Because the E-43A is a node on the customer's computer network, make sure that you coordinate your scheduled installation with the network administrator at the customer site. For Network Setup information, 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 using the Configure tool available through Command WorkStation and WebTools. Start Configure, choose Fiery Server > Regional Settings > Server Language, and then click Save, and then reboot the E-43A.

1 Check installation requirements and verify site conditions.

If possible, obtain verification that the network is operational (see page 16).

- 2 Unpack the E-43A (see page 18).
- 3 Connect the monitor, keyboard, mouse, and furniture to the E-43A if applicable.

For more information on setting up the furniture, see Furniture, 19-inch Monitor, Keyboard, and Mouse for PRO Series.

- 4 Connect the interface cables (see page 21).
  - Network cable (upper RJ-45)
  - Crossover Ethernet cable (lower RJ-45)

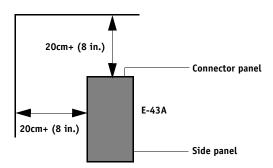
5 (Optional) If the E-43A requires a static IP address (for example, in a non-DHCP network environment), work with the network administrator to configure it (see page 23).

6 Complete the installation (see page 24).

Remind site administrator to install current user software on networked computers that print to the E-43A (see *Printing* and *Utilities*, which are part of the user documentation set).

# Checking the customer site

Before you install the E-43A, check site conditions and inform the customer of any installation requirements.



**FIGURE 2:** Space requirement for the E-43A

### Copier/printer readiness

- Is the copier/printer configured for use with the E-43A? (For the proper settings, see the
  documentation that accompanies the copier/printer.)
- Is space available near the copier/printer for the E-43A and the furniture?

Make sure that adequate space is available for the E-43A and the furniture. Allow enough space at the connector panel for the cables to route easily and at the side panel so that the E-43A does not interfere with use of or service to the copier/printer (such as clearing a paper jam). You may need to move the copier/printer away from the wall so that the interface connectors are accessible.

Does the copier/printer require service or adjustments?

Print the copier/printer Test Page before you install the E-43A.

If the image indicates that the copier/printer needs adjustment, inform the customer. After getting approval, complete the necessary copier/printer service.

#### **Power**

Is a dedicated, grounded electrical outlet for the E-43A available near the copier/printer?

Locate the grounded electrical outlet that will supply power to the E-43A. Do not run the E-43A and the copier/printer on the same circuit. If the customer has provided one, use a surge suppressor for the E-43A.

#### Network

- Make sure that the network is available at the time set for installation.
- Verify with the network administrator that the network is functioning before you attach the F-43A.
- Make sure that the configuration requirements specified in Configuration and Setup
   (which is part of the user documentation set) have been met for remote computers and
   the network.

### Setting customer expectations

When the site is ready, installation of the E-43A takes about one hour. Inform the customer of the following:

- Some nodes on the network may be unavailable for up to one hour.
- The copier/printer may be unavailable for up to one hour.
- 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 E-43A and confirms network functionality with the connector in place before the date scheduled for the E-43A installation.
- The network administrator must make a networked computer available during the installation. The appropriate software must be installed in advance. Documentation for the networked computer and network operating software should be available.
- The network administrator must install the user software shipped with the E-43A onto networked Windows and Mac OS computers that print to the E-43A (user documentation is also included).

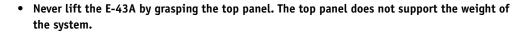
**Note:** This document covers hardware installation and service and provides general information about connecting the E-43A to the customer's network. Network Setup and configuration information exceeds the scope of this document. For Network Setup and configuration information, refer the network administrator to *Configuration and Setup*, which is part of the user documentation set.

# Unpacking the E-43A

The E-43A is assembled and shipped from the factory with all necessary cables (except the network cable) and documentation.

Before you unpack the E-43A, it is strongly recommended that you review all "Precautions" on page 11 to avoid injury or damage to the E-43A.

• The E-43A weighs approximately 20Kg. Be careful when moving the device.



**AVERTISSEMENT:** Ne jamais soulever le serveur d'impression par sa partie supérieure : celle-ci ne peut pas supporter le poids du système.

AVVERTENZA: Il server di stampa non deve essere mai sollevato afferrandolo dal pannello superiore, in quanto quest'ultimo non può sostenere il peso dell'intero sistema.

**WARNUNG:** Heben Sie den Druckserver nicht an der oberen Gehäuseabdeckung an. Die obere Gehäuseabdeckung ist nicht dafür ausgelegt, das Gesamtgewicht des Systems zu tragen.

**ADVERTENCIA:** No levante nunca el servidor de impresión agarrándolo por el panel superior. El panel superior no soporta el peso del sistema.

AVISO: Nunca erga o servidor de impressão pelo painel superior. O painel superior não suporta o peso do sistema.

**WAARSCHUWING:** Til de afdrukserver nooit op door het bovenpaneel vast te nemen. Het bovenpaneel kan het gewicht van het systeem niet dragen.

#### TO UNPACK THE E-43A

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 E-43A at a later date.

- 2 Remove the contents from the top container. Inspect the contents for visible damage.
- 3 Set aside the remaining components from the top container.
- 4 Remove the top container and any packing material.
- 5 Carefully lift the E-43A 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 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 E-43A, the user software must be installed on computers that will print to the E-43A.



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





**FIGURE 3:** Affixing the decal to the copier/printer

# Connecting the E-43A

You are now ready to make the following connections:

• (Optional) Monitor, keyboard, and mouse

**Note:** The Fiery Integrated Workstation is an option.

- (Optional) Additional printer interface board for specialty color support
   For details on installing the additional printer interface board, see the documentation provided with the option kit.
- Power cable connection
- Network cable connection
- Crossover Ethernet cable connection

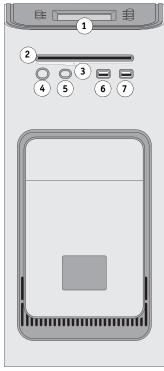
For more information on connecting cables, see page 38.

#### Key

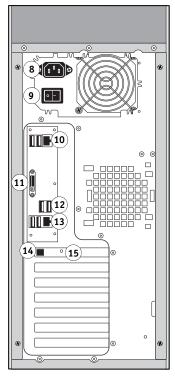
- 1 Control panel
- 2 DVD drive
- 3 Eject button
- 4 Power button
- 5 Reset button

**NOTE:** Use the reset button only if the system is unresponsive to keyboard or mouse actions.

- 6 Type A USB port
- 7 Type A USB port
- 8 Power connector
- 9 Power switch |: Power On 0: Power Off
- 10 Network port (Upper RJ-45)
- 11 Monitor (DVI) port
- 12 Type A USB ports
- 13 printer interface port (crossover Ethernet port) and Type A USB ports
- 14 Type B USB port on the printer interface board
- 15 OFF/ON switch for power synchronization







Connector panel

**FIGURE 4:** Front and connector panel

### Connecting the monitor, keyboard, mouse, and power

Before using the E-43A, connect the monitor, keyboard, mouse, and power to the E-43A if applicable.

#### TO CONNECT THE MONITOR, KEYBOARD, MOUSE, AND POWER

**NOTE:** For detailed information about the monitor, keyboard, and mouse, see the documentation that accompanies those products.

1 Make sure that the E-43A is installed in the furniture and that the monitor is securely attached to the top of the E-43A.

For more information, see the assembly instructions that accompany the furniture.

- 2 Place the keyboard in the keyboard tray on the underside of the furniture table top. Place the mouse on the table top.
- 3 Connect the keyboard and mouse cables to the USB ports on the E-43A connector panel.
- 4 If the monitor cable is not already attached to the monitor, attach the cable that matches the connector on monitor port on the E-43A. If necessary, use the port adapter included in the furniture kit to connect the monitor cable.

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5 Connect the monitor power cable to the back of the monitor (some monitors may already have this cable attached). Connect the other end of the cable to a wall outlet.

Be sure to use the appropriate power cable for your regional outlet type.

6 Connect the recessed end of the E-43A power cable to the power connector to the E-43A connector panel. Connect the other end of the cable to a wall outlet.

## Connecting to the copier/printer and the network

Connect the E-43A to the copier/printer and the network to enable print and network connectivity.

#### TO CONNECT TO THE COPIER/PRINTER

1 Make sure that the E-43A and the copier/printer are powered off.

*Do not* fold the printer interface (Data Transfer Unit) cables. When you bundle up the cable, make a circle with the radius of 10cm (4 inches) or more.

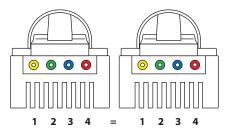
2 Connect the crossover Ethernet cable to the lower RJ-45 port on the E-43A and the copier/ printer.

**Note:** The straight-through network cable at the customer site and the crossover Ethernet cable included with the E-43A look similar, but are not interchangeable. Make sure that you

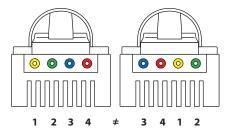
connect the crossover Ethernet cable to the lower RJ-45 port on the E-43A connector panel.

**IMPORTANT** 

Align cables side by side and examine wires.



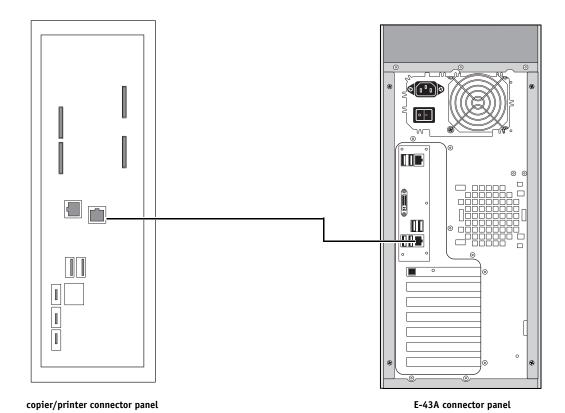
Straight-through cable: wire arrangements are identical on both connectors



crossover Ethernet cable: wire arrangements are different

FIGURE 5: Straight-through and crossover Ethernet cables

**NOTE:** To prevent risk of cross-talk, make sure the crossover Ethernet cable does not touch the power cables for the system. Image quality problems or E-43A shutdowns could result.



**FIGURE 6:** Printer and E-43A cable connection

3 (Optional) If you enable the power synchronization feature, connect the E-43A and the copier/printer using the USB cable.

See "Power synchronization" on page 35 for more information.

#### TO CONNECT TO THE NETWORK

- 1 Make sure that the E-43A is powered off.
- 2 Make sure that the network cable is connected to the customer site network.
- 3 Connect the network cable to the upper RJ-45 network port on the back of the E-43A.

The E-43A 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)

After power on, the network administrator should perform Network Setup, verify the network connection, verify that the E-43A appears in the list of digital presses, and then print a few test documents from a networked computer that will use the E-43A. For more information, see *Configuration and Setup*, which is part of the user documentation set.

#### **IMPORTANT**

**NOTE:** The straight-through network cable at the customer site and the crossover Ethernet cable included with the E-43A look similar, but are not interchangeable. Make sure that you connect the network cable to the upper RJ-45 port on the E-43A connector panel (see page 38).

# Configuring a static IP address for the E-43A

If the customer requires the E-43A 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 E-43A.

#### TO CONFIGURE A STATIC IP ADDRESS FOR THE E-43A

- 1 Press Home button on the copier/printer operational panel.
- 2 From the Home screen of the copier/printer touch panel, select Fiery. If the Fiery icon does not display, press the button on the upper right corner of the screen to switch to the icon view.
- 3 Press the Fiery tab.
- 4 Press Setup.
- 5 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.

- 6 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. Enter an IP address. Press Save.
  - Press IPv4 Address. Press Manual Configuration.

#### 7 On the Manual Configuration screen, do the following:

- In the IP Address field, enter an IPv4 address. Press OK.
- In the Subnet Mask field, enter a subnet mask IP address, Press OK.
- In the Default gateway field, enter a default gateway IP address. Press OK.
- When done, press Save. Press Go Back.
- 8 On the Setup screen, press Exit Setup.
- 9 Press Reboot Now.

# Completing installation and starting up

To finish the installation of the E-43A at the customer site, make sure to do the following:

1 Make sure that the copier/printer is powered on.

If the power synchronization is set to ON, the E-43A will start automatically. Proceed with step 3.

2 Power on the E-43A (see page 32).

Make sure that the power cord is attached and that the power switch on the connector panel is in the ON position(|). Press the power button (()) on the front panel once and release the button. The power supply automatically senses the correct voltage.

3 Wait for the system to power on and for the E-43A Info screen to reach Idle.

**NOTE:** If the message "Check power and cable" displays on the copier/printer copier/printer touch panel, verify that the copier/printer interface cable is connected correctly to the copier/printer and the E-43A.

4 Perform any required system software upgrades.

For instructions, see the documentation that accompanies the E-43A service upgrade.

Updates to Fiery Server Software may be available for the E-43A from a variety of sources (for example, System Updates (see page 95), patches provided on CD, or patches downloaded by the customer).

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.

- 5 Print a Test Page and a Configuration page and ask the customer to verify the output.
- 6 If the E-43A requires a static IP address (for example, in a non-DHCP network environment), work with the network administrator to configure it as described on page 23.
- 7 Change the factory default language, if needed.

For more information on changing the factory default language, see page 92.

- 8 Ask the network administrator to perform Setup and to print some test documents over the network.
- 9 Store the output and the current Configuration page(s) near the copier/printer.
- 10 Inform the site administrator that the E-43A user software must be installed on networked computers that print to the E-43A.
- 11 Ask the site administrator to make sure that all media (DVDs and/or CDs) shipped with the E-43A is stored in a safe location, accessible to you.

# USING THE E-43A

The following user interfaces are available for the E-43A:

- The control panel on the front of the E-43A.
- The copier/printer touch panel.

**NOTE:** The Fiery Integrated Workstation (monitor, mouse, and keyboard) is provided as an option feature.

# Using the E-43A control panel

The control panel on the front of the E-43A allows you to do the following:

- Eject CDs and DVDs (a hardware eject button is also provided below the disc slot)
- Replace the motherboard (when the motherboard replacement dongle is inserted into a USB port)
- View the IP address of the E-43A
- Shut down, restart, or reboot the E-43A (see page 32).

**NOTE:** You can also shut down and restart the E-43A through the copier/printer touch panel (see page 28).

- Interact with the E-43A during software installation (see page 87)
- Run certain diagnostics (for service purposes only)

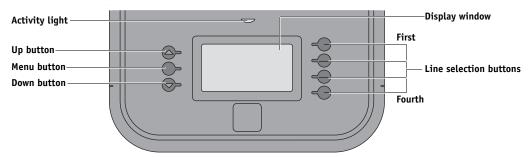


FIGURE 7: E-43A control panel

#### **Buttons**

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 to scroll to different screens in multi-screen lists or prompts.

Menu button Press to view the following options:

• Eject CD/DVD

• IP Address

• Shut Down System

Restart Server

- Reboot System

## **Activity light**

The activity light on the E-43A control panel indicates current E-43A activity. If the light is:

Flashing amber The E-43A is starting up and the BIOS has established communication

with the User Interface Board (UIB).

Flashing green The E-43A is continuing startup and the Windows operating system has

established communication with the UIB.

Solid green The E-43A is powered on and is in the Idle state.

Solid amber The E-43A is powered off, but the printer interface cable is plugged into

the printer. The control panel LCD continues to draw power when the

E-43A is off.

Flashing or solid red

An error has caused printing to be disabled.

No light The E-43A is powered off and the printer interface cable is not connected

to the printer.

#### E-43A Functions menu

The following options are available from the E-43A Functions menu:

• **MB Replacement:** Allows you to transfer any options stored in the hard disk drive of the E-43A into a new motherboard.

**NOTE:** The MB Replacement option appears only when you insert the motherboard replacement dongle into a USB port.

- **Eject CD/DVD:** Allows you to eject media from the DVD drive. Media is also automatically ejected whenever the E-43A 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 E-43A.
- Restart Server: Includes options to Restart (soft reset) or Reboot (hard reset) the E-43A.
   Selecting Restart resets the E-43A server software, but does not reboot the entire system.
   Selecting Reboot shuts down all E-43A activity and reboots the system. When you select Restart or Reboot, network access to the E-43A is temporarily interrupted and all currently processing jobs are aborted and may be lost.
- **Shut Down Server:** Shuts down all E-43A server software and powers off the system. Always select this option to power off the system.



**FIGURE 8:** E-43A Functions menu

**NOTE:** 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 E-43A only if the system is unresponsive to keyboard or mouse actions (if available).

# Using the copier/printer touch panel

The "Fiery" icon of the copier/printer touch panel allows you to interact with the E-43A from the copier/printer. The menus provide access to many of the same options available from Command WorkStation.

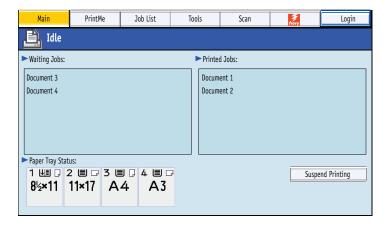


FIGURE 9: The copier/printer touch panel

TO ACCESS TO THE FIERY SCREEN ON THE COPIER/PRINTER TOUCH PANEL

- 1 Press Home button on the copier/printer operational panel.
- 2 From the Home screen of the copier/printer touch panel, select Fiery. If the Fiery icon does not display, press the button () on the upper right corner of the screen to switch to the icon view.
- 3 Press the Fiery tab.

#### Main tab

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

Suspend Printing

Suspend print activity between the E-43A and the copier/printer. Use this command to interrupt the current E-43A job, for example, to perform maintenance tasks. Jobs continue to process on the E-43A. After you complete maintenance tasks, choose Resume Printing to continue printing jobs from the E-43A.

Resume Printing Resume print activity between the copier/printer and the E-43A after you select Suspend Printing.

#### PrintMe tab

The PrintMe tab allows you to submit print jobs using Document IDs if you have a PrintMe subscription. For more information, see *Printing Guide*.

**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 on the copier/printer touch panel provides access to jobs according to the status of the job, similar to the Active and Printed Jobs windows in Command WorkStation. The lists are as follows:

Active Jobs currently waiting to print.

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 desired tab at the bottom of the copier/printer 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 job list. Select a job, and choose the appropriate button to Print, Print and Hold, Delete, or display the Properties of the job. 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 and calibration.

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 the exact same alignment. For more

information about this function, see Utilities.

Calibrate the E-43A using ColorCal. For more information, see Color Printing.

#### Scan tab

The Scan tab allows you to scan documents. For more information, see *Utilities*.

### Fiery tab

The Fiery tab provides access to many of the same features available through Command WorkStation.

Fiery Info Displays information about the current configuration of the E-43A.

Printable Info Allows you to print these system pages from the E-43A:

**PS Test Page/PCL Test Page:** Confirms that the E-43A is properly connected to the copier/printer, and provides color and grayscale samples to troubleshoot problems with the copier/printer or the E-43A. Settings on the Test Page may include: Server Name, color settings, printer model, and date and time the Test Page was printed.

**PS Font List/PCL Font List:** Prints a list of all fonts currently on the E-43A hard disk drive.

**Configuration:** Provides general information about the hardware and software configuration of the E-43A, the current settings for Setup, the current calibration, the IP address of the E-43A, and a log of system updates.

**Color Charts:** Prints samples of the RGB, CMY, and PANTONE colors available from the E-43A.

**Custom Paper Instructions:** Provides the instructions for setting up custom paper entry.

**Calibration Instructions:** Prints the information on how to perform the calibration.

**Job Log:** Prints a log of the last 55 jobs.

E-mail Log: Prints a log listing recent e-mail activity.

FTP Log: Prints a log listing recent FTP activity.

**Note:** To print the E-mail or FTP log, you must first enable the appropriate service.

Setup Enter the Setup menu and change Setup option settings.

Clear Job Log Clears the job log from the E-43A.

Clear Server

Run Diagnostics To troubleshoot printer interface board, choose this menu.

Clear all jobs in all server queues, as well as all jobs archived on the E-43A hard disk drive, 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.

#### Restart Fiery

Shut down all E-43A activity in the correct manner and then restart. 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 E-43A is temporarily interrupted and all currently processing jobs are aborted and may be lost.

**Restart System:** Shuts down and then reboots the E-43A. Network access to the E-43A is terminated and all currently processing jobs are aborted and may be lost.

**Shut Down:** Shuts down all E-43A activity properly.

#### Printable Info menu

This section describes how to print pages such as the Test Page and Configuration page from the Printable Info menu (described on page 30). The Printable Info menu is accessed through the Fiery tab (see page 30).

Printing the Configuration page can be helpful during installation, Setup, and service. After installing the E-43A (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.

Before you perform any service procedure, you should print the E-43A Configuration page, if possible, so you are prepared to return the settings to their former configuration, if necessary.

Printing the **Test Page** indicates that the E-43A is functional and that the connection between the E-43A and the copier/printer is working.

#### TO PRINT A PAGE FROM THE PRINTABLE INFO MENU

- 1 If it is not powered on already, power on the copier/printer and allow it to warm up.
- 2 If it is not powered on already, power on the E-43A using the power button on the front panel and allow it to start up completely (approximately three minutes).
- 3 Make sure that Idle appears on the Fiery Main menu.

If Busy or Printing appears, the E-43A is processing and you must wait until Idle appears.

- 4 Touch the Fiery tab.
- 5 Touch Printable Info and then select the page that you want to print.

The E-43A sends the selected page(s) to the copier/printer.

#### 6 If you printed the Test Page, examine the quality of the page.

If the Test Page prints, you know the E-43A is functional and the connection between the E-43A and the copier/printer is working. If the Test Page fails to print, look up printing problems in the Troubleshooting table on page 112.

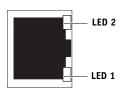
When you examine the Test Page, keep in mind the following:

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

Poor image or color quality may indicate a need to calibrate the system or service the copier/printer. Information on the Test Page includes the date and time of the last calibration, so the Test Page can be kept for future reference. For more information, look up printing problems on page 112, or see *Color Printing* from the user documentation set.

### **Network status LEDs**

Two LEDs next to the Ethernet connector indicate the network speed. When a data transfer occurs between the E-43A and the network, the appropriate LED(s) blink to indicate network activity. For additional network information, see *Configuration and Setup*, which is part of the user documentation set.



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

**IMPORTANT** 

**Note:** Network connectivity is supported only through the upper RJ-45 port on the E-43A connector panel. The lower port is the scan interface. The network and scan cables look similar, but are not interchangeable. Make sure not to swap the cables. (For the correct connections, see page 38).

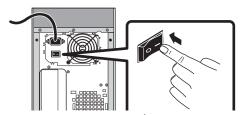
# Starting, shutting down, restarting, and rebooting

The customer will generally leave the E-43A on all of the time. Remember that when the E-43A is powered off, network access to the copier/printer is interrupted. Power off the E-43A when you need to service it and before you remove or attach any cables to it.

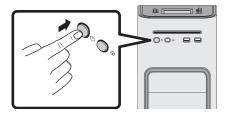
**NOTE:** Use the reset button on the front of the E-43A only if the system is unresponsive to keyboard or mouse actions (if available).

#### TO START THE E-43A

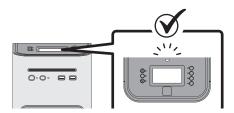
1 Make sure that the power cable is attached and that the power switch is in the ON position (|).



2 Press the power button ( $\binom{|}{|}$ ) on the front panel.



3 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 E-43A CONTROL PANEL

**Note:** Notify the network administrator before you remove the E-43A from the network.

1 Make sure that the E-43A is not receiving, processing, or printing any jobs.

If Printing appears on the control panel, the E-43A is processing. You must wait until the system finishes and reaches Idle before restarting or shutting down.

If the system has just finished processing, wait at least five seconds after the system reaches Idle before beginning the shutdown procedure.

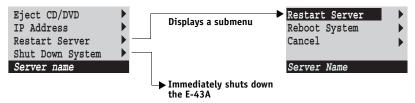
#### 2 If the logo screen is displayed, press the Menu button once to display the Functions menu.



This logo screen indicates that the E-43A is Idle.

#### 3 Make a selection:

- To restart or reboot the E-43A, select Restart Server. A submenu displays allowing you to select Restart Server, Reboot System, or Cancel.
- To shut down the E-43A immediately, select Shut Down System.



**NOTE:** Use the reset button on the front of the E-43A only if the system is unresponsive to keyboard or mouse actions (if available).

Allow the system to shut down and power off or restart.

If you selected Restart Server, you may need to wait 1 minute or more for the server software to restart.

Before accessing internal components following a shutdown, make sure that all cables are disconnected from the back of the E-43A.

#### TO SHUT DOWN, RESTART, OR REBOOT FROM THE COPIER/PRINTER TOUCH PANEL

**Note:** Notify the site administrator before you remove the E-43A from the network.

#### 1 Make sure that the E-43A is not receiving, processing, or printing any jobs.

If Printing appears on the control panel, the E-43A is processing. You must wait until the system finishes and reaches Idle before restarting or shutting down.

If the system has just finished processing, wait at least five seconds after the system reaches Idle before beginning the shutdown procedure.

#### 2 Press Home button on the copier/printer operational panel.

3 From the Home screen of the copier/printer touch panel, select Fiery. If the Fiery icon does not display, press the button () on the upper right corner of the screen to switch to the icon view.

If the system has just finished processing, wait at least five seconds after the system reaches Idle before beginning the shutdown procedure.

**Note:** Notify the network administrator before you remove the E-43A from the network.

- 4 Press the Fiery tab.
- 5 Press Restart Fiery.
- 6 At the next screen, select one of the following options:
  - Restart Fiery Service (soft reset)—Resets the E-43A server software but does not reboot
    the entire system. Network access to the E-43A 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.
  - Reboot System (hard reset)—Shuts down all E-43A activity properly and then reboots.
     Network access to the E-43A is temporarily interrupted and all currently processing jobs are aborted and may be lost.
  - Shut Down—Shuts down all E-43A server software and powers off the system. You should always select this option when you want to power off the system. Network access to the E-43A is terminated and all currently processing jobs are aborted and may be lost.

**NOTE:** Use the reset button on the front of the E-43A only if the system is unresponsive to keyboard or mouse actions.

#### 7 Press OK.

Before accessing internal components, make sure that all cables are disconnected from the back of the E-43A.

# **Power synchronization**

You can enable the power synchronization feature by using the switch on the printer interface board. The default switch position is OFF.

When you enable power synchronization, the E-43A synchronizes power with the copier/printer's main power off/on status. If the copier/printer powers off, the E-43A receives signals from the copier/printer through the USB cable connected to the printer interface board, and automatically starts the shutdown process. If the E-43A receives the startup signals from the copier/printer, the E-43A automatically powers on and begins the startup sequence.

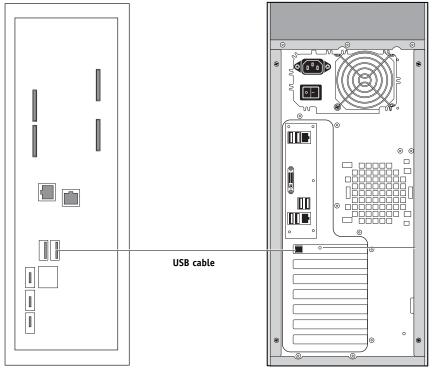
**Note:** The USB cable may not be provided in some regions or countries. If the customer site requires the power synchronization and the USB cable was not provided with the copier/printer, contact your authorized support/service center.

After the power synchronization is enabled, make sure to control the E-43A power using the copier/printer.

**IMPORTANT** 

#### TO ENABLE THE POWER SYNCHRONIZATION FEATURE AT THE E-43A

- 1 Shut down the E-43A (see page 32) and the copier/printer.
- 2 Remove the port cover that is attached to the Type B USB port on the printer interface board.
- 3 Locate the USB cable that shipped with the copier/printer.
- 4 Connect one end of the USB cable (Type B) to the port on the printer interface board of the E-43A. Connect the other end of the cable (Type A) to the USB port on the copier/printer.



Switch on the printer interface board:
ON position

copier/printer connector panel

E-43A connector panel

FIGURE 10: USB connection between copier/printer and E-43A

5 Set the switch on the printer interface board to the ON position.

Do not change the switch position when the E-43A is powered on.

6 Power on the copier/printer.

The E-43A automatically starts up.

#### TO DISABLE THE POWER SYNCHRONIZATION

1 Turn off the copier/printer using the main power switch.

Wait until the E-43A shuts down.

2 Make sure that the power switch on the connector panel of the E-43A is OFF position (|).

IMPORTANT

USING THE E-43A 37

3 Set the switch on the printer interface board to the OFF position.

**IMPORTANT** 

Do not change the switch position when the E-43A is powered on.

- 4 Disconnect the USB cable from the USB Type B port on the printer interface board, and from the USB Type A port on the copier/printer connector panel.
- 5 Start the E-43A (see page 32).

# REPLACING PARTS

Generally, the E-43A requires no regular service or maintenance. Use the procedures in this chapter to inspect, remove, reseat, and replace major hardware components.

## **Overview**

This chapter includes information about servicing the following components:

- Boards and cables
- Motherboard components (DIMMs, CPU, CMOS, jumpers, and battery)
- Fans
- 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 refer to the reinstallation of existing components. Install new components only when necessary. If you determine that a component that you have removed is not faulty, reinstall it.

**NOTE:** Replacement parts and specifications are subject to change. Install the correct parts as directed by your service/support center.

**IMPORTANT** 

When performing the service procedures described in this chapter, follow the precautions listed on page 10.

The tools required to service the E-43A are listed on page 11.

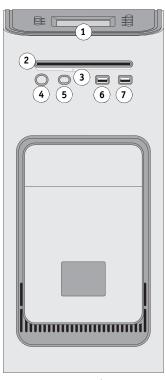
## E-43A overview diagrams

#### Key

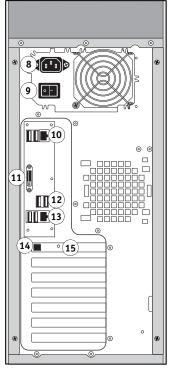
- 1 Control panel
- 2 DVD drive
- 3 Eject button
- 4 Power button
- 5 Reset button

**Note:** Use the reset button only if the system is unresponsive to keyboard or mouse actions.

- 6 Type A USB port
- 7 Type A USB port
- 8 Power connector
- 9 Power switch |: Power On 0: Power Off
- 10 Network port (Upper RJ-45)
- 11 Monitor (DVI) port
- 12 Type A USB ports
- 13 printer interface port (crossover Ethernet port) and Type A USB ports
- 14 Type B USB port on the printer interface board
- 15 OFF/ON switch for power synchronization



Front panel



Connector panel

FIGURE 11: Front and connector panel

## Key

- 1 Power supply
- 2 Motherboard
- 3 Network port
- 4 Monitor (DVI) port
- 5 USB ports
- 6 USB ports and crossover Ethernet port
- 7 Printer interface board
- 8 CPU cooling assembly
- 9 DIMM slots
- 10 DVD drive
- 11 Removable drive
- 12 Hard disk drive in bracket
- 13 Front fan

**NOTE:** The hard disk drive cover is not shown.

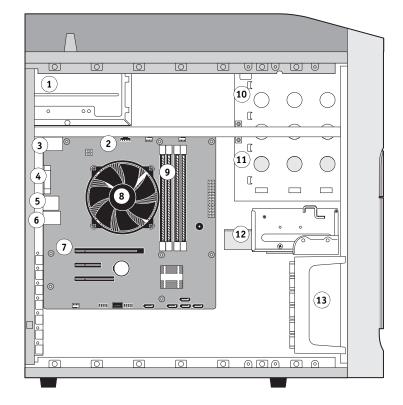
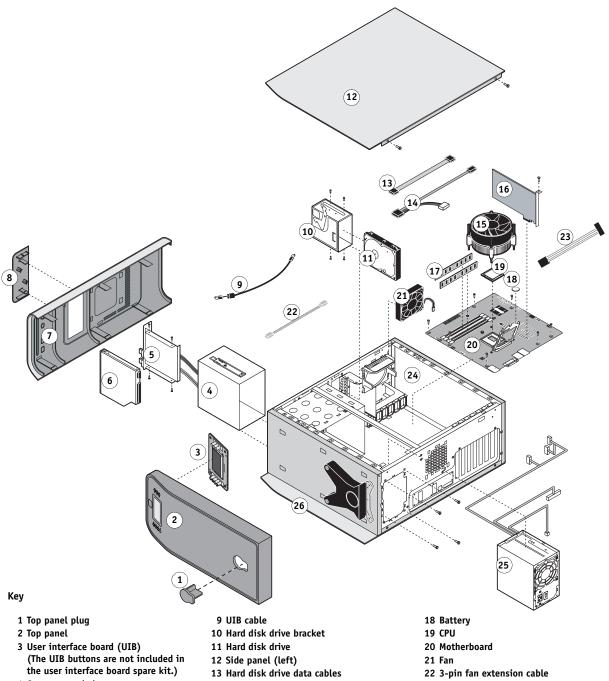


FIGURE 12: Internal side view



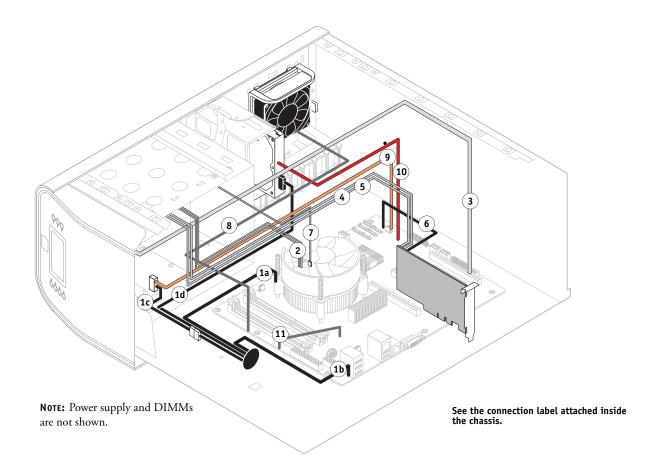
- 4 Component sled
- 5 Switch bank assembly
- 6 DVD drive
- 7 Front panel
- 8 Upper faceplate

- 14 DVD drive power/data combination cable
- 15 CPU cooling assembly
- 16 Printer interface board
- 17 DIMMs

- 23 10-pin power button cable
- 24 Chassis
- 25 Power supply
- 26 Side panel (right)

NOTE: UIB buttons, CPU fan cable, tie-wraps, cable clamps, dongle(s), and external cables are not shown.

FIGURE 13: Exploded view of components



Cable key	From	To (on motherboard connector)	
1. Power supply cable	Power supply	a. Motherboard power connector (ATX24P_1)	
		b. CPU power connector (J18)	
		c. DVD drive power connector (combined with data)	
		d. Hard disk drive power connector	
2. Front panel USB port cables	Front panel	Motherboard connectors J24	
3. UIB cable	User interface board	Motherboard connector J27	
4. Reset cable (RESET SW - Blue)	Front panel	J102 connector (pin 5, 7) on the printer interface board	Align triangle on cable connector as
5. Power cable (POWER SW - Green)	Front panel	J102 connector (pin 6, 8) on the printer interface board	shown.  10 9 PWR PRST 2
6.10-pin power button cable	J103 connector on the printer interface board	Motherboard connector J15	
7. Speaker cable	Front panel	Motherboard connector J83	

8. Front panel fan cable and 3-pin fan extension cable	Front panel fan	Motherboard connector J20
9. DVD drive power/data combo cable	DVD drive	Motherboard connector SATA_6G_0
10. Hard disk drive data cable	Hard disk drive	Motherboard connector SATA_6G_1
11. CPU fan cable	CPU fan	Motherboard connector J16 (If present, keep the cable cover on the CPU fan cable.)

FIGURE 14: Power and data cable connections

# **Accessing internal components**

Shut down and open the E-43A when you need to inspect or service internal components.

## Shutting down the system

You can shut down the E-43A from the E-43A control panel or the copier/printer touch panel.

**NOTE:** If the power synchronization is set to ON, you can shut down the E-43A by turning off the copier/printer using the main power switch.

When shutting down the E-43A, do the following:

- Remove the power cable from the connector panel before removing or connecting interface cables or accessing the internal components.
- Remember that when the E-43A is powered off, network access to the copier/printer is interrupted. Always obtain permission from the network administrator before you take the E-43A 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 E-43A through the control panel or the copier/printer touch panel, power off by holding down the power button on the front of the E-43A for up to eight seconds.
- Using the reset button may cause the system to operate unpredictably. Use the reset button on the front of the E-43A only if the system is unresponsive to keyboard or mouse actions.

For more information on how to shut down the E-43A, see page 32.

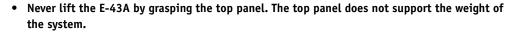
**IMPORTANT** 

**IMPORTANT** 

## Opening the E-43A

To service internal components, open the E-43A as described in the following procedure.

• The E-43A weighs approximately 20Kg. Be careful when moving the device.



**AVERTISSEMENT:** Ne jamais soulever le serveur d'impression par sa partie supérieure : celle-ci ne peut pas supporter le poids du système.

AWERTENZA: Il server di stampa non deve essere mai sollevato afferrandolo dal pannello superiore, in quanto quest'ultimo non può sostenere il peso dell'intero sistema.

**WARNUNG:** Heben Sie den Druckserver nicht an der oberen Gehäuseabdeckung an. Die obere Gehäuseabdeckung ist nicht dafür ausgelegt, das Gesamtgewicht des Systems zu tragen.

**ADVERTENCIA:** No levante nunca el servidor de impresión agarrándolo por el panel superior. El panel superior no soporta el peso del sistema.

AVISO: Nunca erga o servidor de impressão pelo painel superior. O painel superior não suporta o peso do sistema.

**WAARSCHUWING:** Til de afdrukserver nooit op door het bovenpaneel vast te nemen. Het bovenpaneel kan het gewicht van het systeem niet dragen.

#### TO OPEN THE E-43A

- 1 Shut down the E-43A (see page 43).
- 2 Remove all cables from the back of the E-43A.
- 3 Remove the E-43A from the furniture (see page 45).
- 4 Remove all panels necessary to access the component that you need to service.

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

**Note:** When removing multiple panels from the E-43A, use the following order:

- Left panel (see page 45)
- Right panel (see page 45)
- Front panel (see page 46)
- Top panel (see page 47)

**Note:** When replacing panels, reverse the order.

- 5 Place the E-43A on a flat surface. Attach an ESD wrist strap before handling internal parts (see page 11).
- 6 Carefully position the E-43A 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 LEFT OR RIGHT PANEL

1 Remove the screws that secure the panel to the back of the chassis.

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

2 Pull the back edge of the panel away from the chassis and lift the panel off the chassis.

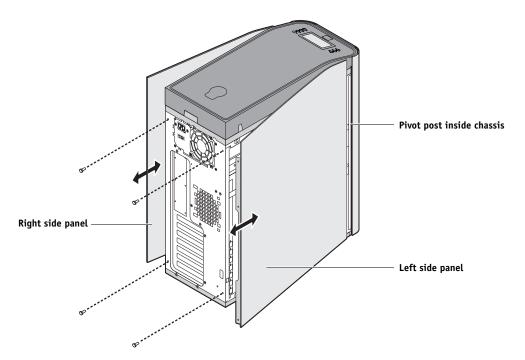


FIGURE 15: Removing/replacing the side panels

- 3 To replace the panel, fit the front edge of the panel on the pivot post in the chassis.
- 4 Rotate the panel closed against the back of the chassis and 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 FRONT PANEL

**Note:** To remove the front panel, you must first remove the left and right panels.

## 1 Remove the upper faceplate from the front of the chassis.

Press down to release the two tabs that secure the upper faceplate to the front panel, and then carefully remove the upper faceplate from the front panel.

**NOTE:** You must remove the upper faceplate in order to remove the front panel from the chassis.

# 2 Pull outward on the six tabs that secure the front panel to the chassis, and then lift the panel off of the chassis.

First remove the two top tabs, then the two middle tabs, and then the two bottom tabs.

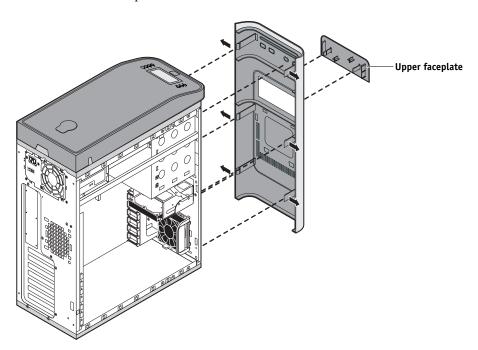


FIGURE 16: Removing/replacing the front panel

- 3 To replace the front panel, align the four cutouts in the panel with the power and reset buttons and front USB ports.
- 4 Press the panel against the chassis to snap it into place.

Snap the tabs in pairs (first the top tabs, then the middle tabs, and then the bottom tabs).

#### 5 Replace the upper faceplate.

Insert the two standoffs at the base of the faceplate into the chassis, and then carefully press the faceplate against the chassis to lock the faceplate into place.

#### TO REMOVE AND REPLACE THE TOP PANEL

**Note:** To remove the top panel, you must first remove the left, right, and front panels.

## 1 Remove the plug from the top panel.

From the cutout in left side of the top panel, access and loosen the locking bolt, and then remove the plug.

**Note:** The locking bolt requires a 3/16 Allen wrench.

#### 2 Loosen the top panel.

Slide the top panel a few inches toward the front of the chassis to disengage the hooks in the panel from the slots in the top of the chassis.

**NOTE:** You may need to tap the back edge of the panel toward the front of the chassis to disengage the panel.

#### 3 Detach the UIB cable from the motherboard.

## 4 Remove the panel from the chassis.

Carefully route the UIB cable out of the hole in the top of the chassis as you remove the top panel.

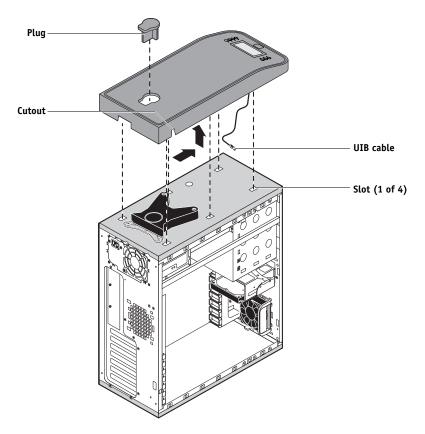


FIGURE 17: Removing/replacing the top panel

5 To replace the top panel, route the UIB cable through the hole in the top of the chassis and attach it to motherboard connector J27.

6 Position the top panel on the top of the chassis.

Place the hooks on the underside of the panel into the slots in the top of the chassis, and then slide the top panel toward the back of the chassis to engage the hooks.

**NOTE:** You may need to tap the front edge of the panel toward the back of the chassis to engage the panel completely.

7 Replace the plug on the top panel.

Correctly align the plug, and then place it into the receptacle on the top panel. Secure the plug by replacing the locking bolt through the cutout in the left side of the top panel.

**Note:** The locking bolt requires a 3/16 Allen wrench.

## Removing and replacing boards

This section includes procedures for removing and replacing the following boards:

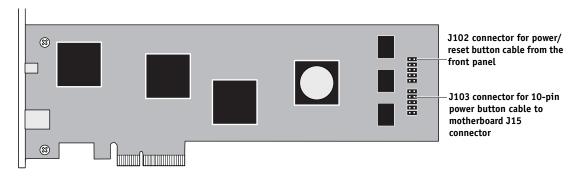
- Printer interface board
- User interface board
- Motherboard

The E-43A is shipped from the factory with a standard board configuration. If optional components have been installed, see the documentation that accompanies the particular option kit.

## Printer interface board

The printer interface board provides the print interface between the E-43A and the copier/printer. It is installed in motherboard connector PCIE x16. The printer interface board processes the image data and sends it to the copier/printer through the crossover Ethernet cable connected to the lower RJ-45 connector on the E-43A connector panel.

**NOTE:** To install the additional printer interface board from the option kit, see the documentation provided with the kit.



**FIGURE 18:** Printer interface board (component side)

#### TO REMOVE THE PRINTER INTERFACE BOARD

- 1 Shut down and open the E-43A (see pages 43 and 44).
  - To remove the printer interface board, you must remove the left panel.
- 2 Make sure that the crossover Ethernet cable is removed from the E-43A connector panel.
  - Remove the crossover Ethernet cable from the lower RJ-45 connector (see page 39).
- 3 Remove the board mounting bracket screw that attaches the printer interface board to the chassis.
- 4 Remove the printer interface board from the chassis.
  - Grasp the printer interface board at the front and back edges and gently pull the board straight out of its motherboard connector.
- 5 Place the printer interface board in an antistatic bag.

#### TO REPLACE THE PRINTER INTERFACE BOARD

1 Seat the printer interface board in the motherboard connector, and then secure it to the chassis with the board mounting bracket screw that you removed earlier.

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

2 Connect the power/reset button cables from the front panel to the J102 connector.

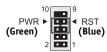


FIGURE 19: J102 connector on the printer interface board

- 3 Connect the 10-pin power button cable from the FPIO\_1 connector to the J103 connector (see Figure 14 on page 43).
- 4 Reassemble the E-43A and verify its functionality (see page 86).

## User interface board assembly

The user interface board (UIB) provides the interface between the E-43A 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

**Note:** The buttons are not included in the user interface board spare kit.

The UIB cable is routed from a connector on the back of the user interface board to connector J27 on the motherboard (see Figure 23 on page 57).

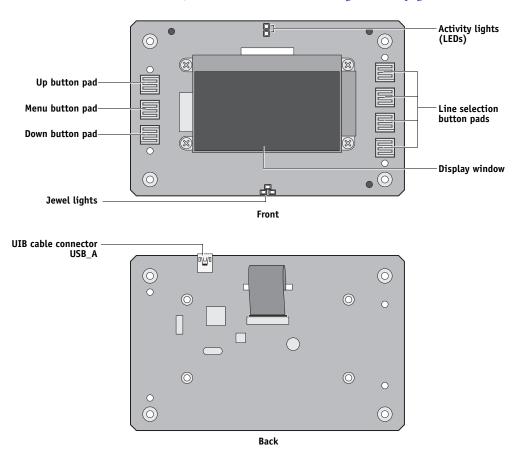


FIGURE 20: Diagram of the user interface board (front and back)

#### TO REMOVE THE USER INTERFACE BOARD

1 Shut down and open the E-43A (see page 43).

To access the UIB, you must remove the left, right, front, and top panels.

**NOTE:** Be sure to detach the UIB cable from its connector on the motherboard, and then carefully route the cable out of the hole in the top of the chassis as you remove the top panel.

- 2 Turn the top panel over to expose its underside and place it on a padded surface.
- **3 Detach the UIB cable from the connector on the back of the UIB.**Detach the UIB cable by grasping the cable connector. Avoid pulling on the cable.
- 4 Remove the four screws that secure the UIB to the underside of the top panel.
- 5 Remove the UIB from the top panel. Be sure to remove the plastic lens that covers the display window of the UIB.

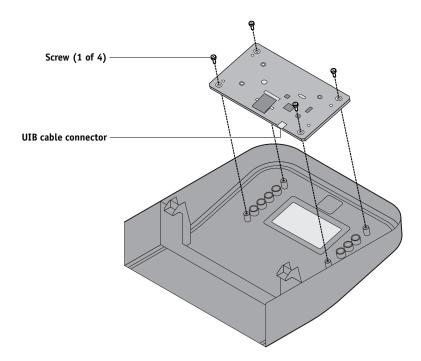


FIGURE 21: Removing/replacing the user interface board

6 If you are removing the UIB to replace it with a new board, remove the UIB buttons from the old UIB (see Figure 22 on page 53).

When removing the buttons, take care not to damage the pointed tabs that hold the buttons onto the UIB.

7 Place the UIB in an antistatic bag.

#### TO REPLACE THE USER INTERFACE BOARD

1 If you are installing a new UIB, correctly orient the UIB buttons, and then mount them on the new UIB.

The UIB buttons attach directly to the front of the UIB and extend through channels in the top panel. When correctly positioned, the buttons make contact with the button pads on the front of the UIB and provide users with manual status and control capability from the control panel.

Use needlenose pliers to pull the button tabs carefully through the anchoring holes in the UIB until the buttons are secured in place.

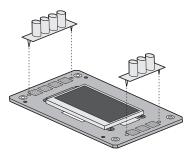


FIGURE 22: Removing/replacing the UIB buttons

- 2 Attach the UIB cable to the connector on the back of the UIB (see Figure 21 on page 52).
- 3 Turn the top panel over to expose its underside and place it on a padded surface.
- 4 Position the plastic lens around the display window of the UIB.
- 5 Secure the UIB to the underside of the top panel.

Grasp the UIB in one hand while using the other hand to hold the plastic lens steady against the UIB display window. Place the UIB in the mounting area of the top panel and carefully fit the buttons through the cutouts in the top panel as you hold the plastic lens in place.

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

6 If you are replacing the UIB cable with a new cable, do the following:

If present, cut the clamp securing the old cable to the underside of the top panel and remove the old cable. Attach a new UIB cable to the connector on the UIB. If a new tie-wrap is included in the new UIB cable spare kit, use it to secure the new UIB cable to the underside of the top panel.

7 Replace the top panel (see page 47).

Route the UIB cable through the chassis and connect it to the motherboard connector (see page 56).

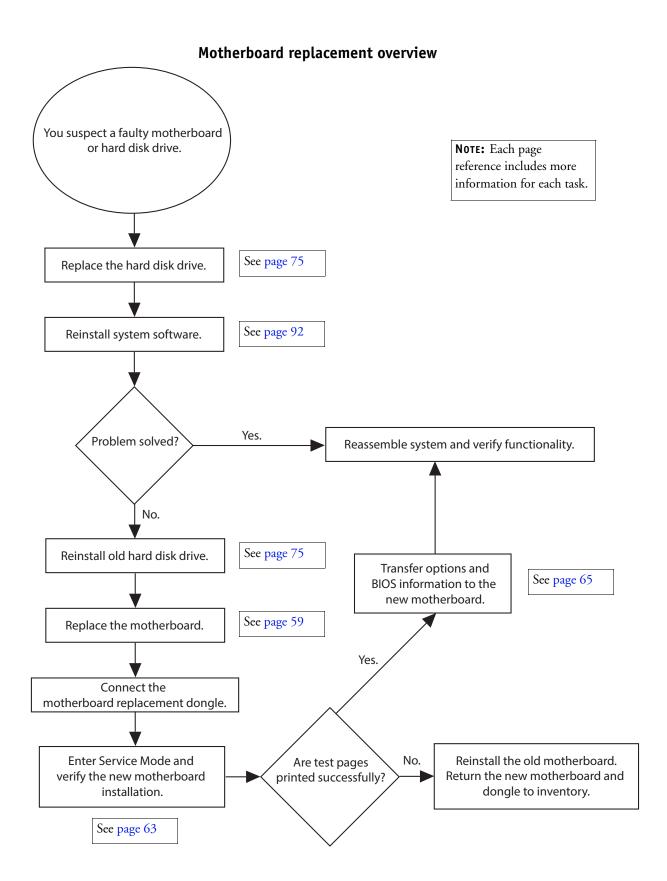
8 Reassemble the E-43A and verify its functionality (see page 86).

## **Motherboard**

**IMPORTANT** 

If you are removing the motherboard in order to replace it with a new motherboard, review the troubleshooting and motherboard cautions on page 59.

The CPU mounted on the motherboard controls the image data transferred to and from the printer interface board. The motherboard also controls hard disk drive functions and the communication between the E-43A and external devices.



## Removing the motherboard

The motherboard attaches to the side of the chassis, below the power supply. Before you remove the motherboard, you must remove the following:

- The left panel
- · All boards installed on the motherboard
- All cables connected to the motherboard

(including the motherboard power cable, CPU power cable, front panel fan cable, hard disk drive data cable, DVD drive power and data combination cable, power button cable, reset button cable, 10-pin power button cable, speaker cable, front panel USB port cables, and UIB cable)

This section also includes information about the following:

- Replacing or adding DIMMs
- Replacing the CPU
- Replacing the battery
- Jumper configurations

**IMPORTANT** 

Follow standard ESD and other safety precautions when handling components (see page 11). During service to the motherboard, avoid using excessive force and always place the motherboard on a grounded, non-metallic, static-free 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.

#### Key

- 1 Network port
- 2 Monitor
- 3 Type A USB ports
- 4 Crossover Ethernet port/USB ports (x2)
- 5 CPU power (J18)
- 6 CPU cooling assembly
- 7 Printer interface board (PCI-E X16)
- 8 Battery (XBT1)
- 9 UIB cable (J27)
- 10 DIMMO (A1)
- 11 DIMM1 (A0)
- 12 DIMM2 (B1)
- 13 DIMM3 (BO)
- 14 CPU fan power (J16)
- 15 Front panel fan (J20)
- 16 Speaker (J83)
- 17 Motherboard power (ATX24P\_1)
- 18 Front panel USB ports (J24)
- 19 Power and Reset (J15)
- 20 SATA\_6G\_0, DVD drive data connection
- 21 SATA\_6G\_1, Hard disk drive data connection
- 22 Clear CMOS Jumper (J4)

## MH—Mounting holes

**NOTE:** Arrows indicate positions for inserting cable and jumper connections.

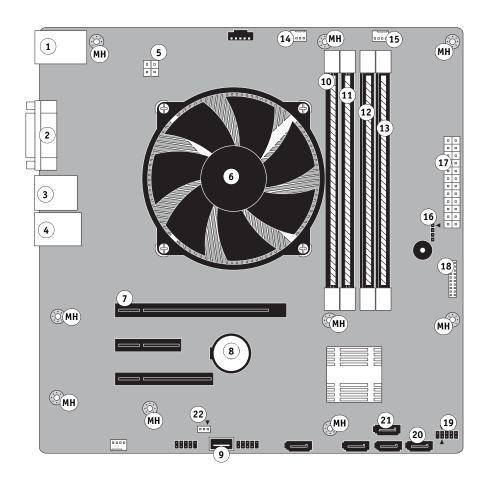


FIGURE 23: Motherboard

#### TO REMOVE BOARDS AND CABLES FROM THE MOTHERBOARD

1 Shut down and open the E-43A (see pages 43 and 44).

To access the motherboard, you must remove the left side panel.

- 2 Remove the 10-pin power button cable that connects the printer interface board and the motherboard.
- 3 Remove all boards installed in slots on the motherboard.

Note the location of the slot where each board resides so that you can reinstall the board in the same slot later.

4 Remove the following cables from the old motherboard:

**Note:** First remove any plastic cable clamp(s) securing internal cables and tie-wraps.

- Front panel fan cable
- Reset button cable
- Power button cable
- Speaker cable
- UIB cable
- Front panel USB port cables
- DVD drive cables:
  - SATA data cable
  - Power and data combination cable
- Hard disk drive cables:
  - SATA data cable
  - Power supply cable
- Motherboard power cable
- CPU power cable
- In-line spectrophotometer cable

For motherboard connector locations, see page 56.

#### TO REMOVE THE MOTHERBOARD

**Note:** This procedure assumes that you have already performed the procedure "To remove boards and cables from the motherboard" on page 58.

1 Remove the hard disk drive bracket, with hard disk drive attached (see page 76).

Remove the screw that attaches the bracket to the shelf. Removing the hard disk drive and hard disk drive bracket provides the clearance necessary for removing the motherboard. You must also detach the hard disk drive power cable to remove the hard disk drive.

- 2 Remove all the mounting screws securing the motherboard to the chassis (for screw locations, see page 57).
- 3 Remove the motherboard from the chassis.

Lift the edge of the motherboard. Make sure that the motherboard connectors clear the chassis while you lift it out of the chassis. Do not touch the contacts and avoid using excessive force.

**IMPORTANT** 

During service, avoid using excessive force and always place the motherboard on a grounded, non-metallic, static-free 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.

## Replacing the motherboard

**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.

#### **IMPORTANT**

#### **Troubleshooting cautions**

- Before deciding to install a new motherboard, consult "Troubleshooting" on page 98.
- Inspect all cables and internal components as described on pages "Checking external
  connections" on page 99 and "Checking internal components" on page 99. If these
  inspections do not solve the problem, locate symptoms in the troubleshooting table
  beginning on page 104 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 that the hard disk drive or the motherboard is faulty, always troubleshoot in the following order:

(Troubleshooting in the wrong order will cause the system to malfunction. In general, it is highly unlikely that both the hard disk drive and the motherboard are defective; therefore, avoid replacing both to solve one problem.)

- 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 E-43A 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.

#### 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:

- Do not transfer the BIOS chip from the old motherboard onto the new motherboard.
   BIOS chips are not interchangeable.
- 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 64.)

Before you use the motherboard replacement dongle to sync the BIOS and options (for
example, Fiery Graphic Arts, Premium Edition, if applicable) from the hard disk drive to
the new motherboard, enter Service Mode (see page 64) and make sure that the new
motherboard solves the problem that you are troubleshooting.

The E-43A can remain in Service Mode indefinitely. Use Service Mode to carefully verify the new motherboard before transferring options to the new motherboard.

Transferring options to the new motherboard permanently customizes the new motherboard. Once customized, the motherboard cannot be returned to inventory or installed in another E-43A. If the new motherboard does not solve the problem in Service Mode, do not transfer options. Return the new motherboard and motherboard replacement dongle to inventory.

- If you can verify in Service Mode that the new motherboard solves the problem that you are troubleshooting, transfer options to the new motherboard using the motherboard replacement dongle included with the new motherboard (see page 64).
- Do not remove the motherboard replacement dongle while transferring options to the new motherboard.

Removing the motherboard replacement dongle prematurely will corrupt the dongle and possibly damage the motherboard. If either become corrupted, you must contact your authorized service/support center and order a new replacement motherboard kit.

**IMPORTANT** 

**IMPORTANT** 

#### TO REPLACE THE MOTHERBOARD

- 1 If you are installing a new motherboard, do the following:
  - Unpack the new motherboard.
  - Open the load plate covering the CPU socket (see page 68) and remove the protective plastic cover on the CPU socket on the new motherboard. Later, you will transfer the protective plastic cover to the CPU socket of the old motherboard to protect the circuitry.
  - Remove the DIMMs from the old motherboard and install them on the new motherboard (see page 65).
  - Remove the CPU and cooling assembly from the old motherboard and install them on the
    new motherboard (see page 66). Make sure that the cable cover (if present) remains on the
    cooling assembly fan cable when transferring the cooling assembly to the new
    motherboard.

**IMPORTANT** 

When transferring the CPU to the new motherboard, make sure to use the fresh thermal compound that came with the new motherboard. For more information about the thermal compound, see page 69.

**IMPORTANT** 

Do not transfer the BIOS chip from the old motherboard onto the new motherboard. Doing so can damage the E-43A. BIOS chips are not interchangeable.

2 Install the motherboard in the chassis.

Angle the motherboard so that the motherboard connectors fit into the cutouts in the back of the chassis.

**IMPORTANT** 

Make sure that the flexible grounding tabs on the cutouts for the network ports make contact with the outside of the ports. Do not allow the tabs to fold over or become bent inside the ports. The ports will not function if the tabs are placed improperly. Take care when lowering the new motherboard into the chassis. Do not strike the motherboard against the metal standoffs attached to the chassis, as doing so can damage the components on the underside of the motherboard.

- 3 Align the mounting holes on the motherboard with the standoffs located in the base of the chassis.
- 4 Secure the motherboard to the chassis using all the mounting screws that you removed earlier.

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

You are now ready to complete motherboard installation.

#### TO REPLACE BOARDS, CABLES, AND COMPONENTS

1 Replace the hard disk drive bracket, with hard disk drive attached (see page 79).

You removed the hard disk drive bracket to provide clearance for removing the motherboard.

- 2 Replace the following cables (see page 57 for the connector locations).
  - CPU power cable
  - Motherboard power cable
  - UIB cable
  - Hard disk drive cable
  - DVD drive cables:
    - Power and data combination cable
    - SATA data cable

**IMPORTANT** 

**IMPORTANT** 

**Note:** Connect the thin, black SATA power cable connectors to the hard disk drive and DVD drive. Do not connect the white, 4-pin power cable connectors. Connecting both types of power cables will damage the hard disk drive and DVD drive. For more information on connector locations, refer to the label that is on the bottom surface of the chassis.

- Front panel USB port cables
- Speaker cable
- Power button cable
- Reset button cable
- Front panel fan cable
- In-line spectrophotometer
- 3 Secure cables as necessary with any plastic cable clamp that you may have removed earlier.
- 4 Replace the printer interface board (see page 57 for the location).

Make sure to install the board mounting bracket screw to secure the board to the chassis. Press down firmly on the top of the board as you insert the screw.

**NOTE:** Make sure that unused connector panel slots are covered with slot covers. Uncovered slots reduce air flow and may cause the E-43A to overheat.

- 5 Replace the 10-pin power button cable that connects the printer interface board (J102 connector) and the motherboard connector (J15).
- 6 If you reinstalled the old motherboard, reassemble the E-43A and verify its functionality (see page 86).
- 7 If you replaced the motherboard with a new motherboard, do the following:
  - Remove the battery (see page 70).
  - Wait two minutes to allow the motherboard electrical components to fully discharge.

- Reinstall the battery.
- Reassemble the E-43A (see page 86).

 Reset the time and date in Setup (see Command WorkStation Help for more information).

# Verifying new motherboard installation, and transferring options and BIOS information

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 64).

**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, Fiery Graphic Arts, Premium Edition, if applicable) expends the motherboard replacement dongle. For details, see "Entering Service Mode" on page 64.

**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 E-43A is powered off, no media is in the DVD drive, you have installed a new motherboard, and that you have reassembled the E-43A and attached external cables.

- 1 Make sure the E-43A is connected to the copier/printer (see page 21).
- 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 E-43A starts up successfully in Service Mode.

- 4 Power on the E-43A and allow it to boot without interruption.
  - At the Log On to Windows dialog box, log in as Admin, type Fiery.1 in the password field, and then press Enter on the keyboard. Type Fiery.1 exactly as shown. The password is casesensitive; for example, fiery.1 will not work.

At this point the E-43A 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 E-43A control panel.

- 5 Print the E-43A Test Page.
- 6 Ask the network administrator to connect the E-43A 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 64), 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 98.

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 and BIOS information 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 E-43A is fully assembled with the new motherboard, and verified in Service Mode (see page 64).

- 1 Verify that all power is turned off on the E-43A.
- 2 Insert the motherboard replacement dongle into a USB port.
- 3 Turn on the E-43A.

Wait until the E-43A reaches Idle.

4 On the E-43A 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 E-43A.
- 7 Remove the motherboard replacement dongle after the E-43A reaches Idle.

# Replacing parts on the motherboard

Before you remove and replace the DIMMs, CPU, and battery on the motherboard, shut down and open the E-43A (see page 43).

#### **DIMMs**

When installing DIMMs, note the following:

- Different capacity DIMMs look alike. Make sure that you know the capacity of each DIMM before you install it in a socket.
- Install only approved DIMMs available from your service representative.
- DIMMs must be installed in matched pairs. A matched pair is comprised of two alternate
  sockets. DIMMs within a pair must be identical (same capacity and same number of chips
  on each side). For example, in a two-DIMM configuration, populate DIMM 1 and
  DIMM 2 with DIMMs of identical capacity, with the same number of chips on each side.

#### TO REPLACE A DIMM

1 Shut down, and then open the E-43A (see pages 43 and 44).

To access the DIMMs, you must remove the left panel.

- 2 To release a DIMM, push outward on the levers on each side of the DIMM.
- 3 Pull the DIMM straight out of the socket.
- 4 To replace a DIMM, insert the DIMM straight into the socket and close the levers at each side to lock it into place.

**NOTE:** The socket is keyed so that the DIMM fits only one way. (See the notches in the preceding figure.)

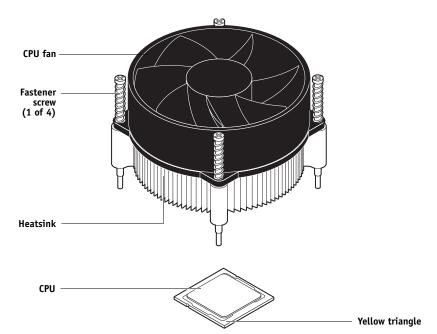
**IMPORTANT** 

Make sure that the entire length of the DIMM (ends and center) is fully seated in the socket and that the levers close securely around the ends of the DIMM.

- 5 If you installed a new DIMM, make sure to reset the time and date in Setup (see Configure Help for more information).
- 6 Reassemble the E-43A and verify its functionality (see page 86).

## **CPU**

The CPU is installed in a socket on the motherboard. Before you remove the CPU from its socket, remove the motherboard from the chassis (see page 56), disconnect the CPU fan cable from the motherboard, and then remove the cooling assembly from the E-43A (see page 67). The CPU cooling assembly consists of a fan and a heatsink.



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

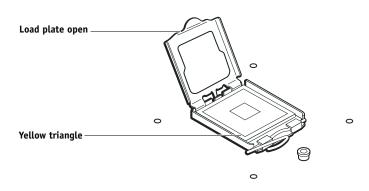


FIGURE 24: CPU cooling assembly

**IMPORTANT** 

If you remove the CPU from the motherboard in order to install it on a new motherboard, unpack the new motherboard and remove the protective plastic cover on the CPU socket. Transfer the protective cover to the CPU socket of the old motherboard to protect the circuitry. Follow standard ESD precautions while handling the motherboard and all components.

## TO REMOVE THE COOLING ASSEMBLY

1 Shut down, and then open the E-43A (see pages 43 and 44).

To access the CPU, you must remove the left panel.

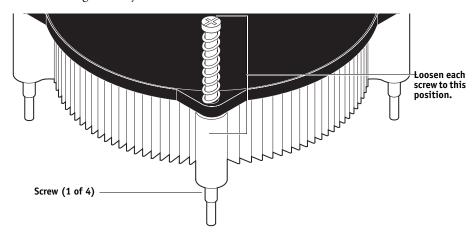
2 Remove the CPU fan cable from motherboard connector J16.

3 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.

- Loosen the four screws that secure the cooling assembly to the motherboard. Partially loosen all the screws before loosening any one screw all the way.
- Lift the cooling assembly off the CPU socket and set it aside.



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

#### TO REMOVE AND REPLACE THE CPU

- 1 Unlock the CPU socket lever and raise it into the open position (flex the lever away from the retention post, and then raise it).
- 2 Open the load plate.
- 3 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.

4 Wipe the contact surface of the CPU (the smooth, gray side of the chip) with a clean, lintfree cloth to ensure proper contact with the new heatsink.

If you remove the CPU from the motherboard to install it on a new motherboard, make sure that you completely remove any thermal compound residue on the surface of the CPU and at the base of the heatsink. It may help to scrape all the residue off of the surface using the flat edge of something non-conductive.

- 5 Prepare the CPU socket by ensuring that:
  - The socket lever is in the open position.
  - The load plate is open.

#### 6 Place the CPU in the socket.

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 triangle on the socket. Do not force the CPU.

#### 7 Close the load plate.

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

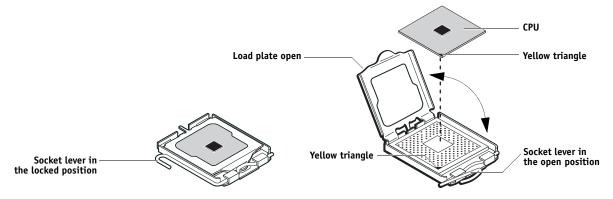


FIGURE 25: Removing/replacing the CPU

#### TO REPLACE THE CPU COOLING ASSEMBLY

**Note:** Before you install the cooling assembly, completely remove any thermal compound residue on the surface of the CPU and the base of the heatsink, and then apply a fresh thermal compound square to the base of the heatsink. When installing the thermal compound square, make sure to remove the plastic backing **on both sides** of the square. Avoid creating any bubbles or wrinkles on the square. Bubbles and wrinkles reduce the heat-transfer efficiency of the cooling assembly.

#### 1 Prepare the CPU cooling assembly for installation.

- Make sure that the motherboard is placed on a padded, static-free work surface.
- Apply a fresh thermal compound square, as described in the note above.
- Align the cooling assembly so that when it is installed, the fan cable easily reaches the CPU fan power connector J16 on the motherboard.

## 2 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.

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.

3 Connect the CPU fan cable to the motherboard connector J16.

**IMPORTANT** 

If you are installing a new CPU, secure slack in the fan cable using a tie-wrap. The tie-wrap prevents the fan cable from interfering with the CPU fan. Also, make sure the connector on the cable is securely connected to the motherboard.

- 4 If you installed a new CPU, make sure to reset the time and date in Setup (see Configure Help for more information).
- 5 Reassemble the E-43A and verify its functionality (see page 86).

## **Battery**

The battery on the motherboard is located at BT2. To replace it, use a 3V manganese dioxide lithium coin cell battery (Sony CR2032 or equivalent).

**Note:** The battery on the motherboard is not available as a spare.

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

**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 jeweiligen gesetzlichen Bestimmungen 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 réglementations locales en vigueur.

ADVARSEL!: Litiumbatteri - Eksplosionsfare ved fejlagtig håndtering. Batteriet må kun udskiftes med et andet batteri af samme fabrikat og type. Brugte batterier skal bortskaffes i henhold til gældende regler.

**VAROITUS:** Paristo voi räjähtää, jos se on vaihdetaan väärän tyyppiseen paristoon. Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin. Hävitä käytetty paristo paikallisten määräysten mukaisesti.

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

**VARNING:** Risk för explosion om batteriet byts ut mot en felaktig batterityp! Byt bara ut batteriet mot en batterityp som har godkänts av tillverkaren. Hantera använda batterier enligt lokal miljölagstiftning.

**CUIDADO:** Existe peligro de explosión si la batería se sustituye por una batería del tipo incorrecto. Sustituya la batería sólo por una batería del mismo tipo que recomienda el fabricante. Deseche las baterías usadas respetando la normativa local.

**ATTENZIONE:** Esiste pericolo di esplosione se la batteria viene sostituita con una di tipo non corretto. Sostituirla solamente con un tipo raccomandato dal produttore. Lo smaltimento delle batterie usate deve essere eseguito secondo le normative locali.

**AVISO:** Existe o perigo de explosão se a bateria for substituída por uma do tipo incorreto. Substitua somente por uma do tipo recomendado pelo fabricante. Descarte as baterias conforme as normas locais.

**GEVAAR:** Er bestaat ontploffingsgevaar indien de batterij door een verkeerd type wordt vervangen. Vervang de batterij uitsluitend door hetzelfde door de fabrikant aanbevolen type. Ruim gebruikte batterijen op volgens de plaatselijke voorschriften.



#### TO REPLACE THE BATTERY

- 1 Shut down, and then open the E-43A (see pages 43 and 44).
- 2 Locate the battery on the motherboard (see Figure on page 57).
- 3 Carefully push the clip away from the battery until the socket ejects the battery.



FIGURE 26: Motherboard battery

- 4 Slide the battery out of its socket.
- 5 Wait two minutes to allow the motherboard electrical components to fully discharge.
- 6 To insert a new battery, slide it into the socket so that the positive (+) side of the battery faces front.
- 7 Press the battery down into the socket until it snaps into place.

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

- 8 Reassemble the system and verify its functionality (see page 86).
- 9 Configure the time and date in Setup (see Configure Help for more information).

Failure to configure the time and date will cause the E-43A to hang when user software is being installed on the E-43A. (See page 110.)

**IMPORTANT** 

## **Jumpers**

Jumper configurations should not be changed.

Jumper	Description
J4	J4 is the Clear CMOS and Password jumper.
$\bullet$ $\bullet$ $\bullet$	Default configuration: jumper cap installed on pins 2 and 3.
Pin 1	<b>Note:</b> It is not necessary to clear the CMOS settings when servicing motherboard components, the DVD drive, and the hard disk drive.

## Fan

A fan mounted inside the E-43A chassis draws air into the E-43A to cool components. The fan runs continuously when the system is on. You should hear the fan start as soon as you power on the E-43A. If you do not hear the fan, there may be a faulty power connection.

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

#### TO REMOVE THE FAN

1 Shut down, and then open the E-43A (see pages 43 and 44).

To access the fan, you must remove the left panel.

- 2 Remove the fan cable from motherboard connector J20.
- 3 Release the fan from the fan bracket by bending the hooks on the bracket.

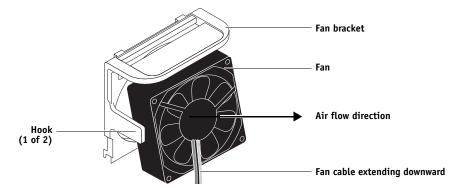


FIGURE 27: Removing the fan

4 Remove the fan from the chassis.

#### TO REPLACE THE FAN

1 Align the fan.

An arrow on the side of the fan indicates the airflow direction. Make sure that the fan is positioned so that the arrow points inside the E-43A and the fan cable extends downward toward the motherboard (see Figure 27).

2 Press the fan into the bracket until it clicks into place.

Make sure that the hooks on the bracket close over the edge of the fan.

- 3 Connect the fan cable to motherboard connector J20.
- 4 Reassemble the E-43A and verify its functionality (see page 86).

## **Power supply**

For more information on the power supply, see "Specifications" on page 115.

**IMPORTANT** 

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 then open the E-43A (see pages 43 and 44).

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

- 2 Remove the power cable from the hard disk drive.
- 3 Remove the power and data combination cable from the DVD drive.
- 4 Remove the 24-pin motherboard power cable from motherboard connector ATX24P 1.
- 5 Remove the 4-pin CPU power cable from motherboard connector J18.
- 6 Remove the tie-wrap securing the power cables to the chassis support beam.
- 7 Remove the ferrites that are installed around the hard disk drive power cables.

Carefully pry open the latches on the sides of the ferrites and remove the ferrites from the cables. Set the ferrites aside so that you can replace them later.

- 8 Remove four of the five screws that attach the power supply to the back of the chassis (see Figure 28 on page 74).
- 9 While supporting the power supply, remove the fifth screw.

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

10 Lift the power supply out of the chassis.

Carefully gather the power supply cables as you remove the power supply.

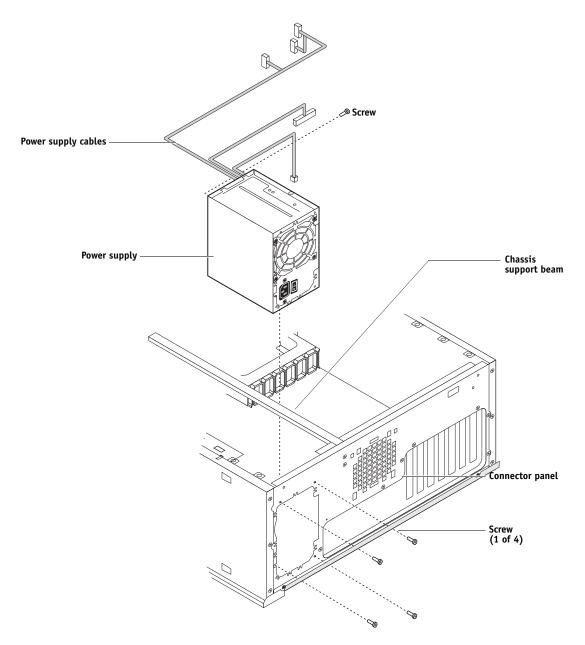


FIGURE 28: Removing/replacing the power supply

#### TO REPLACE THE POWER SUPPLY

1 Support the power supply inside the chassis and align the mounting holes.

2 Attach the power supply to the chassis with the five screws that you removed earlier (see Figure 28 on page 74).

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.

- 3 Connect the 4-pin CPU power cable to motherboard connector J18 (for connector locations, see Figure 23 on page 57).
- 4 Connect the 24-pin motherboard power cable to motherboard connector ATX24P\_1.
- 5 Connect the power and data combination cable to the DVD drive.
- 6 Install the ferrite around the hard disk drive power cable.

Use the ferrite that you removed earlier. Place the ferrite around the cable near the connector and snap the edges of the ferrite closed.

7 Connect the power cable to the hard disk drive.

**IMPORTANT** 

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 loose section of the power cable to the chassis support beam with a tie-wrap.
- 9 Reassemble the E-43A and verify its functionality (see page 86).

## 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 in Command WorkStation.

If you replace the hard disk drive with a new one, you must install system software as described on page 92. (Spare hard disk drives are not shipped with preinstalled system software.)

**IMPORTANT** 

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 59), 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 page 99) do not solve the problem, and you suspect either 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 59).

#### **IMPORTANT**

### Proper handling

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

- Use proper ESD practices when grounding yourself and the E-43A.
- 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 connections
- Faulty data or power cable
- Faulty hard disk drive

#### **IMPORTANT**

Make sure that you attach an ESD grounding wrist strap and follow standard ESD precautions before handling E-43A components.

The hard disk drive is mounted inside a bracket (see Figure 30 on page 78).

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

- The appropriate system software and documentation for the E-43A that you are servicing.
- A compatible version of the user software for the networked computers that will print to the E-43A.

#### TO REMOVE THE HARD DISK DRIVE

- 1 If you are removing the hard disk drive in order to install a new drive, give the site administrator the opportunity to print the Job Log and save any custom simulations. If possible, print the Configuration page and Font List.
- 2 Shut down and open the E-43A (see pages 43).

To access the hard disk drive, you must remove the left panel.

- 3 Remove the power supply cable from the hard disk drive.
- 4 Remove the hard disk drive data cable from the hard disk drive.
- 5 Remove the screw securing the hard disk drive bracket to the bracket shelf.
- 6 Slide the hard disk drive bracket off the shelf and lift it out of the chassis (see Figure 29).

Unlock the hard disk drive bracket by moving the latch toward the connector panel, and then sliding the bracket off the bracket shelf.

**IMPORTANT** 

Avoid striking the DIMMs as you remove the hard disk drive bracket.

**Note:** You will encounter slight resistance as you slide the bracket off the shelf. The resistance is caused by two tension points on the bottom of the bracket. The resistance helps control the bracket's movement during removal and installation.

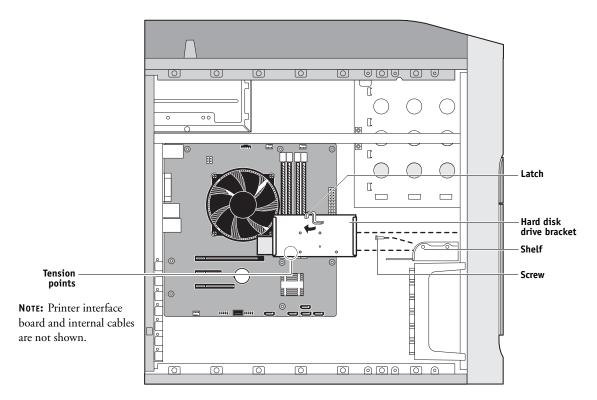


FIGURE 29: Removing/replacing the hard disk drive bracket

# 7 Remove the four screws that attach the hard disk drive to the hard disk drive bracket (see below).

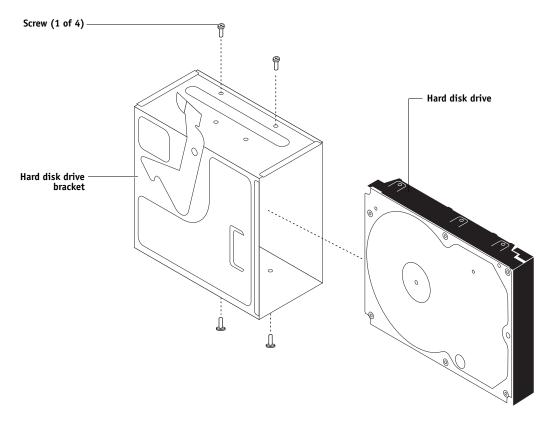


FIGURE 30: Removing/replacing the hard disk drive from/in the hard disk drive bracket

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

#### **IMPORTANT**

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 magnetic-sensitive objects (such as credit cards and employee ID cards) near the hard disk drive.

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

#### TO REPLACE THE HARD DISK DRIVE

#### **IMPORTANT**

Do not install a new hard disk drive and a new motherboard at the same time. If you suspect that the E-43A needs a new hard disk drive and a new motherboard, first install the new hard disk drive and install system software, then install a new motherboard and transfer options (see pages 59 and 64).

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 magnetic-sensitive objects near the hard disk drive.

2 Position the hard disk drive inside the hard disk drive bracket and align the front-most mounting holes on the hard disk drive with the four holes in the bracket (see Figure 29 on page 77).

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

- 3 Replace the four screws that you removed earlier to attach the hard disk drive to the bracket.
- 4 Slide the bracket all the way onto the shelf and lock it by moving the latch toward the front panel.

**IMPORTANT** 

Avoid striking the DIMMs as you replace the hard disk drive bracket.

**NOTE:** You will encounter slight resistance as you slide the bracket onto the shelf. The resistance is caused by two tension points on the bottom of the bracket. The resistance helps control the bracket's movement during removal and installation.

- 5 Secure the hard disk drive bracket to the hard disk drive shelf using the screw that you removed earlier.
- 6 Connect one end of the hard disk drive data cable to the hard disk drive and the other end to SATA1 on the motherboard (see Figure on page 57).
- 7 Connect the power cable to the hard disk drive.

**IMPORTANT** 

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 E-43A (see page 86).
- 9 If you replaced the hard disk drive with a new hard disk drive, install system software (see page 92).

If a startup error displays on the control panel when you power on the E-43A, check the connections.

10 Verify functionality (see page 86).

## Switch bank assembly

The switch bank assembly attaches to the component sled. The switch bank assembly includes the following components:

- DVD drive
- Power button and cable
- Reset button and cable
- Speaker and cable
- Front USB ports and cables

**Note:** For more information about servicing the DVD drive, see page 84.

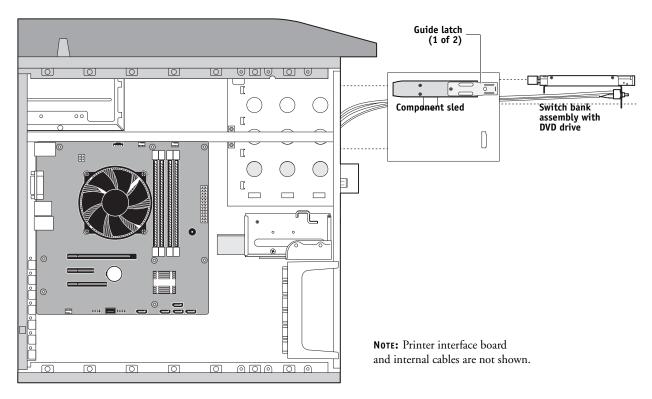


FIGURE 31: Component sled with switch bank assembly

#### TO REMOVE THE SWITCH BANK ASSEMBLY

1 Shut down, and then open the E-43A (see pages 43 and 44).

To remove the switch bank assembly, you must remove the left, right, and front panels.

#### 2 Disconnect the following cables:

- Power and data combination cable from the back of the DVD drive
- Power and reset button cables from motherboard connector J15
- Speaker cable from motherboard connector J83
- Front panel USB port cables from motherboard connectors J24

# 3 Remove the ferrite that is installed around the front panel USB port cables near the motherboard.

Carefully pry open the latch on the side of the ferrite and remove the ferrite from the cables. Set the ferrite aside so that you can replace it later.

- 4 Unharness the cables from the cable clamp(s) and tie-wraps inside the chassis.
- 5 Remove the component sled from the chassis (see Figure 31 on page 80).

Press the guide latches on the sides of the component sled and carefully pull the sled out of its slot in the front of the chassis.

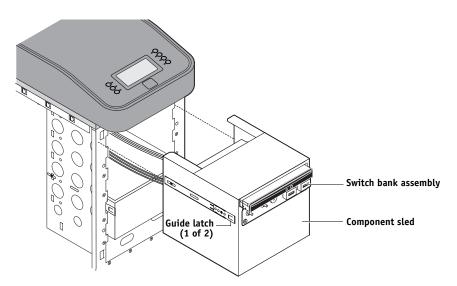


FIGURE 32: Removing/replacing the component sled from the chassis

**Note:** Be careful not to damage the EMI gasket around the slot in the chassis. Guide the cables out of the chassis as you remove the component sled to prevent them from catching or tangling on internal parts.

- 6 Remove the switch bank assembly from the component sled.
  - Remove the three screws that attach the switch bank assembly to the component sled.
  - Pull the switch bank assembly straight out of the component sled.

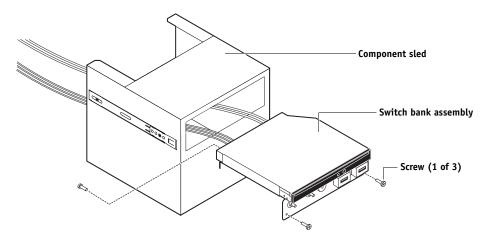


FIGURE 33: Removing/replacing the switch bank assembly

**NOTE:** Guide the cables as you remove the assembly from the component sled. Be careful not to damage the EMI gasket around the opening in the component sled.

7 If you are removing the switch bank assembly to replace it with a new assembly, remove the DVD drive (see page 84).

#### TO REPLACE THE SWITCH BANK ASSEMBLY

1 If it is not already attached, attach the DVD drive to the switch bank assembly (see page 85).

2 Install the switch bank assembly in the component sled (see Figure 33).

**NOTE:** If you are replacing the switch bank assembly with a new one, discard the cable extensions that may be provided with the new switch bank assembly.

- Starting with the cables, insert the switch bank assembly through the opening in the front of the component sled. Be sure to fold the EMI gasket under and through the opening when inserting the assembly.
- Replace the three screws that secure the switch bank assembly to the component sled.
- 3 Install the component sled in the chassis (see Figure 32).
  - Route the cables of the switch bank assembly in through the chassis so that the cables are within reach of their connectors on the motherboard.
  - Slide the sled into the front of the chassis until the guide latches click into place.

**NOTE:** Be careful not to damage the EMI gasket around the slot in the chassis when installing the component sled.

- 4 Connect the following cables (see Figure on page 57 for the location of connectors on the motherboard):
  - Power and data combination cable
  - DVD data cable
  - Power button cable
  - Reset button cable
  - Speaker cable
  - Front panel USB port cables
- 5 Install the ferrite around the two front USB port cables near the motherboard.

Use the ferrite that you removed earlier. Place the ferrite around both cables in between the two preinstalled tie-wraps, and snap the edges of the ferrite closed.

- 6 Secure the cables with the cable clamp(s) inside the chassis.
- 7 Reassemble the E-43A and verify its functionality (see page 86).

## **DVD** drive

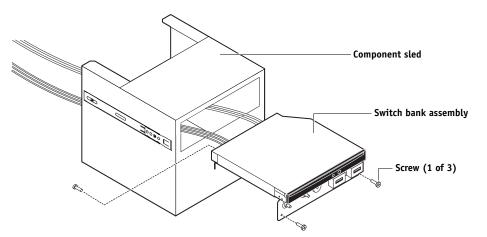
The DVD drive is attached to the switch bank assembly. The DVD drive is used to install system software onto the hard disk drive and archive data onto writable media.

#### TO REMOVE THE DVD DRIVE

1 Shut down, and then open the E-43A (see pages 43 and 44).

To remove the DVD drive, you must remove the left, right, and front panels, the component sled, and the switch bank assembly.

- 2 Remove the power and data combination cable from the back of the DVD drive.
- 3 Remove the component sled from the chassis, and then remove the switch bank assembly from the component sled (see page 81).



4 Remove the screws that secure the DVD drive to the switch bank assembly.

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

**NOTE:** On some systems, a small metal post in the switch bank assembly is used in place of one of the screws.

5 Remove the DVD drive from the switch bank assembly.

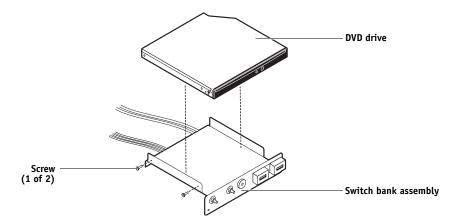


FIGURE 34: Removing/replacing the DVD drive

### TO REPLACE THE DVD DRIVE

- 1 Install the DVD drive in the switch bank assembly.
- 2 Install the switch bank assembly in the component sled, and then install the component sled in the chassis (see page 83).
- 3 Attach the power and data combination cable to the back of the DVD drive.
- 4 If you installed a new DVD drive, make sure to reset the time and date in Setup (see Configure Help for more information).
- 5 Reassemble the E-43A and verify its functionality (see page 86).

## 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 98.

#### TO REASSEMBLE THE E-43A AND VERIFY FUNCTIONALITY

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

When routing cables inside the E-43A, make sure that:

- Covers 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 E-43A panels
- Cable slack is secured with a tie-wrap
- 2 Restore the E-43A to the upright position.
- 3 Replace any panels that you removed earlier, as described on page 44.
- 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 64).
- 5 If the E-43A is to be mounted on the furniture with the monitor, see the reassembly instructions that is provided with the furniture assembly (page 117).
- 6 Connect the power cable to the E-43A (see page 19).
- 7 Connect the E-43A to the copier/printer (see page 21).
- 8 Print the Test Page and Configuration page.
  - If the E-43A does not start up, refer to the startup problems listed on page 105.
  - If pages do not print, verify that the interface cables are properly connected (see printing problems on page 112).
  - If image quality is poor, test the copier/printer (see the service documentation that accompanies the copier/printer).
- 9 Connect to the network (see page 22).
- 10 Ask the site administrator to download a test job over the network.

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

## SYSTEM SOFTWARE INSTALLATION

The E-43A ships with pre-installed system software on the hard disk drive. If you must reinstall system software when servicing the E-43A, use the latest System Software and User Software DVDs.

## Before installing system software

Consider the following settings and features before you install system software.

- **Battery, date, and time:** If you removed or replaced the motherboard battery during service, make sure to configure the time and date in Setup before installing system software. Otherwise, the system may hang during the user software installation segment (see page 110).
- **Backup/restore:** Before you reinstall the system software, check with the site administrator if there is any backup available to restore.

**Note:** If there is a backup for the entire hard disk drive (HDD), make sure to restore this backup first in the Fiery System Installer. Doing so ensures that all the customized settings and jobs on the HDD(s) will be restored. If this backup is not available, restore the image from recovery partition, which is provided with the E-43A by default. This will restore the E-43A to the factory default setting. You must install the system software using the System Software DVDs only when you replaced the hard disk drive, or restoring the backup does not solve the problem you are troubleshooting.

It is recommended to create a backup of the entire hard disk drive after you install the system software and run the initial Setup. To create the backup or restore the system, use the Fiery System Installer.

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

Jobs: All jobs in all print queues, and all jobs archived locally on the E-43A hard disk drive
are deleted when you reinstall the system software. To save jobs, ask the site administrator
to archive them to a CD/DVD or a location on the network, so that the jobs can be
imported back into the E-43A queue after system software installation. For more
information, see Command WorkStation Help.

Notify the network administrator at the customer site that some archived jobs may no longer print after you install an updated version of the system software.

• **Job Log:** The list of jobs in the Job Log and any jobs in the queues are deleted when you install system software. The network administrator can use Command WorkStation to save a current list of jobs (not the actual jobs) from the Job Log.

**IMPORTANT** 

- Fonts: All fonts on the hard disk drive are deleted when you install system
  software. Resident fonts are reinstalled when you reinstall system software. Any customersupplied fonts must be reinstalled by the network administrator using Command
  WorkStation.
  - To determine which additional fonts were downloaded to the E-43A, print the Font List before you install the system software and again after you complete the system software installation. Any fonts not listed after installation must be reinstalled. For more information, see *Utilities*, which is part of the user documentation set.
- **Configuration:** The existing Setup configuration is lost when you install system software. Make sure to use Backup/Restore to create a backup of the system software configuration, and print a Configuration page before you install system software, so that you can reconfigure the settings in Setup.
- **Static IP address:** If the E-43A requires a static IP address (for example, in a non-DHCP network environment), be aware that the previous IP address configuration is deleted when system software is reinstalled. To reconfigure a static IP address (if applicable), work with the network administrator as described on page 23.
- **User documentation:** All user documentation files resident on the E-43A are deleted when you install system software. If user documentation is resident on the E-43A, remind the site administrator to reinstall the documentation files after you finish installing the system software.
- **Custom simulation and output profiles:** Custom simulation and custom output profiles saved on the hard disk drive are deleted when you install system software. Ask the site administrator to save a copy of any custom profiles to a CD or network location before you install software. Make sure to use Backup/Restore to create a backup of the system software configuration, For more information, see *Configuration and Setup*, which is part of the user documentation set.
- Monitor profiles: Monitor profiles saved to the hard disk drive are deleted when you install system software. Monitor profiles for the E-43A monitor are automatically reinstalled when you reinstall Command WorkStation on the system.
- System software updates: All updates to system software (Windows OS and Fiery System Software) which may be available for the E-43A and installed from any source (for example, System Updates (see page 95), patches provided on CD or downloaded by the customer) are deleted when you install system software.
- **Compatibility:** When upgrading the system software, make sure that the latest user software is installed on all computers that print to the E-43A. Using incompatible versions of the system software may result in system problems.
- **User software updates:** For optimal performance, maintain current versions of the user software on every network computer used to print to the E-43A. User software may be installed directly on client computers equipped with a DVD drive, or over a network via the Fiery User Software Installer that resides on the E-43A.

## **Using the Fiery System Installer**

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

**IMPORTANT** 

It is recommended to create the system backups periodically.

You can perform following tasks from the Fiery System Installer;

- **New Installation:** Installs the system software from the media shipped with the E-43A. Use this option only when the system backup is not available.
- **Restore from backup or recovery partition:** You can restore the system by selecting the backups that you created before. 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.

**NOTE:** You can use the E-43A control panel to operate the Fiery System Installer. You can also use a monitor, mouse, and keyboard attached if available.

#### TO START THE FIERY SYSTEM INSTALLER

- 1 Insert the System Software 1 DVD into the DVD drive of the E-43A.
- 2 Restart the E-43A (see page 32).
- 3 Select the language you use for the backup or restore session.
- 4 From "What do you want to do?" screen, select the option.

## Back up 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 USING THE FIERY SYSTEM INSTALLER

- 1 Start the Fiery System Installer.
- 2 From "What do you want to do?" screen, select Back up hard disk drives(s).
- 3 Configure the backup image settings.

**NOTE:** The settings vary depending on the destination you select. Make sure that you specify the valid settings.

• Select a backup destination from one of the following types of media: USB flash drive, external hard disk drive, local hard disk drive, or network share.

- Specify the name of the backup file. The 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.
- Enter a description of the backup.
- If you select "Create bootable media" checkbox, the USB device or hard disk drive
  specified as a destination will become a bootable media. Select this option when you want
  to boot the E-43A from the backup media to avoid the situation where the HDD fails and
  cannot boot the E-43A. See "Restore with bootable media" on page 91 for booting from
  the bootable media.
- 4 If you select "USB Drive" or "External Hard Disk" as a destination, make sure you attach the appropriate device to the E-43A.
- 5 Start the backup process.

## Restore with Fiery System Installer

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

Backed up data can be only restored to the same E-43A.

**IMPORTANT** 

#### TO RESTORE THE SYSTEM USING THE FIERY SYSTEM INSTALLER

- 1 Start the Fiery System Installer.
- 2 If your backup file is stored in the USB drive or external hard disk drive, attach the device to the E-43A.
- 3 From "What do you want to do?" screen, select Restore from backup or recovery partition.

If you have not previously created a backup image, "Restore from recovery partition" is displayed.

4 Select the source of the backup.

Select one of the following options.

- One of the two most recently-created backup images.
- The recovery partition, which restores the default system settings from a hidden hard disk drive partition.
- Search for a backup that you have created on the E-43A.

The installer lists each backup image in the following categories.

- Location of the backup image: USB flash drive, external hard disk drive, network location, or local hard disk drive
- Time at which you created the backup image
- Folder location of the backup image

Select the backup image and click OK.

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

### Restore with bootable media

Use the following procedure when you restore the system without using the System Software 1 DVD, or when the E-43A does not boot from the built-in HDD.

To restore from the bootable media, you must have created a backup with "Create bootable media" option.

**NOTE:** This procedure requires a monitor, mouse, and keyboard to be attached to the E-43A.

#### TO RESTORE FROM THE BOOTABLE BACKUP MEDIA

- 1 Turn off the E-43A.
- 2 Attach the bootable backup media to the E-43A.
- 3 Press the power button to turn on the E-43A.
- 4 Press F2 repeatedly during the startup sequence.

The BIOS setup utility screen appears. If you see the Windows startup screen, the system did not enter the BIOS setup mode. Restart the E-43A and repeat this step.

5 Select the option to change the boot order, and select the item starting from "UEFI".

The name of the bootable media appears next to UEFI (for example, UEFI: FLASH Drive AU\_USB20 8.07).

6 Save the BIOS settings and exit the BIOS setup mode.

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

7 Follow the process for restoring outlined in "Restore with Fiery System Installer" on page 90 using your bootable media.

### **Platform Utilities**

Use the Fiery System Installer for advanced procedures, such as erasing data on the hard disk drives, or use Windows Task Manager to administer the E-43A.

The following 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.

## Changing the factory default language

You can change the E-43A default language using the Configure tool, available through Command WorkStation and WebTools.

#### TO CHANGE THE FACTORY DEFAULT LANGUAGE

- 1 Open Configure through Command WorkStation or WebTools.
- 2 Click Fiery Server > Regional Settings and do the following:
  - Clear the "Use Print Engine Language" check box.
  - In the Server Language drop-down list, select a language.
- 3 Save your changes.

It takes approx. 15-20 minutes to change languages.

## Installing system software

E-43A system software is provided on the following media:

- System Software DVDs contain the Windows operating system software and the Fiery Server software.
- User Software DVD contains the E-43A user software.

Install system software in the following cases:

- The hard disk drive or motherboard is replaced.
- The E-43A must be updated to a more recent version of the system software.

System software installation takes approximately 45 minutes (not including the time required to configure Setup).

#### TO INSTALL SYSTEM SOFTWARE

#### **IMPORTANT**

Notify the network administrator at the customer site that some archived jobs may no longer print after you install an updated version of system software.

1 Back up the E-43A configuration, if possible.

For more information, see Configuration and Setup, which is part of the user documentation set.

- 2 If you have not done so already, allow the network administrator the opportunity to print the Job Log and save any custom simulation and output profiles. Also, print the following (if possible):
  - **Configuration page:** Lists any installed options and records the customer's current Setup configuration.
  - Font List: Lists the fonts currently on the hard disk drive. Along with the fonts provided in system software, the customer may have installed additional fonts.

The system may hang if USB devices are connected to the E-43A during software installation.

3 Remove all USB devices except for the keyboard and mouse (if available).

4 Insert System Software 1 DVD into the DVD drive.

**NOTE:** If you installed a new hard disk drive, power on the system, insert the System Software 1 DVD, allow the system to boot from the System Software 1 DVD, and then proceed to the next step.

5 From the control panel (or the Start menu, if a monitor is connected), restart the E-43A (approximately three minutes).

Do not push any buttons while the system is rebooting.

- 6 When the Language Select screen displays, select a language.
- 7 When the "What do you want to do?" screen displays, choose New Installation.
- 8 When the "This installation will erase all data on the hard disk drive(s). Continue?" message appears, choose Continue.
- 9 At the prompt, if you want to install the optional software "Adobe Acrobat/Enfocus PitStop", choose Install. If not, choose Skip.
- 10 At the prompt for each DVD, insert System Software 2 DVD, and then System Software 3 DVD, for the OS installation.
- 11 At the prompt, insert the User Software DVD. After a brief pause, installation continues (approximately 10 minutes).

During this segment, the following installations are performed:

• The entire contents of the User Software DVD are copied to a shared folder on the E-43A hard disk drive, in e:\efi\user\_sw.

#### **IMPORTANT**

User software is installed on the E-43A.

After installation, when the E-43A is connected to the customer's network, users can access the user software in the shared folder and install it on client computers.

If the installation hangs during this segment, possibly the time and date were not configured in the BIOS following removal of the motherboard battery. To troubleshoot, see page 110.

### 12 Remove the User Software DVD when it ejects automatically.

## 13 When the "Insert Adobe/ Acrobat/ Enfocus Pitstop" message displays, insert the Acrobat/ PitStop DVD.

Installing Adobe Acrobat/PitStop takes about six minutes.

The E-43A reboots after installation, which takes approximately 45 minutes.

#### Note the following:

**IMPORTANT** 

- If the message "Check power and cable" displays on the monitor (if available), verify that the printer interface cable(s) are connected correctly to the copier/printer and the E-43A, and that the copier/printer is on.
- Alternatively, if you do not have a monitor, you can press the Fiery icon on the printer, and check to see whether the message appears under the Fiery controls on the printer.

#### 14 If a monitor, mouse, and keyboard are present:

The Log On to Windows dialog box appears on the monitor under the Admin account. Type Fiery.1 in the password field and then click OK.

**Note:** Type Fiery.1 exactly. The password is case-sensitive; for example, fiery.1 will not work.

15 If you were able to back up the system configuration, restore the system configuration.

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

16 Configure your system environment in Fiery Setup Wizard in WebTools or Command WorkStation.

For more information, see Configuration and Setup.

# 17 If you were unable to back up the system configuration, configure Setup using one of the following methods:

- Using the copier/printer touch panel: Assumes the E-43A is connected to the copier/printer. From the copier/printer touch panel, press the Fiery icon. If Fiery icon does not display, press the button ( ) on the upper right corner of the copier/printer touch panel. Select Fiery tab > Setup, then configure Setup using the Configuration page you printed earlier.
- Using the copier/printer touch panel: Assumes the E-43A is connected to the copier/printer. From the copier/printer touch panel, press the Services Home button. Then press the Fiery icon, the Tools tab, and select Setup. Configure Setup using the Configuration page you printed earlier.

Using Command WorkStation: Assumes a monitor, keyboard, and mouse are connected to
the E-43A (if available). From the Server menu, choose Configure, and then configure
Setup using the Configuration page that you printed earlier.

**NOTE:** Bypass any settings if it is more appropriate for the network administrator to set them. For more information, see *Configuration and Setup*. The system reboots after you exit Setup.

- 18 Reinstall Fiery Color Profiler Suite (if applicable).
- 19 Reinstall any required software patches:
  - If you reinstalled the same version of system software, be sure to reinstall all software patches that were previously installed on the E-43A. For a list of previously installed patches, see the Configuration page that you printed earlier.
  - If you installed an upgraded version of system software (for example, version 1.0 to version 2.0), contact your authorized service/support center for a list of valid software patches. Some or all of the patches listed on the Configuration page that you printed earlier may no longer be valid. Before installing a patch, be sure to verify with your authorized service/ support center that it is valid for your system version. Installing an invalid patch may result in system corruption.

Software patches may be accessed from one or more of the following locations:

- **System Updates:** Using the keyboard, choose Start > All Programs > Fiery > System Updates, and then click Check Now.
- **Check for Product Updates:** In a Web browser, connect to the IP address of the E-43A, click the Configure tab, and then click Check for Product Updates.
- 20 Reinstall fonts or custom simulations that may have been deleted when you installed the software.
- 21 If the E-43A requires a static IP address (for example, in a non-DHCP network environment), work with the network administrator to configure it as described on page 23.

### System updates

Advise the administrator at the customer site that the System Updates feature available through the Start menu on FACI-enabled systems allows customers to schedule and accept installation of certain E-43A software updates from a secure site on the Internet. By default, the feature is configured to display a notification on the monitor (if the FACI option is present) that software updates are available for the E-43A. You can also check for system updates via the monitor by choosing Start > All Programs > 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 set. 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.

**IMPORTANT** 

## **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 E-43A 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. (For details, see page 96.)

Check for Product Updates is especially useful if your E-43A 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 E-43A is unable—to take advantage of the auto-download/auto-installation/auto-notification features available through System Updates).

For a detailed procedure, see "To install updates using Check For Product Updates" on page 96.

#### TO INSTALL UPDATES USING CHECK FOR PRODUCT UPDATES

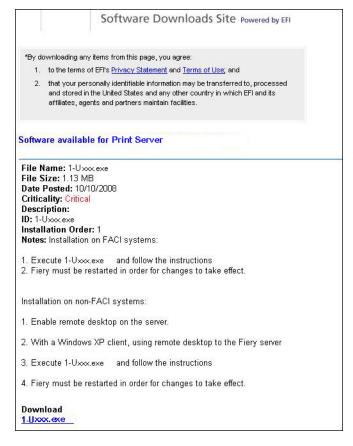
1 From a client computer, open a web browser, copy-and-paste or type the following URL, and then press Enter.

https://liveupdate.efi.com/webupdater/default.aspx?sid=d8c32ef718aa0205ab7b918c056fdf99EF868091.PPD

For Japanese products, use the following URL instead.

https://liveupdate.efi.com/webupdater/default.aspx?sid=fb8eb8fe6e6a3b54e28d57a100989241EF967455.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 E-43A print servers. To help you choose
  which updates to download, compare the list displayed with the E-43A print server's
  Configuration Page > Updates log.
- 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.

## **TROUBLESHOOTING**

The E-43A is a server for copier/printers, and is generally part of a configuration that has connectivity to the copier/printer and workstations or computers. Problems may occur in one of three areas:

- Inside the E-43A
- In the interface between the E-43A and the copier/printer
- In the interface between the E-43A and the workstations or computers to which it is connected

This chapter identifies the source of common problems that may occur with the E-43A and suggests ways of correcting them. This chapter does not attempt to provide troubleshooting information for attached computers such as Windows or Mac OS computers, copier/printeres, or extensive networks. Refer problems in these areas to the appropriate service departments and network administrators.

If network administrators need to troubleshoot job errors that occur with Command WorkStation, refer them to *Configuration and Setup* for more information, including how to use the Job Error Report feature to collect error information to send to EFI Technical Support.

**IMPORTANT** 

When performing the service procedures described in this chapter, follow the precautions listed in page 11.

## Preliminary on-site checkout

Most problems with the E-43A are caused by loose board or cable connections. This section describes the quick checks that you can do to locate and fix obvious problems. It describes how to eliminate any problems with external connections to the back of the E-43A, 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 E-43A, 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.

To troubleshoot problems that present specific symptoms, see "E-43A error messages and condition" on page 105. 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 E-43A 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 page 43).
- The power cable is plugged into the wall power outlet.
- The LED on the network port is blinking to indicate network activity.

## Checking internal components

To check the internal components, you must remove the side and front panels of the E-43A.

**IMPORTANT** 

Before you remove the E-43A panels, be aware of the safety precautions that you should take when handling the E-43A. Use standard ESD precautions when handling printed circuit boards and electronic components. To review the safety precautions, see page 11.

#### TO CHECK INTERNAL COMPONENTS

1 Shut down, and then open the E-43A (see page 43).

**IMPORTANT** 

- 2 Before you touch any components inside the E-43A, attach a grounding strap to your wrist and discharge any static electricity on your body by touching a metal part of the E-43A.
- 3 Inspect the inside of the E-43A
  - Make sure that no foreign materials have been dropped into the chassis.
  - Make sure that the DVD and hard disk drive data cables are connected to the correct SATA connectors on the motherboard.
  - 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.
- 4 Reassemble the E-43A and verify its functionality (see page 86).

## Inspecting the system

#### **IMPORTANT**

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 "Verifying the system" on page 100. 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 1, 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 "E-43A error messages and condition" on page 105 and perform the suggested action(s) for the condition.

**TABLE 1:** Verifying the system

Conditions to verify	Part and additional page references	
When the problem occurs, verify that:	External connectors, chassis fan, and power button,	
Power cable is connected properly into the power outlet.	"Checking external connections" on page 99 and "Checking internal components" on page 99.	
Chassis fan is operating.		
Network link activity LED on RJ-45 connector is blinking.		
<ul> <li>All external cables required are present, in correct connectors, and well-seated.</li> </ul>		
Cables, cable connectors, and mating connectors appear undamaged.		
If the problem occurs at power up or reboot, verify that:	Control panel, page 25	
Activity light on the control panel illuminates.		
Display window lights up.		
<ul> <li>The system does not hang, and no error messages occur before the systems reaches Idle.</li> </ul>		
• After the system reaches Idle, the control panel buttons function.		
All replaceable parts are:	Chassis	
- Present		
- Properly aligned		
- Installed securely		
<ul> <li>Installed on the appropriate site</li> </ul>		
<ul> <li>The correct part for the system</li> </ul>		
<ul> <li>Properly configured, if configurable (such as hard disk drive jumper)</li> </ul>		
<ul> <li>Not visibly damaged</li> </ul>		
• Chassis and contents have not been tampered with.		
Chassis does not contain any foreign objects.		

 TABLE 1:
 Verifying the system

Conditions to verify	Part and additional page references
<ul> <li>Motherboard, including components and traces, appears undamaged, and no foreign objects are evident.</li> </ul>	Motherboard (with the motherboard replacement dongle), page 54.
<ul> <li>CPU is present, well-seated, and appears undamaged.</li> </ul>	IMPORTANT: When replacing the motherboard,
<ul> <li>CPU cooling assembly is well-aligned and firmly attached.</li> </ul>	carefully review the cautions on page 60.
<ul> <li>Each fan required (including fan cable) is well-positioned (not upside down), installed in the correct connector, and appears undamaged.</li> </ul>	
<ul> <li>Boards required on the motherboard are present, well-seated, and in the correct slots.</li> </ul>	
Each DIMM is well-seated.	
Battery is installed.	
BIOS is well seated.	
Each DIMM is well-seated.	DIMMs for E-43A, page 65
DIMM edge connectors are not oxidized.	
Each board required is:	Printer interface board, page 49
• Present	
Installed in the correct slot	
• Well-seated	
Appears undamaged	
Required cables (if applicable) are:	
• Present	
Firmly connected in the correct connectors	
Not visibly damaged	
User interface board (UIB) is:	User interface board, page 50
• Present	
Correctly attached to its bracket	
Appears undamaged	
UIB cable is:	
• Present	
<ul> <li>Firmly connected in the correct connector on the motherboard and the back of the UIB</li> </ul>	
Not visibly damaged	
CPU is:	CPU with cooling assembly, page 66
• Present	
• Well-seated	
Not visibly damaged	
The CPU cooling assembly is:	
Well-aligned	
Firmly attached	

TABLE 1: Vei	ifying the	system
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Conditions to verify	Part and additional page references
Fan is:	Front panel fan, page 72
Properly positioned (not backwards)	
Installed in the correct connector	
The fan, fan cable, cable connector, and mating connector are not visibly damaged.	
The power supply required is:	Power supply, page 73
• Present	
Correctly installed	
Not visibly damaged	
Cable connectors are:	
Firmly connected	
Not visibly damaged	
Installed in the correct devices	
The hard disk drive required is:	Hard disk drive, page 75
• Present	
Correctly installed	
Not visibly damaged	
• Jumpered as the master (primary) according to label	
Hard disk drive data cable is:	
• Present	
• Firmly connected to motherboard connector SATA_6G_1	
Not visibly damaged	
The drive required is:	DVD drive, page 84
• Present	
Correctly installed	
Not visibly damaged	
• Jumpered as the master (secondary) according to label	
Activity LED lights on power up	
DVD drive SATA cable is:	
• Firmly connected to motherboard SATA_6G_0	
Not visibly damaged	

**TABLE 1:** Verifying the system

• Not visibly damaged (including connectors)

#### Conditions to verify Part and additional page references Each cable required is: UIB cable, page 50 • Present Hard disk drive data cable, page 75 • The correct type Printer interface cable(s), page 49 • Installed in the correct connector DVD drive power and data combination cable, page 84 · Well-seated Power cable(s), page 73 • Not visibly damaged (including connectors) • Mouse (if applicable) If included in the system, the required mouse, monitor, and keyboard are present and appear undamaged. The mouse and keyboard are • Monitor (if applicable) connected to the correct ports on the E-43A connector panel. • Keyboard (if applicable) The cables required are: • Monitor power cord (not pictured) • Present • Installed in the correct connector · Well-seated

## Normal startup sequence

**NOTE:** The following description is approximate. The screens, times, and sequences that you observe may vary slightly.

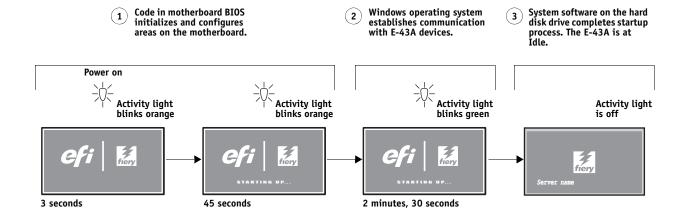


FIGURE 35: Normal startup sequence

## Error messages and conditions

To address specific error messages or conditions, see "E-43A error messages and condition" on page 105. 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.

#### **IMPORTANT**

Do not replace the hard disk drive and the motherboard at the same time. Doing so in the wrong order, without transferring options to the new motherboard, 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 that the hard disk drive or 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.

1 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 E-43A to another is incorrect and strongly discouraged.

2 If the problem persists, reinstall the original hard disk drive in the system, and then replace the motherboard.

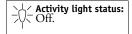
If replacing a component does not correct the problem, make sure that you reinstall the old component back in the E-43A.

**TABLE 2:** E-43A error messages and condition

Symptom	Possible cause	Suggested action		
Beep codes during Startup				
1 beep	No error. The E-43A is starting up normally.	None		
1 beep, followed by 3 beeps, followed by 3 beeps, followed by 1 beep	Missing, unmatched, incorrect, or faulty DIMMs	Check for missing, unmatched, incorrect or faulty DIMMs and reseat the DIMMs to remove any oxidation on the connector (see page 65).		

### Startup

E-43A does not start and the control panel is black.



**NOTE:** If the Activity light is solid orange while the control panel is black, the E-43A is in Sleep Mode.

Possibly one of the following:

- The E-43A is powered off
- Power cable is not plugged into the power connector on the E-43A connector panel, or into the wall power outlet
- The connector panel power switch is in the OFF position
- 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 connector panel power switch is in the ON position (see page 43).
- 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 a possible faulty power cable as follows:

- Power on using a different power cable.
- Install a new or "known good" power supply.
- 4 Check the connector panel fan vent 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 59).

5 Review the jumper section on page 71 and ensure that the jumper is in the default position.

Symptom

#### Possible cause

#### Suggested action

#### Startup (continued)

E-43A 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 motherboard are functioning properly as described earlier, replace the user interface board (see page 50).

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 five minutes, power off using the power button, wait 10 seconds, and then press the power button to power on again.

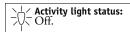
NOT following installation of a new user interface board, system stops responding at this screen:

Possibly one of the following:

- Faulty BIOS
- Faulty motherboard

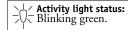
- 1 Recheck all cables and connections.
- 2 Reboot the E-43A.
- 3 If the problem persists, replace the motherboard (see page 59).





System stops responding at Problem with the Fiery application. this screen:





- 1 Recheck all cables and connections.
- 2 Reboot the E-43A.
- 3 If the problem persists, restore the backup, or reinstall system software (see page 92).

Symptom

#### Possible cause

#### Suggested action

### Startup (continued)

The following screen and Activity light appear as follows:



Possibly one of the following:

- Wrong, missing, incorrectly connected, or faulty DIMM(s)
- · Faulty motherboard

- 1 Recheck all cables and connections.
- 2 Reboot the E-43A.
- 3 If the problem persists, verify that the DIMMs are installed. DIMMs must be installed in matching pairs in alternating sockets. Check for incorrect type, wrong capacity, missing, or faulty DIMM(s). Reseat the DIMM(s) to remove any oxidation on the connector (see page 65).
- 4 If the problem persists, you may need to replace the motherboard (see page 59).

The following screen and Activity light appear as follows:

Activity light status:
Off, then solid red.



Activity light status:
Blinking orange, then solid red.

Possibly one of the following:

- Faulty disk in the DVD drive
- Faulty motherboard

- 1 Reboot the E-43A.
- 2 If the problem occurs when you are installing 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 59).

The following screen and Activity light appear as follows:



Activity light status:
Blinking green,
then solid red.

Problem with the Windows operating system.

- 1 Recheck all cables and connections.
- 2 Reboot the E-43A.
- 3 If the problem persists, restore the backup, or reinstall system software (see page 92).

Symptom

#### Possible cause

#### Suggested action

### Startup (continued)

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 E-43A 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, restore the backup, or reinstall system software (see page 92).
- 5 If the problem persists, try connecting another UIB cable (see page 43).
- 6 If the problem persists, replace the motherboard (see page 59).

The Fierv icon on the copier/printer touch panel remains unavailable for longer than 10 minutes after the E-43A and the copier/printer start up.

Possibly one of the following:

- Printer interface firmware has been upgraded and a system reboot is required
- · Required settings have not been enabled in Centreware Internet Services
- Faulty connection between the E-43A and the copier/printer
- 1 Reboot the copier/printer and wait for the copier/printer to start up and reach Idle. Reboot the E-43A and wait for the E-43A to finish starting up.
- 2 After the E-43A has finished starting up, press the Services Home button on the copier/printer.
- 3 Verify that the E-43A and the copier/printer have the same time and date information. If the time and date information do not match on both devices, the Fiery icon may fail to appear.

For information on how to check and set the time and date on the E-43A, see Configuration and Setup, which is part of the user documentation set. For information on how to check and set the time and date on the copier/printer, see the copier/printer documentation.

- 4 Reboot the E-43A.
- 5 Check and reseat the cable connections between the E-43A and the copier/printer.
- 6 Replace the external cables one by one.

### Control panel messages

boot partition.

Could not mount the dos/ When transferring options following installation of a new motherboard (page 65), you used the Feature Update CD. The E-43A does not support the Feature Update CD.

Obtain the motherboard replacement dongle and follow the procedure on page 65.

Symptom	Possible cause	Suggested action
	Control panel	functions
E-43A 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	<ol> <li>Recheck all cables and connections.</li> <li>Reboot the E-43A.</li> <li>If the problem persists, restore the backup, or reinstall system software (see page 92).</li> <li>If the problem persists, replace the user interface board (see page 50).</li> </ol>
	DVD dri	ve
DVD drive is not responding, cannot be located, or the disk will not eject.	Possibly one of the following:  • A disk is stuck in the DVD drive  • Cable connections to the DVD drive are loose or data cable is faulty  • DVD drive is faulty  • Motherboard is faulty	<ol> <li>Press the eject button below the DVD slot on the front of the E-43A.</li> <li>If the problem persists, check the cable connections to the DVD drive (see page 43).</li> <li>If the problem persists, you may need to replace the DVD drive (see page 84).</li> <li>If the problem persists, you may need to replace the motherboard (see page 59).</li> </ol>
	System perfo	ormance
System performs slowly and/or hangs periodically.	Possibly one of the following:  • Board or cable connections are loose or faulty  • System software is corrupted  • Missing or faulty DIMM(s)  • CPU is overheated or faulty  • Motherboard is faulty	<ol> <li>Recheck all cables and connections.</li> <li>Make sure that the CPU is firmly seated in its socket and that the fan cable is connected to the motherboard.</li> <li>If the problem persists, restore the backup, or reinstall the system software (see page 92).</li> <li>Check for missing or faulty DIMM and reseat the DIMM to remove any oxidation on the connector (see page 65).</li> <li>If the problem persists, you may need to replace the motherboard (see page 59).</li> </ol>
Clock is slow.	Missing or dead battery on the motherboard	Replace the battery on the motherboard and update the time in the Windows (if a monitor is connected), Command WorkStation, or WebTools.

Symptom Possible cause Suggested action

#### System performance (continued)

The E-43A hangs during the user software installation segment.

Possibly one of the following:

- The time and date need to be configured in the E-43A BIOS. (If the battery was removed from the E-43A motherboard during service and the time and date were not configured in Setup afterward, the E-43A will hang during the user software installation segment.)
- User Software DVD 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 E-43A and remove the User Software DVD when it ejects.
- If not already connected, connect a keyboard and a monitor to the E-43A.
- Power on the E-43A and immediately press F2 repeatedly to start 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 E-43A reaches Idle, power off and then begin a full software installation again, starting with the System Software DVD (see page 92).
- 2 If the problem persists, obtain another User Software DVD and begin software installation again starting with the System Software DVD (see page 92).
- 3 If the problem persists, you may need to replace the DVD drive (see page 84).

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 75).

If replacing the hard disk drive does not correct the problem, reinstall the old hard disk drive in the system.

#### Network

If you suspect a network problem, keep in mind the following:

- If the E-43A does not appear in the list of printers on the network, another device on the network may have been assigned 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, which is part of the user documentation set.

Symptom Possible cause Suggested action

#### Network (continued)

Unable to connect to the network, or the green LED on the RJ-45 network port is not lit. Possibly one of the following:

- Network cable is connected to the wrong RJ-45 port
- No cable/wrong type of cable is connected to the network port
- Network cable or connection is faulty
- · Network is faulty
- If the E-43A requires a static IP address (for example, in a non-DHCP network environment), it may need to be reconfigured. A static IP address is deleted when system software is reinstalled.
- System software is corrupted
- Network interface on the E-43A motherboard is faulty

- 1 If the problem persists, have the network administrator check Network Setup. To configure a static IP address (if applicable for the customer site), work with the network administrator as described on page 23.
- 2 If the problem persists, make sure that the network administrator has checked other devices on the network.
  - If other devices are not functioning, the problem may be with the network.
- 3 If the problem persists, restore the backup, or reinstall the system software (see page 92).
  - Corrupt system software may cause the system to hang.
- 4 If the rest of the network is functioning properly and the problem persists, replace the motherboard (see page 59).

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 RJ-45 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 E-43A, but the customer's network is not using DHCP
- Ethernet interface on the E-43A motherboard is faulty
- System software is corrupted

- 1 If the problem persists, ask the network administrator to check Network Setup. To configure a static IP address (if applicable for the customer site, as in a non-DHCP environment), work with the network administrator as described on page 23.
- 2 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.
- 3 If the problem persists, restore the backup, or reinstall system software (see page 92).
  - Corrupt system software may cause the system to hang.
- 4 If the rest of the network is functioning properly and the problem persists, replace the motherboard (see page 59).

Symptom	Possible cause	Suggested action
	Printin	g
	uality and color quality problems are difficult nake sure that the copier/printer does not need	to trace. Before you try to troubleshoot print quality problems, d servicing or adjusting.
Test Page fails to print.	The copier/printer is not ready to print.	Make sure that the copier/printer is turned on and ready to print.
	A problem exists with the connection	1 If the problem persists:
	between the E-43A and the copier/printer.	Recycle power on the copier/printer.
		<ul> <li>Recycle power on the E-43A by shutting down through the Functions menu, waiting 10 seconds, and then powering the E-43A back on.</li> </ul>
		2 If the problem persists, replace the printer interface (Data Transfer Unit) cables and board (see page 49).
		3 If the problem persists, you may need to service the copier/ printer.
The E-43A appears in the list of printers on the customer's workstation, but certain jobs do not print.	A PostScript error	1 Make sure that Print to PostScript Error in Setup is set to Yes.
		2 Check for error messages on the E-43A 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 E-43A 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.

Symptom	Possible cause	Suggested action
	Printing (co	ntinued)
A print job stalls or stops	Possibly one of the following:	1 Cancel the E-43A print job.
after one or a few pages.	A PostScript or application error	2 If this fails to clear the problem, reboot the E-43A.
	System software is corrupted	3 If the problem persists, choose the Clear Server command from 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, restore the backup, or reinstall system software (see page 92).
		Corrupt system software may cause the system to hang.
	Incorrect or faulty DIMM or faulty DIMM connection	1 Reseat the DIMMs to remove any oxidation on the connectors (see page 65).
		2 Verify memory amount on the Configuration page.
		3 If the problem persists after replacing the DIMM, replace the motherboard (see page 65).

Symptom	Possible cause	Suggested action
Color quality is inconsistent.	A copier/printer problem	Test the copier/printer and perform service, if necessary. See the service documentation that accompanies the copier/ printer.
Print quality is poor.	Possibly one of the following:	1 Print a E-43A Test Page.
, , ,	A file or application problem	2 If the quality of the E-43A Test Page is good, the error
	<ul> <li>A missing or outdated printer</li> </ul>	condition may be a file or application problem.
	description file	3 Make sure that the appropriate printer description file is installed. (For details, see <i>Printing from Windows</i> , which
	<ul> <li>The application cannot find the appropriate printer description file</li> </ul>	is part of the user documentation set.)
	• The system is out of calibration	

If the user can print the E-43A 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.
- Checked all printer components.
- Activated the network and used it to communicate with other printers.
- Confirmed that the applicable network settings in Setup (such as an 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.

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### **SPECIFICATIONS**

This section provides an overview of the E-43A features, specifications, and safety certifications.

### Hardware features

- Intel Core i5-4570S quad core 2.9GHz CPU (up to 3.6 GHz with Turbo Boost enabled)
- Memory: 4GB (2 x 2GB)
- An RJ-45 connector for 10BaseT/100BaseTX/1000BaseT Mbs connectivity over twisted pair cable (upper port)
- 1TB hard disk drive standard
- Built-in DVD drive

### **Physical specifications**

- Operating Environment:
  - Temperature: +5°C to +40°C
  - Relative Humidity: 10%-85% (non-condensing)
- Power Supply Voltage/Frequency Input: 100-240V @ 50-60Hz
- Power Supply Current Input: 100V @ 6A Max.; 240V @ 3A Max.
- Rated Power Consumption: 350W

### **Networking and connectivity**

• Supports AppleTalk and TCP/IP protocols simultaneously.

**Note:** AppleTalk is supported only for downloading fonts.

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### Safety and emissions compliance

The E-43A has been certified to meet or surpass the following government standards:

### Safety approvals

- CB-scheme IEC 60950-1:2005(2nd Edition); Am1:2009
- UL 60950-1:2007 R12.11 (TUV NRTL)
- CAN/CSA-22.2 #60950-1-07+A1:2011 (TUV NRTL)
- GS mark by TUV, EN60950-1:2006+A11+A1+A12

### **EMI/EMC** approvals

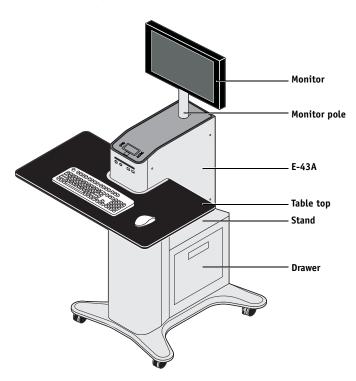
- Class AFCC Part 15 Verification (NA) Class A
- ICES-003 (NA) Class A
- VCCI -Japan V-3/2013-04 Class A
- EN55022:2010/AC:2011(EU) Class A
- C-TICK mark (Australia and New Zealand) Class A
- EN55024:2010 (EU)
- EN61000-3-2: 2006 Plus A1:2009&A2:2009 (EU) Class A
- EN61000-3-3: 2008 (EU)
- EN62311:2008 (EU)

## SERVICING THE E-43A WITH FURNITURE

This chapter describes how to remove the E-43A from the furniture in order to access internal components for service.

### **Procedures**

If the E-43A is installed in the optional furniture, you must remove it from the furniture before performing most service procedures.



**FIGURE 36:** E-43A installed on the furniture

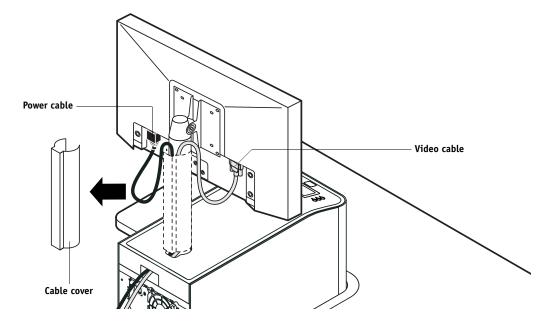
#### REMOVING THE E-43A FROM THE FURNITURE



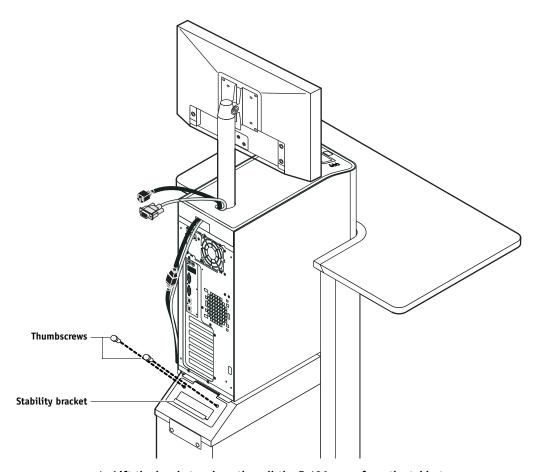


Never lift the E-43A by grasping the top panel. The top panel does not support the weight of the system.

- 1 Make sure that the E-43A is shut down and that all the cables are removed from the back of the E-43A.
- 2 Remove the cable cover and disconnect the two monitor cables (power and video):
  - Power from the back of the monitor and from the wall outlet
  - Video from the back of the monitor and from the back of the E-43A



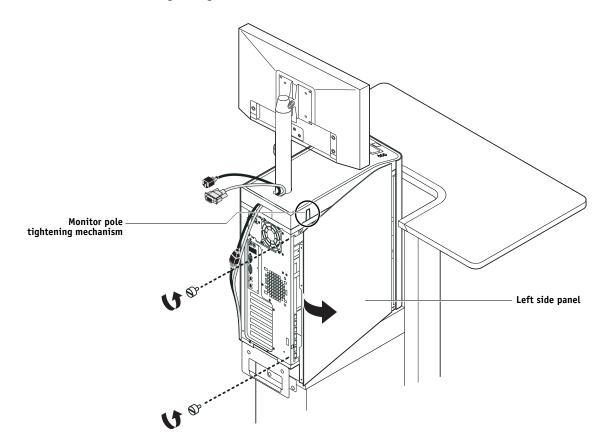
3 Remove the thumbscrews that attach the E-43A stability bracket to the stand.



4 Lift the bracket and gently pull the E-43A away from the table top.

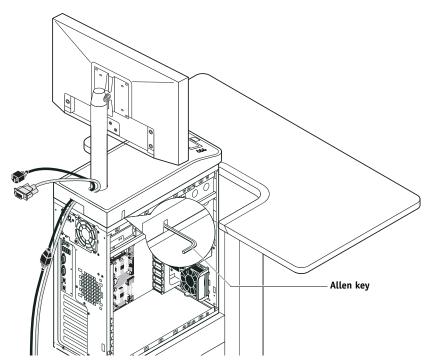
Make sure to pull the E-43A out just enough so that the front panel of the E-43A is aligned with the back edge of the table top.

5 Remove the E-43A left side panel (two screws) so that you can access the monitor pole tightening mechanism.

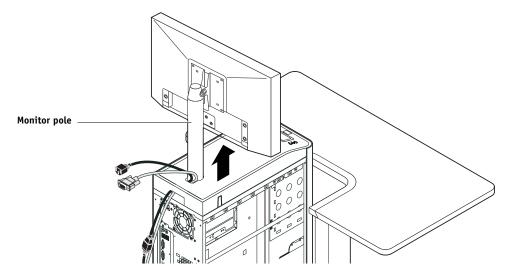


6 Use the allen key to loosen the screw that secures the monitor pole to the E-43A.

The allen key should be stored in the side drawer of the furniture.



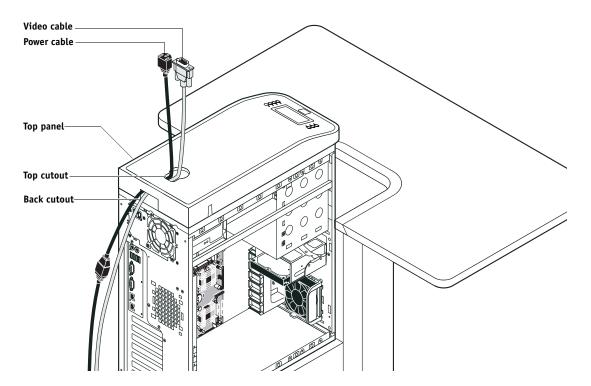
7 Holding the monitor pole, gently lift the monitor pole assembly up and out of the E-43A monitor mount.



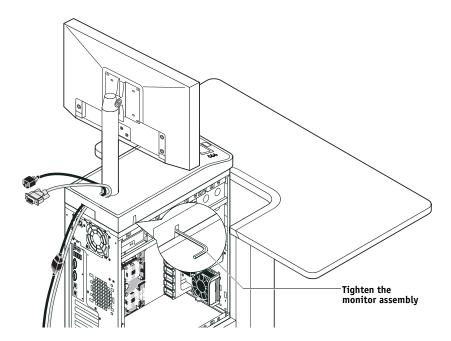
8 Continue servicing the Fiery controller.

#### REPLACING THE E-43A IN THE FURNITURE

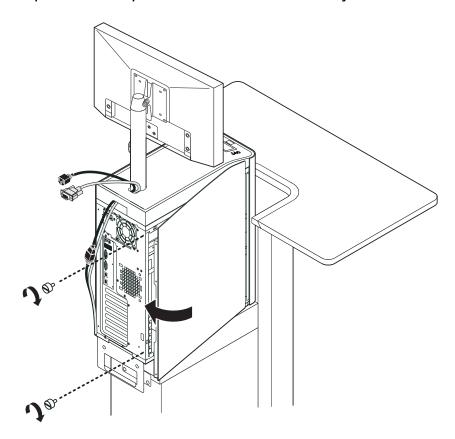
- 1 Make sure that the left side panel is removed from the E-43A.
- 2 Place the E-43A upright on the furniture stand. Slide the E-43A forward just until its front panel is aligned with the back edge of the table top.
  - Use the handle on the stability bracket to lift the rear of the E-43A and slide it forward.
- 3 Route the monitor cables (power and video) into the cutout in the back of the top panel. Pull each cable out of the cutout in the top panel.



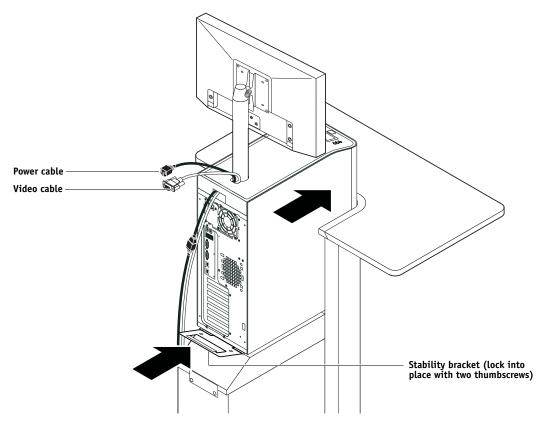
4 Lift up the pole assembly and insert the pole into the top of the E-43A so that it is inside the monitor mount. Tighten the assembly into place using the allen key.



5 Replace the left side panel on the E-43A with the screws that you removed earlier.

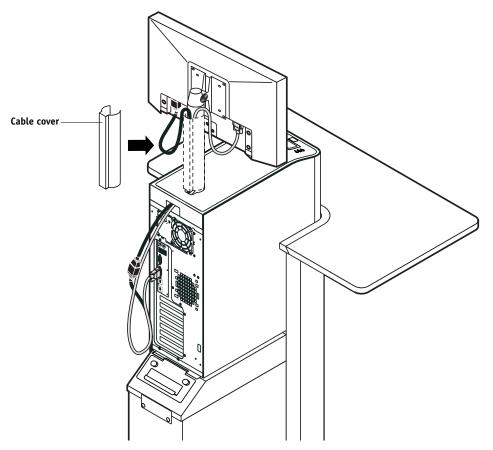


6 Use the handle on the stability bracket to lift the rear of the E-43A. Slide the E-43A all the way forward into the stand. Lock the E-43A into place with the two thumbscrews that you removed earlier.



- 7 Connect the two monitor cables (power and video):
  - Power to the back of the monitor and to the wall outlet
  - Video to the back of the monitor and to the back of the E-43A

8 Replace the cable cover over the cables and monitor pole.



9 Replace the allen key in the furniture drawer and continue reassembling the Fiery controller.

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