



Color Controller E-44B

Installation and Service Guide

A guide for service technicians

Replacement parts and specifications are subject to change.

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September 8, 2016

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Introduction

This document includes information about servicing the Color Controller E-44B. In this document, the Color Controller E-44B is referred to as “the E-44B.”

Document conventions

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



Warning: The WARNING icon indicates a warning concerning operations which, if not performed correctly, may lead to death or injury. To use the E-44B safely, always pay attention to WARNING icons and messages.



Caution: The CAUTION icon indicates a caution concerning operations which, if not performed correctly, may lead to injury. To use the E-44B safely, always pay attention to CAUTION icons and messages.



Important: The IMPORTANT icon indicates operational requirements and restrictions. To operate the E-44B correctly and avoid damage to the E-44B or other property, always pay attention to IMPORTANT icons and messages.

About the E-44B

The E-44B adds computer connectivity and highly efficient PostScript and PCL printing ability to the Pro C5200S/C5210S printer.

With the E-44B, customers can use the printer as a PostScript printer and scanner. Once it is connected to the printer through the network, customers can print to the E-44B from supported client computers on the network.

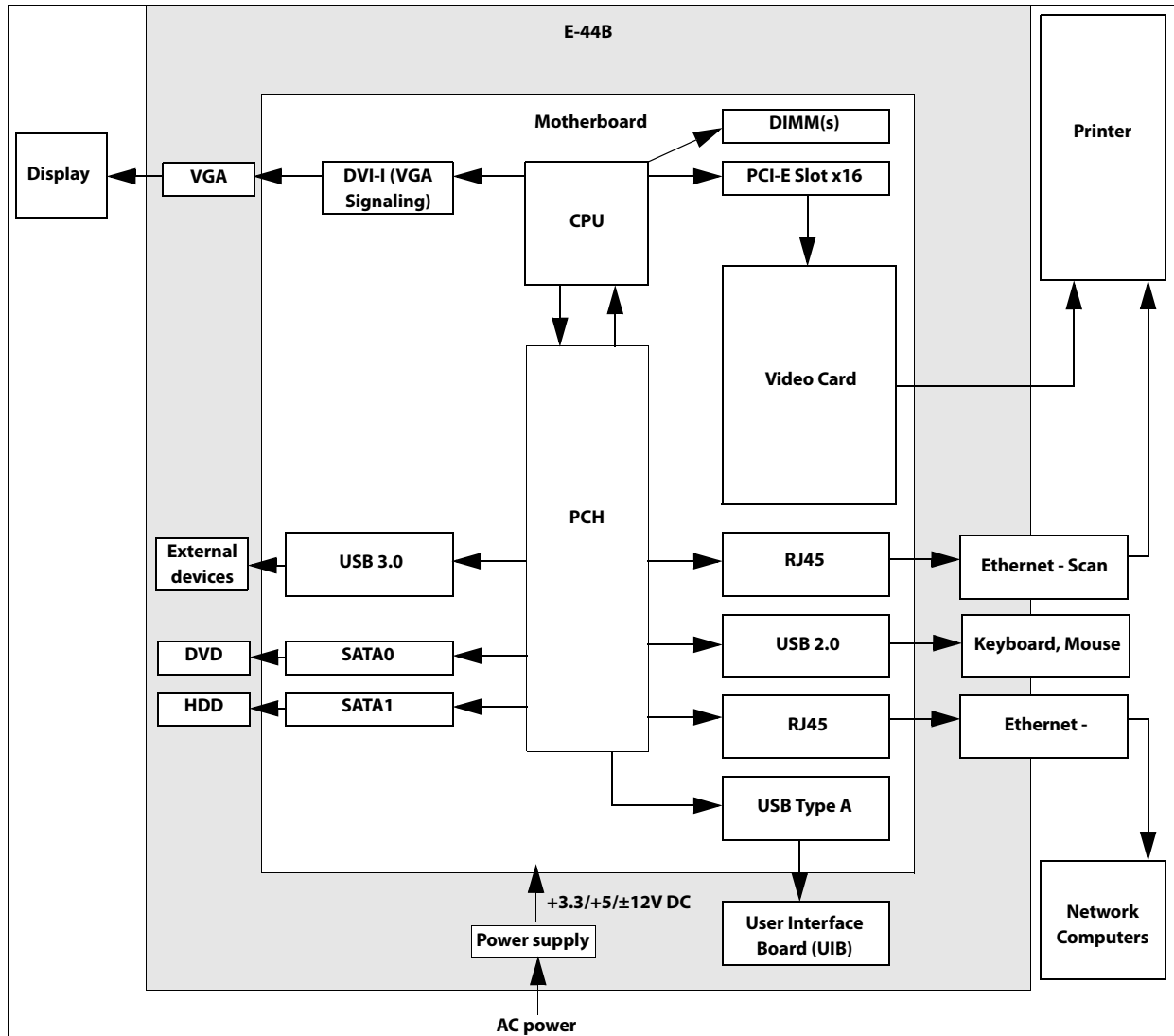
The E-44B ships with software pre-installed so that customers can use it immediately. However, as part of servicing the E-44B, you may need to reinstall software.

How the E-44B 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-44B to communicate with the 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 printer, which then renders the image on paper at maximum speed.

Figure 1: E-44B functional diagram



Before you service the E-44B

Before you service the E-44B, it is strongly recommended that you make sure that you have the required tools ([page 10](#)) 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 41](#)).

Tools you will need

To install or service the E-44B, 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-44B 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-44B and how to avoid damage to E-44B 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-44B 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-44B

Only the site administrator should assign an IP address to a network device, including the E-44B. If you enter an incorrect IP address for the E-44B, 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



Warning: The E-44B contains hazardous moving parts. When servicing the E-44B, keep away from moving fan blades.



Attention : ce produit contient des pièces mobiles dangereuses. Veuillez le maintenir à l'écart des pales de ventilateur lors de sa maintenance.

Attenzione: questo prodotto include parti mobili pericolose. Mantenere la distanza dalle pale della ventola quando sono in uso.

Warnung: Dieses Produkt verfügt über gefährliche Teile, die sich bewegen. Halten Sie bei der Instandhaltung Abstand zu den sich bewegenden Ventilatorblättern.

Advertencia: Este producto contiene piezas móviles peligrosas. Cuando realice el mantenimiento de este producto, manténgase alejado de aspas de ventilador en movimiento.

Waarschuwing: dit product bevat gevaarlijke bewegende delen. Blijf uit de buurt van bewegende ventilatorbladen bij het uitvoeren van onderhoudswerkzaamheden aan dit product.

Atenção: Este produto contém partes móveis perigosas. Ao fazer a manutenção deste produto, manter afastado de movimento das pás do ventilador.

Aviso: este produto contém peças removíveis perigosas. Ao realizar a manutenção deste produto, mantenha-se longe das lâminas removíveis do ventilador.

Use caution with sharp edges

The edges of some E-44B 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 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 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 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-44B or an appropriate replacement power cable. For replacement parts, see your authorized service support center.
- Before you open the E-44B, unplug the E-44B.
- Keep the power cable away from foot traffic.
- Do not place objects on the power cable.
- Do not plug the E-44B into a 2-hole, ungrounded outlet by means of a 3-prong adapter.
- Do not plug the E-44B into a circuit connected to heating or refrigeration equipment (including a water dispenser).
- Do not plug the E-44B into a switchable outlet.
- Do not pull the cable to unplug the E-44B. 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-44B

If liquid spills on the E-44B, immediately unplug the E-44B.


Do not open the power supply

For more information about the power supply, see [“Power supply”](#) on page 74.

Do not open the hard disk drive

For more information about the hard disk drive, see [“Hard disk drive”](#) on page 77.

Lift the E-44B carefully

 **Warning:** To avoid injury, do not lift the E-44B without assistance.

The E-44B weighs approximately 20kg. At least two persons are required to move the device.

 **Warning:** Never lift the E-44B by grasping the top panel. The top panel does not support the weight of the E-44B.



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

 **Important:** 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.

Lithium battery notice

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

Short circuit protection

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

Installing Hardware

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-44B (see [page 18](#))
- Preparing the printer to connect to the E-44B (see [page 128](#))
- Installing the E-44B and connecting it to the printer and the network (see [page 19](#))
- Enabling the power synchronization feature (see [page 24](#))
- Completing the installation (see [page 27](#))
 - Print a Test Page and a Configuration page.
 - If the E-44B 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 24](#).
 - Remind the site administrator to install the current user software on networked computers that print to the E-44B (see *Printing* and *Utilities*, which are part of the user documentation set).

Installation sequence

Because the E-44B 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.

- 1** Check installation requirements and verify site conditions.

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

- 2** Unpack the E-44B (see [page 18](#)).
- 3** Prepare the printer to connect to the E-44B (see [page 128](#)).
- 4** Connect the monitor, keyboard, mouse, and furniture to the E-44B if applicable.

For more information on setting up the furniture, see the documentation that is included in the kit.

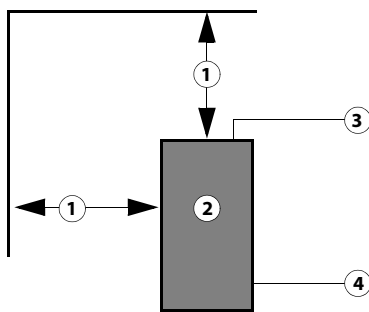
- 5 Connect the interface cables (see [page 21](#)).
 - Network cable (upper RJ-45)
 - Printer interface cable (printer interface port)
 - USB cable for the power synchronization (see [page 26](#)).
- 6 (Optional) If the E-44B requires a static IP address (for example, in a non-DHCP network environment), work with the network administrator to configure it (see [page 24](#)).
- 7 Complete the installation (see [page 27](#)).

Remind site administrator to install current user software on networked computers that print to the E-44B (see *Printing* and *Utilities*, which are part of the user documentation set).

Checking the customer site

Before you install the E-44B, check site conditions and inform the customer of any installation requirements.

Figure 2: Space requirement for the E-44B



- 1 20cm+ (8 in.)
- 2 E-44B
- 3 Connector panel
- 4 Side panel

Printer readiness

- Is the printer configured for use with the E-44B? (For the proper settings, see the documentation that accompanies the printer.)
- Is space available near the printer for the E-44B and the furniture?

Make sure that adequate space is available for the E-44B 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-44B does not interfere with use of or service to the printer (such as clearing a paper jam). You may need to move the printer away from the wall so that the interface connectors are accessible.

- Does the printer require service or adjustments?

Print the printer Test Page before you install the E-44B.

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

Power

- Is a dedicated, grounded electrical outlet for the E-44B available near the printer?

Locate the grounded electrical outlet that will supply power to the E-44B. Do not run the E-44B and the printer on the same circuit. If the customer has provided one, use a surge suppressor for the E-44B.

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 E-44B.
- 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-44B takes about one hour. Inform the customer of the following:

- Some nodes on the network may be unavailable for up to one hour.
- The 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-44B and confirms network functionality with the connector in place before the date scheduled for the E-44B 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-44B onto networked Windows and Mac OS computers that print to the E-44B (user documentation is also included).

Note: This document covers hardware installation and service and provides general information about connecting the E-44B 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-44B

The E-44B is assembled and shipped from the factory with all necessary cables (except the network cable) and documentation.

Before you unpack the E-44B, it is strongly recommended that you review all “[Precautions](#)” on page 11 to avoid injury or damage to the E-44B.

- The E-44B weighs approximately 20Kg. Be careful when moving the device.



Warning: Never lift the E-44B by grasping the top panel. The top panel does not support the weight of the system.



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.

WARNING: 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-44B

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-44B 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-44B out of the box.

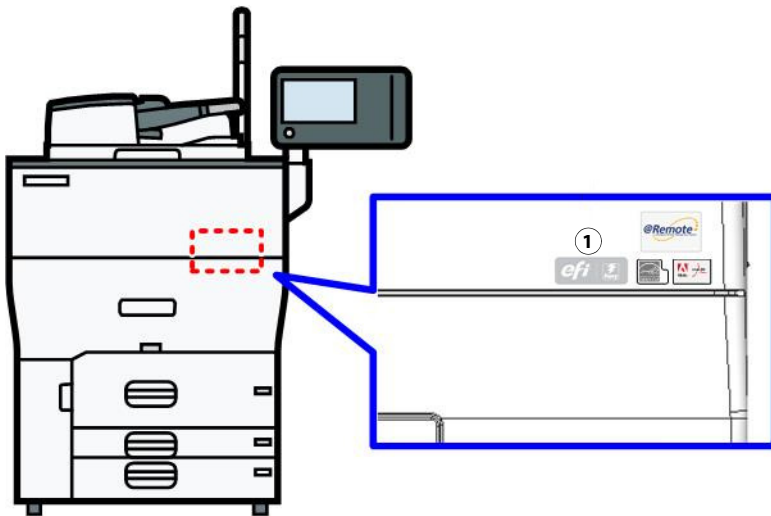
If you notice shipping damage to any component, save the shipping container, in case the carrier needs to see it. Call the carrier immediately to report the damage and file a claim.

- 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-44B, the user software must be installed on computers that will print to the E-44B.

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

Figure 3: Affixing the decal to the printer



1 EFI/Fiery decal

Connecting the E-44B

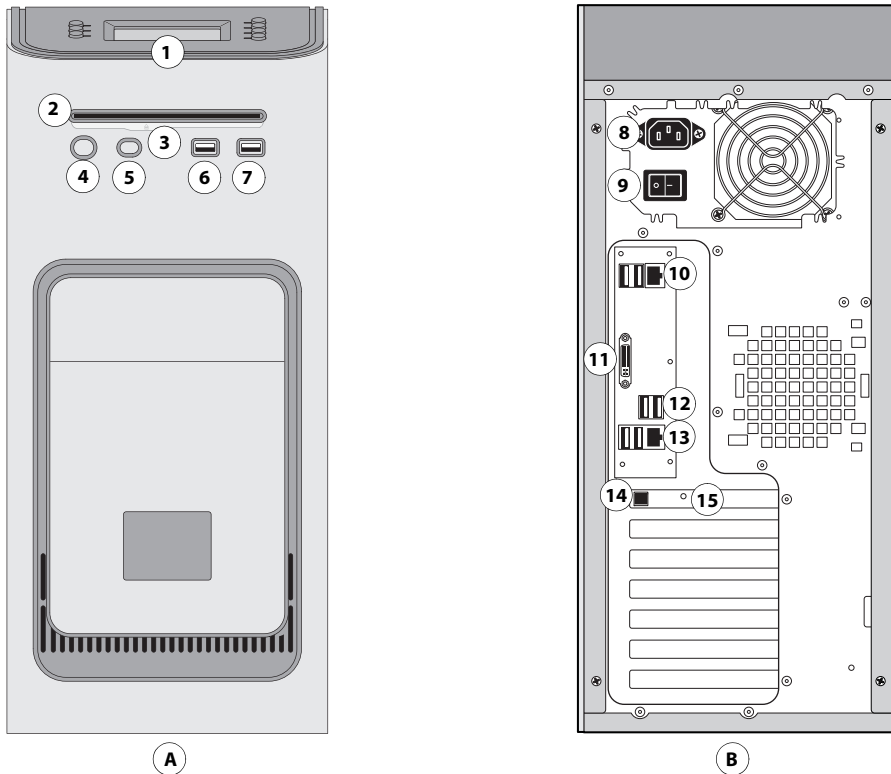
You are now ready to make the following connections:

- (Optional) Monitor, keyboard, and mouse

Note: The Fiery Advanced Controller Interface is an option.

- Power cable connection
- Network cable connection
- Printer interface cable connection

Figure 4: Front and connector panel



A Front panel

- 1 Control panel
- 2 DVD drive
- 3 Eject button
- 4 Power button
- 5 Reset button
- 6 Type A USB3.0 port
- 7 Type A USB3.0 port

B Connector panel

- 8 Power connector
- 9 Power switch
|: Power On
O: Power Off
- 10 Network port (Upper RJ-45)
and Type A USB 2.0 ports
- 11 Monitor (DVI) port
- 12 Type A USB3.0 ports
- 13 printer interface port
(crossover Ethernet port) and
Type A USB3.0 ports
- 14 Type B USB port on the printer
interface board
- 15 OFF/ON switch for power
synchronization

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

Connecting the monitor, keyboard, mouse, and power

Before using the E-44B, connect the monitor, keyboard, mouse (if applicable), and power to the E-44B.

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-44B is installed in the furniture and that the monitor is securely attached to the top of the E-44B.

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-44B 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-44B. If necessary, use the port adapter included in the furniture kit to connect the monitor cable.
- 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-44B power cable to the power connector to the E-44B connector panel. Connect the other end of the cable to a wall outlet.

Connecting to the printer and the network

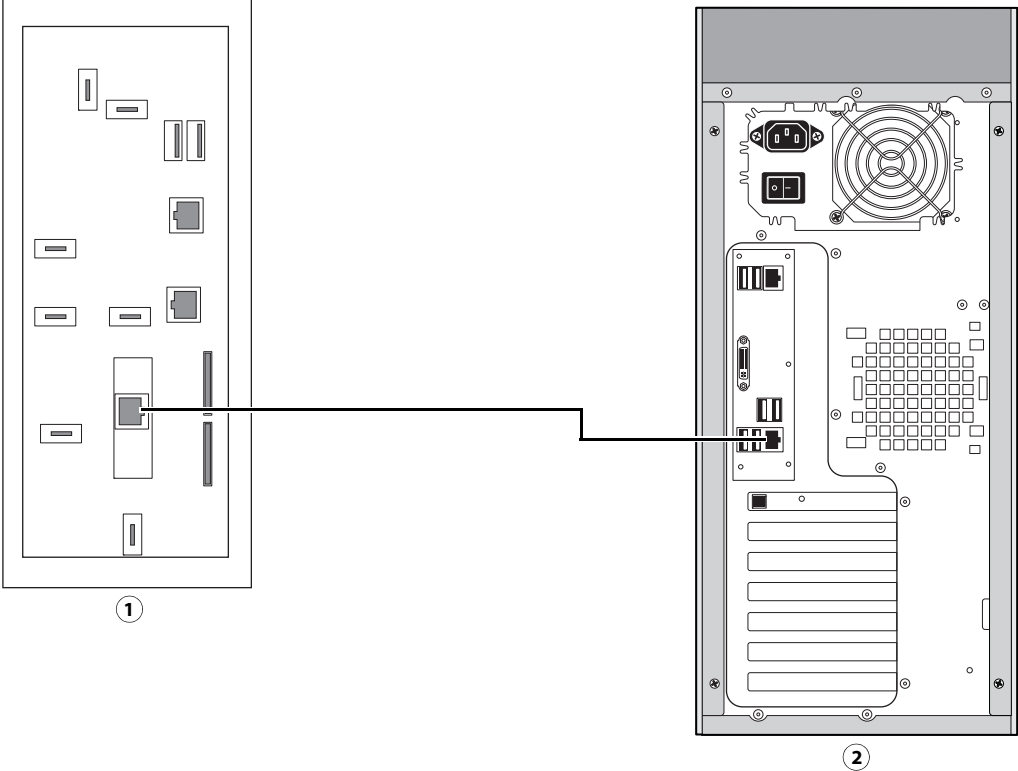
Connect the E-44B to the printer and the network to enable print and network connectivity.

Note: Make sure that you prepare the printer before connecting the E-44B to the printer (see [page 128](#)).

To connect to the printer

- 1 Make sure that the E-44B and the printer are powered off.
- 2 Connect one end of the printer interface cable to the printer interface port on the connector panel of the E-44B (see [Figure 5](#)).

Figure 5: Printer and E-44B cable connection

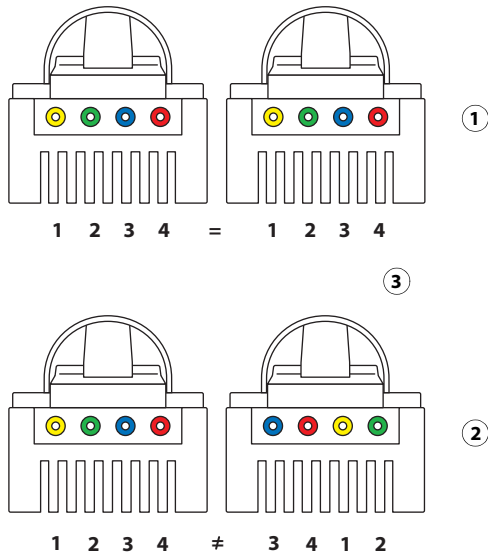


- 1 printer connector panel
- 2 E-44B

- 3 Connect the other end of the printer interface cable to the printer's Gigabit Ethernet board connector.

⚠ Important: The straight-through network cable at the customer site and the printer interface cable (a crossover Ethernet cable) included with the E-44B look similar, but are not interchangeable. Make sure that you connect the printer interface cable to the printer interface port on the E-44B connector panel.

Figure 6: Straight-through and crossover Ethernet cables



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

2 Crossover Ethernet cable: wire arrangements are different

Note: Align cables side by side and examine wires.

Note: To prevent risk of cross-talk, make sure the printer interface cable does not touch the power cables for the system. Image quality problems or E-44B shutdowns could result.


To connect to the network

- 1 Make sure that the E-44B is powered off.
- 2 Make sure that the one end of the network cable is connected to the customer site network.
- 3 Connect the other end of the network cable to the upper RJ-45 network port on the back of the E-44B.

The E-44B 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-44B appears in the list of digital presses, and then print a few test documents from a networked computer that will use the E-44B. For more information, see *Configuration and Setup*, which is part of the user documentation set.

 **Important:** The straight-through network cable at the customer site and the printer interface cable (a crossover Ethernet cable) included with the E-44B look similar, but are not interchangeable. Make sure that you connect the network cable to the upper RJ-45 port on the E-44B connector panel (see [Figure 5](#) on page 22).

Configuring a static IP address for the E-44B

If the customer requires the E-44B 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-44B.

To configure a static IP address for the E-44B

- 1 Press the Fiery tab.
- 2 Press Setup.
- 3 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.
- 4 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.
- 5 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.
- 6 On the Setup screen, press Exit Setup.
- 7 Press Reboot Now.

RTB 1

[Important notes on installing the Color Controller E-44B](#)

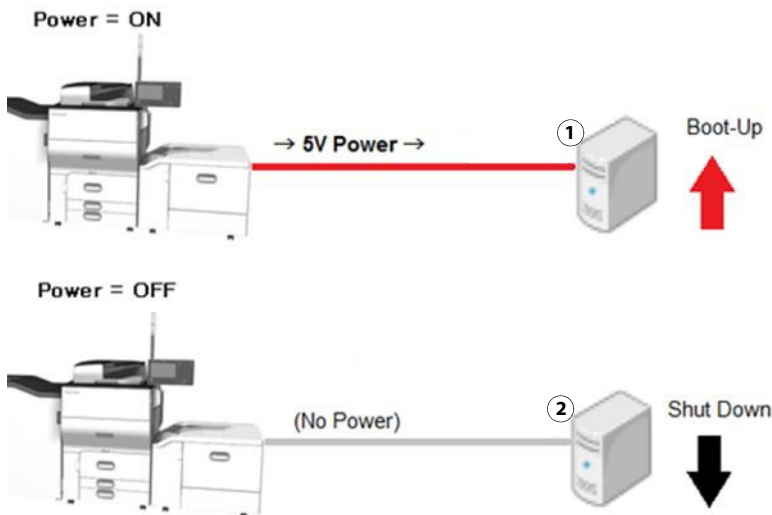
Enabling the power synchronization

During the installation, enable the power synchronization feature by using the OFF/ON switch on the printer interface board, and the USB power cable included in the accessory kit. The default switch position is OFF.

Boot-up and shutdown behavior

When the power synchronization feature is enabled, the power of the E-44B will be synchronized with the power status of the printer.

Figure 7: The Boot-up/shutdown sequence with the power synchronization set ON



- 1 When powered off, if the E-44B detects 5V power from the printer, the E-44B boots up.
- 2 When Idle, if the E-44B does not detect 5V power from the printer, the E-44B shuts down.

Limitations on the power synchronization feature

Before you enable the power synchronization, discuss the following limitations with the system administrator at the customer site:

- Scheduled features such as System Updates, Automatic backup, and Auto Export Job Logs will not be activated if the E-44B shuts down by the power synchronization feature.
- If the printer main power is turned OFF by the Weekly Timer set, the E-44B will be shut down by the power synchronization.
- If the power synchronization feature is enabled, the power of the E-44B must be controlled by the printer.
- The E-44B power condition will be dependent on the power status of the printer. You cannot shut down the E-44B while the printer power is ON.
- Since the power is supplied from the printer to the E-44B, while the printer power is turned ON, shutting down the E-44B from the Fiery menu in this condition will cause the E-44B to reboot.

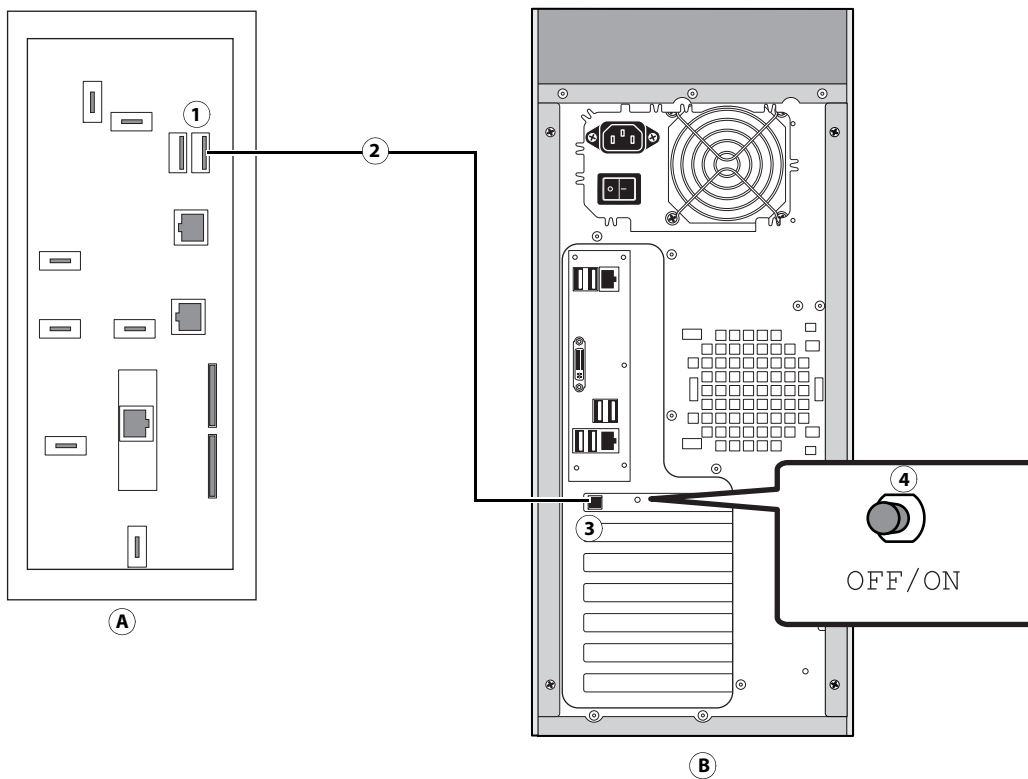
- If you need to shut down the E-44B for the service purpose, always check if the power synchronization is enabled or not.

Note: In this document, the procedures for shutting down the E-44B are based on the assumption that the power synchronization is *not* enabled. If the power synchronization is enabled, you must turn off the printer.

To enable the power synchronization feature at the E-44B

- 1 Shut down the E-44B (see [page 35](#)) and the 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 printer.
- 4 Connect one end of the USB cable (Type B) to the port on the printer interface board of the E-44B. Connect the other end of the cable (Type A) to the USB port on the printer.

Figure 8: USB connection between printer and E-44B



A printer connector panel

- 1 Type A USB port
- 2 USB cable

B E-44B connector panel

- 3 Type B USB port on the printer interface board
- 4 Switch on the printer interface board:
OFF position (default)

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



Important: Do not change the switch position when the E-44B is powered on.

6 Power on the printer.

The E-44B automatically starts up.

To disable the power synchronization

1 Turn off the printer using the main power switch.

Wait until the E-44B shuts down.

2 Make sure that the power switch on the connector panel of the E-44B is OFF position (|).

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



Important: Do not change the switch position when the E-44B 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 printer connector panel.

5 Start the E-44B (see [page 35](#)).

Completing installation and starting up

To finish the installation of the E-44B at the customer site, make sure to do the following:

1 Make sure that the power cord is attached and that the power switch on the connector panel is in the ON position(|).

2 Power on the printer by using the main power switch.

The E-44B will receive a signal from the printer and will automatically start up.

Note: If the power synchronization feature is not enabled, press the power button (⏻) on the front panel once and release the button to power on the E-44B.

3 Wait for the system to power on and for the E-44B Info screen to reach Idle.

4 Perform any required system software upgrades.

For instructions, see the documentation that accompanies the E-44B service upgrade.

Updates to Fiery Server Software may be available for the E-44B from a variety of sources (for example, System Updates (see [page 106](#)), or patches provided on CD).

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.

Make sure that the correct date, time, and time zone are set. To change these settings, use Configure tool accessed from Command WorkStation or WebTools. Start Configure, choose Fiery Server > Regional Settings. Check all the settings under Date & Time, When you make changes on the settings, make sure to click Save, and reboot the E-44B.

Note: When you access WebTools, a security certificate error occurs. A common security certificate that works for all network environments cannot be installed on the E-44B, which results in the certificate error. This is expected behavior. You can safely continue and proceed with your work.

- 6 If the E-44B 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 24](#).
- 7 Change the factory default language, if needed.
For more information on changing the factory default language, see [page 15](#).
- 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 printer.
- 10 Inform the site administrator that the E-44B user software must be installed on networked computers that print to the E-44B.
- 11 Ask the site administrator to make sure that all media (DVDs and/or CDs) shipped with the E-44B is stored in a safe location, accessible to you.

Using the E-44B

The following user interfaces are available for the E-44B:

- The control panel on the front of the E-44B.
- The printer touch panel.
- (Optional) Fiery Advanced Controller Interface

Note: The Fiery Advanced Controller Interface (monitor, mouse, and keyboard) is provided as an option feature.

Using the E-44B control panel

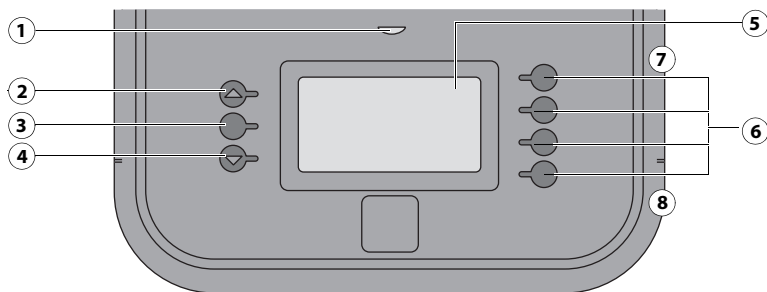
The control panel on the front of the E-44B allows you to do the following:

- 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-44B
- Shut down, restart, or reboot the E-44B (see [page 35](#)).

Note: You can also shut down and restart the E-44B through the printer touch panel (see [page 31](#)) if the power synchronization is disabled.

- Interact with the E-44B during software installation (see [page 102](#))
- Run certain diagnostics (for service purposes only)

Figure 9: E-44B control panel



- 1 Activity light
- 2 Up button
- 3 Menu button
- 4 Down button

- 5 Display window
- 6 Line selection buttons
- 7 First
- 8 Fourth

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	<p>Press to view the following options:</p> <ul style="list-style-type: none"> • Eject CD/DVD • IP Address • Restart Server <ul style="list-style-type: none"> • Restart Server • Reboot System • Shut Down System <p>Note: For Shut Down System option to function correctly, the power synchronization feature must be disabled (see page 24).</p>

Activity light

The activity light on the E-44B control panel indicates current E-44B activity. If the light is:

Flashing amber	The E-44B is starting up and the BIOS has established communication with the User Interface Board (UIB).
Flashing green	The E-44B is continuing startup and the Windows operating system has established communication with the UIB.
Solid green	The E-44B is powered on and is in the Idle state.
Solid amber	The E-44B is powered off, but the printer interface cable is plugged into the printer. The control panel LCD continues to draw power when the E-44B is off.
Flashing or solid red	An error has caused printing to be disabled.
No light	The E-44B is powered off and the printer interface cable is not connected to the printer.

E-44B Functions menu

The following options are available from the E-44B Functions menu:

- **MB Replacement:** Allows you to transfer any options stored in the hard disk drive of the E-44B into a new motherboard.

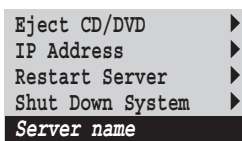
Note: The MB Replacement option appears only when you insert the motherboard replacement dongle into a USB port.

- **Eject CD/DVD:** Allows you to eject media from the DVD drive. Media is also automatically ejected whenever the E-44B 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-44B.

- **Restart Server:** Includes options to Restart (soft reset) or Reboot (hard reset) the E-44B. Selecting Restart resets the E-44B server software, but does not reboot the entire system. Selecting Reboot shuts down all E-44B activity and reboots the system. When you select Restart or Reboot, network access to the E-44B is temporarily interrupted and all currently processing jobs are aborted and may be lost.
- **Shut Down Server:** Shuts down all E-44B server software and powers off the system. Always select this option to power off the system.

Note: For Shut Down Server option to function correctly, the power synchronization feature must be disabled (see [page 24](#)).

Figure 10: E-44B Functions menu

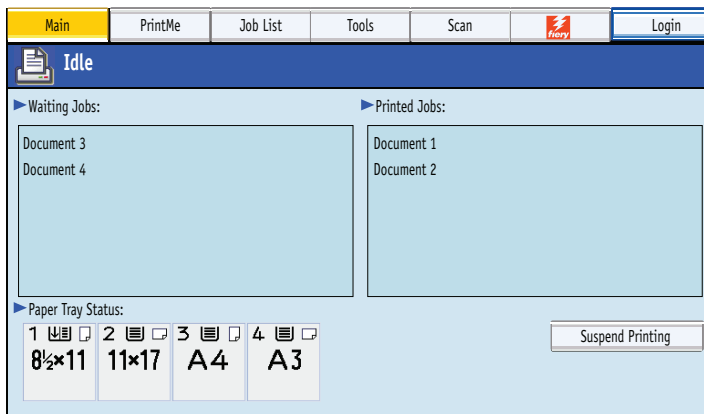


Note: Avoid using the reset button on the front panel, as doing so may cause the system to operate unpredictably. Use the reset button on the front of the E-44B only if the system is unresponsive to keyboard or mouse actions (if available).


Using the printer touch panel

The “Fiery” icon of the printer touch panel allows you to interact with the E-44B from the printer. The menus provide access to many of the same options available from Command WorkStation.

Figure 11: The printer touch panel



To access to the Fiery screen on the printer touch panel

- 1 Press Home button on the printer touch panel.
- 2 From the Home screen of the 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-44B and the printer. Use this command to interrupt the current E-44B job, for example, to perform maintenance tasks. Jobs continue to process on the E-44B. After you complete maintenance tasks, choose Resume Printing to continue printing jobs from the E-44B.
Resume Printing	Resume print activity between the printer and the E-44B 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 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	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 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 <i>Utilities</i> .
Calibration	Calibrate the E-44B using ColorCal. For more information, see <i>Color Printing</i> .

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-44B.
Printable Info	<p>Allows you to print these system pages from the E-44B:</p> <p>PS Test Page/PCL Test Page: Confirms that the E-44B is properly connected to the printer, and provides color and grayscale samples to troubleshoot problems with the printer or the E-44B. Settings on the Test Page may include: Server Name, color settings, printer model, and date and time the Test Page was printed.</p> <p>PS Font List/PCL Font List: Prints a list of all fonts currently on the E-44B hard disk drive.</p> <p>Configuration: Provides general information about the hardware and software configuration of the E-44B, the current settings for Setup, the current calibration, the IP address of the E-44B, and a log of system updates.</p> <p>Color Charts: Prints samples of the RGB, CMY, and PANTONE colors available from the E-44B.</p> <p>Custom Paper Instructions: Provides the instructions for setting up custom paper entry.</p> <p>Calibration Instructions: Prints the information on how to perform the calibration.</p> <p>Job Log: Prints a log of the last 55 jobs.</p> <p>E-mail Log: Prints a log listing recent e-mail activity.</p> <p>FTP Log: Prints a log listing recent FTP activity.</p> <p>To print the E-mail or FTP log, you must first enable the appropriate service.</p>
Setup	Enter the Setup menu and change Setup option settings.
Clear Job Log	Clears the job log from the E-44B.

Run Diagnostics	To troubleshoot printer interface board, choose this menu.
Clear Server	Clear all jobs in all server queues, as well as all jobs archived on the E-44B 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	<p>Shut down all E-44B activity in the correct manner and then restart. The following options are available from the submenu that appears:</p> <p>Restart Fiery Service: Resets the server software but does not reboot the entire system. Network access to the E-44B is temporarily interrupted and all currently processing jobs are aborted and may be lost.</p> <p>Restart System: Shuts down and then reboots the E-44B. Network access to the E-44B is terminated and all currently processing jobs are aborted and may be lost.</p> <p>Shut Down: Shuts down all E-44B activity properly.</p> <p>Note: For Shut Down option to function correctly, the power synchronization feature must be disabled (see page 24).</p>

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 33](#)). The Printable Info menu is accessed through the Fiery tab (see [page 33](#)).

Printing the **Configuration page** can be helpful during installation, Setup, and service. After installing the E-44B (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-44B 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-44B is functional and that the connection between the E-44B and the printer is working.

To print a page from the Printable Info menu

- 1 If it is not powered on already, power on the printer and allow it to warm up.
- 2 If it is not powered on already, power on the E-44B 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-44B 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-44B sends the selected page(s) to the printer.

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

If the Test Page prints, you know the E-44B is functional and the connection between the E-44B and the printer is working. If the Test Page fails to print, look up printing problems in the Troubleshooting table on [page 122](#).

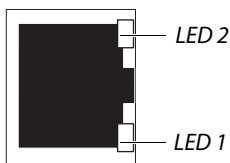
When you examine the Test Page, keep in mind the following:

- 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 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 122](#), 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-44B 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: Network connectivity is supported only through the upper RJ-45 port on the E-44B connector panel. The lower port is for the crossover Ethernet cable connection to the printer. The network and crossover Ethernet cables look similar, but are not interchangeable. Make sure not to swap the cables. (For the correct connections, see [page 41](#)).

Starting, shutting down, restarting, and rebooting

By default, the power status of the E-44B is synchronized with the printer’s power status. If you need to turn off the E-44B only, you must disable the power synchronization.

If the power synchronization is disabled, make sure to power on the printer before you power on the E-44B

Remember that when the E-44B is powered off, network access to the printer is interrupted. Power off the E-44B when you need to service it and before you remove or attach any cables to it.

To start or shut down the E-44B when the power synchronization is enabled

Follow the steps below to start or shut down the E-44B with the power synchronization feature is enabled. For disabling the power synchronization, see [page 27](#).

To start the E-44B with the power synchronization enabled

- Turn on the printer using the main power button.

To shut down the E-44B with the power synchronization enabled

- Turn off the printer using the main power button.

To restart or reboot the E-44B with the power synchronization enabled

- Follow the instructions in [page 37](#).

Regardless of the power synchronization settings, you can restart or reboot the E-44B in the same way.

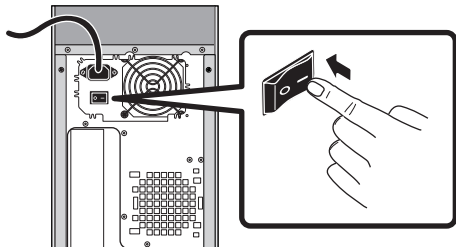
Note: Use the reset button on the front of the E-44B only if the system is unresponsive to keyboard or mouse actions (if available).

To start or shut down the E-44B when the power synchronization is disabled

Follow the steps below to start or shut down the E-44B with the power synchronization feature is disabled. By default, the power synchronization is enabled. For the instructions on how to disable the power synchronization, see [page 27](#).

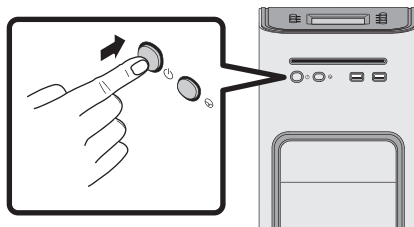
To start the E-44B with the power synchronization disabled

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

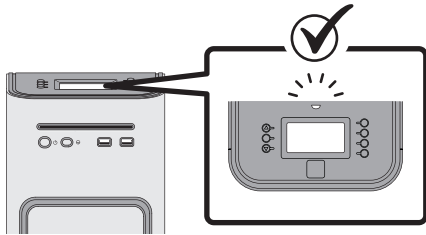


- 3 Press the power button on the front panel.

- 4 Press the power button (⏻) on the front panel.



- 5 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-44B control panel with the power synchronization disabled

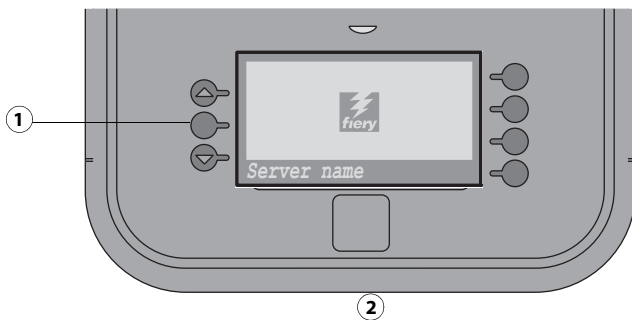
Note: Notify the network administrator before you remove the E-44B from the network.

- 1 Make sure that the E-44B is not receiving, processing, or printing any jobs.

If Printing appears on the control panel, the E-44B 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.

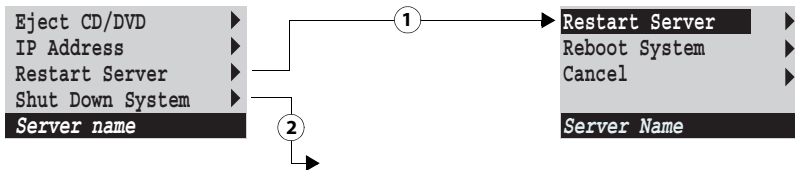


1 Menu button

2 This logo screen indicates that the E-44B is Idle.

3 Make a selection:

- To restart or reboot the E-44B, select Restart Server. A submenu displays allowing you to select Restart Server, Reboot System, or Cancel.
- To shut down the E-44B immediately, select Shut Down System.



1 Displays a submenu

2 Immediately shuts down the E-44B

Note: Use the reset button on the front of the E-44B 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-44B.

To shut down, restart, or reboot from the printer touch panel with the power synchronization disabled

Note: Notify the site administrator before you remove the E-44B from the network.

1 Make sure that the E-44B is not receiving, processing, or printing any jobs.

If Printing appears on the control panel, the E-44B 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 printer operational panel.

3 From the Home screen of the 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-44B 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-44B server software but does not reboot the entire system. Network access to the E-44B 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-44B activity properly and then reboots. Network access to the E-44B is temporarily interrupted and all currently processing jobs are aborted and may be lost.
- **Shut Down**—Shuts down all E-44B 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-44B is terminated and all currently processing jobs are aborted and may be lost.

Note: Use the reset button on the front of the E-44B 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-44B.

Replacing parts

Generally, the E-44B requires no regular service or maintenance. Use the procedures in this chapter to inspect, remove, reseal, 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](#).

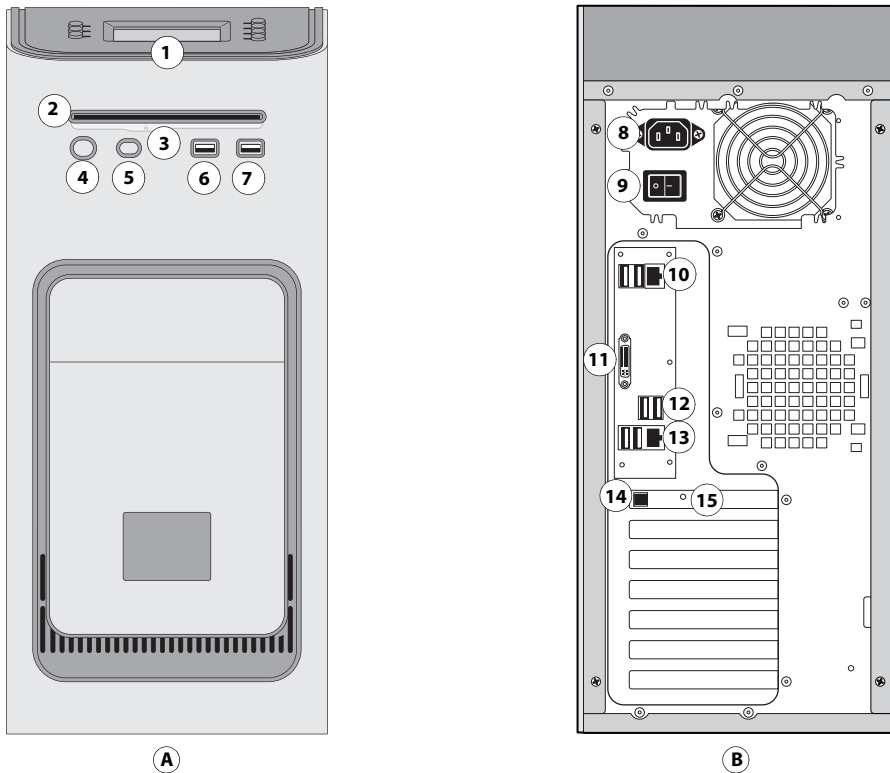
The tools required to service the E-44B are listed on [page 10](#).



Important: When you service the E-44B, we recommend that you disable the power synchronization feature so that the E-44B power is controlled independently. For detailed information on the power synchronization, see [page 24](#).

E-44B overview diagrams

Figure 12: Front and connector panel



A Front panel

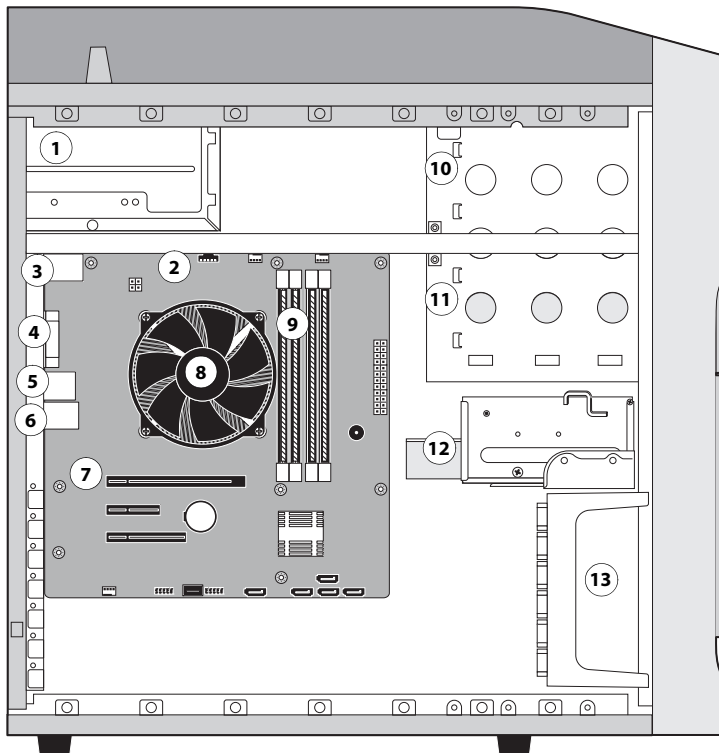
- 1 Control panel
- 2 DVD drive
- 3 Eject button
- 4 Power button
- 5 Reset button
- 6 Type A USB3.0 port
- 7 Type A USB3.0 port

B Connector panel

- 8 Power connector
- 9 Power switch
 - |: Power On
 - O: Power Off
- 10 Network port (Upper RJ-45) and Type A USB 2.0 ports
- 11 Monitor (DVI) port
- 12 Type A USB3.0 ports
- 13 printer interface port (crossover Ethernet port) and Type A USB3.0 ports
- 14 Type B USB port on the printer interface board
- 15 OFF/ON switch for power synchronization

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

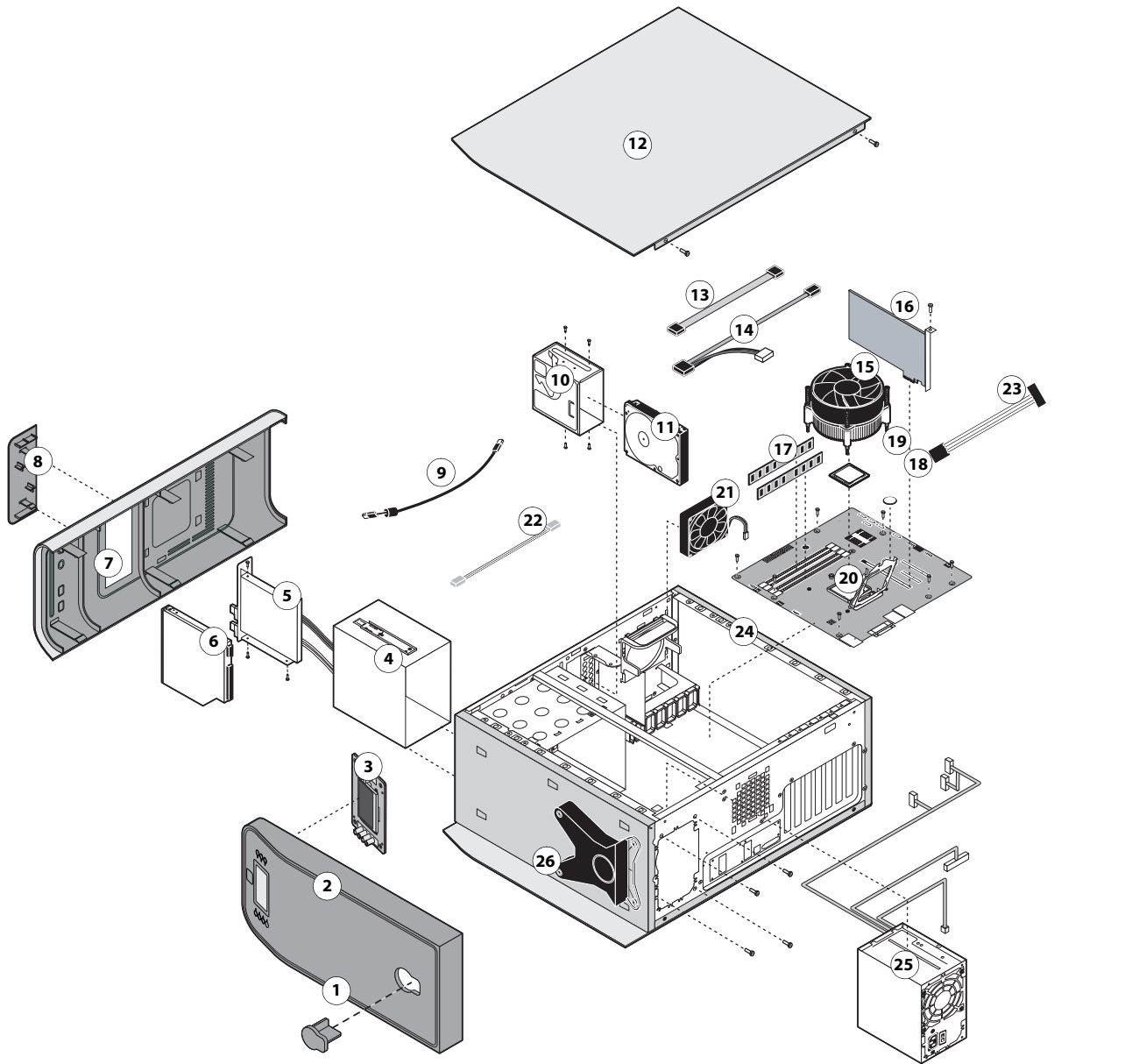
Figure 13: Internal side view



- | | | | | | |
|---|---|----|--|----|----------------------------|
| 1 | Power supply | 6 | Type A USB3.0 ports (x2) and crossover Ethernet port | 11 | Removable drive |
| 2 | Motherboard | 7 | Printer interface board | 12 | Hard disk drive in bracket |
| 3 | Type A USB2.0 ports (x2) and network port | 8 | CPU cooling assembly | 13 | Front fan |
| 4 | Monitor (DVI) port | 9 | DIMM slots | | |
| 5 | Type A USB3.0 ports (x2) | 10 | DVD drive | | |

Note: The hard disk drive cover is not shown.

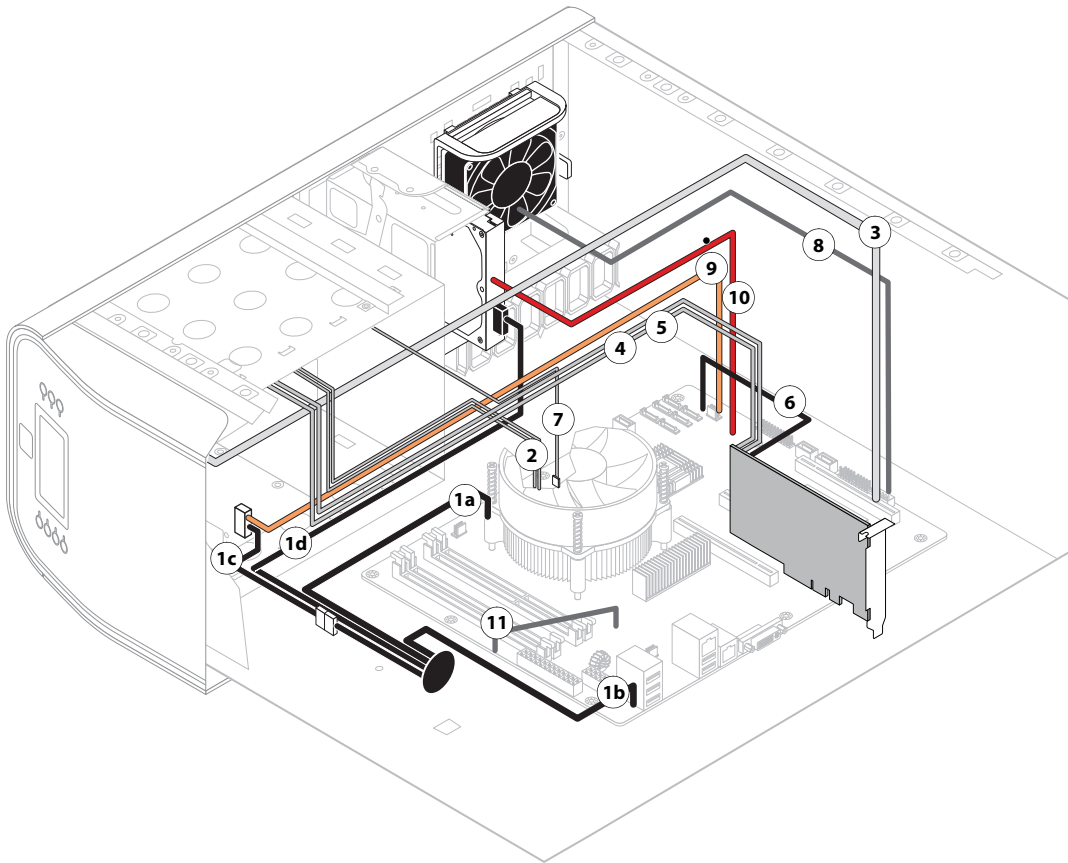
Figure 14: Exploded view of components



- | | | | | | | | |
|---|---|----|-----------------------------|----|--|----|---------------------------|
| 1 | Top panel plug | 7 | Front panel | 14 | DVD drive power/data combination cable | 21 | Fan |
| 2 | Top panel | 8 | Upper faceplate | 15 | CPU cooling assembly | 22 | 3-pin fan extension cable |
| 3 | User interface board (UIB)
(The UIB buttons are not included in the user interface board spare kit.) | 9 | UIB cable | 16 | Printer interface board | 23 | 10-pin power button cable |
| 4 | Component sled | 10 | Hard disk drive bracket | 17 | DIMMs | 24 | Chassis |
| 5 | Switch bank assembly | 11 | Hard disk drive | 18 | Battery | 25 | Power supply |
| 6 | DVD drive | 12 | Side panel (left) | 19 | CPU | 26 | Side panel (right) |
| | | 13 | Hard disk drive data cables | 20 | Motherboard | | |

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

Figure 15: Power and data cable connections



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	J102connector (pin 5, 7) on the printer interface board	Align triangle on cable connector as shown.
5	Power cable (POWER SW - Green)	Front panel	J102connector (pin 6, 8) on the printer interface board	
6	10-pin power button cable	J103connector 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 J17	

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.)

Note: Power supply and DIMMs are not shown.

Note: See the connection label attached inside the chassis.

Accessing internal components


Shut down and open the E-44B when you need to inspect or service internal components.

Shutting down the system


You can shut down the E-44B from the E-44B control panel or the printer touch panel when the power synchronization is disabled.

Note: If the power synchronization is enabled, you can shut down the E-44B by turning off the printer using the main power switch.

When shutting down the E-44B, do the following:

 **Important:** Remember that when the E-44B is powered off, network access to the printer is interrupted. Always obtain permission from the network administrator before you take the E-44B off the network.

- Remove the power cable from the connector panel before removing or connecting interface cables or accessing the internal components.
- If you are cycling power, wait at least 10 seconds before powering back on.
- If you are unable to shut down the E-44B through the control panel or the printer touch panel, power off by holding down the power button on the front of the E-44B for up to eight seconds.

 **Important:** Using the reset button may cause the system to operate unpredictably. Use the reset button on the front of the E-44B only if the system is unresponsive to keyboard or mouse actions.

For more information on how to shut down the E-44B, see [page 35](#).

Opening the E-44B

To service internal components, open the E-44B as described in the following procedure.

- The E-44B weighs approximately 20Kg. Be careful when moving the device.



Warning: Never lift the E-44B by grasping the top panel. The top panel does not support the weight of the system.



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 open the E-44B

- 1 Shut down the E-44B (see [page 45](#)).
- 2 Remove all cables from the back of the E-44B.
- 3 Remove the E-44B from the furniture (see [page 47](#)).
- 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-44B, use the following order:

- Left panel (see [page 47](#))
- Right panel (see [page 47](#))
- Front panel (see [page 47](#))
- Top panel (see [page 48](#))

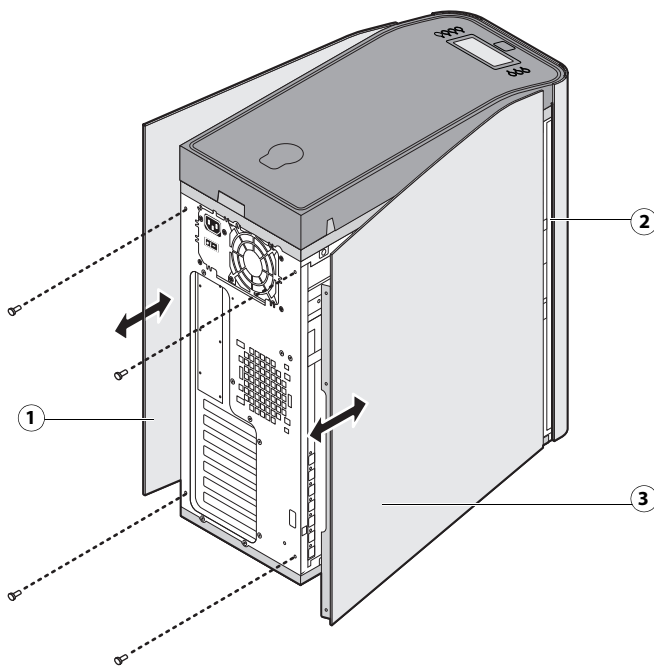
Note: When replacing panels, reverse the order.

- 5 Place the E-44B on a flat surface. Attach an ESD wrist strap before handling internal parts (see [page 11](#)).
- 6 Carefully position the E-44B 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 16: Removing/replacing the side panels



- 1 Right side panel
- 2 Pivot post inside chassis
- 3 Left side panel

- 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.

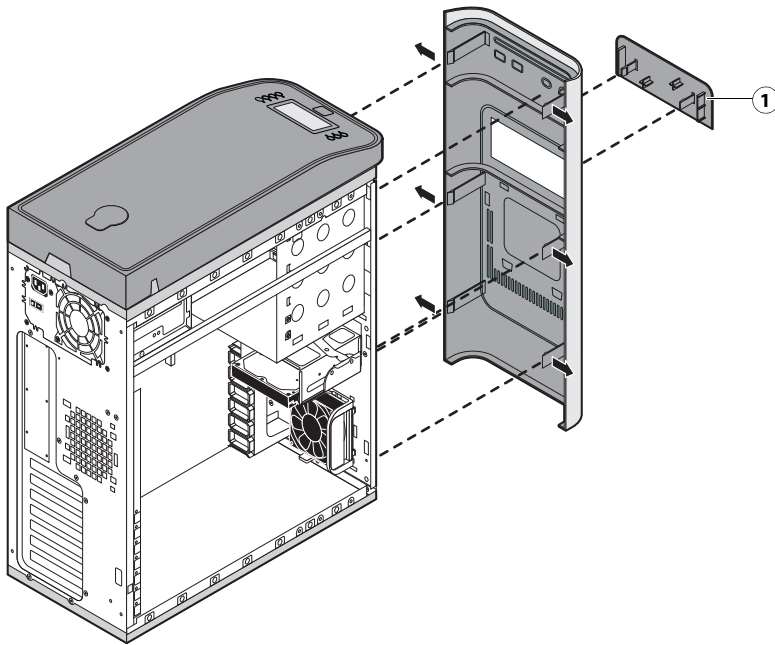
Press down to release the two tabs that secure the upper faceplate to the front panel, and then carefully remove the upper faceplate from the front panel.

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 17: Removing/replacing the front panel



1 Upper faceplate

- 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.

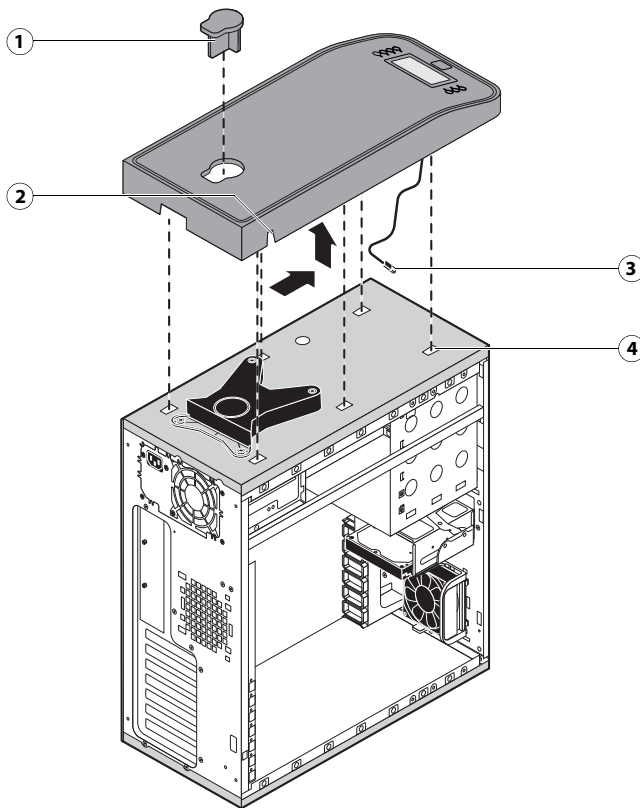
Note: You may need to tap the back edge of the panel toward the front of the chassis to disengage the panel.

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 18: Removing/replacing the top panel



- 1 Plug
- 2 Cutout
- 3 UIB cable
- 4 Slot (1 of 6)

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:

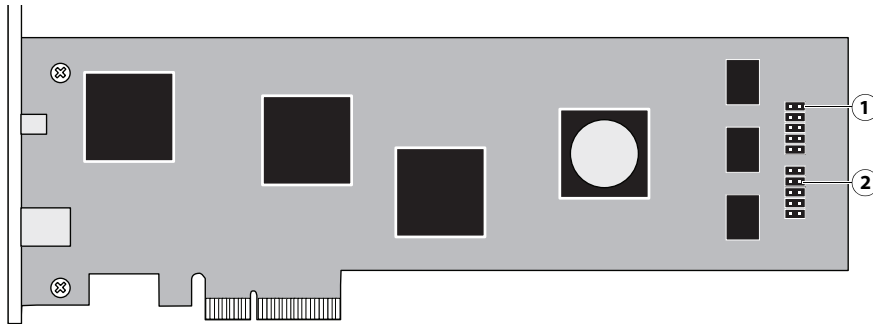
- Printer interface board
- User interface board
- Motherboard

The E-44B 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-44B and the printer. It is installed in motherboard connector PCIE x16. The printer interface board processes the image data and sends it to the printer through the crossover Ethernet cable available on the E-44B connector panel.

Figure 19: Printer interface board (component side)



- 1 J102 connector for power/reset button cable from the front panel
- 2 J103 connector for 10-pin power button cable to motherboard J15 connector

To remove the printer interface board

- 1 Shut down and open the E-44B (see pages 45).

To remove the printer interface board, you must remove the left panel.

- 2 Make sure that the printer interface cable is removed from the lower RJ-45 port of the E-44B connector panel.
- 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.

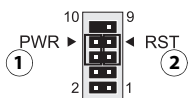
To replace the printer interface board

- 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 20: J102 connector on the printer interface board



- 1 Green
- 2 Blue

- 3 Connect the 10-pin power button cable from the FPIO_1 connector to the J103 connector (see [Figure 15](#) on page 44).
- 4 Reassemble the E-44B and verify its functionality (see [page 87](#)).

User interface board assembly

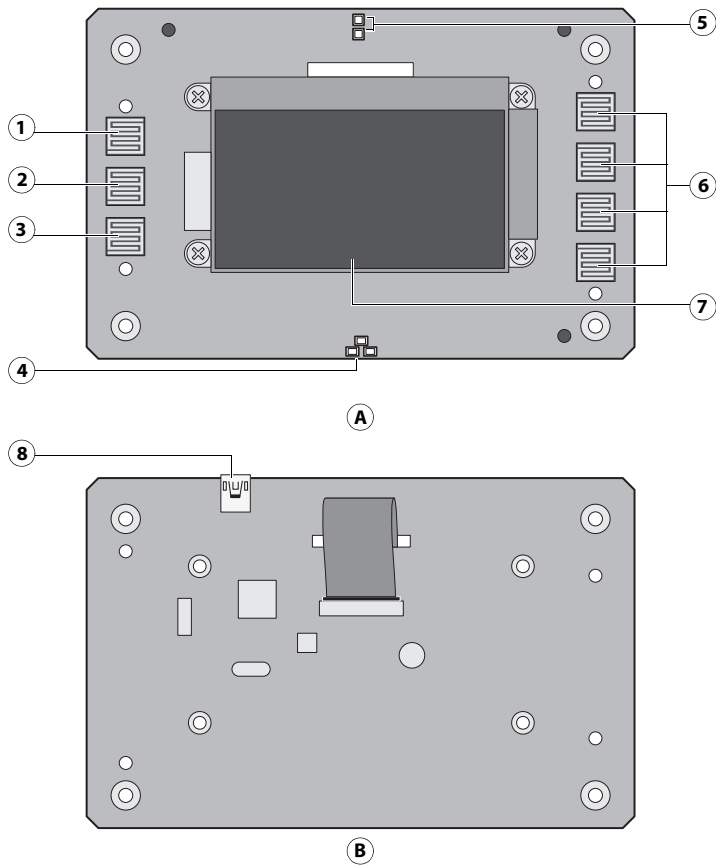
The user interface board (UIB) provides the interface between the E-44B and the user. The front of the UIB contains circuitry for the following:

- 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 24](#) on page 59).

Figure 21: Diagram of the user interface board (front and back)



A Front		B Back	
1	Up button pad	5	Activity lights (LEDs)
2	Menu button pad	6	Line selection button pads
3	Down button pad	7	Display window
4	Jewel lights	8	UIB cable connector USB_A

To remove the user interface board

- 1 Shut down and open the E-44B (see [page 45](#)).

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.

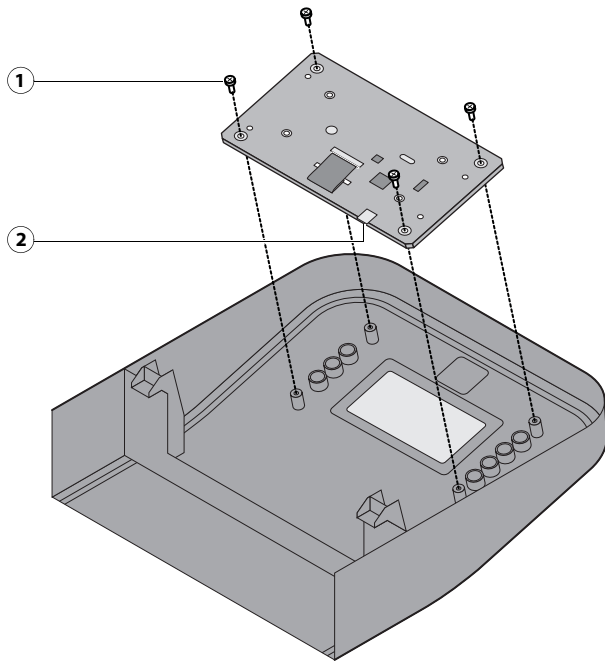
- 2 Turn the top panel over to expose its underside and place it on a padded surface.
- 3 Detach the UIB cable from the connector on the back of the UIB.

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 22: Removing/replacing the user interface board



- 1 Screw (1 of 4)
 - 2 UIB cable connector
- 6 If you are removing the UIB to replace it with a new board, remove the UIB buttons from the old UIB (see [Figure 23](#) on page 55).
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.

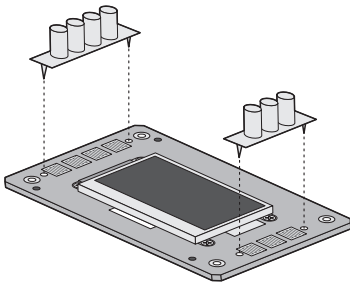
To replace the user interface board

- 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 23: Removing/replacing the UIB buttons



- 2 Attach the UIB cable to the connector on the back of the UIB (see [Figure 22](#) on page 54).
- 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 48](#)).

Route the UIB cable through the chassis and connect it to the motherboard connector (see [page 58](#)).

- 8 Reassemble the E-44B and verify its functionality (see [page 87](#)).

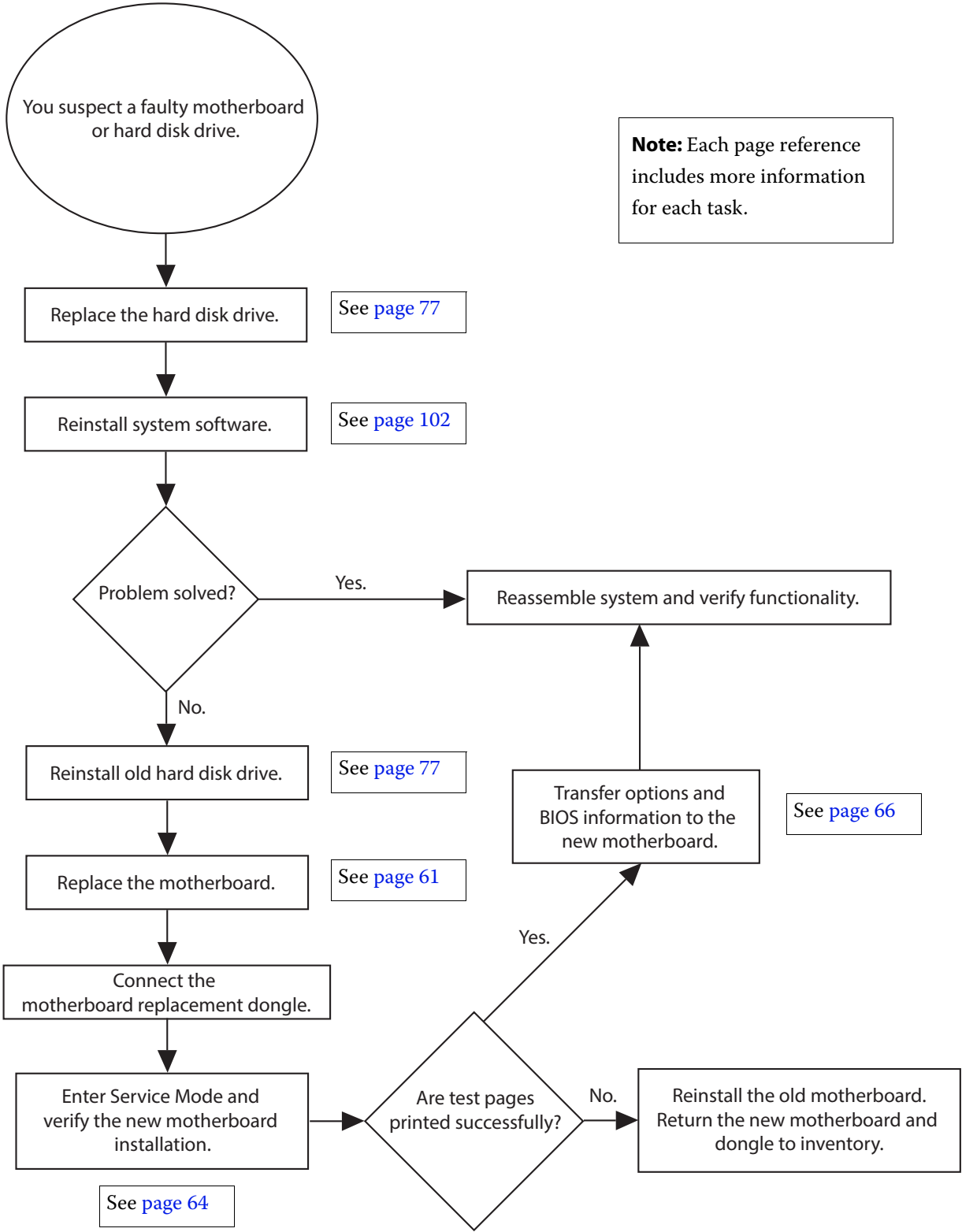
Motherboard



Important: If you are removing the motherboard in order to replace it with a new motherboard, review the troubleshooting and motherboard cautions on [page 61](#).

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-44B and external devices.

Motherboard replacement overview



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 with 3-pin fan extension 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)

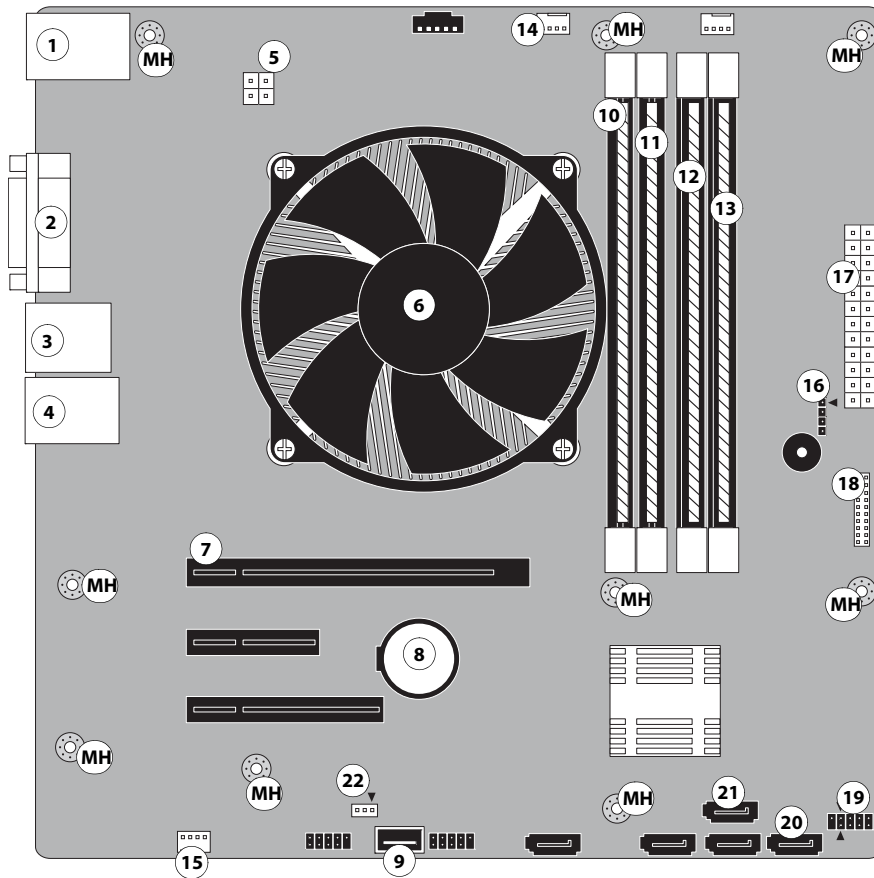
This section also includes information about the following:

- 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.

Figure 24: Motherboard



1	Type A USB ports and network port	7	Printer interface board (PCIE_X16_SLOT)	14	CPU fan power (CPU FAN)	19	Power and Reset (J15)
2	Monitor (DVI) port	8	Battery (XBT1)	15	Front panel fan (REAR FAN)	20	SATA_6G_0, DVD drive data connection
3	Type A USB ports	9	UIB cable (J27)	16	Speaker (J83)	21	SATA_6G_1, Hard disk drive data connection
4	Crossover Ethernet port/ Type A USB ports (x2)	10	DIMM0 (A1)	17	Motherboard power (PS connector)	22	Clear CMOS Jumper (J4)
5	CPU power (J18)	11	DIMM1 (A0)	18	Front panel USB ports (J24)	MH	Mounting holes
6	CPU cooling assembly	12	DIMM2 (B1)				
		13	DIMM3 (B0)				

Note: Arrows indicate positions for inserting cable and jumper connections.

To remove boards and cables from the motherboard

- 1 Shut down and open the E-44B (see pages 45).

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 with 3-pin fan extension 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

For motherboard connector locations, see [page 58](#).

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 59.


1 Remove the hard disk drive bracket, with hard disk drive attached (see [page 78](#)).

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 59](#)).

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.

Troubleshooting cautions

- Before deciding to install a new motherboard, consult “[Troubleshooting](#)” on page 110.
- Inspect all cables and internal components as described on pages “[Checking external connections](#)” on page 110 and “[Checking internal components](#)” on page 111. If these inspections do not solve the problem, locate symptoms in the troubleshooting table beginning on [page 115](#) 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.


 **Important:** 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-44B 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

 **Important:** 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 65](#).)

- **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 65](#)) and make sure that the new motherboard solves the problem that you are troubleshooting.**

The E-44B 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-44B. 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 65](#)).**
- **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.

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 69](#)) 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 67](#)).
- Remove the CPU and cooling assembly from the old motherboard and install them on the new motherboard (see [page 67](#)). 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 70](#).

 **Important:** Do not transfer the BIOS chip from the old motherboard onto the new motherboard. Doing so can damage the E-44B. 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 81](#)).

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

2 Replace the following cables (see [page 41](#) for the connector locations).

 **Caution:** The lower-right corner of the motherboard where the SATA and F15 connectors are located is not supported in the chassis. To prevent the motherboard bending, place a finger along the edge to support the motherboard when inserting the SATA cables, or the power and reset button cables (see [Figure 24](#) on page 59 for locations of the connectors).

- CPU power cable
- Motherboard power cable
- UIB cable
- Hard disk drive cable
- DVD drive cables:
 - Power and data combination cable
 - SATA data cable

 **Important:** 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 and 3-pin fan extension cable

3 Secure cables as necessary with any plastic cable clamp that you may have removed earlier.

4 Replace the printer interface board (see [page 51](#) 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.



Important: Make sure that unused connector panel slots are covered with slot covers. Uncovered slots reduce air flow and may cause the E-44B 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-44B and verify its functionality (see [page 87](#)).

7 If you replaced the motherboard with a new motherboard, do the following:

- Remove the battery (see [page 71](#)).
- Wait two minutes to allow the motherboard electrical components to fully discharge.
- Reinstall the battery.
- Reassemble the E-44B (see [page 87](#)).
- 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 65).

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 65.



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-44B is powered off, no media is in the DVD drive, you have installed a new motherboard, and that you have reassembled the E-44B and attached external cables.

- 1 Make sure the E-44B is connected to the 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-44B starts up successfully in Service Mode.

- 4 Power on the E-44B 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 case-sensitive; for example, fiery.1 will not work.

At this point the E-44B 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-44B control panel.

- 5 Print the E-44B Test Page.
- 6 Ask the network administrator to connect the E-44B 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 65](#)), 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 110.

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-44B is fully assembled with the new motherboard, and verified in Service Mode (see [page 65](#)).

- 1 Verify that all power is turned off on the E-44B.
- 2 Insert the motherboard replacement dongle into a USB port.
- 3 Turn on the E-44B.

Wait until the E-44B reaches Idle.

- 4 On the E-44B 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-44B.
- 7 Remove the motherboard replacement dongle after the E-44B 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-44B (see [page 45](#)).

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-44B (see pages 45).

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.

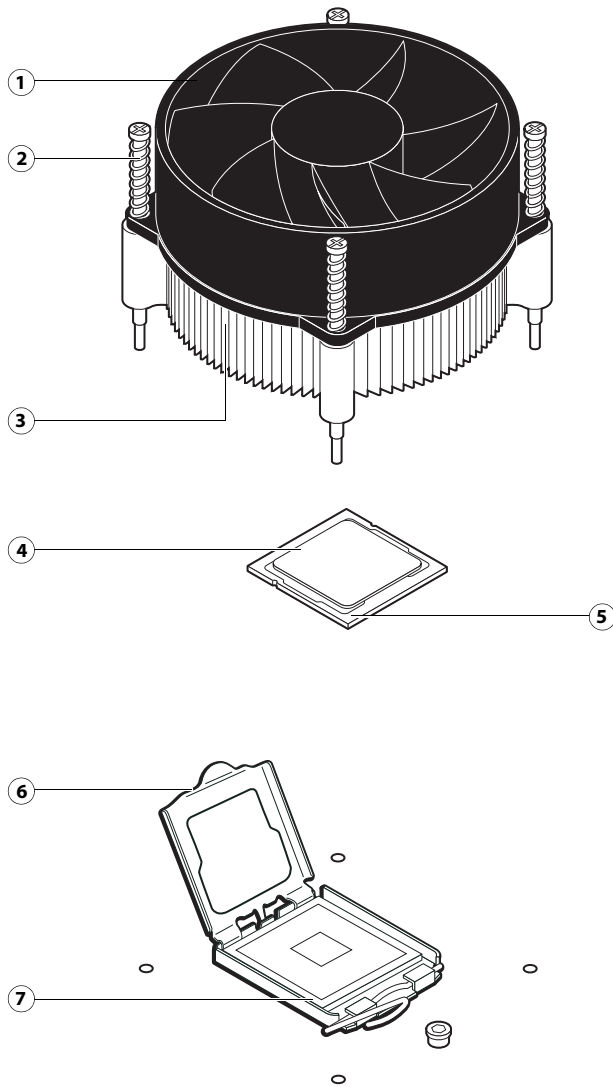
- 5 If you installed a new DIMM, make sure to reset the time and date in Setup (see Configure Help for more information).
- 6 Reassemble the E-44B and verify its functionality (see page 87).

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 58), disconnect the CPU fan cable from the motherboard, and then remove the cooling assembly from the E-44B (see page 69). The CPU cooling assembly consists of a fan and a heatsink.

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

Figure 25: CPU cooling assembly



- | | | | |
|---|-------------------------|---|-----------------|
| 1 | CPU fan | 5 | Yellow triangle |
| 2 | Fastener screw (1 of 4) | 6 | Load plate open |
| 3 | Heatsink | 7 | Yellow triangle |
| 4 | CPU | | |

⚠ 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

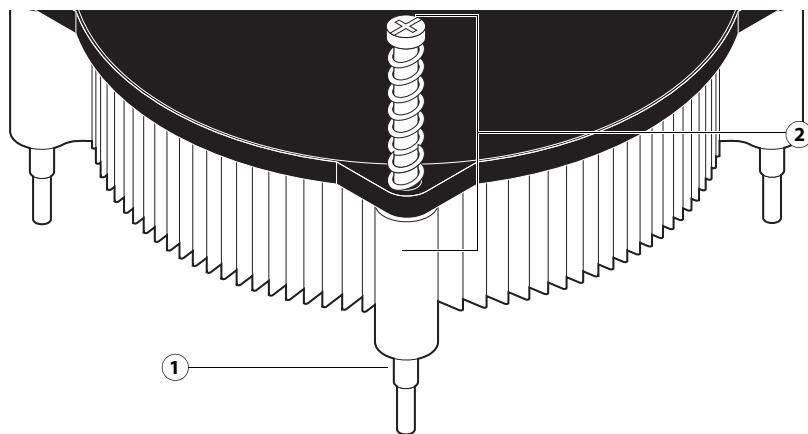
- 1 Shut down, and then open the E-44B (see pages 45).

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

- 2 Remove the CPU fan cable from motherboard connector CPU FAN.
- 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.



1 Screw (1 of 4)

2 Loosen each screw to this position.

- 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, lint-free 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.

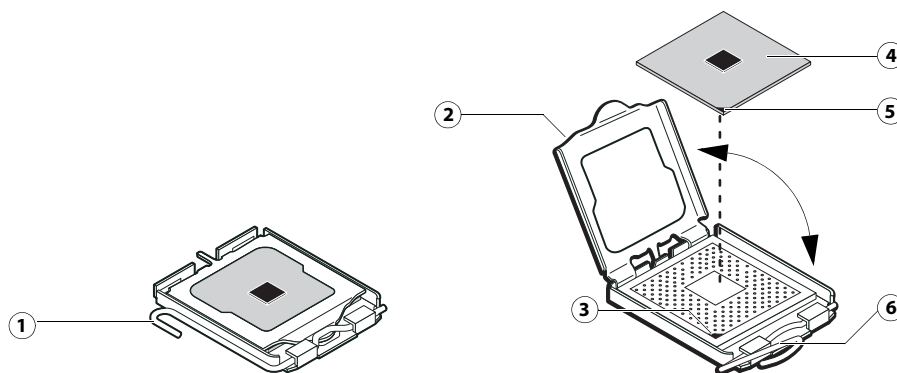
- 6 Place the CPU in the socket.

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 26: Removing/replacing the CPU




- 1 Socket lever in the locked position
- 2 Load plate open
- 3 Yellow triangle

- 4 CPU
- 5 Yellow triangle
- 6 Socket lever in the open position


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 CPU FAN 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 CPU FAN.
 -  **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-44B and verify its functionality (see [page 87](#)).

Battery

The battery on the motherboard is located at XBT1. To replace it, use a 3V manganese dioxide lithium coin cell battery (Sony CR2032 or equivalent).

 **Warning:** 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.

WARNING: 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.

CAUIDADO: 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.

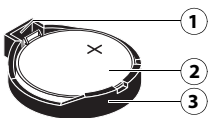
AVISO: Existe o perigo de explosão se a bateria for substituída por uma do tipo incorreto. Substitua somente por uma do tipo recomendado pelo fabricante. Descarte as baterias conforme as normas locais.

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-44B (see pages 45).
- 2 Locate the battery on the motherboard (see [Figure 24](#) on page 59).
- 3 Carefully push the clip away from the battery until the socket ejects the battery.

Figure 27: Motherboard battery



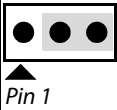
- 1 *Clip*
 - 2 *Battery*
 - 3 *Socket*
- 4 Slide the battery out of its socket.
 - 5 Wait two minutes to allow the motherboard electrical components to fully discharge.
 - 6 To insert a new battery, slide it into the socket so that the positive (+) side of the battery faces up.
 - 7 Press the battery 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 87](#)).
- 9 Configure the time and date in Setup (see Configure Help for more information).

 **Important:** Failure to configure the time and date will cause the E-44B to hang when user software is being installed on the E-44B. (See [page 120](#).)

Jumpers

Jumper configurations should not be changed.

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

Fan

A fan mounted inside the E-44B chassis draws air into the E-44B 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-44B. If you do not hear the fan, there may be a faulty power connection.

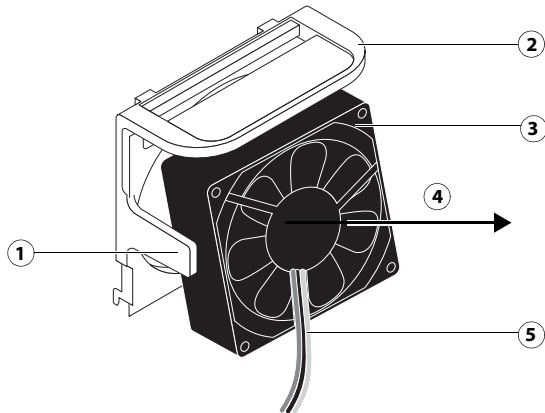
The following procedures describe how to remove and replace the fan.

To remove the fan

- 1 Shut down, and then open the E-44B (see [pages 45](#)).
 To access the fan, you must remove the left panel.
- 2 Remove the fan cable from motherboard connector REAR FAN.

- 3 Release the fan from the fan bracket by bending the hooks on the bracket.

Figure 28: Removing the fan



- | | | | |
|---|--------------|---|------------------------------|
| 1 | Hook(1 of 2) | 4 | Air flow direction |
| 2 | Fan bracket | 5 | Fan cable extending downward |
| 3 | 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-44B and the fan cable extends downward toward the motherboard (see [Figure 28](#)).

- 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 REAR FAN.

- 4 Reassemble the E-44B and verify its functionality (see [page 87](#)).

Power supply

For more information on the power supply, see “[Specifications](#)” on page 126.



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-44B (see [pages 45](#)).

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

- 2 Remove the power cable from the hard disk drive.

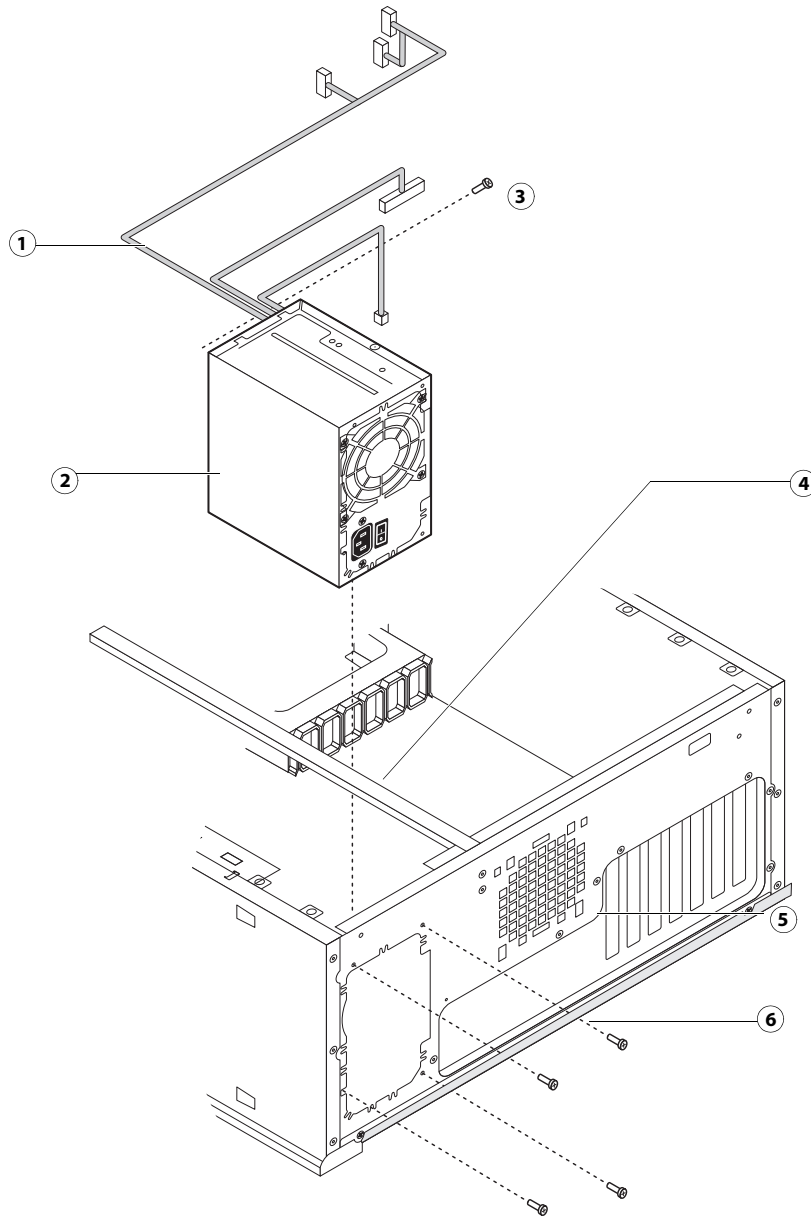
- 3** Remove the power and data combination cable from the DVD drive.
- 4** Remove the 24-pin motherboard power cable from motherboard connector PS connector.
- 5** Remove the 4-pin CPU power cable from motherboard connector J18.
- 6** Remove the tie-wrap securing the power cables to the chassis support 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 29](#) on page 76).
- 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 29: Removing/replacing the power supply



- | | | | |
|---|---------------------|---|----------------------|
| 1 | Power supply cables | 4 | Chassis support beam |
| 2 | Power supply | 5 | Connector panel |
| 3 | Screw | 6 | Screw (1 of 4) |

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 29](#) on page 76).


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 24](#) on page 59).
- 4 Connect the 24-pin motherboard power cable to motherboard connector PS connector.
- 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-44B and verify its functionality (see [page 87](#)).

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 do either of the followings:

- Restore the backup image created using Fiery System Installer (see [page 96](#)).
- Install the system software from the System Software DVDs as described on [page 102](#). (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 61](#)), 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 110](#)) 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 61](#)).

Proper handling

 **Important:** 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-44B.

- 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-44B components.

The hard disk drive is mounted inside a bracket (see [Figure 31](#) on page 80).

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

- The appropriate system software and documentation for the E-44B that you are servicing.
- A compatible version of the user software for the networked computers that will print to the E-44B.

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-44B (see [pages 45](#)).
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.

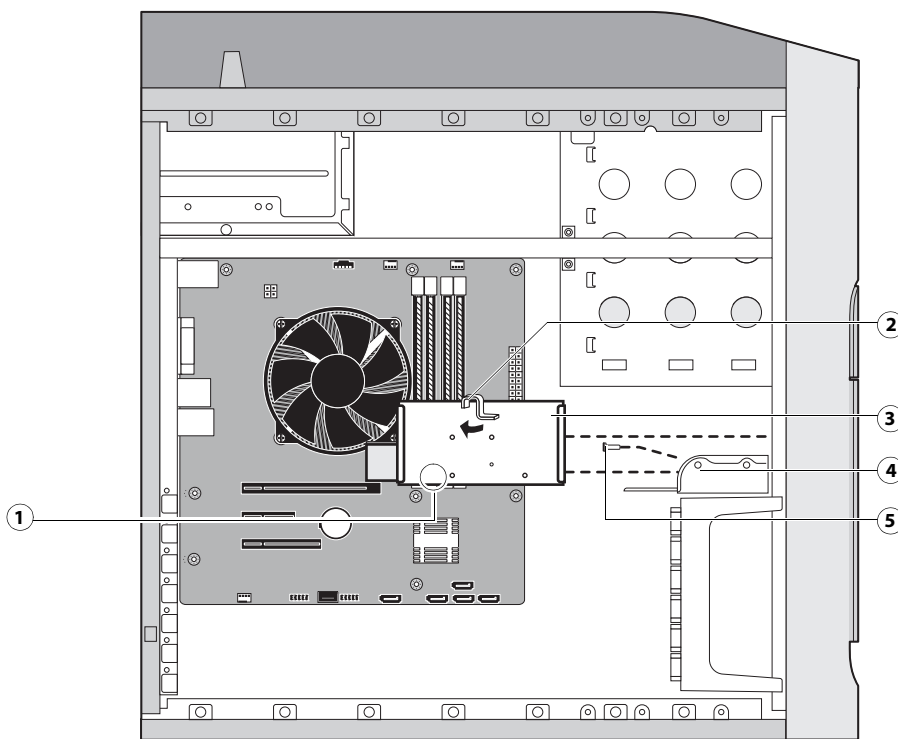
- 6 Slide the hard disk drive bracket off the shelf and lift it out of the chassis (see [Figure 30](#)).

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 30: Removing/replacing the hard disk drive bracket

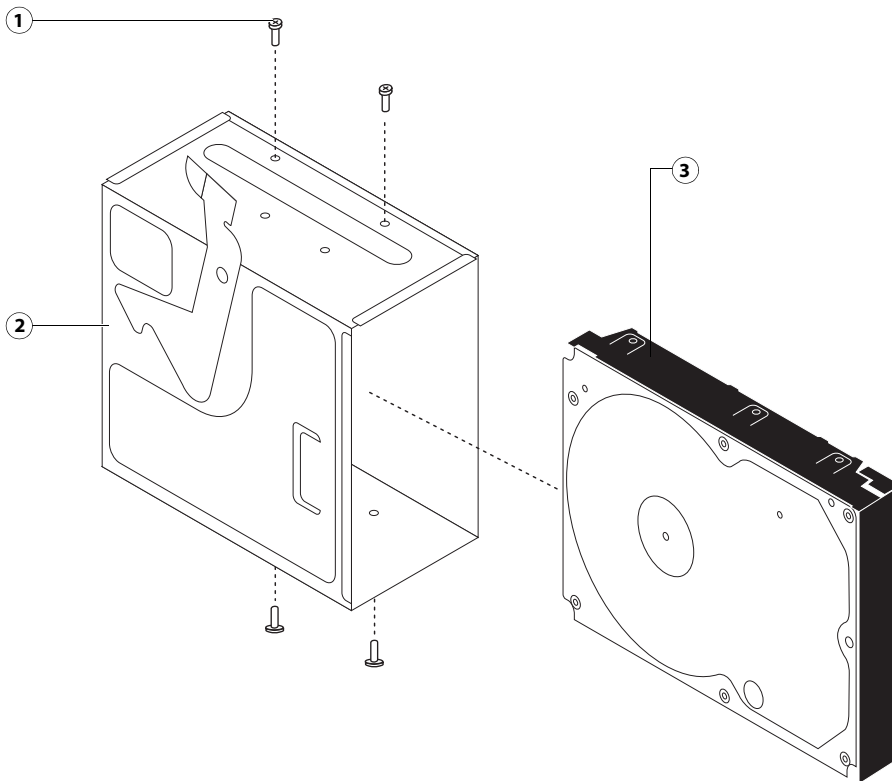


- | | | | |
|---|-------------------------|---|-------|
| 1 | Tension points | 4 | Shelf |
| 2 | Latch | 5 | Screw |
| 3 | Hard disk drive bracket | | |

Note: Printer interface board and internal cables are not shown.

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

Figure 31: Removing/replacing the hard disk drive from/in the hard disk drive bracket



- 1 Screw (1 of 4)
- 2 Hard disk drive bracket
- 3 Hard disk drive


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-44B 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 61 and 65).


- 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 30 on page 79).


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

- 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 24 on page 59).
- 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-44B (see page 87).
- 9 If you replace the hard disk drive with a new hard disk drive, do either of the followings:
 - Restore the backup image created using Fiery System Installer (see page 96).
 - Install the system software from the System Software DVDs as described on page 102. (Spare hard disk drives are not shipped with preinstalled system software.)

If a startup error displays on the control panel when you power on the E-44B, check the connections.

- 10 Verify functionality (see page 87).

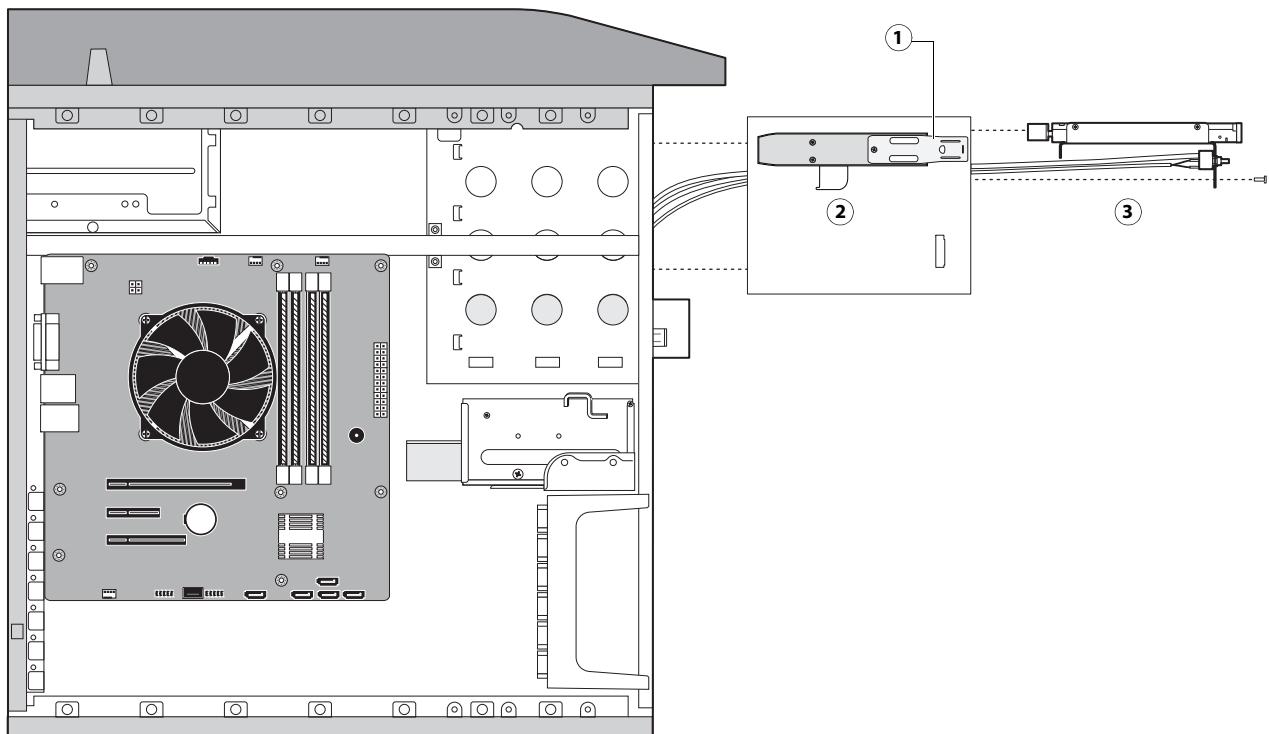
Switch bank assembly

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 85](#).

Figure 32: Component sled with switch bank assembly



- 1 Guide latch (1 of 2)
- 2 Component sled
- 3 Switch bank assembly with DVD drive

Note: Printer interface board and internal cables are not shown.

To remove the switch bank assembly

- 1 Shut down, and then open the E-44B (see [pages 45](#)).

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

2 Disconnect the following cables:

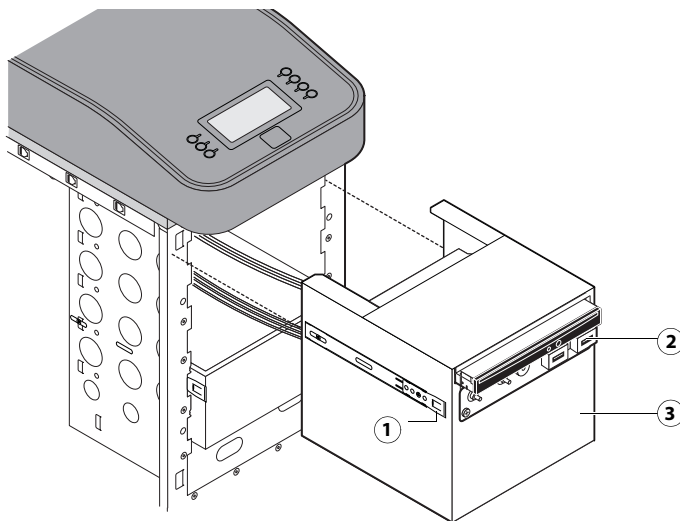
- Power and data combination cable from the back of the DVD drive
- Power and reset button cables from motherboard connector J15
- Speaker cable from motherboard connector J83
- Front panel USB port cables from motherboard connectors J24

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 32](#) on page 82).

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 33: Removing/replacing the component sled from the chassis

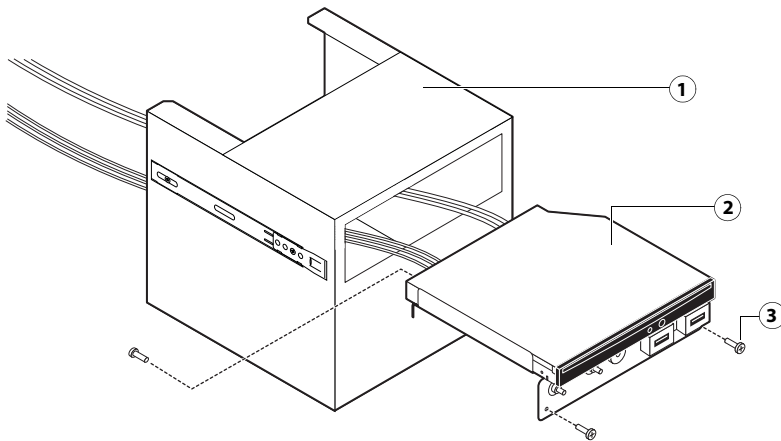
- 1 Guide latch (1 of 2)
- 2 Switch bank assembly
- 3 Component sled

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 34: Removing/replacing the switch bank assembly



- 1 Component sled
- 2 Switch bank assembly
- 3 Screw (1 of 3)

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 85](#)).

To replace the switch bank assembly

- 1 If it is not already attached, attach the DVD drive to the switch bank assembly (see [page 87](#)).
- 2 Install the switch bank assembly in the component sled (see [Figure 34](#)).

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 33](#)).
- 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 24](#) on page 59 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-44B and verify its functionality (see [page 87](#)).

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

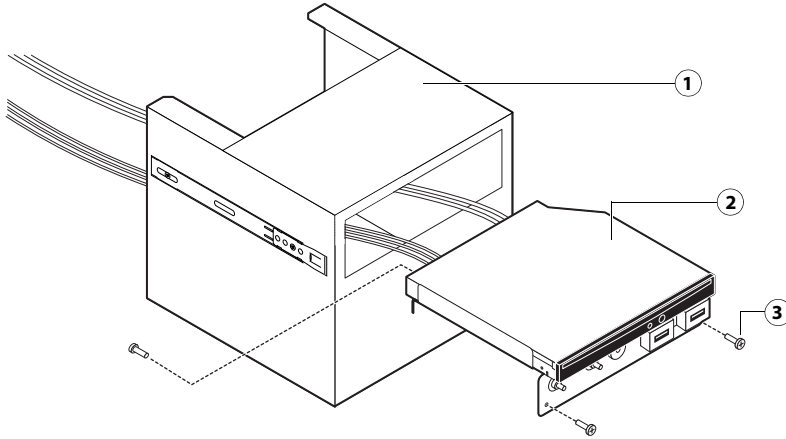
1 Shut down, and then open the E-44B (see [pages 45](#)).

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 82).

Figure 35: Removing the component sled and the switch bank assembly



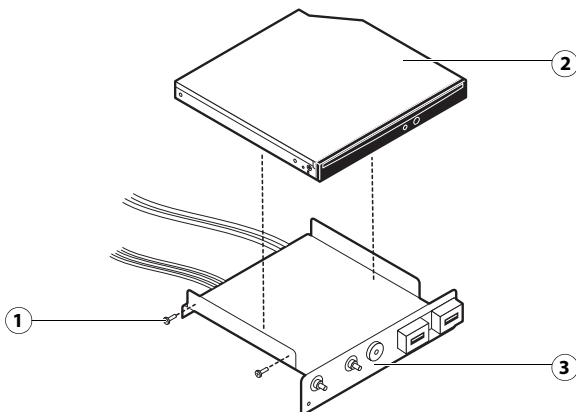
- 1 Component sled
- 2 Switch bank assembly
- 3 Screw (1 of 3)

- 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 36: Removing/replacing the DVD drive



- 1 Screw (1 of 2)
- 2 DVD drive
- 3 Switch bank assembly

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 84](#)).
- 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-44B and verify its functionality (see [page 87](#)).

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 110](#).

To reassemble the E-44B and verify functionality

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

When routing cables inside the E-44B, 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-44B panels
 - Cable slack is secured with a tie-wrap
- 2 Restore the E-44B to the upright position.
 - 3 Replace any panels that you removed earlier, as described on [page 46](#).
 - 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 65](#)).
 - 5 If the E-44B is to be mounted on the furniture with the monitor, see the reassembly instructions that is provided with the furniture assembly ([page 132](#)).
 - 6 Connect the power cable to the E-44B (see [page 19](#)).
 - 7 Connect the E-44B to the printer (see [page 21](#)).

8 Print the Test Page and Configuration page.

- If the E-44B does not start up, refer to the startup problems listed on [page 116](#).
- If pages do not print, verify that the interface cables are properly connected (see printing problems on [page 122](#)).
- If image quality is poor, test the printer (see the service documentation that accompanies the printer).

9 Connect to the network (see [page 23](#)).

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.

Performing Backup and Restore

This chapter provides information about how to back up or restore information to the system. The E-44B ships with system software pre-installed on the hard disk drives (HDDs). A factory-installed backup partition is available for restore if there is no on-site usable backup.

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

- Fiery System Installer

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

- Fiery System Restore

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

See [Table 1](#) for more detailed information on the Fiery System Installer and Fiery System Restore.

- Command WorkStation and Configure WebTools

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

Note: The system image does not include VDP/FreeForm resources. To back up the FreeForm masters 1 and 2, save the configuration settings as described in [“Backing up the system configuration”](#) on page 91.

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

Backup method	Description of backup image	Bootable option	Possible destination	Restore method
Fiery System Restore in WebTools: Home Tab > Fiery System Restore > Create Backup (Fiery factory image)	Factory default image, manually backed up. Includes factory default version of software and configuration settings. Does not include print job information (print jobs, job logs, and job settings such as paper size).	Factory default image can only be saved as a bootable image, and requires a bootable USB device.	USB device only.	<ul style="list-style-type: none"> • Can restore directly from image • Fiery System Restore • Fiery System Installer
Fiery System Restore in WebTools: Home Tab > Fiery System Restore > Create Backup (New image)	Customized image, manually backed up. Includes contents of C drive (except for items excluded by standard Windows back up process, such as items in recycle bin). Includes software updates and current configuration settings. Does not include print job information (print jobs, job logs, and job settings).	Bootable option supported for USB devices only. Can also create a non-bootable image.	USB device or internal hard disk.	<ul style="list-style-type: none"> • If bootable, can restore directly from image • Fiery System Restore • Fiery System Installer

Backup method	Description of backup image	Bootable option	Possible destination	Restore method
Fiery System Restore in WebTools: Home Tab > Fiery System Restore (Schedule automatic backup)	Customized image, automatically backed up. Includes same content as manually-backed up customized image (described in previous row).	Non-bootable image only.	Internal hard drive.	<ul style="list-style-type: none"> • Fiery System Restore • Fiery System Installer
Fiery System Installer on DVD: Fiery System Installer > Backup Hard Disk Drive(s)	Customized image, manually backed up. Includes contents of C drive (except for items excluded by standard Windows back up process, such as items in recycle bin). Includes software updates and current configuration settings. If jobs option is selected, also includes print jobs, job log, and job settings (such as paper size).	Can create a bootable or non-bootable image.	Bootable image: USB device only. Non-bootable image: Network location, local folder, external hard disk, or USB device.	<ul style="list-style-type: none"> • If bootable, can restore directly from image • Fiery System Restore (can restore images that include print job information) • Fiery System Installer
Additional Fiery System Installer option: A factory default backup image is included on the E-44B hard disk (Restore from recovery partition).	Factory default image. Includes factory default version of software and configuration settings. Does not include print job information (print jobs, job logs, and job settings).	If the hard disk is still viable, System Software 1 DVD can boot from this factory default image.	Included as part of original system image. If the hard disk is crashed, this image is not accessible.	<ul style="list-style-type: none"> • Fiery System Installer

Backup recommendations

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

- To create a backup using Command WorkStation, or from a remote location using WebTools, see [“Backing up the system configuration”](#) on page 91.
- To create a backup using Fiery System Restore, see [“Using Fiery System Restore”](#) on page 94.
- To create a backup using Fiery System Installer, see [“Using Fiery System Installer”](#) on page 96.

When backing up an existing E-44B installation

- For an existing E-44B installation, first check if a backup image exists either on the server or an external location.
 - If a backup image exists, check if it is up to date. Compare the date stamp of the existing backup image to the date of the last patch installation.
 - If a backup image does not exist, create a new one after installing all available software updates.
- The backup image may be saved to or found in any of the following locations:
 - Local Disk
 - USB drive
 - External hard disk drive
 - Network
- If you do not have a backup with the system settings and jobs, the system can access a preinstalled recovery backup on the hard disk drive provided with the E-44B. See [“To restore the system using Fiery system installer”](#) on page 98.



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

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



Important: Backed up data can be only restored to the same E-44B.

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

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



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

Backing up the system configuration

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

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

- Fiery System Settings
- Color Settings

- Preflight Presets
- Scan Settings
- Command WorkStation settings (Fiery Advanced Controller Interface only)
- FreeForm/VDP resources
- Virtual Printers
- Server Presets
- Fonts
- Job Log

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

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

To save the system configuration using Command WorkStation

- 1 Ask the site administrator to print the Job Log, Server Configuration page, and Font List (if possible).
- 2 Launch Command WorkStation and connect to the E-44B with Administrator privilege.
The default Administrator password is Fiery.1 (case-sensitive), but the site administrator may have changed the password.
- 3 Select Device Center > General > Tools > Backup & Restore, and click Backup > Next.
- 4 In the Backup & Restore dialog box, select the settings you want to back up.
- 5 Enter a file name and location, specify if you want to add the date to the file name, and then click Backup.
- 6 Click Finish.

To save the system configuration using Configure

- 1 Ask the site administrator to print the Job Log, Server Configuration page, and Font List (if possible).
- 2 Start a web browser and access the E-44B by entering the server name or IP address of the E-44B.
- 3 From WebTools, select Configure tab > Launch Configure.
- 4 Log on with Administrator privileges and click OK.
The default Administrator password is Fiery.1 (case-sensitive), but the site administrator may have changed the password.
- 5 On the left side, choose Fiery Server > Backup.
- 6 In the Backup dialog box, select the settings you want to back up.
- 7 Enter a file name and location, specify if you want to add the date to the file name, and then click Backup.

- 8 Click OK.

Restoring the system configuration

You can restore the system configuration of the E-44B to its previous state using a previously-saved system configuration file. For more information about the system configuration file, see [page 92](#).

If you could not save a system configuration file, you must configure Setup. After you exit Setup and the E-44B reboots, ask the site administrator to restore any archived settings and files. For more information, see *Configuration and Setup*, which is part of the user documentation set.

To restore the system configuration from Command WorkStation

- 1 Launch Command WorkStation and connect to the E-44B with Administrator privilege.

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

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

- 3 Select the item to restore, and click Next.

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

- 4 Select settings to restore and click Next.

- 5 Click Finish.

To restore the system configuration using Configure

- 1 Start a web browser and access the E-44B by entering the server name or IP address of the E-44B.

- 2 From WebTools, select Configure tab > Launch Configure.

- 3 Log on with Administrator privileges and click OK.

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

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

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

For more information, see [page 92](#).

- 6 Select settings to restore and click Next.

- 7 Click Reboot.

Using Fiery System Restore

Fiery System Restore allows you to create a backup of the E-44B for quick recovery later when any problem happens. You can restore the E-44B either from images stored on the local hard disk, or from a USB drive. Fiery System Restore also provides the feature of creating the scheduled backups. You can access the Fiery System Restore from the WebTools Home tab.

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

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

To access the Fiery System Restore features

- 1 From a client computer, start a web browser and enter the IP address or the DNS name of the E-44B.
- 2 Select Home tab.

The available features are listed under Fiery System Restore section.

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

To setup automatic scheduled backup

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

Note: Ensure that the E-44B remains powered up during the scheduled backup times, allowing enough time for the backup to complete. If Power Synchronization is enabled, make sure that the Weekly Timer set at the printer is scheduled to avoid interference with the scheduled backups. Allow at least two hours after the backup is scheduled to begin.

- 1 In the WebTools Home tab, select Schedule Automatic Backup.
- 2 Select Enable automatic backup, and select when you want to start the backup process on the E-44B.

Note: The backup process takes more than an hour to complete and it requires the E-44B to be Idle status. If the E-44B is not in Idle status, the backup process does not start.

- 3 Click Save.

To create a backup

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

- **Create Backup > USB:** Select this option when you create a backup on a USB drive (flash drive or hard disk drive). If you want to create a backup of the current E-44B on the USB drive, select New image. You can select Create bootable image to make the USB drive a bootable media.

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

If you select Create bootable media, the USB device or hard disk drive specified as a destination becomes a bootable media. Select this option when you want to boot the E-44B from the backup media to avoid the situation where the HDD fails and cannot boot the E-44B. See [page 98](#) for booting from the bootable media. Bootable media is used for system restoration when a hardware failure occurs.

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

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

- **Create Backup > Internal hard drive:** Select this option when you create a backup on the HDD of the E-44B. You must specify the file name of the backup image. The default image name is the server name of the E-44B.

2 Make sure to connect the USB drive to the USB connector on the E-44B.

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

3 Click Continue.

To restore the backup image

1 In the WebTools Home tab, select Restore.

2 Make sure that your backup image is accessible from the E-44B.

If you restore a backup image stored on the USB drive, be sure to attached the USB drive to one of the USB drive on the E-44B.

3 Select one of the following restore options:

- Restore from a local image
- Restore from a USB storage device
- Restore from the factory default image

4 If you select a restore from a USB drive, make sure to connect the USB drive to the USB connector on the E-44B.

5 Click Continue.

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

- Follow the instructions described in “[To restore the system from bootable backup media](#)” on page 99. You need to connect a monitor, keyboard, and mouse to the E-44B.

Using Fiery System Installer

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



Important: You need to disable the power synchronization feature before you use the Fiery System Installer, so that you can control the power status of the E-44B. See [page 24](#) for the detailed information.



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

You can perform the following tasks from Fiery System Installer;

- **New Installation:** Installs the system software from the media shipped with the E-44B. Use this option only when the system backup is not available. See also “[Installing system software](#)” on page 103.
- **Restore from backup or recovery partition:** You can restore the system by selecting the backups that you created using the Fiery System Installer or the Fiery System Restore. If there is no backup available in the system or in any attached devices, you can only perform the restore from the recovery partition.
- **Back up hard disk drive(s):** Use this option when you create the system backups. You can specify the location of the backup, file name, and other attributes of the backups.
- **Platform Utilities:** You can perform the backup management tasks from this option such as erasing hard disks or using Windows Task Manager to explore the system.

Note: You can use the E-44B control panel to operate Fiery System Installer. You can also use a monitor, mouse, and keyboard attached if available.

Backup with Fiery System Installer

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

To create a system backup

1 Start Fiery System Installer.

- Insert the System Software DVD 1 into the DVD drive of the E-44B.
- Reboot the E-44B (see [page 35](#)).
- When the server finishes the reboot, select the language you use for the backup or restore session.

- 2 From “What do you want to do?” screen, select Back up hard disk drive(s).
- 3 Enter the backup settings.

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

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

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



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

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

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

- If you select “Include Fiery job files in backup,” jobs archived in the server are included in the backup.
- If you select “Create bootable media,” the USB device or hard disk drive specified as a destination becomes a bootable media. Select this option when you want to boot the E-44B from the backup media to avoid the situation where the HDD fails and cannot boot the E-44B. See [page 98](#) for booting from the bootable media. Bootable media is used for system restoration when a hardware failure occurs.



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

- Enter a description of the backup.
 - If you select Save in the backup settings, the system saves the specified backup setting for a subsequent “Load.” Only the specified setting is saved.
- 4 If you select USB Drive or External Hard Disk as a destination in [step 3](#), make sure you attach the appropriate device to the E-44B.
 - 5 Click Start backup to begin the backup process.

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

Restore with Fiery System Installer

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

Note: Backed-up data can be only restored to the same E-44B.

To restore the system using Fiery system installer

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

1 Start Fiery System Installer.

- Insert System Software DVD 1.
- Reboot the E-44B (see [page 35](#)).
- When the menu appears, specify a language.

2 If your backup file is stored in the USB drive or external hard disk, attach the device to the E-44B.

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

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

- **Backup**

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

- **Restore from recovery partition**

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



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

- **Search for backups from this system**

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

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

- The time and date in which you created the backup.
- The location of the backup image: Local Disk, USB drive, External hard disk drive, or Network.
- Alternatively, you can also choose to Refresh, Import backup history, or Search network.

4 Select the source of the backup and click OK.

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

Using bootable backup media to restore

Use the following procedure when you restore the system without using the System Software DVD 1, or when the E-44B does not boot from the built-in hard disk drive. You can use this procedure when you replaced the HDD with a new one.

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

To restore the system from bootable backup media

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



Important: This procedure requires a monitor, mouse, and keyboard to be attached to the E-44B.

- 1 Shut down the E-44B.
- 2 Attach the bootable backup media to the E-44B.
- 3 Press the power button to turn on the E-44B.
- 4 Press F11 repeatedly during the startup sequence.

The boot device selection screen appears. If you see the Windows startup screen, reboot the E-44B and repeat this step.

- 5 Using the up or down arrow key, move the cursor to the USB device that you attached to the E-44B. Select the item that starts with “UEFI:”

This change will take effect only next time you reboot the E-44B.

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

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

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

Platform Utilities

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

Erase data from hard disk drive(s)

If selected, the following methods are provided:

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

Advanced backup management

Allows the Administrator to:

- Load backup settings from a USB drive to apply to system backup images.
- Save or restore backup history files.
- Search for backup images created on a replaced system to be applied to the current one.

Launch Windows Task Manager

Starts the Windows Task Manager.

Installing System Software

This chapter provides information about how to install system software.

The E-44B ships with system software pre-installed on the hard disk drives (HDDs).

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

- You have replaced the hard disk drive.
- Restoring the system from backup images did not solve the problem you are troubleshooting.

When you reinstall from the System Software DVDs

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

- **Jobs:** When you reinstall system software, all jobs in all print queues and all jobs archived locally on the E-44B hard disk are deleted. To save jobs, ask the site administrator to save them to removable media or a network location, so they can be re-imported to the E-44B after system software installation. For more information, see *Command WorkStation Help*.
- **Job Log:** When you reinstall system software, the list of jobs in the Job Log and any jobs in the queues are deleted. The site administrator can use *Command WorkStation* to save a current list of jobs (not the actual jobs) from the Job Log.
- **Fonts:** When you reinstall system software, all fonts on the hard disk drives are deleted. Resident fonts are reinstalled when you reinstall system software. Any customer-supplied fonts must be reinstalled by the site administrator (see *Command WorkStation Help*).

To determine which additional fonts were downloaded to the E-44B, print the Font List before you reinstall the system software and again after you complete the system software installation. Any fonts *not listed* after installation will need to be reinstalled. For more information about managing fonts, see *Command WorkStation Help*.

- **User software:** The E-44B ships with preinstalled user software on the hard disk drives. During system software reinstallation, you are prompted to reinstall user software (including *Command WorkStation*) using the User Software DVD.
- **Server Configuration page:** Before you reinstall a new version of system software, print the Server Configuration page. The Server Configuration page provides a record of the customer's current Setup configurations.
- **Backing up and restoring the configuration:** All Setup configurations, as well as all custom files and templates stored on the hard disk drives, are deleted when you reinstall system software. Always back up the current E-44B configuration before you reinstall system software. After the installation is completed, be sure to restore the configuration that you saved earlier.
- **Monitor profiles:** When you reinstall system software, monitor profiles saved on the hard disk drives are deleted. Monitor profiles for the E-44B monitor are automatically reinstalled when you reinstall *Command WorkStation* on the system.

- **Compatibility:** After you upgrade system software, remind the site administrator to upgrade user software on all computers connected to the E-44B. Using old user software with new system software may negatively affect the system.

Installing system software

Install both system software DVDs when you replace a hard disk drive or upgrade to the latest version of the E-44B software. You can install software from the following disks:

- System Software DVD 1— Fiery System Software for the E-44B.
- System Software DVD 2 and 3—Windows operating system.
- User Software DVD 4—Fiery User Software for installation on the E-44B and client computers.

To install and verify the system software installation

Follow these instructions to complete the system software installation:

- [“Before you install or upgrade system and user software”](#) on page 103.
- [“Installing or upgrading the system and user software with Fiery System installer”](#) on page 104.
- [“After installing or updating the system software”](#) on page 105.
- [“Verify the E-44B operation”](#) on page 105.
- [“Before you leave the customer site”](#) on page 105.

Before you install or upgrade system and user software

1 Before you proceed, do the following:

- Ask the site administrator to
 - Print the Job Log, Server Configuration page, and Font List, if possible.
 - If any options are activated on the server, you must deactivate them prior to reinstalling.
 - Archive and export to an external hard drive, USB storage device or network folder any customer-installed fonts and FreeForm masters, if possible.
 - Save and export to an external hard drive USB storage device or network folder any custom simulation profiles and custom spot color settings, if possible.



Important: Remove all dongles and devices, on the E-44B except the keyboard and mouse. If you do not remove dongles or devices, the system software installation may fail.



Important: You need to disable the power synchronization feature before you use the Fiery System Installer, so that you can control the power status of the E-44B. See [page 24](#) for the detailed information.

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

For more information, see [page 91](#).

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

Note: You can use the E-44B control panel to operate Fiery System Installer. You can also use a monitor, mouse, and keyboard attached if available.

The System Software installation takes approximately 1.5 hours to complete.

- 1 Insert System Software DVD 1 into the DVD drive.

- 2 Reboot the E-44B.

Wait while the system boots from the DVD.

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

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

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

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

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

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

When User Software DVD 4 ejects (approximately eight minutes after copying the contents to the hard drive), the E-44B reboots to begin the software installation.

- 9 Wait while the E-44B complete the installation. This will take about 45 minutes.

The following steps are for use with the Fiery Advanced Controller Interface. If you are not using this interface, skip to [step 12](#).

- 10 When the E-44B becomes Idle, click the mouse to show the login screen on monitor. Enter the Administrator’s password and then press Enter.

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

- 11 Ask the site administrator to follow the on-screen instructions in the Fiery Setup Wizard to configure the E-44B for the customer’s print environment.

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

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

12 Shut down the E-44B (see [page 35](#)).

After installing or updating the system software

- 1 Restore the dongles and devices that you removed in a previous step.
- 2 Start the E-44B (see [page 35](#)).
- 3 Install any required software patches by System Updates (see [page 106](#)).
- 4 (Optional) Set up the proxy configuration if you have a proxy server.

In Configure, click Server > System Updates > Proxy Settings, and enter the proxy server information. Save your changes and reboot the E-44B.

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

Verify the E-44B operation

- 1 Print the Test Page and the Server Configuration page.

If the Test Page does not print, verify that the printer interface cables are securely connected and on the correct ports; verify that the printer interface board is securely connected to the motherboard; look up printing problems in “[Table 2: E-44B error messages and condition](#)” on page 116.

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

- 2 Verify that the E-44B is connected to the network (see [page 35](#)).
- 3 Ask the site administrator to download a test job over the network.

If the job does not print or has poor image quality, look up print problems in “[Table 2: E-44B error messages and condition](#)” on page 116 and the user documentation Troubleshooting topics.

Before you leave the customer site

- 1 Remind the site administrator to do the following:

- Import archived jobs.

Please note that some archived jobs may not print if you have upgraded the E-44B to the newer version.

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

- 2 Reinstall the following:

- Fonts
- Custom simulations

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

- 3 Back up the E-44B hard disk drives.

System software installation error messages

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

- If prompted, save the log.
- If you are not prompted to save the log, record the error message.
- If the network cable and printer interface cables are still connected to the E-44B, disconnect the cables and perform the installation again, starting from [“Installing or upgrading the system and user software with Fiery System installer”](#) on page 104.

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

System updates

Advise the site administrator that the System Updates feature available through the Windows Apps screen allows customers to schedule and accept installation of certain E-44B software updates from a secure site on the Internet. By default, the feature is configured to display a notification on the monitor that software updates are available for the E-44B. You can also check for system updates by choosing Start > arrow button > Fiery > System Updates, and then clicking Check Now. Depending on how it is configured, System Updates operates manually or automatically. For more information about how to schedule System Updates, see *Configuration and Setup*, which is part of the user documentation.

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

Check for Product Updates (Software Downloads Site)

The Check for Product Updates URL (also known as the Software Downloads Site) allows you to access the Update Server to view and manually download all available updates for E-44B System and User Software. You can access Check for Product Updates by copying and pasting a unique URL into a web browser from a client computer.

Check for Product Updates is especially useful if your E-44B 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-44B is unable—to take advantage of the auto-download/auto-installation/auto-notification features available through System Updates).

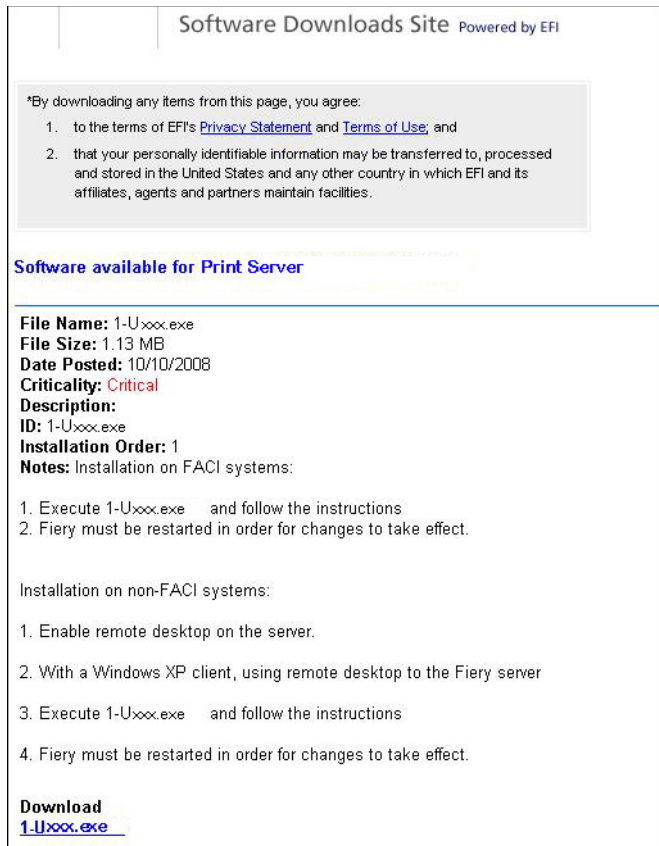
To install updates using Check For Product Updates

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

<https://liveupdate.efi.com/webupdater/default.aspx?sid=0120cb8112f6e06278c41c578b8080b6EF609614.PPD>

A window appears, listing available updates.

Figure 37: Software Downloads Site



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-44B print servers. To help you choose which updates to download, compare the list displayed with the E-44B 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.

Installing and activating Fiery options

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

Activating a server-based Fiery option

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

To activate a server-based option:

- 1 On the E-44B with a monitor, keyboard, and mouse, click Start > All Programs > Fiery > Fiery Command WorkStation.
Or, from a client computer with the user software installed, click Start > All Programs > Fiery > Fiery Command WorkStation.
- 2 Connect to the E-44B.
For details, see the Command WorkStation Help.
- 3 Choose Administrator from the user menu and type the appropriate password. Then click Login.
The default Administrator password is “Fiery.1”, but may have been changed by the site administrator.
- 4 Go to Device Center > General > General Info, and click Manage.
- 5 Use the controls in the activation window to activate the Fiery option.
You will need the License Activation Code (LAC) that is provided with the Fiery option kit. For help with the activation process, click the “?” link in the activation window.
 - If the E-44B has an Internet connection, see the help topic on automatic activation.
 - If the E-44B has an Internet connection but cannot connect to the licensing server, see the help topic on configuring a proxy server.
 - If the E-44B does not have an Internet connection, see the help topic on manual activation.

Installing a client-based Fiery option

To install a client-based Fiery option (such as Fiery Impose or Fiery Compose), you must:

- Activate the Fiery option on the computer that will be using the Fiery option
- Install Adobe Acrobat and Enfocus PitStop Edit on the computer

Note: You must activate the client-based Fiery option and install software on each computer that will be using the Fiery option.

To activate a client-based Fiery option:

- 1 Make sure that Command WorkStation is installed and configured on the computer.

For detailed installation and configuration instructions, see *Utilities*, which is part of the user documentation set.

- 2 On the computer, click Start > All Programs > Fiery > Fiery Command WorkStation.
- 3 In the server list, select the E-44B.
- 4 Choose Administrator from the user menu and type the appropriate password. Then click Login.

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

- 5 Right-click a held job and choose Preview.
- 6 In the Preview window, choose Help > Manage License.
- 7 Use the controls in the activation window to activate the option.

You will need the License Activation Code (LAC) that is provided with the Fiery option kit. For help with the activation process, click the “?” link in the activation window.

- If the computer has an Internet connection, see the help topic on activating the Fiery option automatically.
- If the computer has an Internet connection but cannot connect to the licensing server, see the help topic on configuring a proxy server.
- If the computer does not have an Internet connection, see the help topic on activating the Fiery option manually.

To install Acrobat and PitStop Edit:

- 1 If needed, uninstall all versions of Acrobat and PitStop Edit that currently reside on the computer.

Be sure to restart the computer after uninstalling any applications.

- 2 Close all open applications.
- 3 Insert the Adobe Acrobat/Enfocus PitStop disc (Windows or Mac OS) into the media drive of the computer.

The Adobe Acrobat/Enfocus PitStop disc is provided with the Fiery option kit.

- 4 If the installer does not start automatically, navigate to the root level of the disc and double-click Setup.exe (Windows) or Setup.app (Mac OS).
- 5 Click Install and follow the on-screen instructions.
- 6 (Mac OS only) Start Acrobat. When prompted, type the license number from the license.txt file that is located on the root level of the disc.

The client-based Fiery option is now ready for use on the computer.

Troubleshooting

The E-44B is a server for printers, and is generally part of a configuration that has connectivity to the printer and workstations or computers. Problems may occur in one of three areas:

- Inside the E-44B
- In the interface between the E-44B and the printer
- In the interface between the E-44B and the workstations or computers to which it is connected

This chapter identifies the source of common problems that may occur with the E-44B 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, printers, 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-44B 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-44B, 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-44B, 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-44B error messages and condition](#)” on page 116. 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-44B 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 45](#)).

- 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-44B.



Important: Before you remove the E-44B panels, be aware of the safety precautions that you should take when handling the E-44B. 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-44B (see [page 45](#)).



Important: Before you touch any components inside the E-44B, attach a grounding strap to your wrist and discharge any static electricity on your body by touching a metal part of the E-44B.

- 2 Inspect the inside of the E-44B

- 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.

- 3 Reassemble the E-44B and verify its functionality (see [page 87](#)).

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 [“Inspecting the system”](#) on page 111. A comprehensive inspection allows you to verify that each hardware component is properly installed and configured, and helps you avoid replacing expensive components unnecessarily.

If the system you are servicing does not meet a condition listed in [Table 2](#), and it is not obvious what action(s) you should take to fix the problem (for example, if the system hangs before reaching Idle), locate the symptom in [“E-44B error messages and condition”](#) on page 116 and perform the suggested action(s) for the condition.

Conditions to verify	Part and additional page references
<p>When the problem occurs, verify that:</p> <ul style="list-style-type: none"> • Power cable is connected properly into the power outlet. • Chassis fan is operating. • Network link activity LED on RJ-45 connector is blinking. • All external cables required are present, in correct connectors, and well-seated. • Cables, cable connectors, and mating connectors appear undamaged. 	<p>External connectors, chassis fan, and power button, “Checking external connections” on page 110 and “Checking internal components” on page 111.</p>
<p>If the problem occurs at power up or reboot, verify that:</p> <ul style="list-style-type: none"> • Activity light on the control panel illuminates. • Display window lights up. • The system does not hang, and no error messages occur before the systems reaches Idle. • After the system reaches Idle, the control panel buttons function. 	<p>Control panel, page 29</p>
<ul style="list-style-type: none"> • All replaceable parts are: <ul style="list-style-type: none"> • Present • Properly aligned • Installed securely • Installed on the appropriate site • The correct part for the system • Properly configured, if configurable (such as hard disk drive jumper) • Not visibly damaged • Chassis and contents have not been tampered with. • Chassis does not contain any foreign objects. 	<p>Chassis</p>
<ul style="list-style-type: none"> • Motherboard, including components and traces, appears undamaged, and no foreign objects are evident. • CPU is present, well-seated, and appears undamaged. • CPU cooling assembly is well-aligned and firmly attached. • Each fan required (including fan cable) is well-positioned (not upside down), installed in the correct connector, and appears undamaged. • Boards required on the motherboard are present, well-seated, and in the correct slots. • Each DIMM is well-seated. • Battery is installed. • BIOS is well seated. 	<p>Motherboard (with the motherboard replacement dongle), page 56.</p> <p>Important: When replacing the motherboard, carefully review the cautions on page 61.</p>
<ul style="list-style-type: none"> • Each DIMM is well-seated. • DIMM edge connectors are not oxidized. 	<p>DIMMs for E-44B, page 67</p>

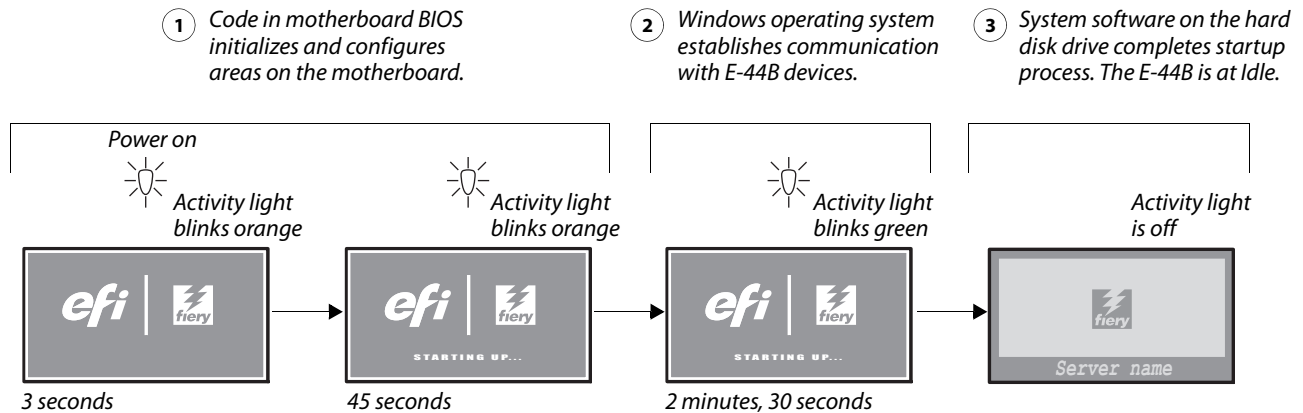
Conditions to verify	Part and additional page references
<p>Each board required is:</p> <ul style="list-style-type: none"> • Present • Installed in the correct slot • Well-seated • Appears undamaged <p>Required cables (if applicable) are:</p> <ul style="list-style-type: none"> • Present • Firmly connected in the correct connectors • Not visibly damaged 	<p>Printer interface board, page 50</p>
<p>User interface board (UIB) is:</p> <ul style="list-style-type: none"> • Present • Correctly attached to its bracket • Appears undamaged <p>UIB cable is:</p> <ul style="list-style-type: none"> • Present • Firmly connected in the correct connector on the motherboard and the back of the UIB • Not visibly damaged 	<p>User interface board, page 52</p>
<p>CPU is:</p> <ul style="list-style-type: none"> • Present • Well-seated • Not visibly damaged <p>The CPU cooling assembly is:</p> <ul style="list-style-type: none"> • Well-aligned • Firmly attached 	<p>CPU with cooling assembly, page 67</p>
<p>Fan is:</p> <ul style="list-style-type: none"> • Properly positioned (not backwards) • Installed in the correct connector <p>The fan, fan cable, cable connector, and mating connector are not visibly damaged.</p>	<p>Front panel fan, page 73</p>

Conditions to verify	Part and additional page references
<p>The power supply required is:</p> <ul style="list-style-type: none"> • Present • Correctly installed • Not visibly damaged <p>Cable connectors are:</p> <ul style="list-style-type: none"> • Firmly connected • Not visibly damaged • Installed in the correct devices 	<p>Power supply, page 74</p>
<p>The hard disk drive required is:</p> <ul style="list-style-type: none"> • Present • Correctly installed • Not visibly damaged • Jumpered as the master (primary) according to label <p>Hard disk drive data cable is:</p> <ul style="list-style-type: none"> • Present • Firmly connected to motherboard connector SATA_6G_1 • Not visibly damaged 	<p>Hard disk drive, page 77</p>
<p>The drive required is:</p> <ul style="list-style-type: none"> • Present • Correctly installed • Not visibly damaged • Jumpered as the master (secondary) according to label • Activity LED lights on power up <p>DVD drive SATA cable is:</p> <ul style="list-style-type: none"> • Firmly connected to motherboard SATA_6G_0 • Not visibly damaged 	<p>DVD drive, page 85</p>
<p>Each cable required is:</p> <ul style="list-style-type: none"> • Present • The correct type • Installed in the correct connector • Well-seated • Not visibly damaged (including connectors) 	<p>UIB cable, page 52</p> <p>Hard disk drive data cable, page 77</p> <p>Printer interface cable(s), page 50</p> <p>DVD drive power and data combination cable, page 85</p> <p>Power cable(s), page 74</p>
<p>If included in the system, the required mouse, monitor, and keyboard are present and appear undamaged. The mouse and keyboard are connected to the correct ports on the E-44B connector panel.</p> <p>The cables required are:</p> <ul style="list-style-type: none"> • Present • Installed in the correct connector • Well-seated • Not visibly damaged (including connectors) 	<ul style="list-style-type: none"> • Mouse (if applicable) • Monitor (if applicable) • Keyboard (if applicable) • Monitor power cord (not pictured)

Normal startup sequence

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

Figure 38: Normal startup sequence



Error messages and conditions

To address specific error messages or conditions, see “[E-44B error messages and condition](#)” on page 116. 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-44B 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-44B.

Table 2: E-44B error messages and condition




Symptom	Possible cause	Suggested action
Beep codes during Startup		
1 beep	No error. The E-44B 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 reseal the DIMMs to remove any oxidation on the connector (see page 67).
Startup		
<p>E-44B does not start and the control panel is black.</p> <div style="border: 1px solid black; padding: 5px; width: fit-content;">  Activity light status: Off. </div> <p>Note: If the Activity light is solid orange while the control panel is black, the E-44B is in Sleep Mode.</p>	<p>Possibly one of the following:</p> <ul style="list-style-type: none"> • The E-44B is powered off • Power cable is not plugged into the power connector on the E-44B 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) 	<ol style="list-style-type: none"> 1 Recheck all cables and connections. 2 Make sure the connector panel power switch is in the ON position (see page 45). 3 Listen for the power supply fan and feel for air at the back of the unit where the power supply is located. <p>If air is not coming from the power supply fan, isolate a possible faulty power cable as follows:</p> <ul style="list-style-type: none"> • 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. <p>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 61).</p> 5 Review the jumper section on page 73 and ensure that the jumper is in the default position.
<p>E-44B is getting power, but the control panel is black.</p> <div style="border: 1px solid black; padding: 5px; width: fit-content;">  Activity light status: Off. </div>	<ul style="list-style-type: none"> • UIB cable is not connected to the motherboard, the user interface board, or both • Faulty UIB cable • Faulty user interface board 	<ol style="list-style-type: none"> 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 52).
<p>Following installation of a new user interface board, the control panel remains blank, yet backlit, for more than five minutes.</p> <div style="border: 1px solid black; padding: 5px; width: fit-content;">  Activity light status: N/A. </div>	<p>System software requires an additional reboot to synchronize with the firmware on the new user interface board.</p>	<p>Wait five minutes, power off using the power button, wait 10 seconds, and then press the power button to power on again.</p>

Table 2: E-44B error messages and condition (Continued)


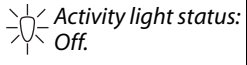

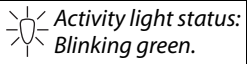

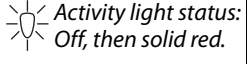

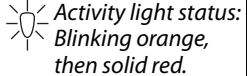
Symptom	Possible cause	Suggested action
Startup (continued)		
<p>NOT following installation of a new user interface board, system stops responding at this screen:</p>  	<p>Possibly one of the following:</p> <ul style="list-style-type: none"> Faulty BIOS Faulty motherboard 	<ol style="list-style-type: none"> 1 Recheck all cables and connections. 2 Reboot the E-44B. 3 If the problem persists, replace the motherboard (see page 61).
<p>System stops responding at this screen:</p>  	<p>Problem with the Fiery application.</p>	<ol style="list-style-type: none"> 1 Recheck all cables and connections. 2 Reboot the E-44B. 3 If the problem persists, restore the backup, or reinstall system software (see page 102).
<p>The following screen and Activity light appear as follows:</p>  	<p>Possibly one of the following:</p> <ul style="list-style-type: none"> Wrong, missing, incorrectly connected, or faulty DIMM(s) Faulty motherboard 	<ol style="list-style-type: none"> 1 Recheck all cables and connections. 2 Reboot the E-44B. 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 67). 4 If the problem persists, you may need to replace the motherboard (see page 61).
<p>The following screen and Activity light appear as follows:</p>  	<p>Possibly one of the following:</p> <ul style="list-style-type: none"> Faulty disk in the DVD drive Faulty motherboard 	<ol style="list-style-type: none"> 1 Reboot the E-44B. 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 61).

Table 2: E-44B error messages and condition (Continued)




Symptom	Possible cause	Suggested action
Startup (continued)		
<p>The following screen and Activity light appear as follows:</p>   <p><i>Activity light status: Blinking green, then solid red.</i></p>	<p>Problem with the Windows operating system.</p>	<ol style="list-style-type: none"> 1 Recheck all cables and connections. 2 Reboot the E-44B. 3 If the problem persists, restore the backup, or reinstall system software (see page 102).
<p>Activity light status progresses from solid green to solid red.</p>  <p><i>Activity light status: Solid green, then solid red.</i></p>	<p>Possibly one of the following:</p> <ul style="list-style-type: none"> • Problem with system software • Print job is corrupt or too large • Faulty UIB cable • CPU overheated • Faulty motherboard 	<ol style="list-style-type: none"> 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-44B 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 102). 5 If the problem persists, try connecting another UIB cable (see page 45). 6 If the problem persists, replace the motherboard (see page 61).
Control panel messages		
<p>Could not mount the dos/boot partition.</p>	<p>When transferring options following installation of a new motherboard (page 66), you used the Feature Update CD. The E-44B does not support the Feature Update CD.</p>	<p>Obtain the motherboard replacement dongle and follow the procedure on page 66.</p>
Fiery Ticker messages		
<p>Please check Fiery Hardware.</p>	<p>Possibly one of the followings:</p> <ul style="list-style-type: none"> • Network port is physically damaged. • Network driver is disabled. • Wrong system software has been installed. • Wrong BIOS chip is installed on the motherboard. 	<ol style="list-style-type: none"> 1 If you installed the system software and this error message displays on Fiery Ticker, reinstall the system software using the correct system software media. 2 If the problem persists, ask the site administrator if the BIOS chip has been swapped from different motherboard. If so, replace the BIOS chip with the one from the original motherboard. 3 If the problem persists, replace the motherboard (see page 61).
<p>No service dongle</p>	<p>Motherboard replacement dongle is not attached after you replace the motherboard and attempt to transfer options to the new motherboard.</p>	<p>Turn off the E-44B, attached the correct dongle, and restart the option and BIOS transfer procedure (see page 66).</p>

Table 2: E-44B error messages and condition (Continued)

Symptom	Possible cause	Suggested action
Control panel functions		
E-44B is getting power, the control panel is not black, but the buttons on the control panel do not function.	Possibly one of the following: <ul style="list-style-type: none"> • Problem with the Fiery application • Faulty user interface board 	<ol style="list-style-type: none"> 1 Recheck all cables and connections. 2 Reboot the E-44B. 3 If the problem persists, restore the backup, or reinstall system software (see page 102). 4 If the problem persists, replace the user interface board (see page 52).
DVD drive		
DVD drive is not responding, cannot be located, or the disk will not eject.	Possibly one of the following: <ul style="list-style-type: none"> • 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 style="list-style-type: none"> 1 Press the eject button below the DVD slot on the front of the E-44B. 2 If the problem persists, check the cable connections to the DVD drive (see page 45). 3 If the problem persists, you may need to replace the DVD drive (see page 85). 4 If the problem persists, you may need to replace the motherboard (see page 61).
System performance		
System performs slowly and/or hangs periodically.	Possibly one of the following: <ul style="list-style-type: none"> • 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 style="list-style-type: none"> 1 Recheck all cables and connections. 2 Make sure that the CPU is firmly seated in its socket and that the fan cable is connected to the motherboard. 3 If the problem persists, restore the backup, or reinstall the system software (see page 102). 4 Check for missing or faulty DIMM and reseal the DIMM to remove any oxidation on the connector (see page 67). 5 If the problem persists, you may need to replace the motherboard (see page 61).
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. page 102

Table 2: E-44B error messages and condition (Continued)

Symptom	Possible cause	Suggested action
System performance (continued)		
The E-44B hangs during the user software installation segment.	<p>Possibly one of the following:</p> <ul style="list-style-type: none"> The time and date need to be configured in the E-44B BIOS. (If the battery was removed from the E-44B motherboard during service and the time and date were not configured in Setup afterward, the E-44B will hang during the user software installation segment.) User Software DVD is corrupted The DVD drive is faulty The hard disk drive is faulty 	<ol style="list-style-type: none"> Set the time and date in the BIOS: <ul style="list-style-type: none"> Power off the E-44B and remove the User Software DVD when it ejects. If not already connected, connect a keyboard and a monitor to the E-44B. Power on the E-44B 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-44B reaches Idle, power off and then begin a full software installation again, starting with the System Software DVD (see page 102). If the problem persists, obtain another User Software DVD and begin software installation again starting with the System Software DVD (see page 102). If the problem persists, you may need to replace the DVD drive (see page 85). If replacing the DVD drive does not correct the problem, reinstall the old DVD drive in the system. If the problem persists, replace the hard disk drive (see page 77). If replacing the hard disk drive does not correct the problem, reinstall the old hard disk drive in the system.
The E-44B cannot be shut down.	<ul style="list-style-type: none"> Power synchronization is enabled. 	<ol style="list-style-type: none"> Power off the printer. Disable the power synchronization and shut down the E-44B.
The E-44B cannot start.	<ul style="list-style-type: none"> Power synchronization is enabled and the printer is powered off. 	<ol style="list-style-type: none"> Power on the printer. If you need to turn on the E-44B only, disable the power synchronization and start the E-44B.
Network		
<p>If you suspect a network problem, keep in mind the following:</p> <ul style="list-style-type: none"> If the E-44B 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. <p>For additional information, see <i>Configuration and Setup</i>, which is part of the user documentation set.</p>		

Table 2: E-44B error messages and condition (Continued)

Symptom	Possible cause	Suggested action
Network (continued)		
<p>Unable to connect to the network, or the green LED on the RJ-45 network port is not lit.</p>	<p>Possibly one of the following:</p> <ul style="list-style-type: none"> • 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-44B 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-44B motherboard is faulty 	<ol style="list-style-type: none"> 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 24. 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 102). 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 61).
<p>System starts up slowly then displays one or more DHCP error messages on the control panel.</p>	<p>Possibly one of the following:</p> <ul style="list-style-type: none"> • 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-44B, but the customer's network is not using DHCP • Ethernet interface on the E-44B motherboard is faulty • System software is corrupted 	<ol style="list-style-type: none"> 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 24. 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 102). 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 61).

Table 2: E-44B error messages and condition (Continued)

Symptom	Possible cause	Suggested action
Printing		
Note: Intermittent print quality and color quality problems are difficult to trace. Before you try to troubleshoot print quality problems, print a color Test Page to make sure that the printer does not need servicing or adjusting.		
Test Page fails to print.	The printer is not ready to print.	Make sure that the printer is turned on and ready to print.
	A problem exists with the connection between the E-44B and the printer.	<ol style="list-style-type: none"> If the problem persists: <ul style="list-style-type: none"> Recycle power on the printer. Recycle power on the E-44B by shutting down through the Functions menu, waiting 10 seconds, and then powering the E-44B back on. If the problem persists, replace the printer interface cables and board (see page 50). If the problem persists, you may need to service the printer.
The E-44B appears in the list of printers on the customer's workstation, but certain jobs do not print.	A PostScript error	<ol style="list-style-type: none"> Make sure that Print to PostScript Error in Setup is set to Yes. Check for error messages on the E-44B output.
	An application problem	<ol style="list-style-type: none"> Print a job from a different application to determine if the problem is associated with a particular application. Make sure that the connection between the E-44B and the workstation is working by downloading a Test Page from the workstation, or by printing a simple file such as a text file. Resend the problem file.
A print job stalls or stops after one or a few pages.	Possibly one of the following: <ul style="list-style-type: none"> A PostScript or application error System software is corrupted 	<ol style="list-style-type: none"> Cancel the E-44B print job. If this fails to clear the problem, reboot the E-44B. If the problem persists, choose the Clear Server command from Command WorkStation. 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. If the problem persists, restore the backup, or reinstall system software (see page 102). Corrupt system software may cause the system to hang.
	Incorrect or faulty DIMM or faulty DIMM connection	<ol style="list-style-type: none"> Reseat the DIMMs to remove any oxidation on the connectors (see page 67). Verify memory amount on the Configuration page. If the problem persists after replacing the DIMM, replace the motherboard (see page 67).

Table 2: E-44B error messages and condition (Continued)

Symptom	Possible cause	Suggested action
Printing (continued)		
Color quality is inconsistent.	A printer problem	Test the printer and perform service, if necessary. See the service documentation that accompanies the printer.
Print quality is poor.	Possibly one of the following: <ul style="list-style-type: none"> • A file or application problem • A missing or outdated printer description file • The application cannot find the appropriate printer description file • The system is out of calibration 	1 Print a E-44B Test Page. 2 If the quality of the E-44B Test Page is good, the error condition may be a file or application problem. 3 Make sure that the appropriate printer description file is installed. (For details, see <i>Printing from Windows</i> , which is part of the user documentation set.)
If the user can print the E-44B Test Page, but cannot print a job from a computer on the network, make sure that the network administrator has: <ul style="list-style-type: none"> • Checked all components of the network, including cables, connectors, terminators, network adapter boards, and network drivers. • Activated the network and used it to communicate with other printers. • Confirmed that the applicable network settings in Setup (such as an IP address, Subnet mask, and Gateway address) match the settings used in the network. <p>Note: EPS file generation is not completely standardized among applications. Some users may encounter problems while printing certain EPS files.</p>		
Fiery JobMaster-Fiery Impose-Fiery Compose		
The license for Fiery JobMaster, Fiery Impose, or Fiery Compose installed on the E-44B is not available.	License information is lost due to: <ul style="list-style-type: none"> • System software installation • Restoring from a backup without the license information 	1 See http://help.efi.com to see the procedure to restore or reactivate the license. Note: It is important to keep the License Activation Code (LAC). 2 Contact authorized service/support center with your LAC.

Troubleshooting information

You can collect the troubleshooting information when a printing or processing error occurs. The information can be sent to technical support for the troubleshooting resource.

You can create the following information.

- Job Error Report
- System Logs

For the successful problem diagnosis, we recommend that you collect the Job Error Report, System logs, and the Printer Device Logs at the same time,

For the procedure of collecting the Printer device logs, see the service manual of the printer.

Job Error Report

Job Error Report contains the important troubleshooting information that the technical support personnel can use to solve customer issues. When a user encounters a job error, system fault, or any unexpected output while printing a job, the user can generate a report from Command WorkStation. The Job Error Report is a collection of job files, logs, and server information in a zip file, and it is available from both Mac OS and Windows versions of Command WorkStation.

Note: The error log entries are overwritten after a period of time. To ensure the error logs contain the relevant information, create the job error report as soon as possible after the error is observed. Create the job error report before rebooting the E-44B and if possible, before any additional print jobs are processed or printed.

To create a job error report

- 1 In Command WorkStation, select a job in the Printed or Held list.

Only one job error report can be created at a time. If multiple jobs are selected in Job Center, the Create Error Report button is not available.

- 2 If accessing from a Windows client computer, press Ctrl and right-click the job. If accessing from a Mac OS client computer, press Command and right-click the job.
- 3 In the shortcut menu, click Create Error Report.
- 4 Enter information about the job error.

a Enter any comments and additional details in the text field. The followings are recommended:

- Date and time error occurred
- Observed error codes, if any
- Description of expected result
- Description of incorrect result
- Steps for how error occurred
- Frequency of error (such as single event, rarely, sometimes, frequently, always)
- Whether the error has occurred with more than one file
- Whether the file selected for the report is the same file that had the error
- Operating system version, if the print job was sent from a client computer
- Version of E-44B user software installed
- Description of any other actions performed on the E-44B during the same time period

b Optional: To include the raster in the report, select Rasters.

The raster can be useful to include if the file is not processed correctly. However, it may exceed the allowed size of the report. In this case, it may be useful to provide it separately.

c Optional: To include color profiles in the report, select Color Profiles.

Color profiles can be useful to include if they are custom profiles and the print colors are incorrect.

d Optional: To include the email log in the report, select Email log.

The email log can be useful to include if the file was submitted by email.

e Optional: To include the native source file in the report, click Add +.

The native source file can be useful to include if the job does not process or print. However, it may exceed the allowed size of the report. In this case, it may be useful to provide it separately.

5 Attach any additional related files to the report.

The job error report size can be up to 2GB. If the selections and attachments result in a report larger than 2GB, the report must be reduced in order to be completed.

6 Optionally, if any print jobs are considered confidential, remove the job files before sending the zip file to technical support.

7 Save the job error report.

System Logs

The E-44B provides the ability to download system logs that can be sent to the technical support for diagnostic purposes. The logs are combined into a single, encrypted zip file, which does not contain any original job files.

To download the system logs

- 1** Access Configure.
- 2** Select Fiery Server > System Logs > Download.
- 3** Specify the location and save the system log file.

Specifications

This section provides an overview of the E-44B 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
- Dimensions (Height x Depth x Width):
48.84 cm (19.23 in.) x 48.26 cm (19.00 in.) x 21.23 cm (8.36 in.)
- Weight: 19.7 kg (43.4 lb.)

Networking and connectivity

- Supports AppleTalk and TCP/IP protocols simultaneously.

Note: AppleTalk is supported only for downloading fonts.

Safety and emissions compliance

The E-44B has been certified to meet or surpass the following government standards:

Safety approvals

- IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am2:2013
- UL 60950-1:2007 R10.14 (TUV NRTL)
- CAN/CSA C22.2 No. 60950-1:2007 +A1:2011 +A2:2014 (TUV NRTL)
- GS Mark by TUV, EN60950-1:2006/A11:2009/A1:2010/A12:2011/A2:2013

EMI/EMC approvals

- FCC Title 47, Part 15 Subpart B, Class A- NA
- ICES-003, Issue 5, August 2012, Class A-NA
- EN55022:2010/AC:2011 (EU) Class A
- VCCI (JPN) Class A
- RCM Mark (Australia and New Zealand)- Class A
- EN61000-3-2: 2014
- EN610003-3: 2013
- EN55024:2010 (EU)

Preparing the printer to connect to the E-44B

Before you can connect the E-44B to the printer, you must prepare the printer as follows:

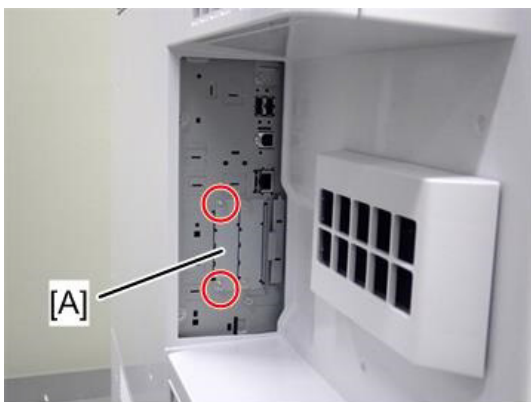
- Install the Gigabit Ethernet board in the printer and change the Service Program (SP) mode on the printer.
- Install the “fierydriven®” key top on the printer operation panel.
- Affix the Fiery decal to the printer front cover.
- If needed, disable the GW scanner feature on the printer.

Printer preparation

To prepare the printer for connection

- 1 Connect the power cord of the printer to a power outlet.
- 2 Turn ON the printer main power switch.
- 3 Enter SP mode.
- 4 Change the setting of SP5193-001 from "0" to "1".
- 5 Change the setting of SP5895-001 from "0" to "1".
- 6 Turn OFF the printer main power switch and wait until the main power indicator is off.
- 7 Remove the slot cover for the Gigabit Ethernet board by removing the two screws shown below.

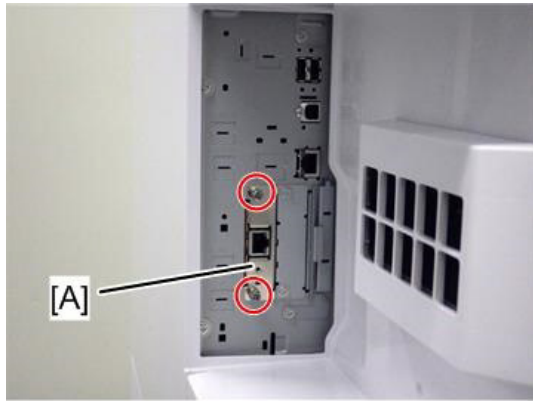
Figure 39: Removing the slot cover



[A] Slot cover for the Gigabit Ethernet board

- 8 Insert the Gigabit Ethernet board and fasten it with the screws you removed.

Figure 40: Inserting the Gigabit Ethernet board



 x2

[A] Gigabit Ethernet board.

- 9 Connect the interface cable to the printer's Gigabit Ethernet board connector.

Note: The interface cable is provided with the E-44B.

Figure 41: Connecting the interface cable to the printer.



[A] Interface cable

10 Connect the other end of the interface cable to the lower RJ-45 connector on the connector panel of the E-44B.

Figure 42: Connecting the interface cable to the E-44B.



[A] Interface cable

11 Connect the appropriate power cable to the power connector of the E-44B.

Figure 43: Connecting the power cable to the E-44B.

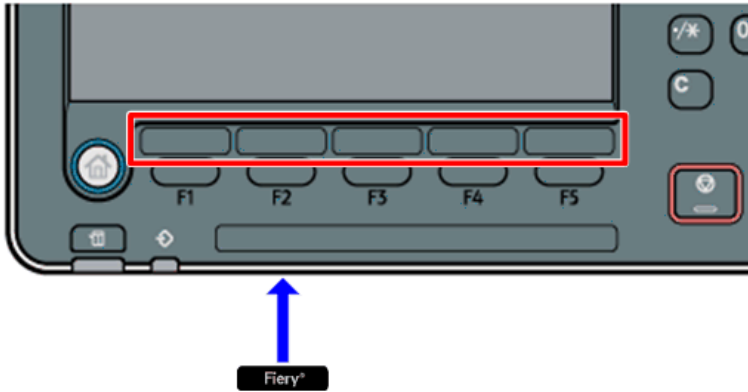


[A] Power cable

12 Attach the Fiery key top decal to the area above the function key to which the Fiery function is assigned.

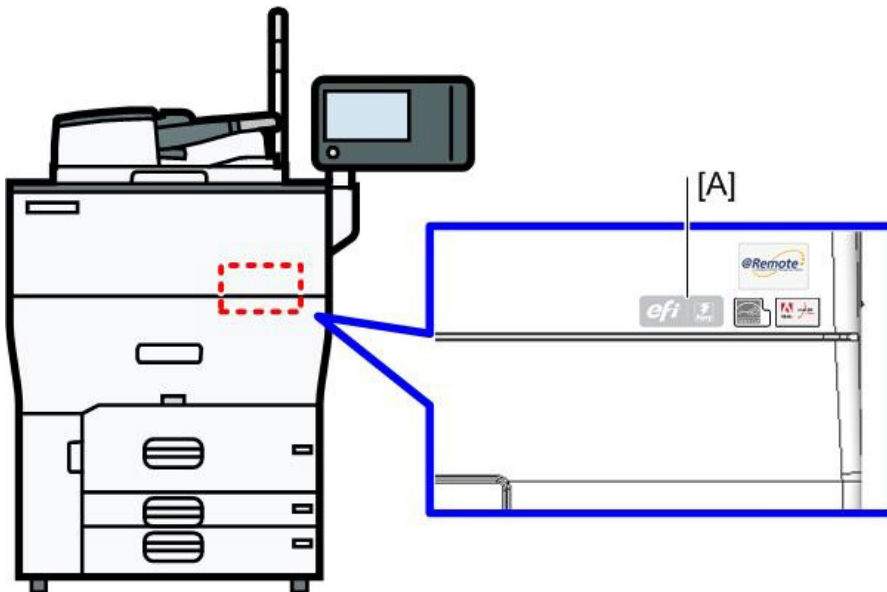
For information on function key configuration, see the Operating Instructions provided with the printer.

Figure 44: Attaching the Fiery key top decal



13 Attach the Fiery Decal to the printer front cover.

Figure 45: Attaching the Fiery decal.



[A] Fiery decal

Disabling the GW Scanner feature

By default, the customer can use the GW scanner feature on the printer with the E-44B. You can disable the GW scanner by customer request.

To disable the GW Scanner feature

- Change the setting of SP5895-002 from “0” to “1”.

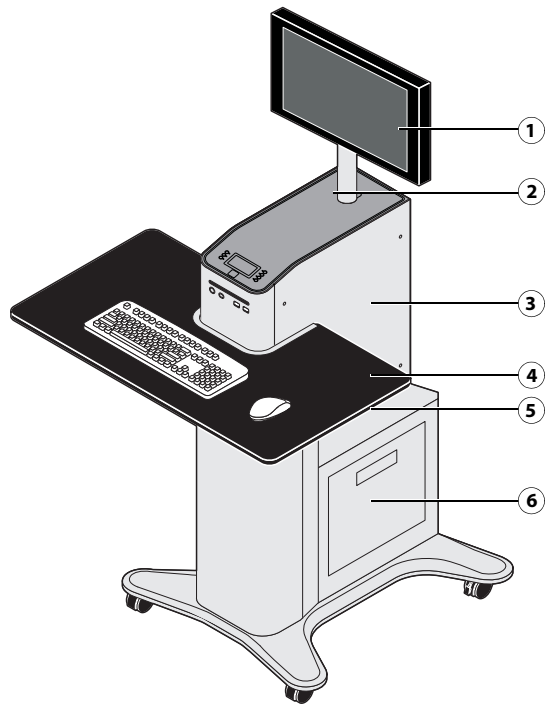
Servicing the E-44B with furniture

This chapter describes how to remove the E-44B from the furniture in order to access internal components for service.

Procedures


If the E-44B is installed in the optional furniture, you must remove it from the furniture before performing most service procedures.

Figure 46: E-44B installed on the furniture

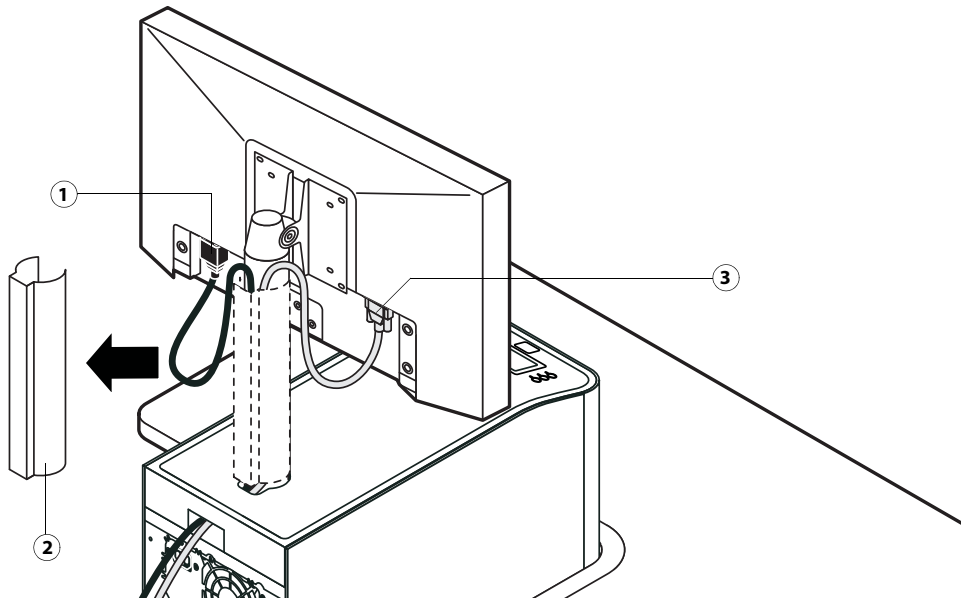


- | | | | |
|---|--------------|---|-----------|
| 1 | Monitor | 4 | Table top |
| 2 | Monitor pole | 5 | Stand |
| 3 | E-44B | 6 | Drawer |

Removing the E-44B from the furniture

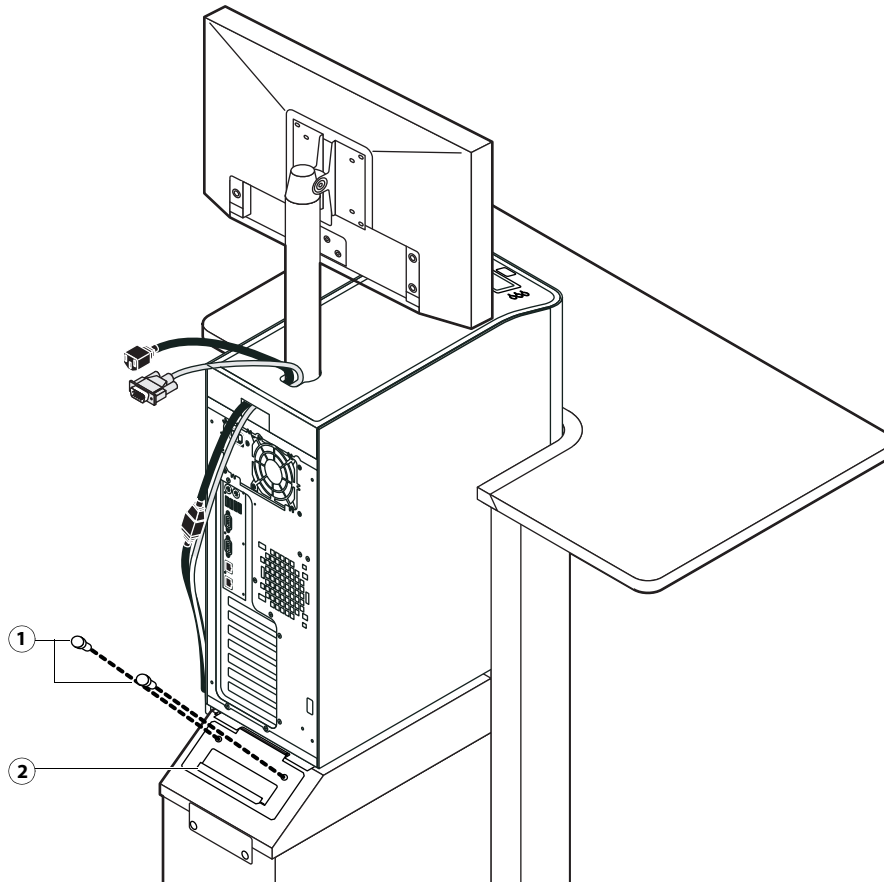
 **Warning:** Never lift the E-44B by grasping the top panel. The top panel does not support the weight of the system

- 1 Make sure that the E-44B is shut down and that all the cables are removed from the back of the E-44B.
- 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-44B



- 1 Power cable
- 2 Cable cover
- 3 Video cable

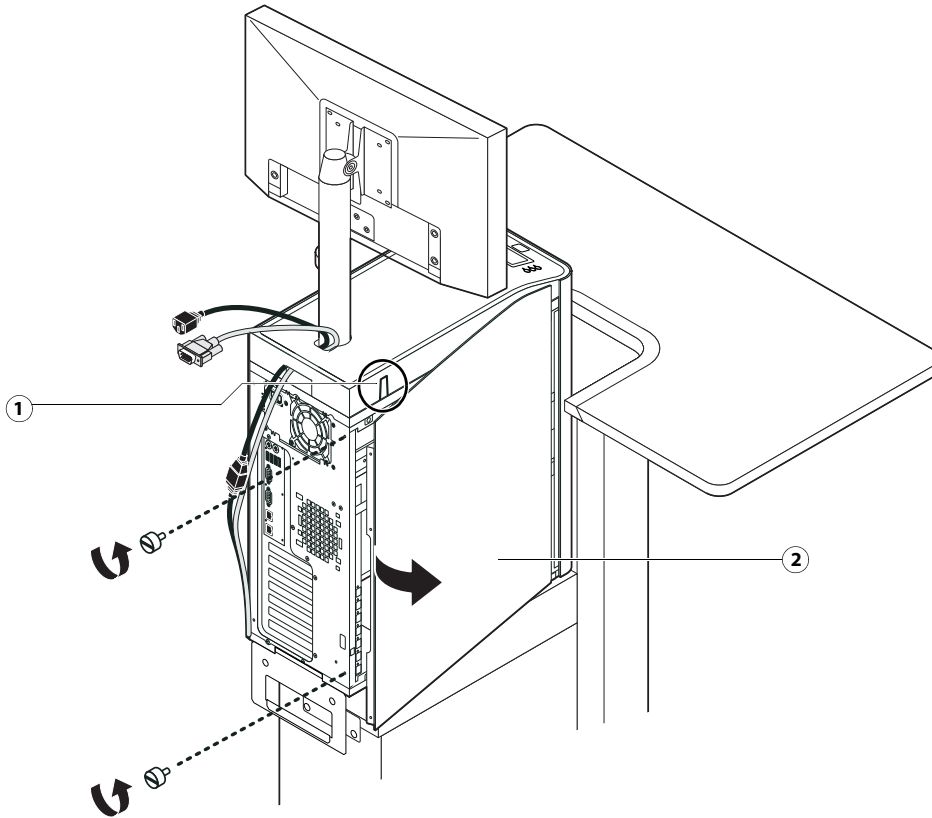
- 3 Remove the thumbscrews that attach the E-44B stability bracket to the stand.



- 1 *Thumbscrews*
 - 2 *Stability bracket*
- 4 Lift the bracket and gently pull the E-44B away from the table top.

Make sure to pull the E-44B out just enough so that the front panel of the E-44B is aligned with the back edge of the table top.

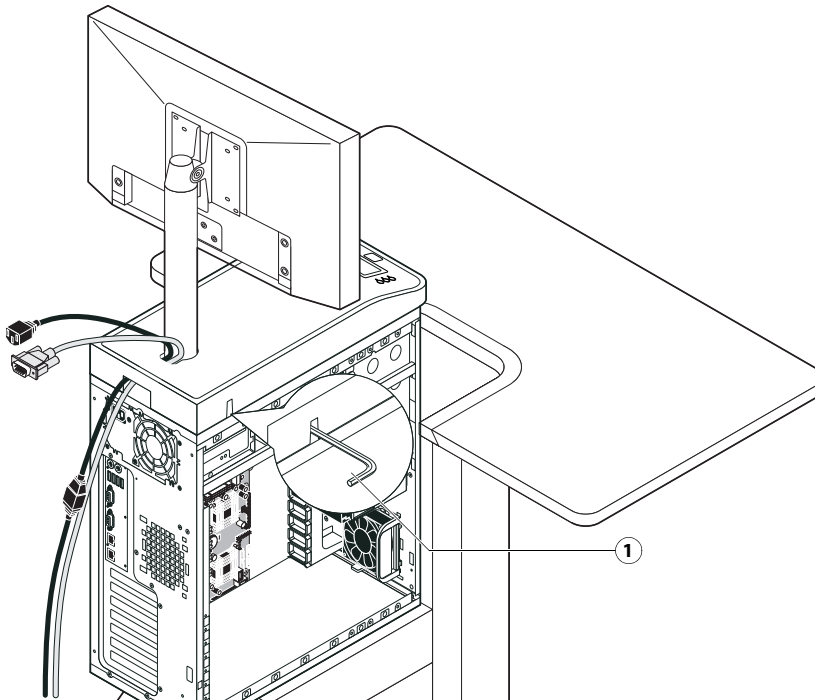
- 5 Remove the E-44B left side panel (two screws) so that you can access the monitor pole tightening mechanism.



- 1 Monitor pole tightening mechanism
2 Left side panel

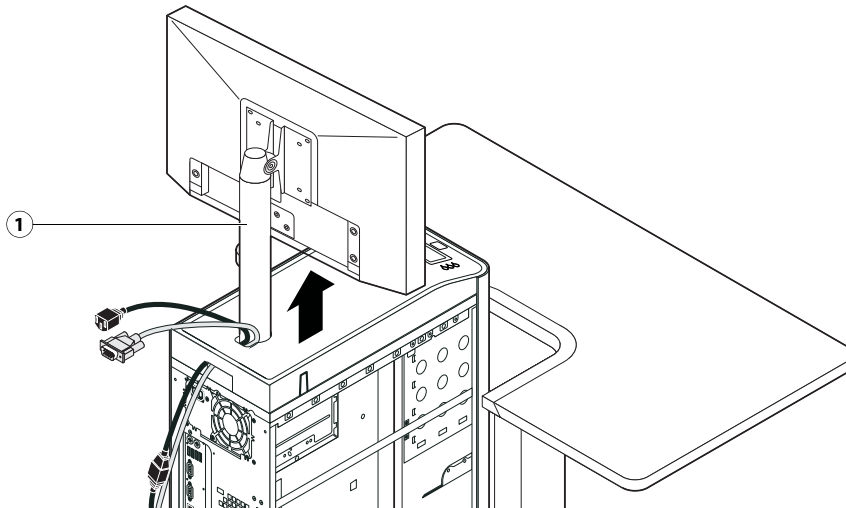
- 6 Use the allen key to loosen the screw that secures the monitor pole to the E-44B.

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



1 Allen key

- 7 Holding the monitor pole, gently lift the monitor pole assembly up and out of the E-44B monitor mount.



1 Monitor pole

- 8 Continue servicing the Fiery controller.

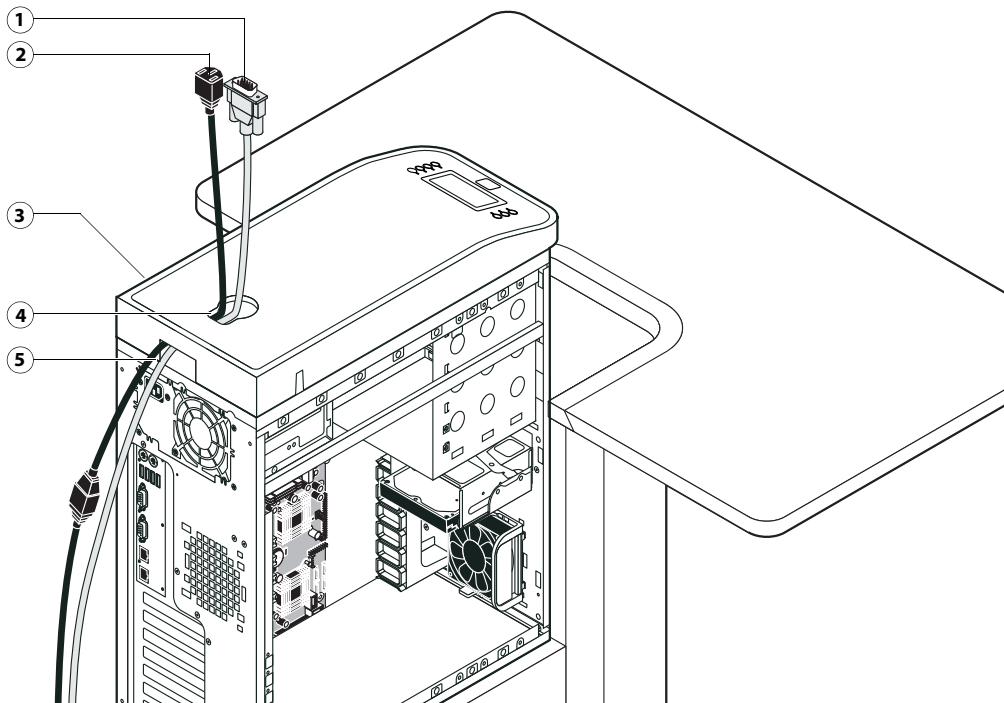
Replacing the E-44B in the furniture

- 1 Make sure that the left side panel is removed from the E-44B.

- 2 Place the E-44B upright on the furniture stand. Slide the E-44B forward just until its front panel is aligned with the back edge of the table top.

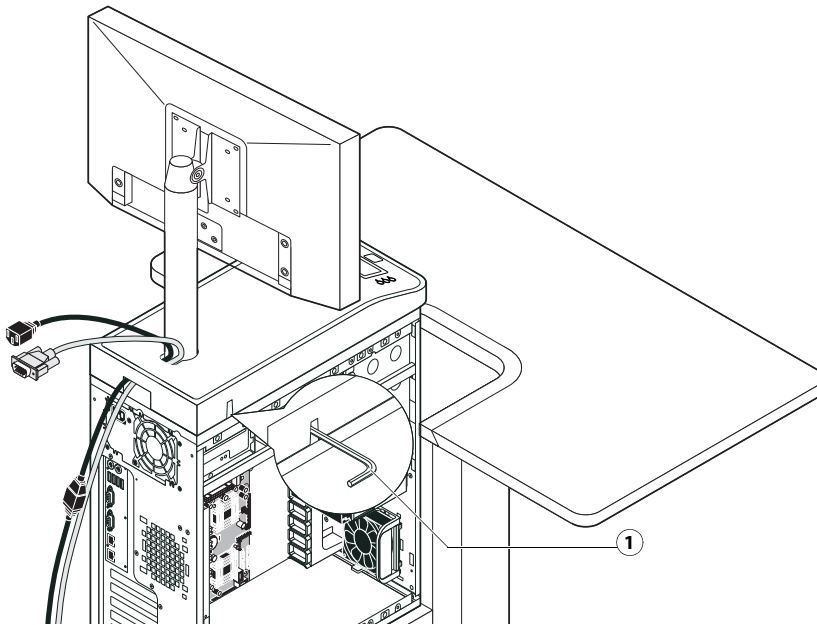
Use the handle on the stability bracket to lift the rear of the E-44B and slide it forward.

- 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.



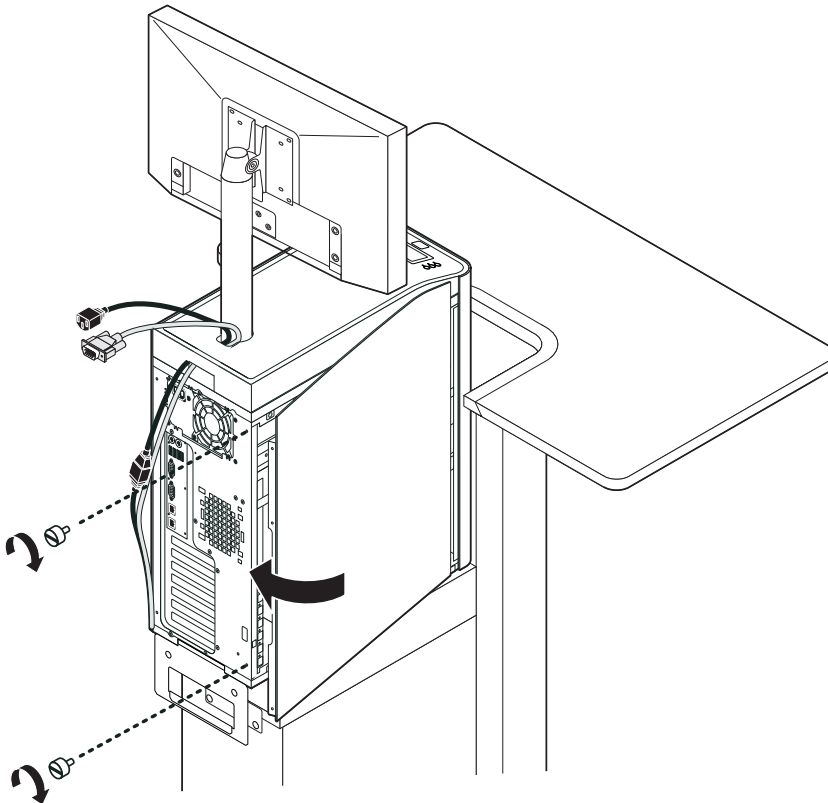
- 1 Video cable
- 2 Power cable
- 3 Top panel
- 4 Top cutout
- 5 Back cutout

- 4 Lift up the pole assembly and insert the pole into the top of the E-44B so that it is inside the monitor mount. Tighten the assembly into place using the allen key.

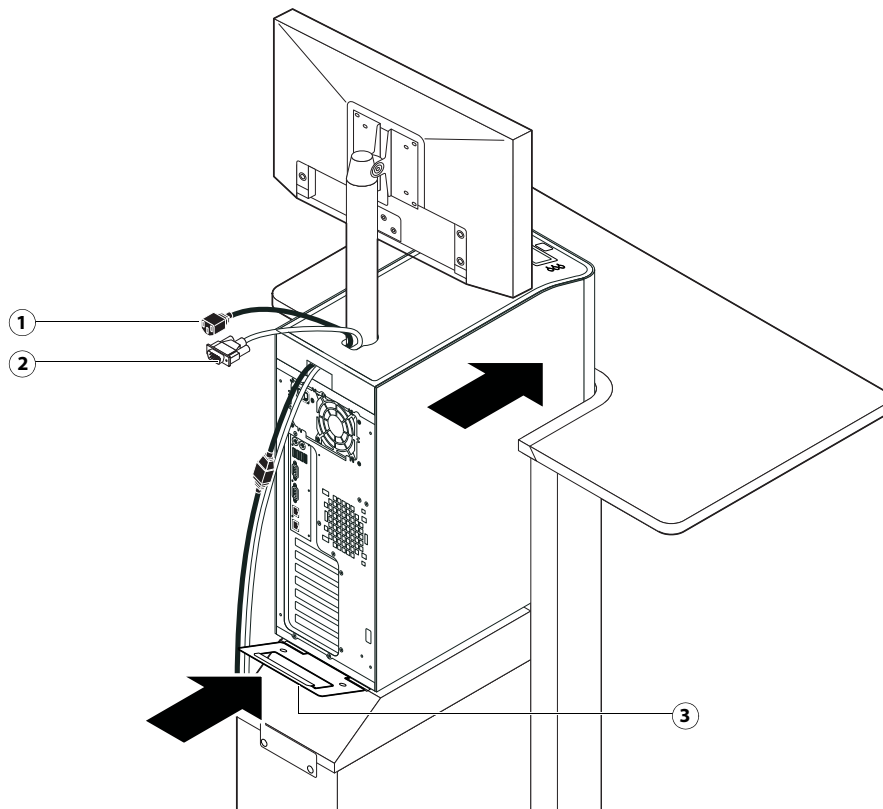


1 Tighten the monitor assembly

- 5 Replace the left side panel on the E-44B with the screws that you removed earlier.



- 6 Use the handle on the stability bracket to lift the rear of the E-44B. Slide the E-44B all the way forward into the stand. Lock the E-44B into place with the two thumbscrews that you removed earlier.

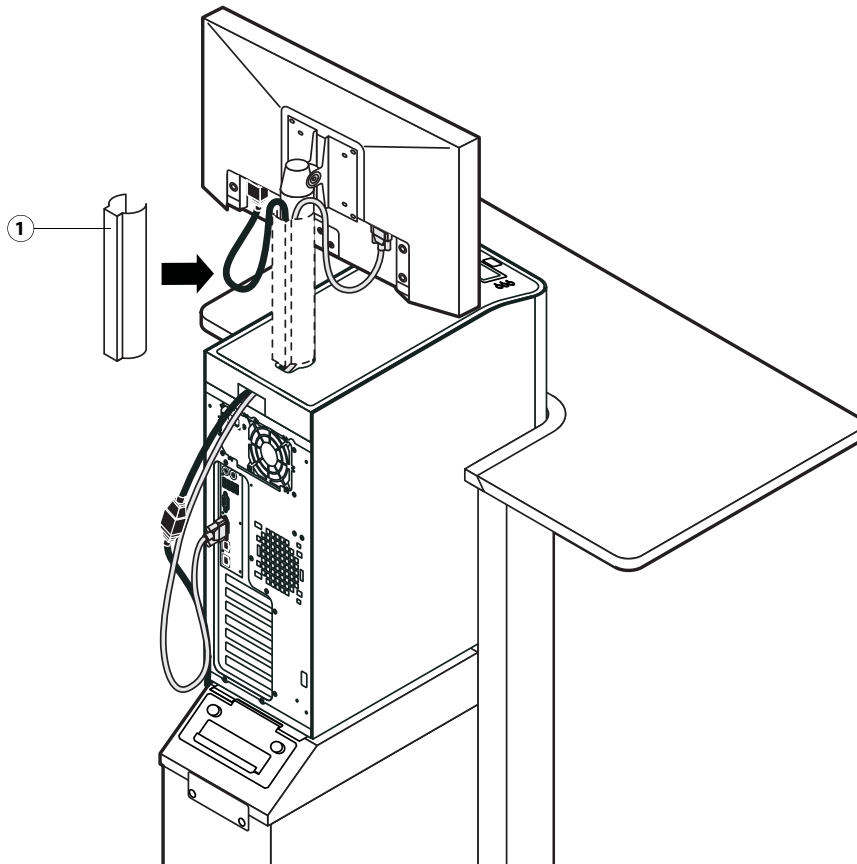


- 1 Power cable
2 Video cable
3 Stability bracket (lock into place with two thumbscrews)

- 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-44B

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



1 Cable cover

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

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