



Color Controller E-45

Installation and Service Guide

A guide for service technicians

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

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Introduction

This document includes information about servicing the Color Controller E-45. In this document, the Color Controller E-45 is referred to as “the E-45.”

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-45 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-45 safely, always pay attention to CAUTION icons and messages.



Important: The IMPORTANT icon indicates operational requirements and restrictions. To operate the E-45 correctly and avoid damage to the E-45 or other property, always pay attention to IMPORTANT icons and messages.

About the E-45

The E-45 adds computer connectivity and highly efficient PostScript and PCL printing ability to the Pro C9200 series (Pro C9210/Pro C9200) printer.

With the E-45, 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-45 from supported client computers on the network.

The E-45 ships with software pre-installed so that customers can use it immediately. However, as part of servicing the E-45, you may need to reinstall software.

How the E-45 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-45 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.

Before you service the E-45

Before you service the E-45, 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 46](#)).

Tools you will need

To install or service the E-45, you will need the following tools and parts:

- ESD wrist grounding strap and antistatic mat
- Flathead screwdriver
- #0, #1, and #2 Phillips head screwdrivers

When servicing the Fiery QuickTouch, use a screwdriver with a magnetic tip.

- Needlenose pliers
- The E-45 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-45 and how to avoid damage to E-45 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-45 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-45

Only the site administrator should assign an IP address to a network device, including the E-45. If you enter an incorrect IP address for the E-45, 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-45 contains hazardous moving parts. When servicing the E-45, 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.

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-45 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-45 or an appropriate replacement power cable. For replacement parts, see your authorized service support center.
- Before you open the E-45, unplug the E-45.
- Keep the power cable away from foot traffic.
- Do not place objects on the power cable.
- Do not plug the E-45 into a 2-hole, ungrounded outlet by means of a 3-prong adapter.
- Do not plug the E-45 into a circuit connected to heating or refrigeration equipment (including a water dispenser).
- Do not plug the E-45 into a switchable outlet.
- Do not pull the cable to unplug the E-45. 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-45

If liquid spills on the E-45, immediately unplug the E-45.


Do not open the power supply

For more information about the power supply, see [“Power supply”](#) on page 77.


Do not open the hard disk drive

For more information about the hard disk drive, see [“Hard disk drive”](#) on page 79.


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

About the installation process

It is strongly recommended that you review this chapter before you install the E-45. Also keep in mind that installation problems are easier to avoid and diagnose if you proceed from the component level to the system level, verifying functionality at each step.

Since the E-45 is connected to the customer's network, be sure to coordinate your installation schedule with the administrator at the customer site. For information about network setup, refer the site administrator to *Configuration Guide*, which is part of the user documentation set.

If necessary, you can change the default language of the E-45 set at the factory (see [“To change the E-45 language”](#) on page 15).

Note: You can change the default language that is preinstalled at the factory using the Configure tool available through Command WorkStation and WebTools. Start Configure, choose Fiery Server > Regional Settings. From the Server Language list, select your language and then click Save. When an Alert dialog box appears, click Continue. It takes up to 15 minutes to change languages.

You can also change the default language using the Fiery Quick Touch menu. Select Quick Launch > Settings, and log in to the server as admin. From the language drop-down list, select the your language, save the changes, and then reboot the server. It takes up to 15 minutes to complete the language changes.

To install the E-45

- 1 Check installation requirements and verify site conditions.

If possible, obtain verification that the network is operational (see [page 15](#)).

- 2 Unpack the E-45 (see [page 17](#)).

- 3 If applicable, connect the monitor, keyboard, mouse, and furniture to the E-45.

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

- 4 Connect the following cables (see [page 18](#)).

- Printer interface (Data Transfer Unit) cables
- Network cable (upper RJ-45)
- Crossover Ethernet cable (lower RJ-45)

- 5 (Optional) If the E-45 requires a static IP address (for example, in a non-DHCP network environment), work with the site administrator to configure a static IP address.

- 6 Complete the installation (see [page 27](#)).

Remind site administrator to install current user software on client computers that print to the E-45 (see *Printing and Utilities*, which are part of the user documentation set).

To change the E-45 language

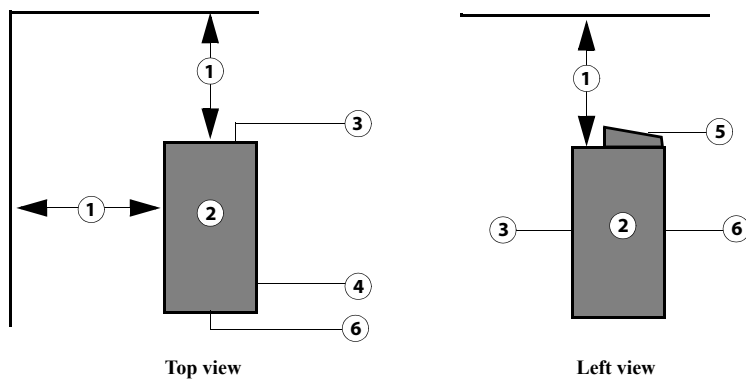
- 1 Access Configure (see [page 30](#)).
- 2 In Configure, click Fiery Server > Regional Settings,
- 3 In the Server Language drop-down list, select a language.
- 4 Click Save.
- 5 Click Continue, then click Reboot.

Wait until the E-45 reboots and becomes Idle. It may take up to 15 minutes to complete the system language change.

Checking the customer site

Before you install the E-45, check site conditions and inform the customer of any installation requirements.

Figure 1: Space requirement for the E-45 without optional furniture



- 1 20cm+ (8 in.)
- 2 E-45
- 3 Connector panel
- 4 Side panel
- 5 Fiery Quick Touch display panel
- 6 Front panel

Printer readiness

- Is the printer configured for use with the E-45? (For the proper settings, see the documentation that accompanies the printer.)

- Is space available near the printer for the E-45 and the optional furniture?

Make sure that adequate space is available for the E-45 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-45 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-45.

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-45 available near the printer?

Locate the grounded electrical outlet that will supply power to the E-45. Do not run the E-45 and the printer on the same circuit. If the customer has provided one, use a surge suppressor for the E-45.

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-45.
- 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-45 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-45 and confirms network functionality with the connector in place before the date scheduled for the E-45 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-45 onto networked Windows and Mac OS computers that print to the E-45 (user documentation is also included).

Note: This document covers hardware installation and service and provides general information about connecting the E-45 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-45

The E-45 is assembled and shipped from the factory with all necessary cables (except the network cable) and documentation.

Before you unpack the E-45, it is strongly recommended that you review all “[Precautions](#)” on page 10 to avoid injury or damage to the E-45.

- The E-45 weighs approximately 20Kg. Be careful when moving the device.

To unpack the E-45

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-45 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-45 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-45, the user software must be installed on computers that will print to the E-45.

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

Figure 2: Affixing the decal to the printer



1 EFI/Fiery decal

Connecting the E-45

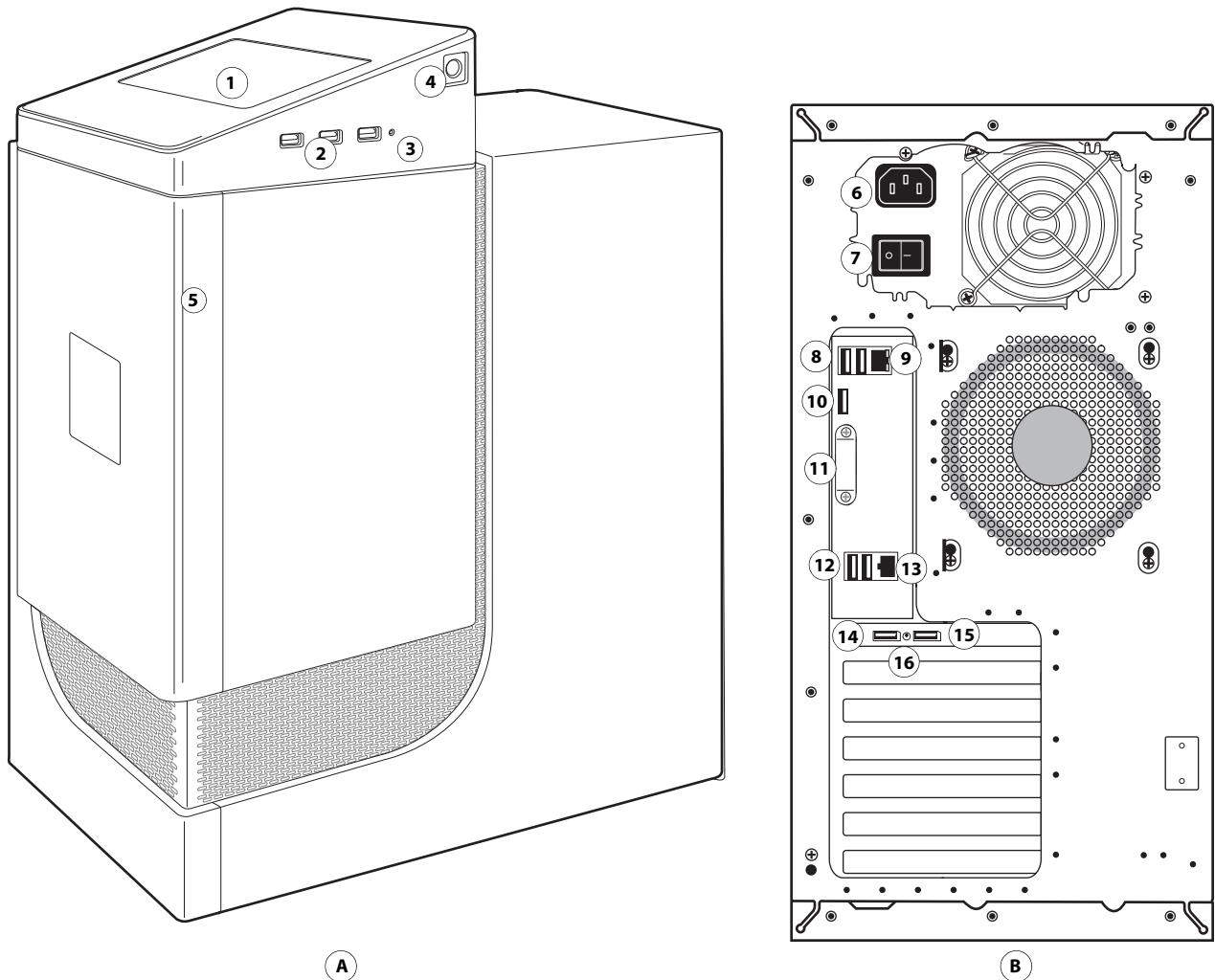
You are now ready to make the following connections:

- (Optional) Keyboard, monitor, and mouse
- (Optional) Fiery NX Station furniture

Note: The Fiery NX Station furniture kit includes documentation for assembling the furniture.

- Power cable
- Network cable
- Printer interface (Data Transfer Unit) cables
- Crossover Ethernet cable (lower RJ-45)

Figure 3: Front and connector panel



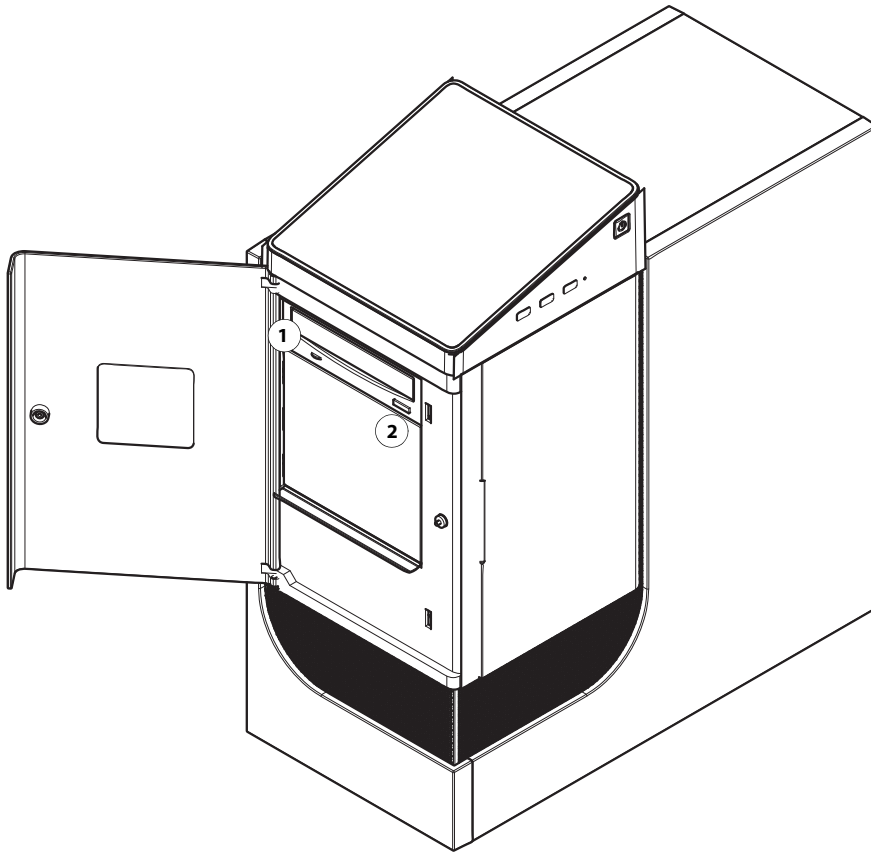
A Front panel

- 1 *Fiery QuickTouch LCD*
- 2 *Type A USB 3.0 ports (x3)*
Note: Do not use the USB ports on the Fiery QuickTouch for keyboard/mouse connections for the service purpose.
- 3 *Fiery QuickTouch reset button*
- 4 *Power button*
- 5 *Front panel door*

B Connector panel

- 6 *Power connector*
- 7 *Power switch*
I: Power On
O: Power Off
- 8 *Type A USB2 ports (x2)*
- 9 *Network port (Upper RJ-45)*
- 10 *Display port (for optional monitor)*
- 11 *DVI port (for optional monitor)*
- 12 *Type A USB3 ports (x2)*
- 13 *Crossover Ethernet cable port (Lower RJ-45)*
- 14 *Printer interface (Data Transfer Unit) cable port A (Y, M)*
- 15 *Printer interface (Data Transfer Unit) cable port B (C, K)*
- 16 *OFF/ON switch for power synchronization*
ON: Down
OFF: Up

Figure 4: Inside the front door



- 1 DVD drive (inside behind door)
- 2 Eject button (inside behind door)

(Optional) Connecting the monitor, keyboard, mouse, and power

Note: Before using the E-45, connect the monitor, keyboard, mouse, and power to the E-45 if applicable. The Fiery NX Station is an option.

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-45 is installed in the furniture and that the monitor is securely attached to the top of the E-45.
For more information, see the assembly instructions that accompany the furniture.
- 2 Connect the monitor cable to the DVI port or Display port on the connector panel.
- 3 Connect the monitor power cable to an outlet of the power strip inside the furniture, or an outlet on the wall.
- 4 Place the keyboard and mouse on the furniture table top.
- 5 Connect the wireless adapter for the keyboard and mouse to one of the USB ports.
Use the USB ports that is attached at the front of the furniture.
- 6 Power on the mouse by using the power switch on the bottom side of the mouse.
- 7 Connect the recessed end of the E-45 power cable to the power connector on the power strip inside the furniture.
Be sure to use the appropriate power cable for your regional outlet type.

Connecting to the printer and the network

Connect the E-45 to the printer and the network to enable print and network connectivity.

To connect to the printer

- 1 Make sure that the E-45 and the printer are powered off.
- 2 Locate the two printer interface (Data Transfer Unit) cables.
- 3 Connect the printer interface (Data Transfer Unit) cables to the correct ports on the printer and the E-45 as shown in [Figure 6](#).



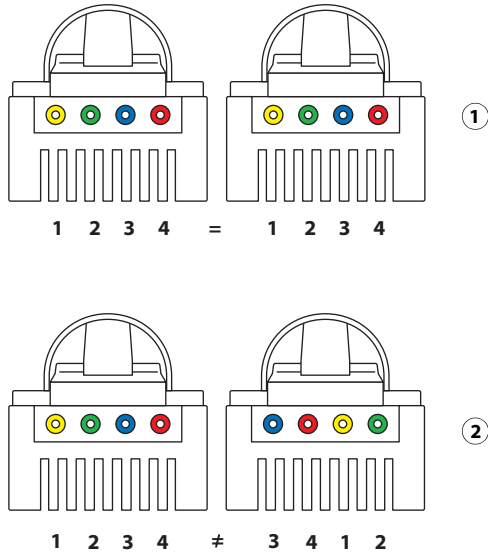
Important: Make sure that the OFF/ON switch on the printer interface board is set to OFF position.

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

- 4 Connect the crossover Ethernet cable to the lower RJ-45 port on the E-45 and the printer.

Important: The straight-through network cable at the customer site and the crossover Ethernet cable included with the E-45 look similar, but are not interchangeable. Make sure that you connect the crossover Ethernet cable to the lower RJ-45 port on the E-45 connector panel.

Figure 5: Straight-through and crossover Ethernet cables



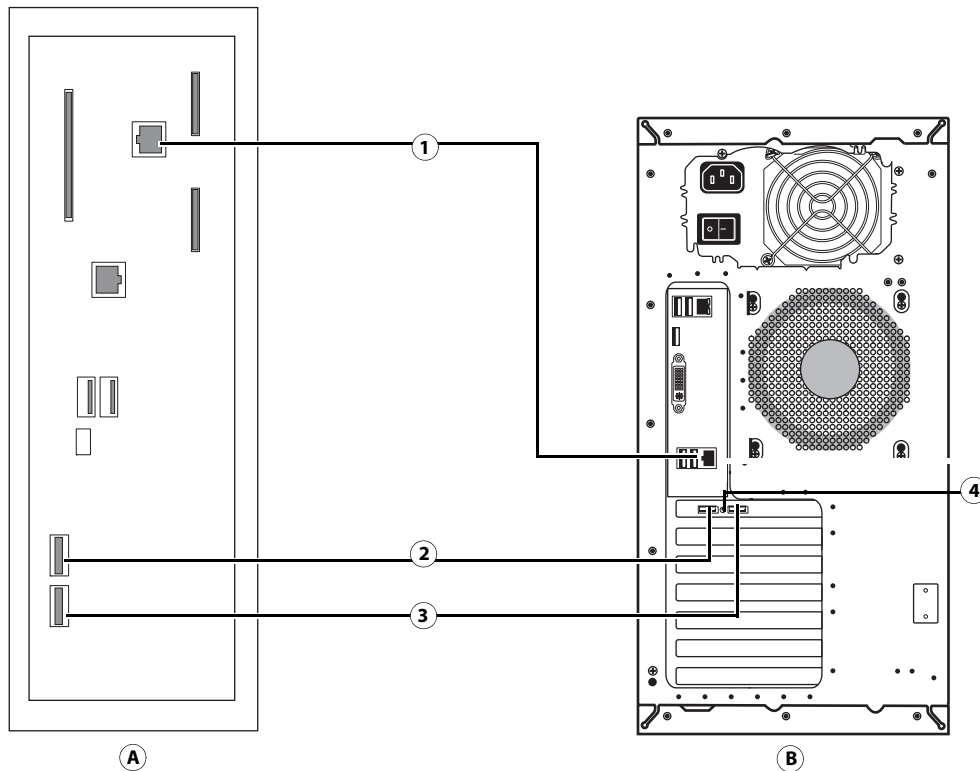
1 Straight-through cable: wire arrangements are identical on both connectors

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 crossover Ethernet cable does not touch the power cables for the system. Image quality problems or E-45 shutdowns could result.

Figure 6: Printer and E-45 cable connection



A printer connector panel

B E-45

1 Crossover Ethernet cable connection

2 Printer interface (Data Transfer Unit) cable connection - port A (Yellow, Magenta)

3 Printer interface (Data Transfer Unit) cable connection - port B (Cyan, Black)

4 Power synchronization OFF/ON switch on the printer interface board. Default position is OFF.
ON: Down
OFF: Up

To connect to the network

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

The E-45 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-45 appears in the list of printers, and then print a few test documents from a networked computer that will use the E-45. 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 crossover Ethernet cable included with the E-45 look similar, but are not interchangeable. Make sure that you connect the network cable to the upper RJ-45 port on the E-45 connector panel (see [page 45](#)).

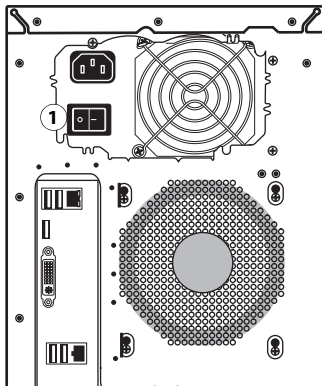
Starting the E-45 for the first time

This section describes how to start the E-45 for the first time after connecting the cables.

To start the E-45

- 1 Make sure that the power switch on the back of the E-45 is in the ON (I) position.

Figure 7: E-45 power switch

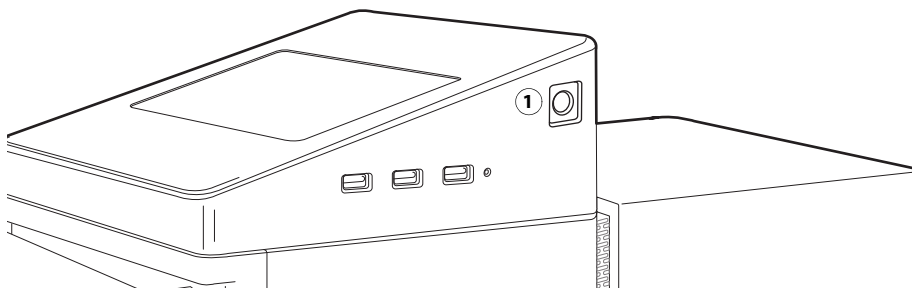


1 Power switch

- 2 Power on the E-45 using the power button (⏻) on the front panel.

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

Figure 8: E-45 power button



1 Power button

3 Check the activities on the Fiery QuickTouch.

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

Configuring a static IP address for the E-45

If the customer requires the E-45 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-45.

To configure a static IP address for the E-45

- 1 Press Home button on the printer operational 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.
- 4 Press Setup.
- 5 On the Login screen, press Password. Enter **Fiery.1**. Press OK.
Type **Fiery.1** exactly as shown. The password is case-sensitive; for example, **fiery.1** will not work.
- 6 On the Setup screen, do the following:
 - Press WINS. If enabled (yellow), press Use WINS to disable this feature. Press Save.
 - Press DNS. If enabled (yellow), press Get DNS address automatically to disable this feature. Press Save.
 - Press IP Address. Enter an IP address. Press Save.
 - Press IPv4 Address. Press Manual Configuration.
- 7 On the Manual Configuration screen, do the following:
 - In the IP Address field, enter an IPv4 address. Press OK.
 - In the Subnet Mask field, enter a subnet mask IP address. Press OK.
 - In the Default gateway field, enter a default gateway IP address. Press OK.
 - When done, press Save. Press Go Back.
- 8 On the Setup screen, press Exit Setup.
- 9 Press Reboot Now.

To configure a static IP address for the E-45 using the Fiery QuickTouch


- 1 On the Fiery QuickTouch display screen, press the Quick launch icon on the bottom-left corner.
- 2 Select Settings, and log in to the server as **admin** user (the default password is **Fiery.1**).

- 3 Select Configure IP Address, and select IP Address, DNS, Subnet Mask, WINS, and Default Gateway, as necessary.
- 4 Save the settings and exit.

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.

When you enable power synchronization, the E-45 synchronizes power with the printer's main power off/on status. If the printer powers off, the E-45 receives signals from the printer through the printer interface (Data Transfer Unit) cables connected to the printer interface board, and automatically starts the shutdown process. If the E-45 receives the startup signals from the printer, the E-45 automatically powers on and begins the startup sequence.

 **Important:** After the power synchronization is enabled, make sure to control the E-45 power using the printer.

To enable the power synchronization feature at the E-45

- 1 Shut down the E-45 (see [page 35](#)) and the printer.

A printer connector panel

- 1 Type A USB ports
- 2 USB cable

B E-45 connector panel

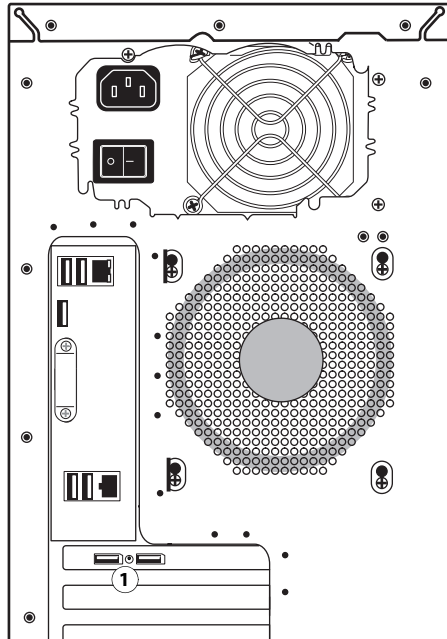
- 3 Type B USB port on the main printer interface board
- 4 Switch on the main printer interface board:
OFF position (default)

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



Important: Do not change the switch position when the E-45 is powered on.

Figure 9: Power Synchronization switch



- 1 Set the switch to the ON position

- 3 Power on the printer.

The E-45 automatically starts up.

To disable the power synchronization

- 1 Turn off the printer using the main power switch.

Wait until the E-45 shuts down.

- 2 Make sure that the power switch on the connector panel of the E-45 is OFF position (I).
- 3 Set the switch on the printer interface board to the OFF position.



Important: Do not change the switch position when the E-45 is powered on.

- 4 Start the E-45 (see [page 41](#)).

Completing the installation

To complete the installation of the E-45 at the customer site, do the following:

- 1 Print the Test Page and Server Configuration page (see [“Printing E-45 pages from the monitor, keyboard, and mouse”](#) on page 29).

- 2** Ask the customer to verify the output.
- 3** Perform any required system upgrades. For instructions, see the documentation that accompanies the system upgrade.
- 4** Ask the site administrator to perform Setup and print some test documents over the network.
- 5** Store the output and the current Server Configuration page(s) near the printer.
- 6** After the site administrator completes Setup, use the Fiery System Installer to copy the contents of the E-45 hard disk drive to an image file.

Fiery System Installer is provided in System Software DVD 1. For detailed instructions, see [“Using Fiery System Installer”](#) on page 93.

- 7** Inform the site administrator that E-45 user software must be installed on networked computers that print to the E-45.
- 8** Ask the site administrator to make sure that all media shipped with the E-45 is stored in a safe location, accessible to you.
- 9** For additional installation instructions, see the service documentation that accompanies the E-45.

Using the E-45

The following user interfaces are available for the E-45:

- Fiery QuickTouch on the front of the E-45
Fiery QuickTouch is the seven-inch LCD color touch screen interface for the E-45.
- Fiery NX Station, including a monitor, keyboard, and mouse.
- The printer touch panel
- (Optional) Monitor, keyboard, and mouse of the Fiery NX Station

Note: The Fiery NX Station (monitor, mouse, and keyboard) is provided as an option feature.

Fiery Ticker

When you log on to the E-45 using the monitor or Remote Desktop Connection, Fiery Ticker automatically starts showing the status bar.

Figure 10: Fiery Ticker status bar



You can perform the following tasks using the Fiery Ticker:

- Monitor the activities of the E-45 and printer using the Fiery Notes.
- Manage the E-45 by using Command WorkStation or WebTools
- Shut down, restart, or reboot the E-45

For details, see the Fiery Ticker Help. To access the Fiery Ticker Help, click “>>” icon at the upper left corner of the screen, and select Help.

Printing E-45 pages from the monitor, keyboard, and mouse

This section describes how to print the Test Page, Server Configuration page, and other Fiery pages.

- **Test Page** verifies that all components of the E-45-to-printer interface work. The Test Page is a color file that resides on the E-45 hard disk drive.

Note: Information regarding Test Page refers to PS Test Page or PCL Test Page. For more information, see *Configuration and Setup*, which is part of the user documentation set.

- **Server Configuration page** provides general information about the hardware and software configuration of the E-45, the customer's current settings for Setup, the current calibration, and the IP address of the E-45.

Printing the Server Configuration page can be helpful during installation, Setup, and service. After installing the E-45 (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 Server Configuration page.

To print E-45 pages

- 1 At Fiery Ticker screen, click ">>" icon on the upper left corner, and choose Print Pages.

The Print Pages sub-menu displays the list of available E-45 pages.

- 2 Choose the page that you want to print from the sub-menu.

The E-45 sends the selected page to the printer.

- 3 If you printed the E-45 Test Page, examine the quality of the Test Page from the printer.

If the Test Page prints, you know the E-45 is functional and the connection between the E-45 and the printer is working. If the Test Page fails to print, look up printing problems in ["Table 4: E-45 error messages and condition"](#) on page 111.

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 in ["Table 4: E-45 error messages and condition"](#) on page 111, or see *Color Printing*, which is part of the user documentation set.

Command WorkStation

As an E-45 service technician, you will typically log on to the system as Administrator. For more information about using Command WorkStation, see *Command WorkStation Help*.

About Configure

You can access Configure from Command WorkStation or WebTools. For information about using Configure, see the Command WorkStation Help.

To access Configure from an Internet browser

- 1 Open an Internet browser and type the IP address of the E-45.
- 2 In WebTools, click Configure icon on the left.
- 3 Log on with Administrator privileges.

To access Configure from Command WorkStation

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

- In the Server menu, click Configure.
- From the SERVERS list, right-click the E-45 and select Configure.
- In Device Center, on the General, click Configure button in lower right corner.

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

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

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

Using the E-45 on Fiery QuickTouch

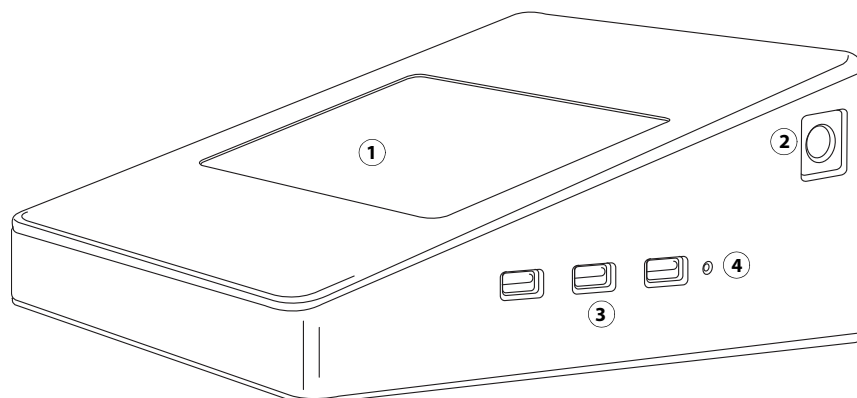
The Fiery QuickTouch on the front of the E-45 allows you to do the following:

- View print job status and alerts
- Use Fiery System Restore to back up and restore the E-45
- Replace the motherboard (when the motherboard replacement dongle is inserted into a USB port)
- View the IP address of the E-45
- Shut down, restart, or reboot the E-45 (see [page 41](#)).

Note: You can also shut down and restart the E-45 through the printer touch panel (see [page 36](#)).

- Interact with the E-45 during software installation and initial setup (see [page 97](#))
- Run certain diagnostics (for service purposes only)

Figure 11: Fiery QuickTouch touch panel features



1 Touch panel

2 Power button

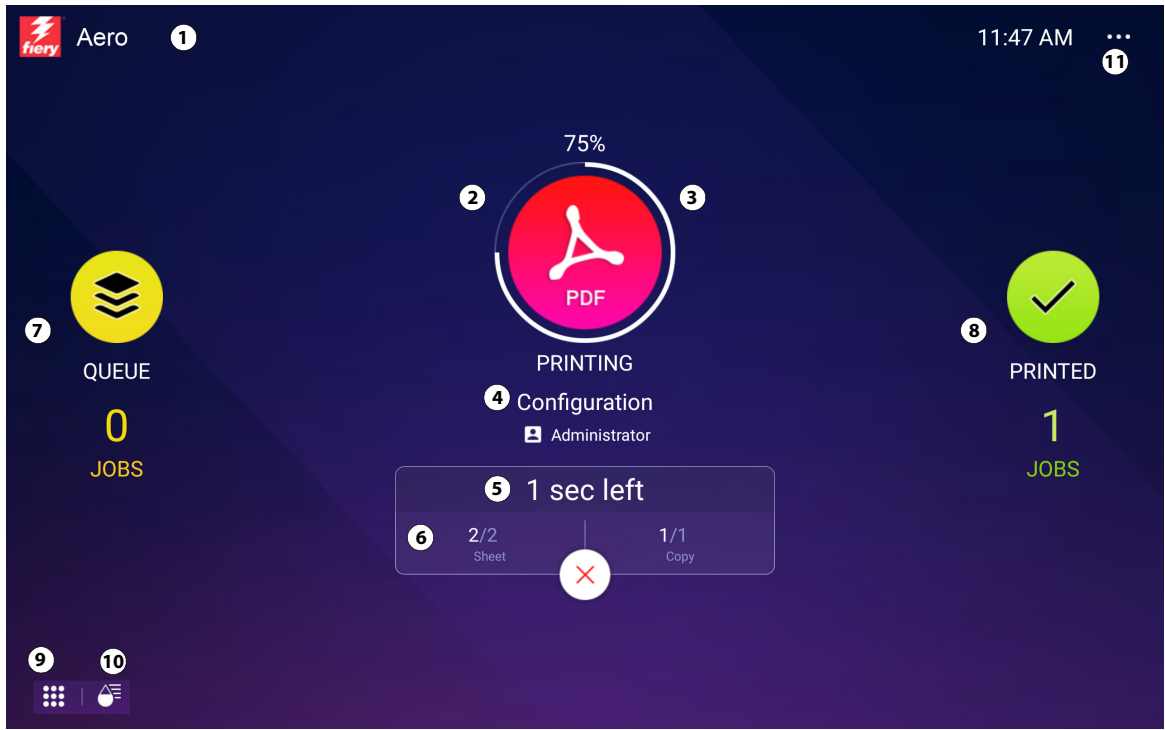
3 USB 3.0 ports

4 Fiery QuickTouch Reset button (requires pin)

Overview of Fiery QuickTouch menu options

The following options are available from the Fiery QuickTouch main menu:

Figure 12: Fiery QuickTouch Home screen

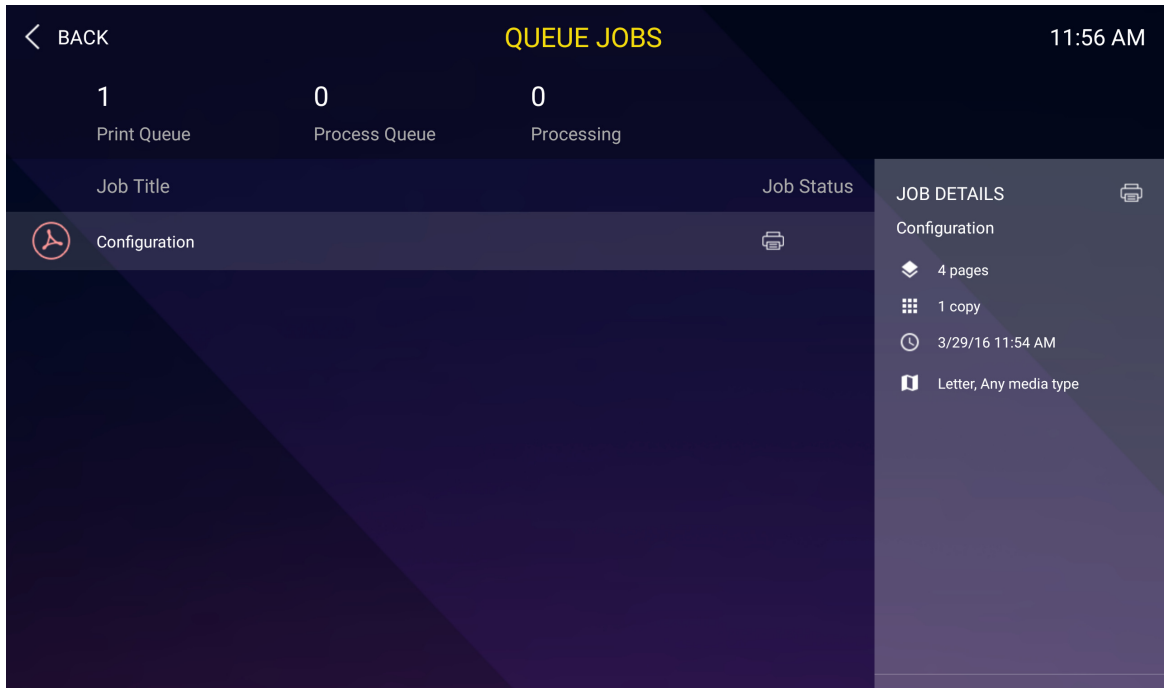


The Home screen is the main interface for job status, and displays various screen elements.

- | | | | |
|---|---|----|--|
| 1 | E-45 name and status
Tapping the Fiery icon shows more information about the E-45 and the network address. | 6 | Number of pages and copies that are printing |
| 2 | Icon of the print job type
If there are no print jobs being processed, an Idle status displays. | 7 | Queued jobs list
Tapping the Queue icon shows a list of jobs that are queued. |
| 3 | Printing progress of the active print job | 8 | Printed jobs list
Tapping the Printed icon shows the printed jobs list. |
| 4 | File name of the active print job | 9 | Quick Launch
The Quick Launch button displays additional applications. |
| 5 | Time left to complete the active print job | 10 | Shows consumables |
| | | 11 | Quick Options and current local time |

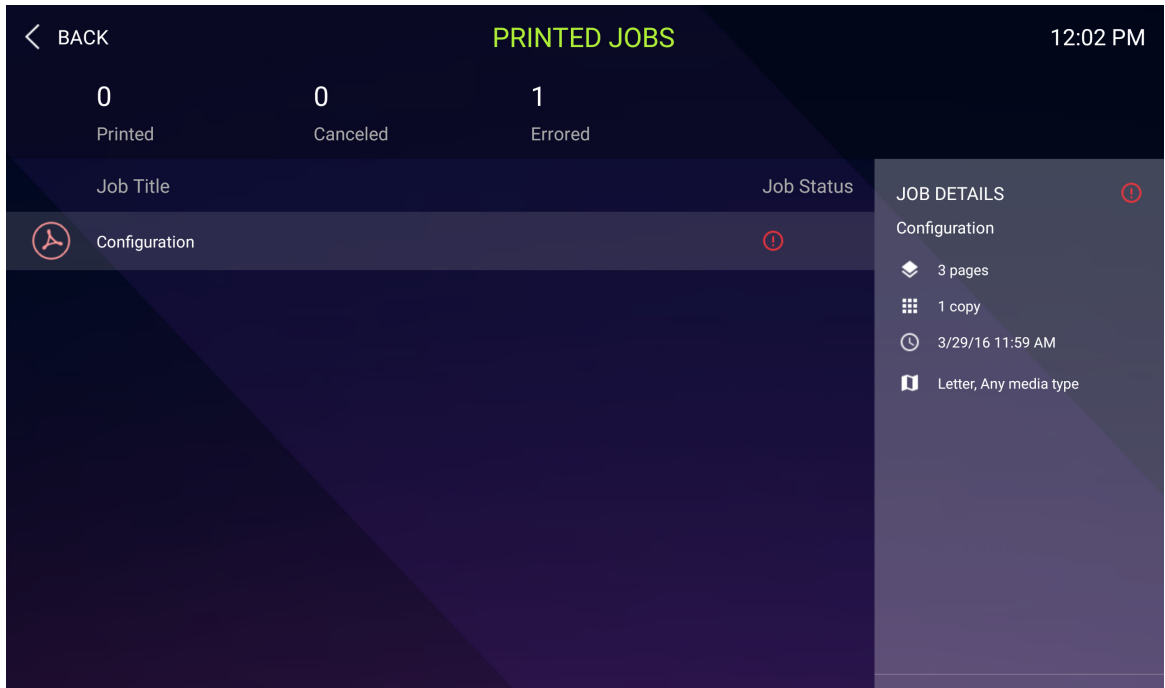
The Queue job list shows queued jobs and detailed information about each job.

Figure 13: Queue job list



The Printed jobs list provides job status and details about the jobs that have been printed.

Figure 14: Printed jobs list



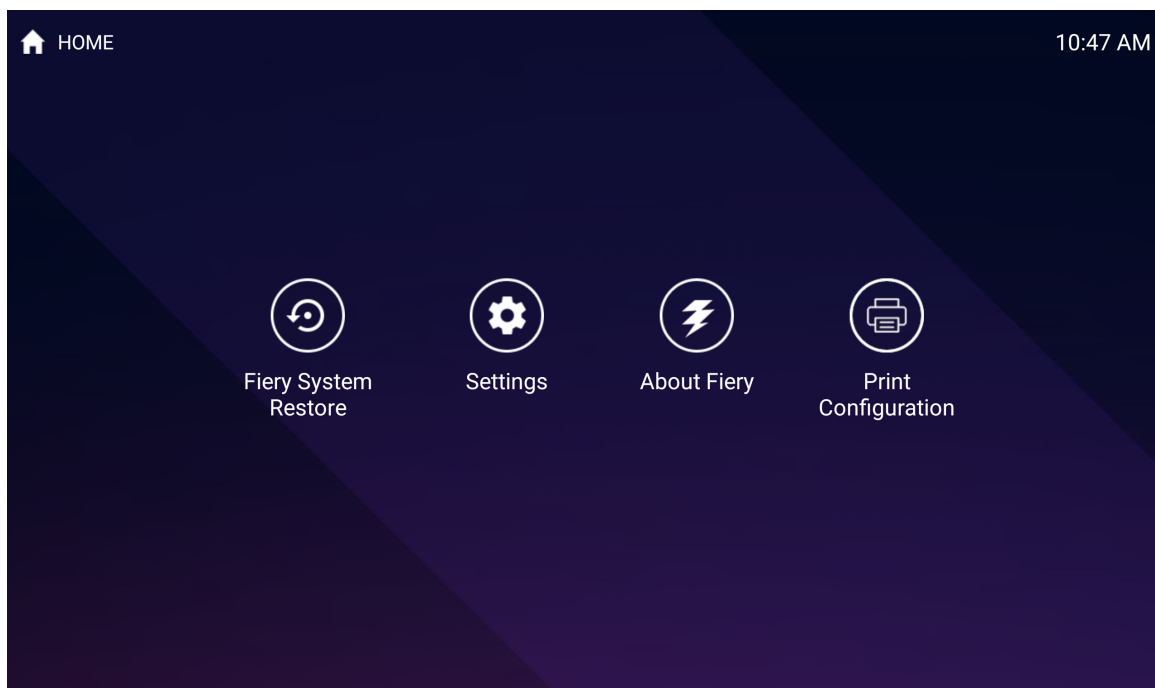
In either the Queue jobs or Printed jobs screen, you can tap Back to go back to the Home screen.

Quick Launch menu

From the Home screen, you can tap the Quick launch icon on the bottom-left corner of the screen to access the following menus:

- Fiery System Restore
- Settings
- About Fiery
- Print configuration
- Diagnostics (The Diagnostics application icon appears when you insert a diagnostics DVD.)
- Motherboard replacement (The Motherboard replacement application icon appears when you insert the motherboard replacement dongle.)

Figure 15: Quick launch menu



Tapping the Home icon takes you back to the Home screen. Before accessing Fiery System Restore or Settings, you must log in as an administrator.

For more information on backing up and restoring the E-45, see [“Using Fiery System Restore”](#) on page 91.

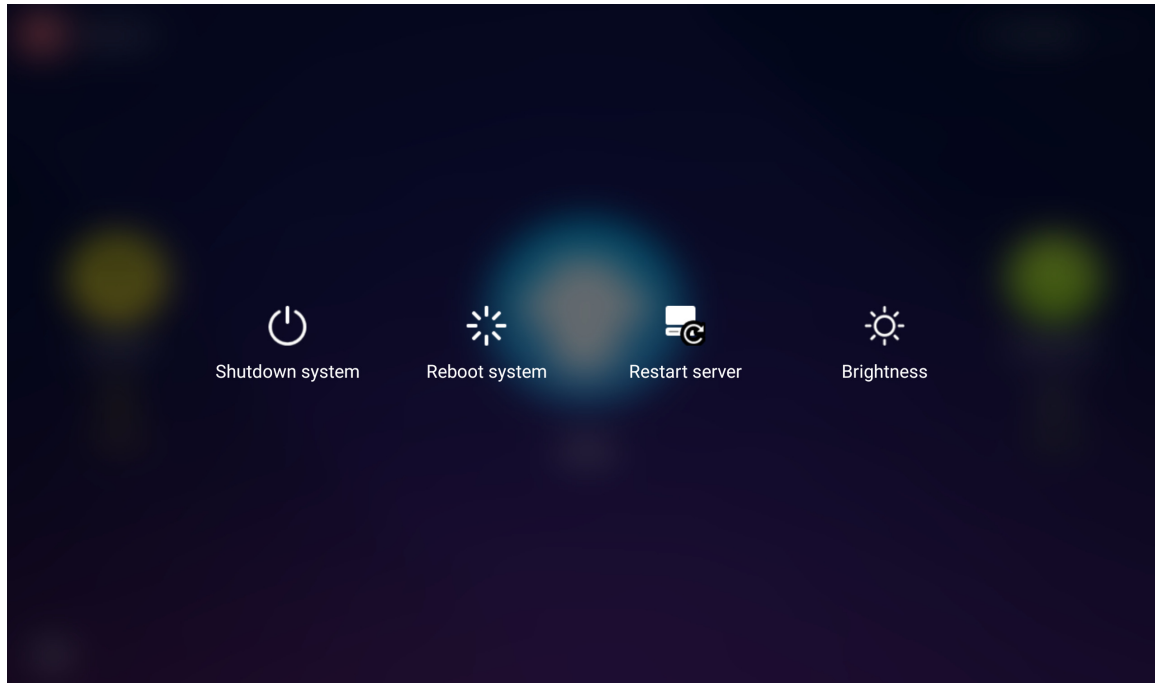
Quick options

The Quick Options menu can be accessed by tapping the three-dot icon on the top-right corner of the Home screen. Quick Options provide the following general system settings:

- Shutdown system: shuts down all Fiery server software and powers off the system.

- Reboot system: shuts down all Fiery server software and reboots the system.
- Restart Server: resets the Fiery server software, but does not reboot the entire system.
- Brightness: sets the brightness level of the Fiery QuickTouch screen.

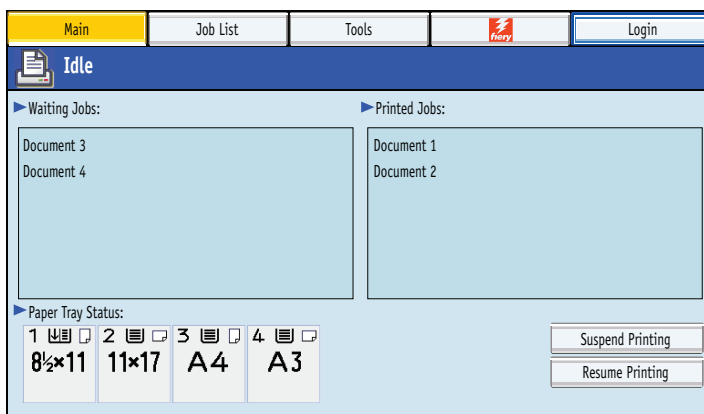
Figure 16: Quick options menu



Using the printer touch panel

The “EFI Fiery” icon of the printer touch panel allows you to interact with the E-45 from the printer. The menus provide access to many of the same options available from Command WorkStation.

Figure 17: 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 EFI Fiery. If the EFI Fiery icon does not display, move to the other screen by swiping the touch screen until the EFI Fiery icon appears.
- 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-45 and the printer. Use this command to interrupt the current E-45 job, for example, to perform maintenance tasks. Jobs continue to process on the E-45. After you complete maintenance tasks, choose Resume Printing to continue printing jobs from the E-45.
Resume Printing	Resume print activity between the printer and the E-45 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-45 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-45.
Printable Info	<p>Allows you to print these system pages from the E-45:</p> <p>PS Test Page/PCL Test Page: Confirms that the E-45 is properly connected to the printer, and provides color and grayscale samples to troubleshoot problems with the printer or the E-45. 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-45 hard disk drive.</p> <p>Configuration: Provides general information about the hardware and software configuration of the E-45, the current settings for Setup, the current calibration, the IP address of the E-45, and a log of system updates.</p> <p>Color Charts: Prints samples of the RGB, CMY, and PANTONE colors available from the E-45.</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-45.

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-45 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-45 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-45 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-45. Network access to the E-45 is terminated and all currently processing jobs are aborted and may be lost.</p> <p>Shut Down: Shuts down all E-45 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 38](#)). The Printable Info menu is accessed through the Fiery tab (see [page 38](#)).

Printing the **Configuration page** can be helpful during installation, Setup, and service. After installing the E-45 (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-45 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-45 is functional and that the connection between the E-45 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-45 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-45 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-45 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-45 is functional and the connection between the E-45 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.

Using the Fiery desktop on the printer touch panel

You can access the E-45 desktop from the printer touch panel.

To access the E-45 desktop from the printer touch panel

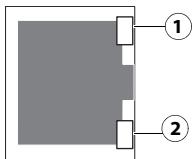
- 1 At the printer touch panel, press the Fiery icon.
- 2 Login to the E-45 desktop as Administrator user.

The default password for the Administrator is **Fiery.1** (case-sensitive).

Network status LEDs

Two LEDs next to the network connector indicate the network link status and speed. For additional information about network setup, see *Configuration Guide*, which is part of the user documentation set.

Figure 18: Ethernet network port (upper RJ-45)



- 1 LINK/ACTIVITY
- 2 SPEED

Table 1: Network link indicators

LINK/ACTIVITY LED	Network link status
Off	No link to network
Solid green	Valid link to network
Flashing green	Data transfer is in progress

Table 2: Network speed indicators

SPEED LED	Network speed
Off	10 Megabits/second
Solid green	100 Megabits/second
Flashing green	1000 Megabits/second

Starting, shutting down, restarting, and rebooting

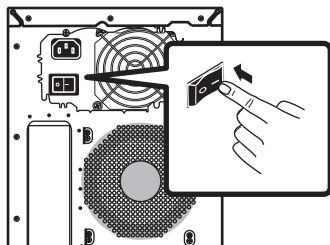
The customer will generally leave the E-45 on all of the time. Remember that when the E-45 is powered off, network access to the printer is interrupted. Power off the E-45 when you need to service it and before you remove or attach any cables to it.



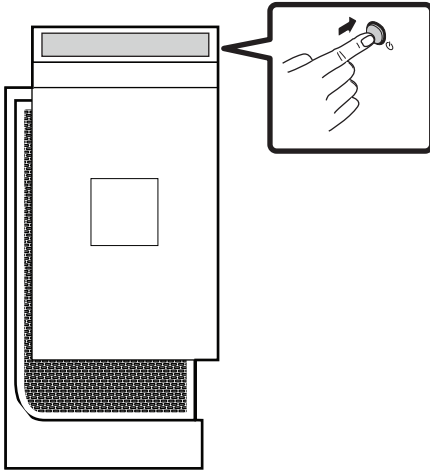
Important: Unless instructed otherwise by a troubleshooting procedure, always shut down the E-45 from the Fiery QuickTouch monitor or from the monitor attached to the E-45. Do not use the power button on the side to shut down the E-45.

To start the E-45

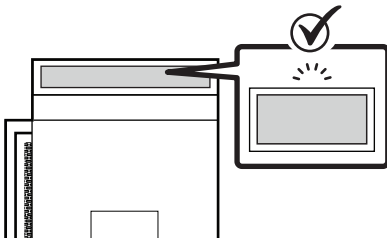
- 1 Make sure that the power cable is attached and that the power switch is in the ON position (I).



- 2 Press the power button (⏻) on the side of the Fiery QuickTouch panel.



- 3 Check the light on the Fiery QuickTouch.



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

To shut down, restart, or reboot from the monitor

Note: The Fiery NX Station (including monitor) is optional.

- 1 Make sure that the E-45 is not receiving, processing, or printing any files.
If the system just finished processing, wait at least five seconds after the system reaches Idle before you proceed.
- 2 Close all applications except Fiery Ticker.
- 3 Do one of the following:
 - Click the Windows Start button and select Shut Down.
 - Click the Windows Start button, click the arrow next to Shut Down, and select Restart.
 - Click “>>” icon at the upper-left corner of the screen, and select Server Actions > Restart Fiery or Reboot Fiery. Click OK.
- 4 If you shut down the E-45, move the E-45 power switch to the off (O) position for maximum energy savings or service (wait 10 seconds before you proceed).

To shut down, restart, or reboot from the Fiery QuickTouch

Note: Notify the network administrator before you remove the E-45 from the network.

- 1 Make sure that the E-45 is not receiving, processing, or printing any jobs.

If Printing appears on the Fiery QuickTouch, the E-45 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 On the Fiery QuickTouch Home screen, tap the Quick options menu button.

- 3 Make a selection.

- To restart or reboot the E-45, tap Restart server or Reboot system, respectively.
- To shut down the E-45 immediately, tap Shutdown system.

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

If you tapped Restart server, you may need to wait one minute or more for the server software to restart.

- 4 Before accessing internal components following a shutdown, make sure that all cables are disconnected from the back of the E-45.

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

Note: Notify the site administrator before you remove the E-45 from the network.

- 1 Make sure that the E-45 is not receiving, processing, or printing any jobs.

If Printing appears on the Fiery QuickTouch, the E-45 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.

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

- 2 Press the Fiery tab.
- 3 Press Restart Fiery.

4 At the next screen, select one of the following options:

- **Restart Fiery Service (soft reset)**—Resets the E-45 server software but does not reboot the entire system. Network access to the E-45 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-45 activity properly and then reboots. Network access to the E-45 is temporarily interrupted and all currently processing jobs are aborted and may be lost.
- **Shut Down**—Shuts down all E-45 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-45 is terminated and all currently processing jobs are aborted and may be lost.

Note: Use the reset button on the front of the E-45 only if the system is unresponsive to keyboard or mouse actions.

5 Press OK.

Before accessing internal components, make sure that all cables are disconnected from the back of the E-45.

Replacing parts

Generally, the E-45 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
- Fiery QuickTouch display module
- Motherboard components (DIMMs, CPU, and battery)
- Fan
- Power supply
- Hard disk drive
- DVD drive

Replacement parts are available from your authorized service representative. The terms “replace” and “replacing” are used throughout this document to 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.



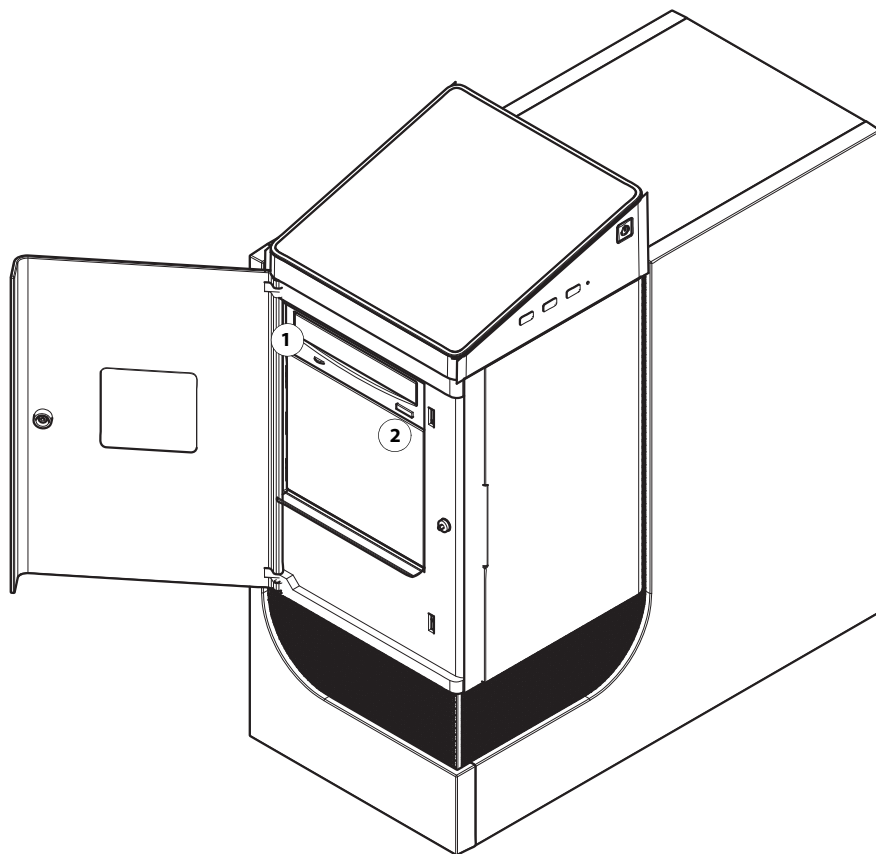
Important: When performing the service procedures described in this chapter, follow the precautions listed on [page 9](#).

The tools required to service the E-45 are listed on [page 10](#).

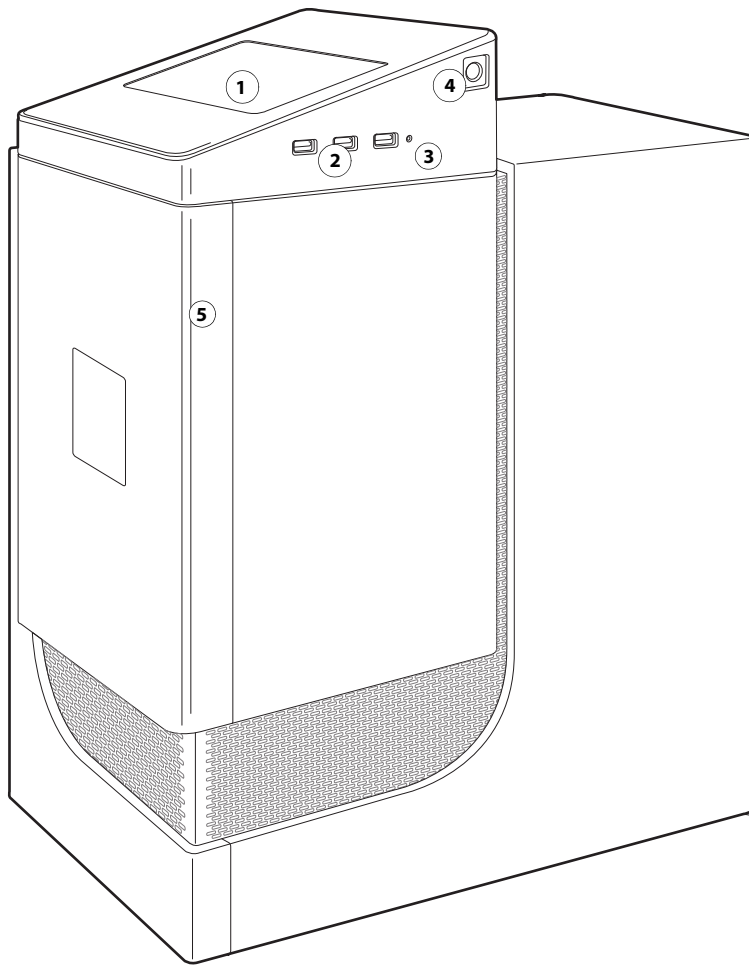
E-45 overview diagrams

Figure 19: Front and connector panel

Figure 20: Inside the front door



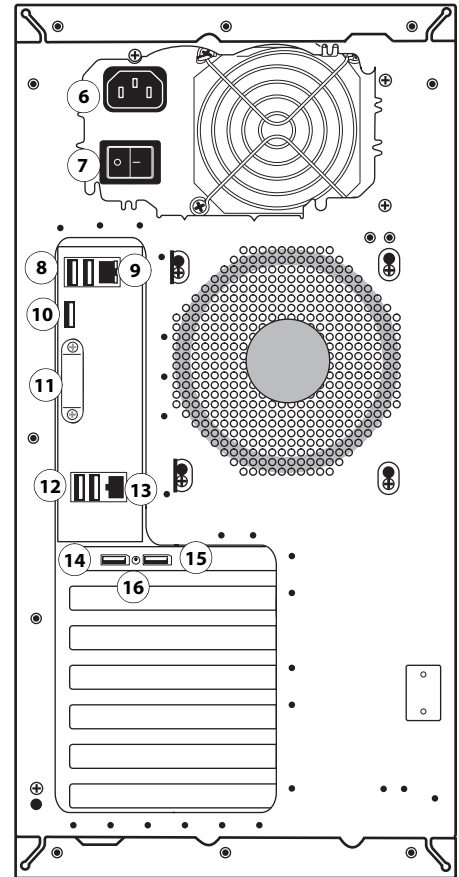
- 1 DVD drive (inside behind door)
- 2 Eject button (inside behind door)



A

A Front panel

- 1 *Fiery QuickTouch LCD*
- 2 *Type A USB 3.0 ports (x3)*
Note: Do not use the USB ports on the Fiery QuickTouch for keyboard/mouse connections for the service purpose.
- 3 *Fiery QuickTouch reset button*
- 4 *Power button*
- 5 *Front panel door*

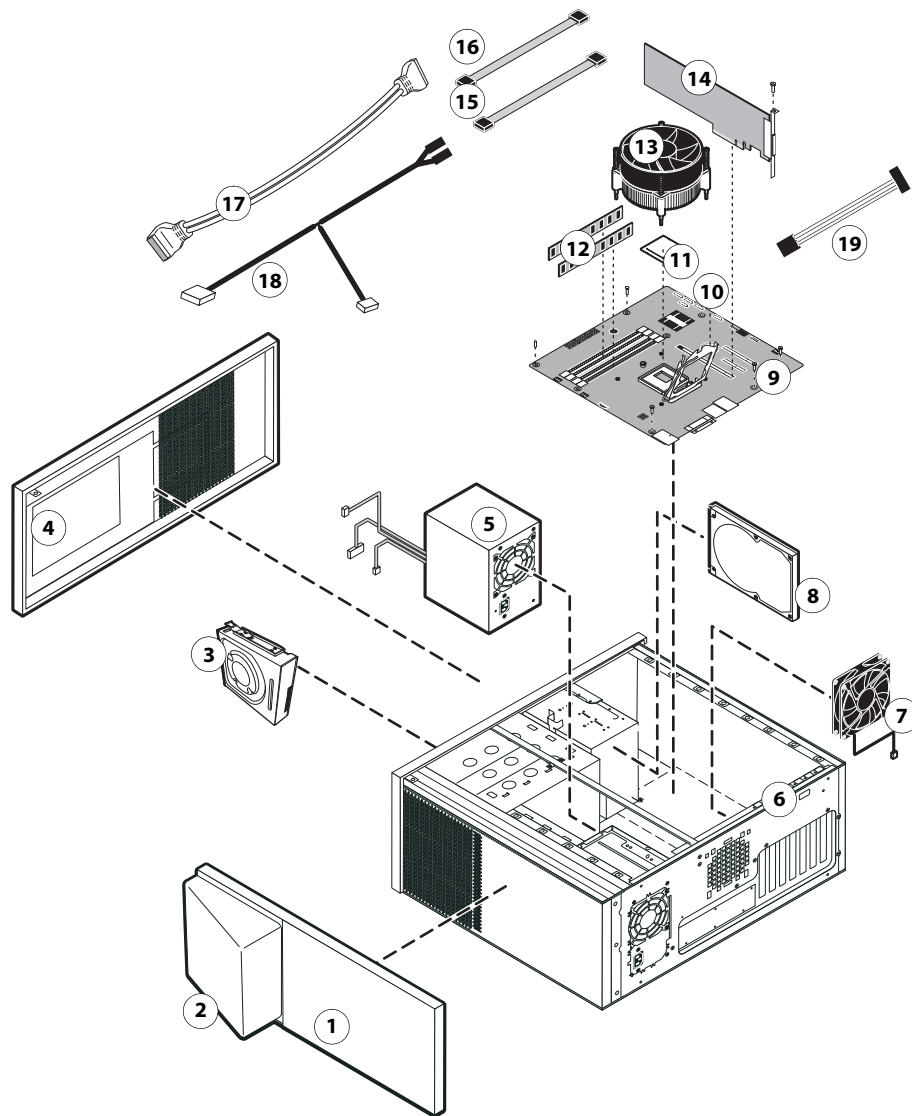


B

B Connector panel

- 6 *Power connector*
- 7 *Power switch*
+: Power On
-: Power Off
- 8 *Type A USB2 ports (x2)*
- 9 *Network port (Upper RJ-45)*
- 10 *Display port (for optional monitor)*
- 11 *DVI port (for optional monitor)*
- 12 *Type A USB3 ports (x2)*
- 13 *Crossover Ethernet cable port (Lower RJ-45)*
- 14 *Printer interface (Data Transfer Unit) cable port A (Y, M)*
- 15 *Printer interface (Data Transfer Unit) cable port B (C, K)*
- 16 *OFF/ON switch for power synchronization*
ON: Down
OFF: Up

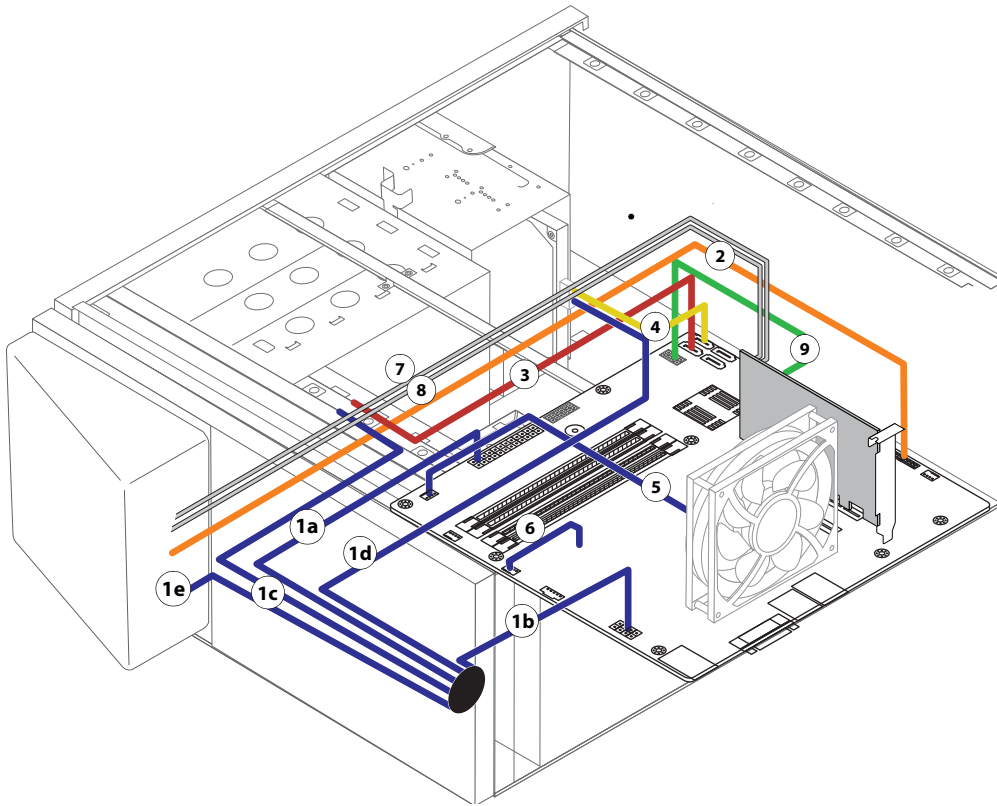
Figure 21: Exploded view of components



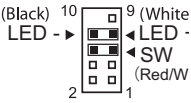
1 Top panel	7 Fan	13 CPU cooling assembly	17 Fiery QuickTouch USB3.0 cable
2 Fiery QuickTouch display	8 Hard disk drive	14 Printer interface board	
3 DVD drive	9 Motherboard	15 DVD drive data cable	18 Fiery QuickTouch power cable
4 Front panel	10 Battery	16 Hard disk drive data cables	
5 Power supply	11 CPU		19 10-pin power button cable
6 Chassis	12 DIMMs		

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

Figure 22: Power and data cable connections



Cable key	From	To (on motherboard connector)
1	Power supply cable	a. 24-pin power connector (J18) b. 8-pin power connector (PWRCONN1) c. DVD drive power connector (combined with data) d. Hard disk drive power connector e. Fiery QuickTouch power connector
2	Fiery QuickTouch USB cable	Motherboard connectors J26 (USB3.0 Header)
3	SATA Data cable	Motherboard SATA connector (SATA0)
4	SATA Data cable	Motherboard SATA connector (SATA1)
5	Rear fan cable	Motherboard connector J20 (FRONT FAN)
6	CPU fan cable	Motherboard connector J16 (If present, keep the cable cover on the CPU fan cable.)

7	Power switch cables	Fiery QuickTouch	J352connector (pin 5, 6) on the printer interface board	Align triangle on cable connector as shown.
8	LED cable	Fiery QuickTouch	J352connector (pin 7, 8) on the printer interface board	
9	10-pin power button cable	J351connector on the printer interface board	Motherboard FP Header connector (J15)	

Note: See the connection label attached inside the chassis.

Accessing internal components

Shut down and open the E-45 when you need to inspect or service internal components.


Shutting down the system

You can shut down the E-45 from the E-45 Fiery QuickTouch. When shutting down the E-45, do the following:

You can shut down the E-45 from the Fiery QuickTouch or the printer touch panel.

Note: If the power synchronization is set to ON, you can shut down the E-45 by turning off the printer using the main power switch.

When shutting down the E-45, do the following:

-  **Important:** Remember that when the E-45 is powered off, network access to the printer is interrupted. Always obtain permission from the network administrator before you take the E-45 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-45 through the Fiery QuickTouch, power off by holding down the power button on the side of the E-45 for up to eight seconds.

For more information on how to shut down the E-45, see [page 41](#).

Opening the E-45

To service internal components, open the E-45 as described in the following procedure.

To open the E-45

- Shut down the E-45 (see [page 50](#)).
- Remove all cables from the back of the E-45.
- Remove the E-45 from the furniture.

- 4 Remove all external panels necessary to access the component that you need to service.

At the minimum, you must remove the left panel to service the component. You may also need to remove other panels, depending on the component that you need to access. For guidelines on which panels to remove, see the service procedures that accompany a given component.

Note: When removing multiple panels from the E-45, use the following order:

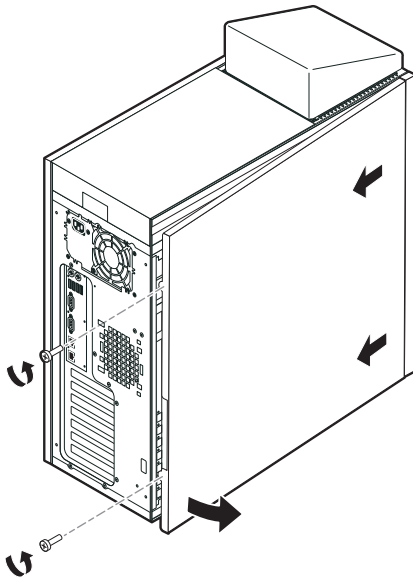
- Left side panel
- Right side panel
- Front panel
- Top panel with Fiery QuickTouch

- 5 Place the E-45 on a flat surface. Carefully position the E-45 so that it is standing in its normal position.

To remove the side panels

- 1 Remove the two screws at the bottom rear right of the chassis.

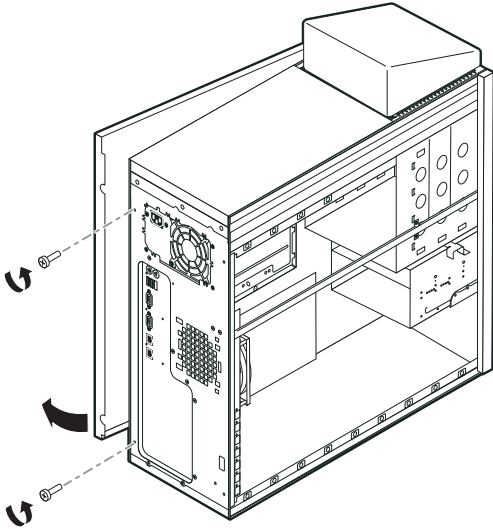
Figure 23: Removing the left panel



- 2 From the back of the unit, slide the right side chassis cover toward the rear of the unit and remove.

- 3 Remove the two screws at the bottom rear left of the chassis.

Figure 24: Removing the right panel

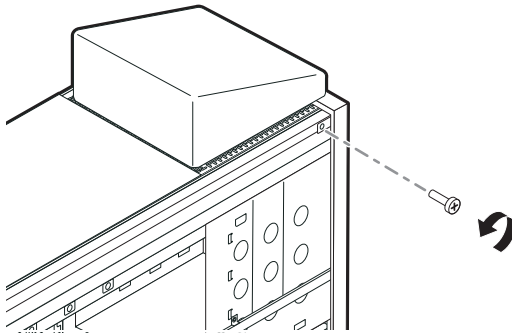


- 4 From the back of the unit, slide the left side chassis cover toward the rear of the unit and remove.

To remove the front panel

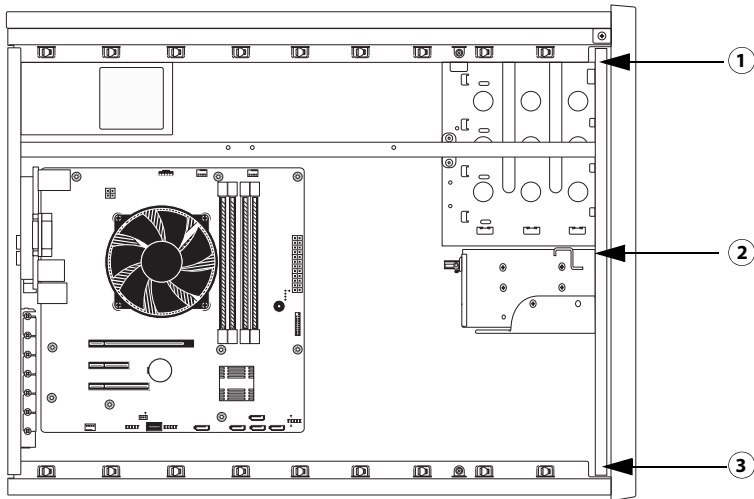
- 1 Remove the anchor screw from the front bezel.

Figure 25: Front bezel anchor screw



- 2 Release the six tabs and pull the front bezel off.

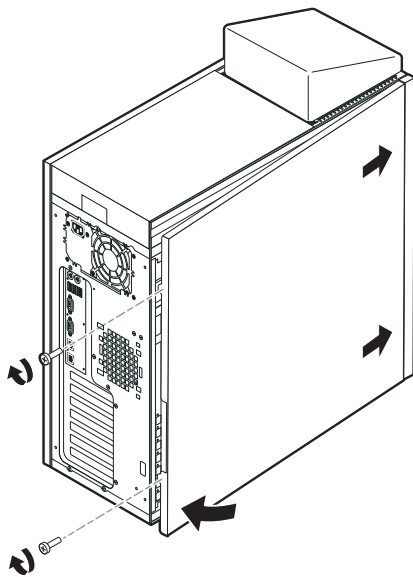
Figure 26: Front bezel tabs



- 1 Top tab (one on each side of bezel)
- 2 Middle tab (one on each side of bezel)
- 3 Bottom tab (one on each side of bezel)

To replace the chassis panels

- 1 Attach the front bezel to the front of the unit snapping tight the six tabs. See [Figure 26](#).
- 2 Insert the anchor screw to secure the front bezel. See [Figure 25](#).
- 3 Slide the right chassis cover into place and secure with two screws on backside of the unit.



- 4 Slide the left chassis cover into place and secure with two screws on backside of the unit.

Fiery QuickTouch display module

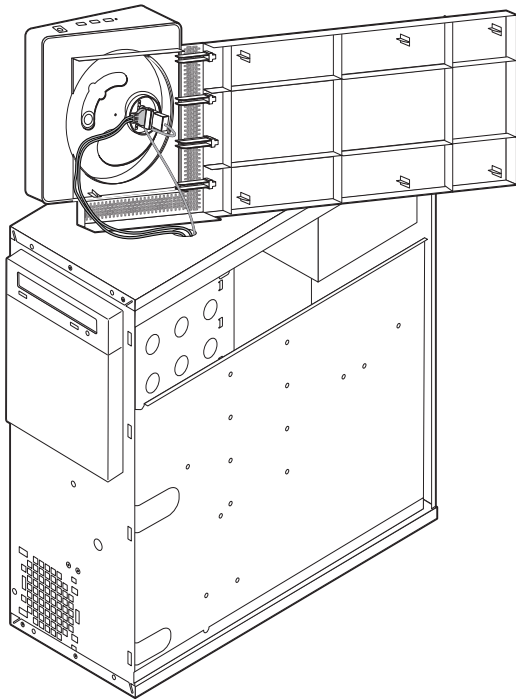
Fiery QuickTouch is attached to the top panel of the E-45.

Follow the directions to remove the chassis covers. See [“Opening the E-45”](#) on page 50. You will need to remove the side covers, then the front cover before you will be able to release the top bezel with the Fiery QuickTouch attached.

Caution: It is highly recommended that you use a screwdriver with a magnetic tip when removing or replacing screws on the Fiery QuickTouch. If you do not, the screws you remove or replace might fall inside the Fiery QuickTouch device.

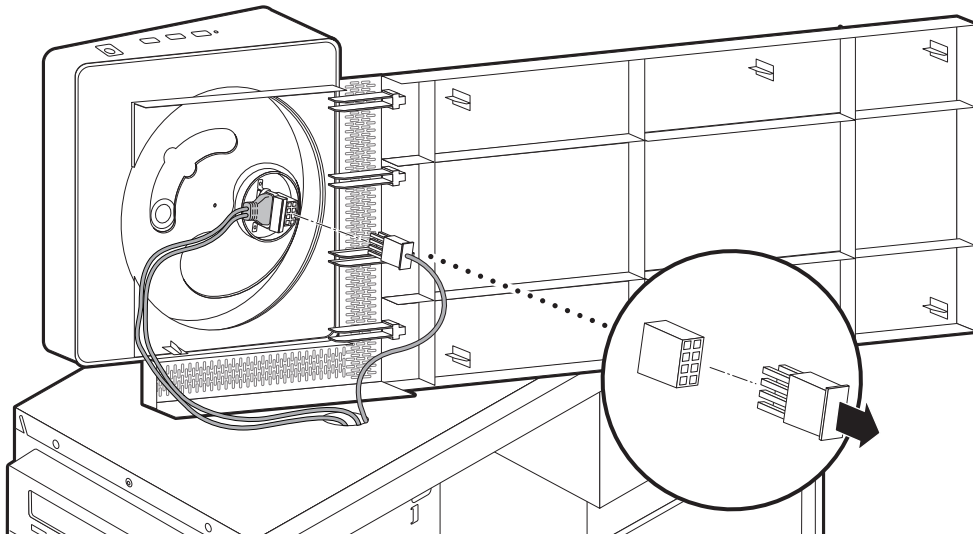
To remove the Fiery QuickTouch

- 1 Follow the instructions to remove the side and front chassis covers.
- 2 To remove the top bezel, slide the bezel forward and release it from the top of the chassis.
- 3 Stabilize the unit and set the Fiery QuickTouch on its side atop the unit.



- 4 Remove the two connectors to the Fiery QuickTouch.
 - a Remove the tie-wrap that bundles the power cable and a tab on the support bracket for USB connector.

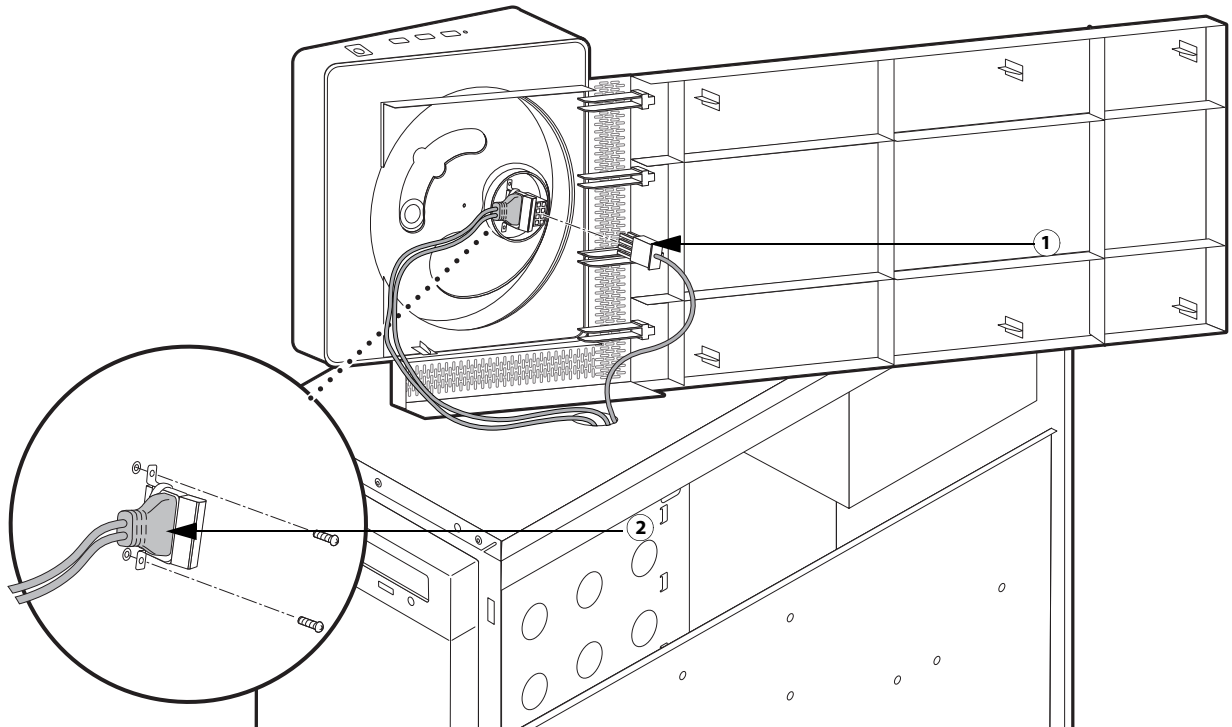
- b** Remove the power harness by unplugging it.



- c** Remove the two screws from the USB connector and then unplug the connector.



Caution: Use a screwdriver with a magnetic tip so you do not drop a loose screw into the Fiery QuickTouch unit.

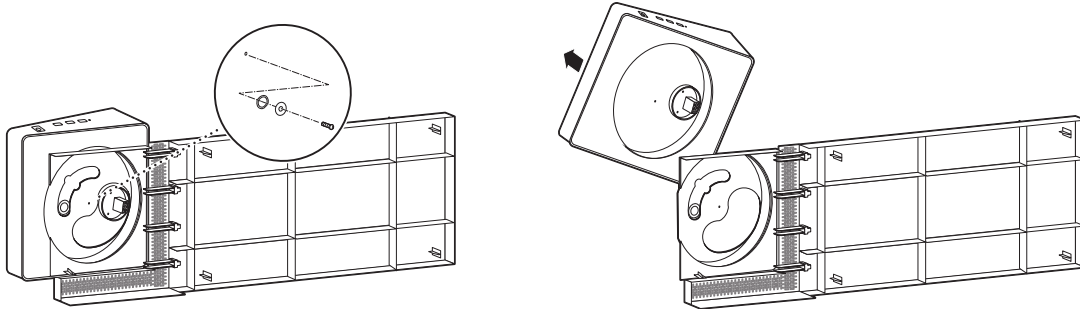


1 Power harness connector

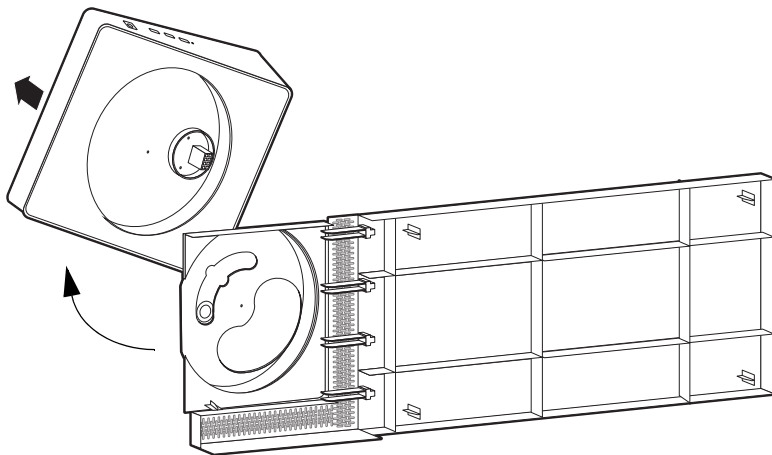
2 USB connector

- 5** Turn the unit so it is faced down on the work surface.

- 6 Remove the single screw in the center, then remove the washer and spring washer.



- 7 Rotate the Fiery QuickTouch 45 degrees.



- 8 Remove the top bezel.

Replace the Fiery QuickTouch

- 1 Attach the new Fiery QuickTouch part to the top bezel by rotating the top bezel 45 degrees, then rotate until the bezel and Fiery QuickTouch align. Insert the spring washer, then the screw with washer and tighten.
- 2 Once attached, ensure that the Fiery QuickTouch moves properly from side to side.
- 3 Place the top bezel with Fiery QuickTouch atop the unit on its side.
- 4 Plug in the USB cable and insert the plug so that the mark on the cable and mark on the internal board line up.
- 5 Insert the two screws to secure the plug and grounding bracket.



Caution: Use a screwdriver with a magnetic tip so you do not drop a loose screw into the Fiery QuickTouch unit.

- 6 Insert the power harness and loop it around guides to allow the Fiery QuickTouch to move freely.
- 7 Use a tie-wrap to secure the power cable to the tab on the supporting bracket for USB connector.
- 8 Replace the top bezel on top of the unit and slide back in place.

9 Check that the bezel cover extends over the rear sheet metal to be properly in place.

10 Replace the chassis panels (see [page 53](#)).

Removing and replacing boards

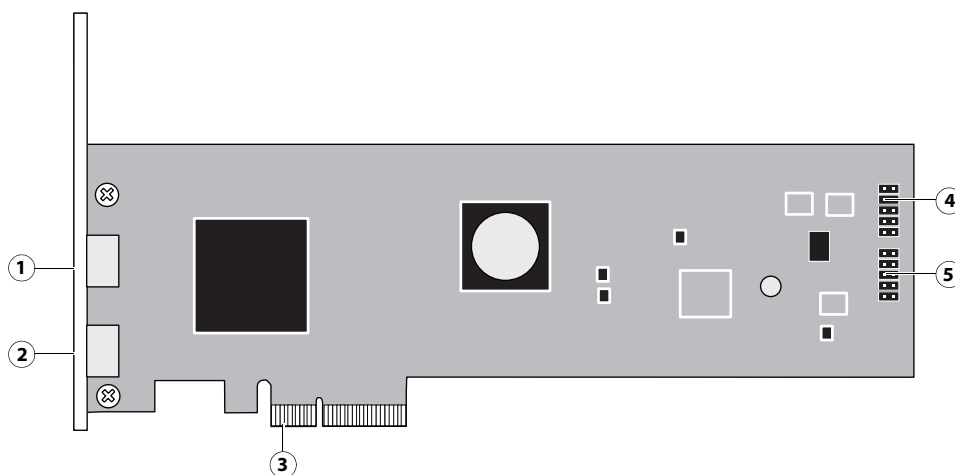
This section includes procedures for removing and replacing the following boards:

- Printer interface board
- Motherboard

The E-45 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-45 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 printer interface (Data Transfer Unit) cable available on the E-45 connector panel.



- | | |
|---------------------------------------|---|
| 1 Data Transfer Unit B (CK) connector | 4 J352 connector for LED/SW cables from the Fiery QuickTouch panel |
| 2 Data Transfer Unit A (MY) connector | |
| 3 PCIE x16 connector | 5 J351 connector for 10-pin power button cable to motherboard J15 connector |

To remove the printer interface board

When you handle electronic components, follow electrostatic discharge precautions (see [page 10](#)).

1 Shut down and open the E-45 (see [pages 50](#)).

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

2 Make sure that the crossover Ethernet cable is removed from the lower RJ-45 connector on the E-45 connector panel.

- 3 Remove the printer interface (Data Transfer Unit) cables that connect the printer interface board and the printer.
- 4 Remove the board mounting bracket screw that attaches the printer interface board to the chassis.
- 5 Remove the power/LED cables from the J352 connector, and the 10-pin power button cable from the J351 connector.
- 6 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.

- 7 Place the printer interface board in an antistatic bag.

To replace the printer interface board

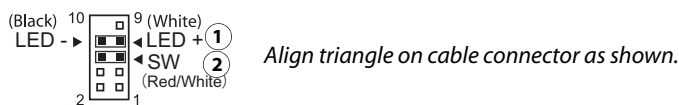
When you handle electronic components, follow electrostatic discharge precautions (see [page 10](#)).

- 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/LED cables from the front panel to the J352 connector.

Figure 27: J352 connector on the printer interface board



- 1 LED cable connection
- 2 SW cable connection
- 3 [Figure 22](#) on page 49).
- 4 Connect the 10-pin power button cable from the FPIO_1 connector to the J351 connector (see [Figure 22](#) on page 49).
- 5 Reassemble the E-45 and verify its functionality (see [page 85](#)).

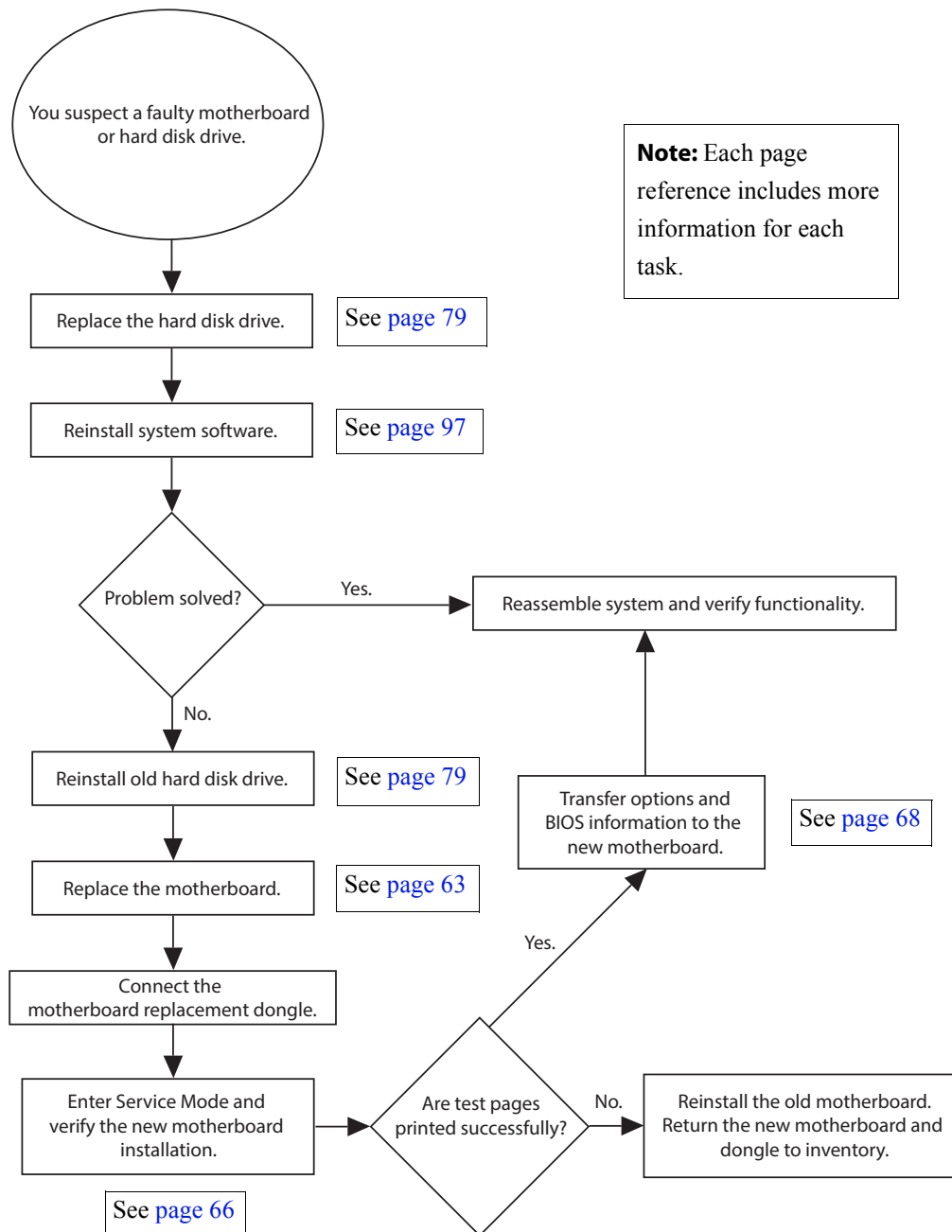
Motherboard



Important: If you are removing the motherboard in order to replace it with a new motherboard, review the troubleshooting and motherboard cautions on [page 63](#).

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-45 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, rear fan cable, hard disk drive data cable, DVD drive power and data combination cable, power/LED cable, 10-pin power button cable, and Fiery QuickTouch USB port cables)

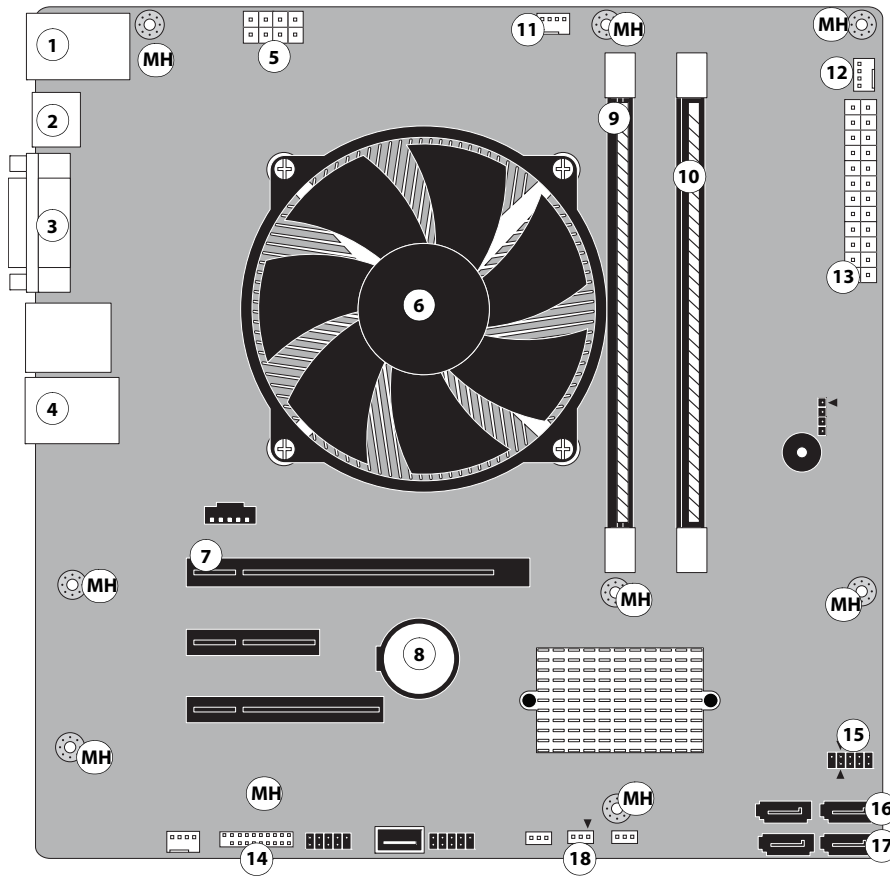
This section also includes information about the following:

- 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 10](#)). 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 28: Motherboard



- | | | |
|--|-------------------------------------|---|
| 1 Type A USB ports and network port | 8 Battery (XBT1) | 15 Power switch and LED (J15) |
| 2 Monitor port (DisplayPort) | 9 DIMM0 (A1) | 16 SATA0, DVD drive data connection |
| 3 Monitor port (DVI) | 10 DIMM2 (B1) | 17 SATA1, Hard disk drive data connection |
| 4 Crossover Ethernet port/ Type A USB ports (x2) | 11 CPU fan power (CPU FAN) | 18 Clear CMOS Jumper (J4) |
| 5 8-pin power connector (PWRCONN1) | 12 Rear fan (FRONT FAN) | MH Mounting holes |
| 6 CPU cooling assembly | 13 24-pin power connector (J18) | |
| 7 Printer interface board (PCIE_X16_SLOT) | 14 Fiery QuickTouch USB ports (J26) | |

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-45 (see pages 50).

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.

- Rear fan cable
- Fiery QuickTouch power/LED cable
- Fiery QuickTouch USB port cable
- DVD drive cables:
 - SATA data cable
 - Power and data combination cable
- Hard disk drive cables:
 - SATA data cable
 - Power supply cable
- 24-pin motherboard power cable
- 8-pin motherboard power cable
- CPU fan cable
- In-line spectrophotometer cable

For motherboard connector locations, see [page 59](#).

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 61.

- 1 Remove all the mounting screws securing the motherboard to the chassis (for screw locations, see [page 61](#)).
- 2 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 104.
- Inspect all cables and internal components as described on pages “[Checking external connections](#)” on page 104 and “[Checking internal components](#)” on page 105.
- 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-45 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 67](#).)

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

The E-45 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-45. 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 67](#)).**
- **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 71](#)) 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 69](#)).
- Remove the CPU and cooling assembly from the old motherboard and install them on the new motherboard (see [page 69](#)). 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 72](#).

 **Important:** Do not transfer the BIOS chip from the old motherboard onto the new motherboard. Doing so can damage the E-45. 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 82](#)).

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

2 Replace the following cables (see [page 61](#) for the connector locations).

- CPU fan cable
- 24-pin motherboard power cable
- 8-pin motherboard power cable
- Fiery QuickTouch power/LED cable
- Hard disk drive cable
- DVD drive cables:
 - Power and data combination cable
 - SATA data cable
- Fiery QuickTouch USB port cables
- Rear fan cable
- In-line spectrophotometer

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

- 4 Replace the printer interface board (see [page 61](#) 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-45 to overheat.

- 5 Replace the 10-pin power button cable that connects the printer interface board (J351 connector) and the motherboard connector (J15).
- 6 If you reinstalled the old motherboard, reassemble the E-45 and verify its functionality (see [page 84](#)).
- 7 If you replaced the motherboard with a new motherboard, do the following:
 - Remove the battery (see [page 73](#)).
 - Wait two minutes to allow the motherboard electrical components to fully discharge.
 - Reinstall the battery.
 - Reassemble the E-45 (see [page 84](#)).
 - 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 Fiery QuickTouch panel, 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 67).

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 67.



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-45 is powered off, no media is in the DVD drive, you have installed a new motherboard, and that you have reassembled the E-45 and attached external cables.

- 1 Make sure the E-45 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-45 starts up successfully in Service Mode.

- 4 Power on the E-45 and allow it to boot without interruption.

At the log on screen, 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-45 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-45 Fiery QuickTouch.

- 5 Print the E-45 Test Page.
- 6 Ask the network administrator to connect the E-45 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 67](#)), 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 104.

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-45 is fully assembled with the new motherboard, and verified in Service Mode (see [page 67](#)).

- 1** Verify that all power is turned off on the E-45.
- 2** Insert the motherboard replacement dongle into a USB port.
- 3** Turn on the E-45.

Wait until the E-45 reaches Idle.

- 4** On the E-45 Fiery QuickTouch, select MB Replacement.

The Fiery QuickTouch displays “Reading dongle...”, then displays the number of licenses left to apply to the transfer.

- 5** Select Yes to confirm the license transfer.

The Fiery QuickTouch 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-45.
- 7** Remove the motherboard replacement dongle after the E-45 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-45 (see [page 50](#)).

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-45 (see [page 50](#)).

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

- 2 Remove the printer interface board from the motherboard (see [page 57](#)).
- 3 To release a DIMM, push outward on the levers on each side of the DIMM.
- 4 Pull the DIMM straight out of the socket.
- 5 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.

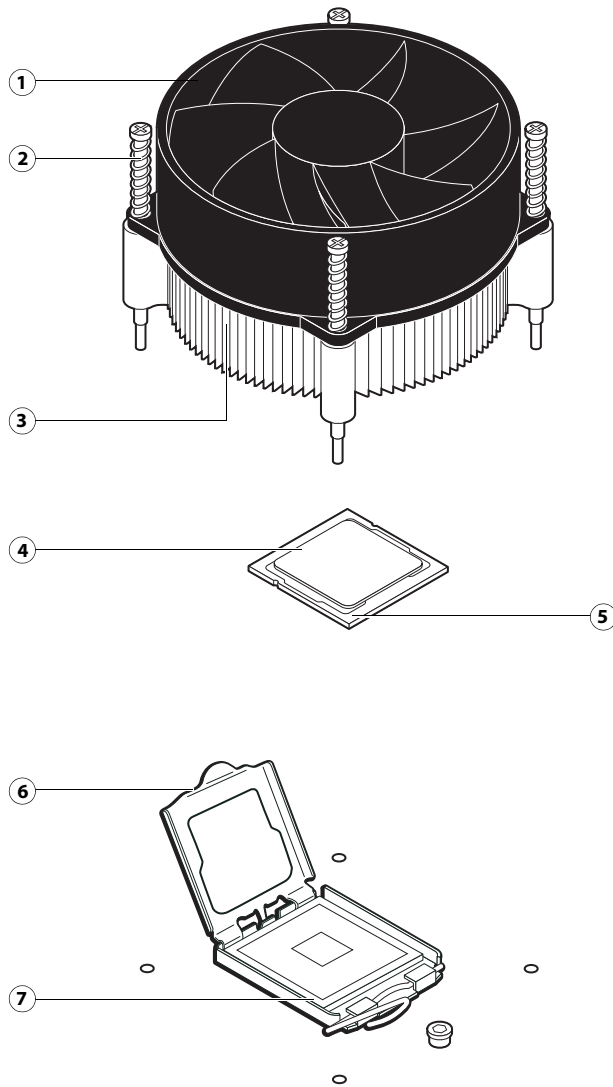
- 6 If you installed a new DIMM, make sure to reset the time and date in Setup (see Configure Help for more information).
- 7 Replace the printer interface board (see [page 58](#)).
- 8 Reassemble the E-45 and verify its functionality (see [page 85](#)).

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 59](#)), disconnect the CPU fan cable from the motherboard, and then remove the cooling assembly from the E-45 (see [page 70](#)). The CPU cooling assembly consists of a fan and a heatsink.

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

Figure 29: 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-45 (see pages [50](#)).

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

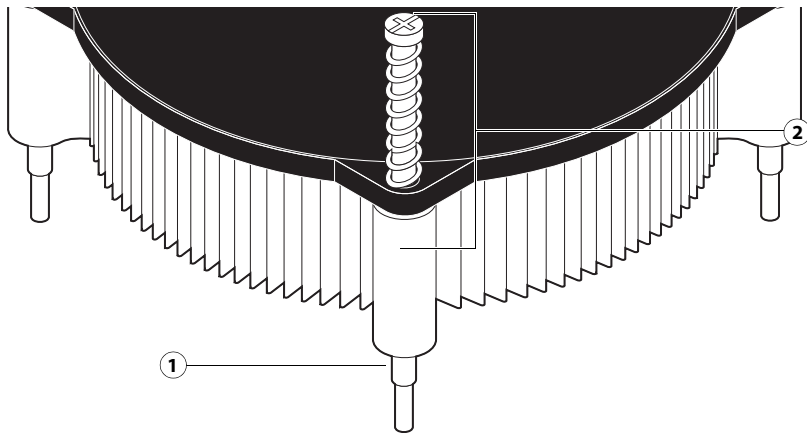
2 Remove the CPU fan cable from motherboard connector CPU FAN.

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.

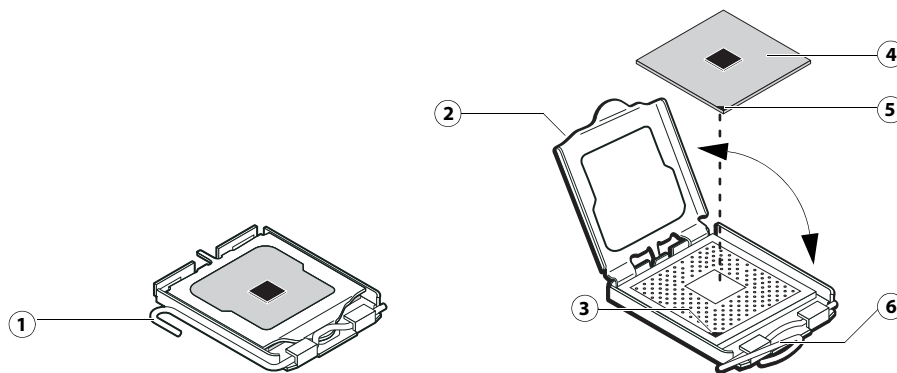
6 Place the CPU in the socket.

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 30: 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-45 and verify its functionality (see [page 85](#)).

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.

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

CAUTION: 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.

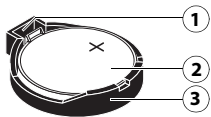
AVISO: Existe o perigo de explosão se a bateria for substituída por uma do tipo incorreto. Substitua somente por uma do tipo recomendado pelo fabricante. Descarte as baterias conforme as normas locais.

GEVAAR: Er bestaat ontplofingsgevaar 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-45 (see pages [50](#) and [50](#)).
- 2 Locate the battery on the motherboard (see [Figure 28](#) on page 61).
- 3 Carefully push the clip away from the battery until the socket ejects the battery.

Figure 31: Motherboard battery



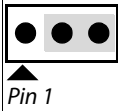
- 1 *Clip*
 - 2 *Battery*
 - 3 *Socket*
- 4 Slide the battery out of its socket.
 - 5 Wait two minutes to allow the motherboard electrical components to fully discharge.
 - 6 To insert a new battery, slide it into the socket so that the positive (+) side of the battery faces up.
 - 7 Press the battery 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 84](#)).
 - 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-45 to hang when user software is being installed on the E-45.

Jumpers

Jumper configurations should not be changed.

Jumper	Description
<div>J101</div> <div></div>	<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-45 chassis draws air into the E-45 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-45. 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.

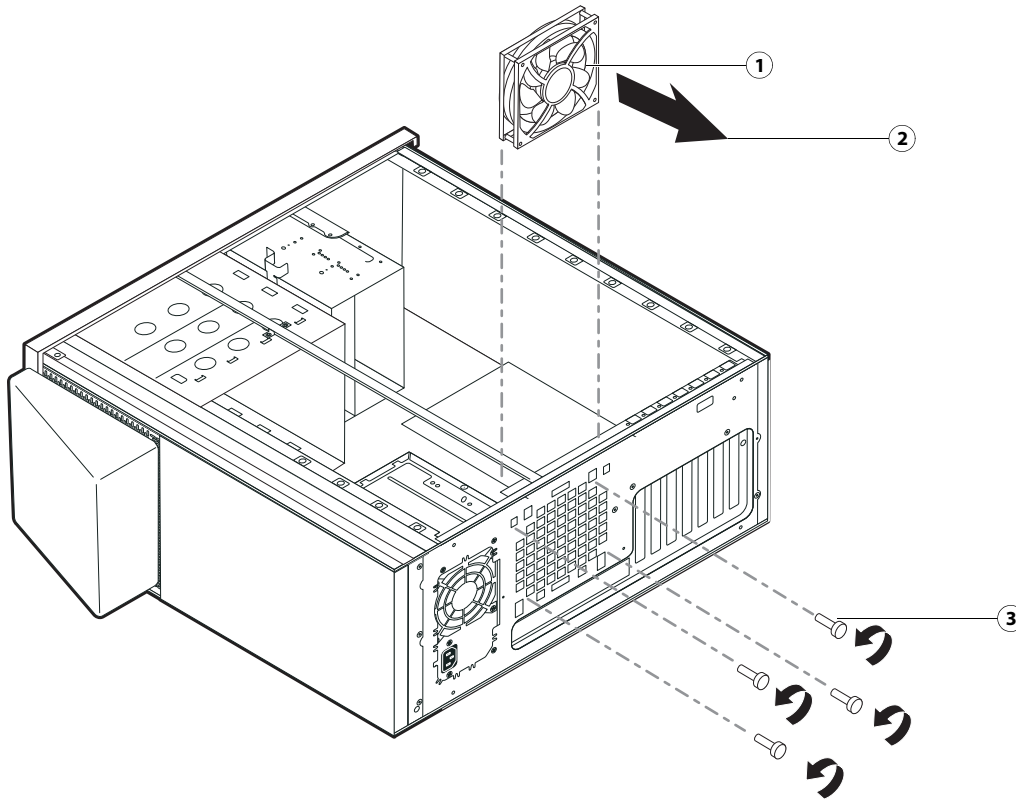
To remove the fan

- 1 Shut down, and then open the E-45 (see pages 50 and 50).
To access the fan, you must remove the left panel.
- 2 Remove the fan cable from motherboard connector FRONT FAN.

- 3 Remove the four screws from the connector panel, while holding the fan assembly from the inside.

Set aside the screws.

Figure 32: Removing/replacing the fan



1 Fan assembly

3 Screw (1/4)

2 Airflow direction

- 4 Remove the fan from the chassis.

To replace the fan

- 1 Align the fan with the four holes on the connector panel.
- 2 Install the four screws you removed earlier to secure the fan assembly to the connector panel.
- 3 Connect the fan cable to motherboard connector FRONT FAN.
- 4 Reassemble the E-45 and verify its functionality (see [page 85](#)).

Power supply

This section describes how to remove and replace the power supply. For more information about the power supply, see [“Physical specifications”](#) on page 120.



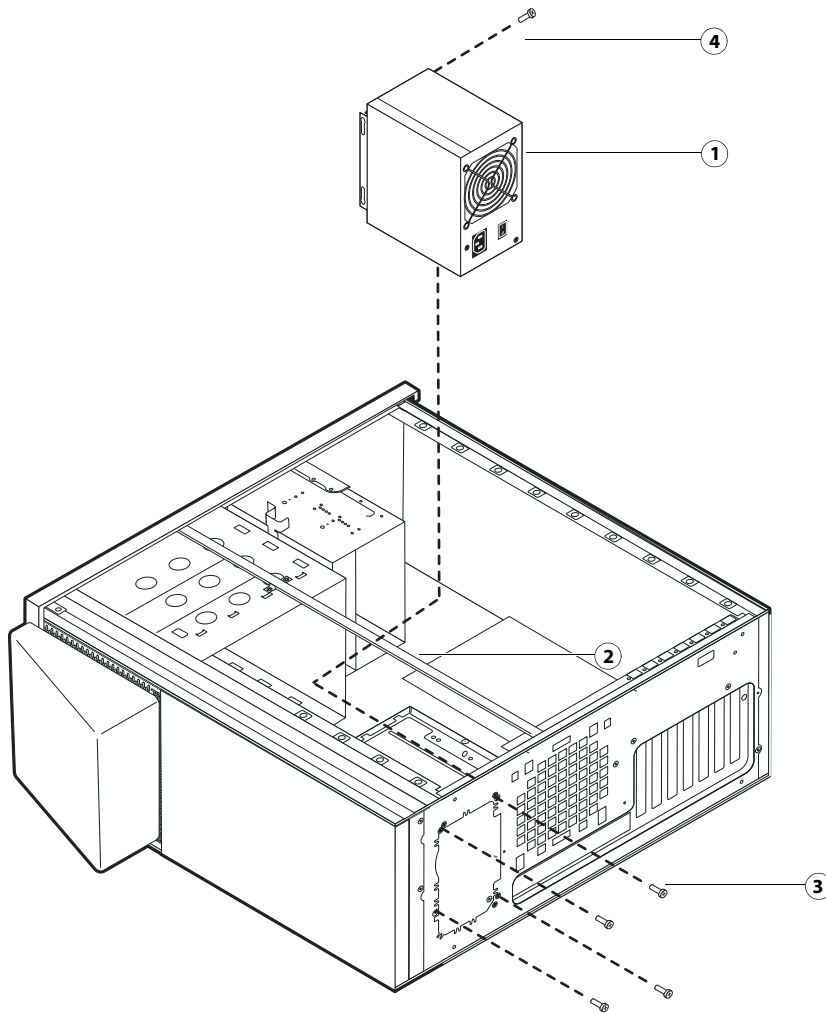
Caution: Do not open the power supply for service or troubleshooting purposes. Opening the power supply will void the warranty.

To remove the power supply

- 1 Shut down the E-45, remove all cables from the back, and then open the system (see [page 50](#)).
To remove the power supply, you must remove the left and right panels.
- 2 Remove the 24-pin power cable from connector J18 on the motherboard.
- 3 Remove the 8-pin power cable from connector PWRCONN1 on the motherboard.
- 4 Remove the SATA power cables from the hard disk drives.
- 5 Detach the SATA power cable from the power connector of the dual cable for the DVD drive.
- 6 Detach the 8-pin power cable from the connector from the Fiery QuickTouch.
- 7 Remove any tie-wraps securing the power cables to the chassis.
- 8 Place the E-45 in the upright position.
- 9 Remove the motherboard from the chassis (see [page 62](#)).
- 10 Remove the four connector panel screws that secure the power supply to the back of the chassis (see [Figure 33](#)).
- 11 While squeezing the power supply unit, remove the inside screw with washer.

12 Slide the power supply toward the front panel and take the power supply off from under the chassis bar.

Figure 33: Removing/replacing the power supply



- 1 Power supply unit
- 2 Chassis bar
- 3 Screw (1 of 4)
- 4 Inside screw

Note: To service the power supply, place the E-45 in an upright position.

To replace the power supply

- 1 Make sure that the E-45 is in upright position.
- 2 Position the power supply inside the chassis (see [Figure 33](#) on page 78).

Insert the power supply unit under the chassis bar, and place the power supply on top of the left and right chassis bars. Position the power supply so that it is flush against the connector panel.
- 3 Install the inside screw with washer to secure the power supply unit to the chassis top.

- 4 Install the four screws that secure the power supply to the connector panel of the chassis.
- 5 Replace the motherboard (see [page 64](#)).
- 6 Connect one of the SATA power cables to the power connector on the dual data/power cable that connects to the DVD drive.
- 7 Connect three of the other SATA power cables to the SATA power connectors on the hard disk drive.
- 8 Connect the power cables to the motherboard (see [Figure 22](#) on page 49 and [Figure 28](#) on page 61):
 - 8-pin power cable to connector PWRCONN1
 - 24-pin power cable to connector J18
- 9 Replace the tie-wraps that you removed earlier.
- 10 Reassemble the E-45 and verify its functionality (see [page 84](#)).

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 restore the backup (see [page 86](#)) or install system software as described on [page 97](#). (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 63](#)), 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 104](#)) 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 63](#)).

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-45.
- 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-45 components.

The hard disk drive is mounted inside a bracket (see [Figure 35](#) on page 82).

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

- The appropriate system software and documentation for the E-45 that you are servicing.
- A compatible version of the user software for the networked computers that will print to the E-45.

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, create a system backup ([page 86](#)), and print the Configuration page and Font List.
- 2 Shut down and open the E-45 (see [pages 50](#)).
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.

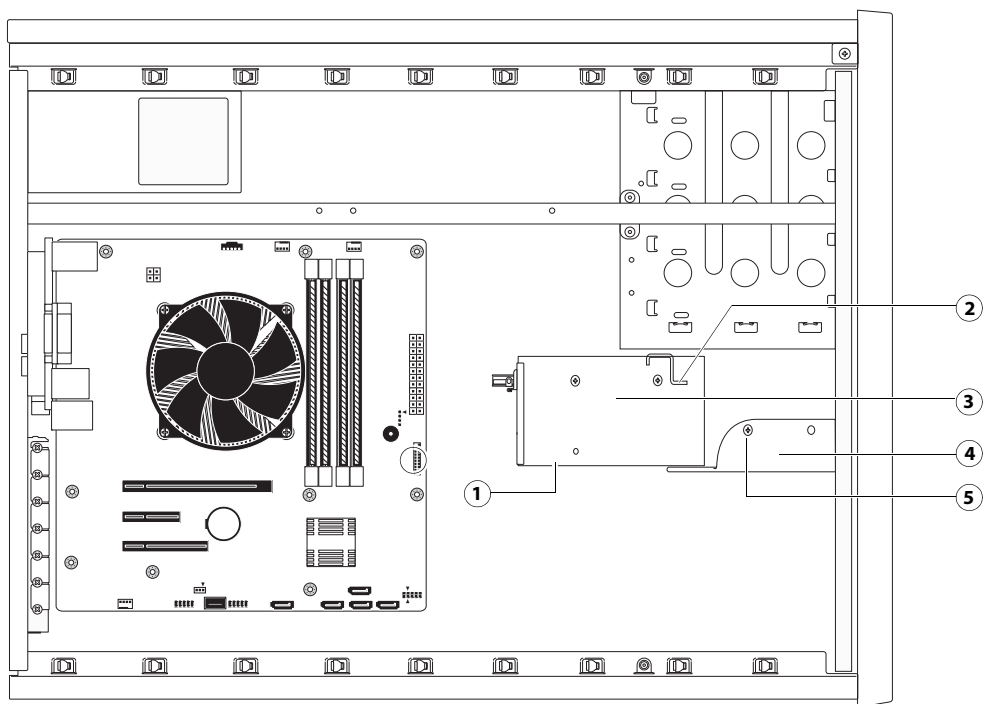
Unlock the hard disk drive bracket by moving the latch toward the connector panel, and then sliding the bracket off the bracket shelf.



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 34: Removing/replacing the hard disk drive bracket

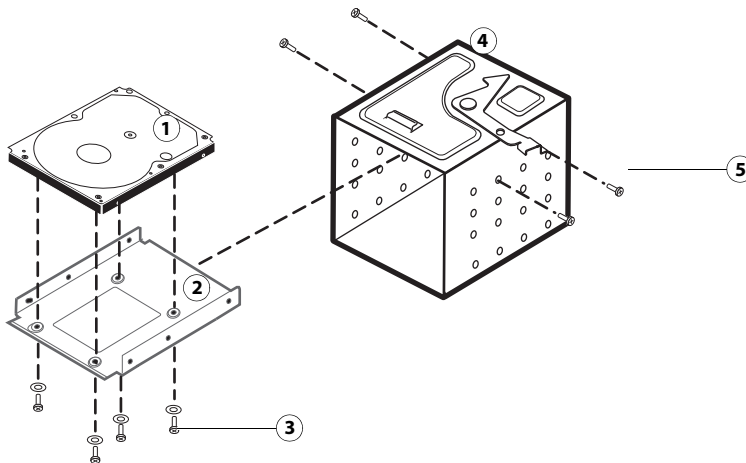


- | | | | |
|---|-------------------------|---|-------|
| 1 | Tension points | 4 | Shelf |
| 2 | Latch | 5 | Screw |
| 3 | Hard disk drive bracket | | |

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 35: Removing/replacing the hard disk drive from/in the hard disk drive bracket



- 1 2.5 inch HDD
- 2 Mounting bracket for 2.5 inch HDD
- 3 Screw with washer (1/4)
- 4 HDD sled
- 5 Screw (1/4)

- 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-45 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 63 and 67).

- 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.

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 screws 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 28](#) on page 61).
- 7 Connect the power cable to the hard disk drive.
- 8 Reassemble the E-45 (see [page 85](#)).
- 9 If you replaced the hard disk drive with a new hard disk drive, install system software (see [page 97](#)).
If a startup error displays on the Fiery QuickTouch when you power on the E-45, check the connections.
- 10 Verify functionality (see [page 85](#)).

DVD drive

The DVD drive is installed in the front of the chassis. The drive is used to install system software and archive data on writable media.

To remove the DVD drive

- 1 Shut down the E-45, remove all cables from the back, and then open the system (see [page 50](#)).

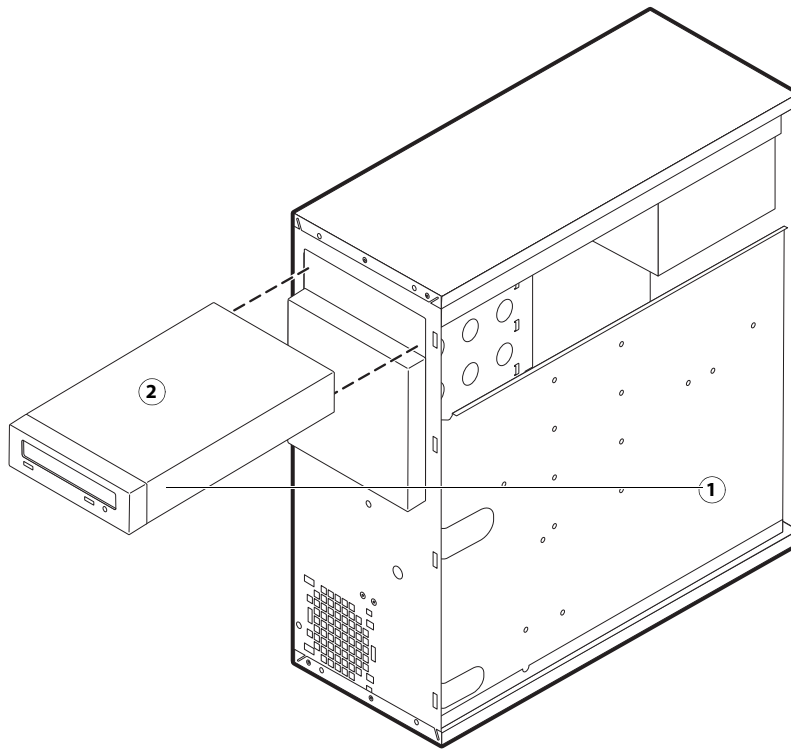
To access the DVD drive, you must remove the left, right, and front panels from the chassis.

- 2 Remove the data/power cables from the dual connector on the back of the DVD drive.

If you are removing the cable assembly to replace it with a new cable assembly, detach the other ends of the cables from the motherboard and the power supply.

- 3 Release the front latches on both side of the DVD drive by squeezing the levers, and pull the DVD drive out of the slot.

Figure 36: Removing/replacing the DVD drive



1 Latch lever (1/2)

2 DVD drive

- 4 If you are replacing the DVD drive with new one, remove the eight screws on the side of the DVD drive and remove the ears.

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

To replace the DVD drive

- 1 If you are installing the new DVD drive, attach the ears on both side of the DVD drive using the eight screws you removed earlier.
- 2 Insert the DVD drive into the front panel cutout until the latch snaps.
- 3 Connect the data/power cables to the connectors on the back of the DVD drive.

Make sure that the other ends of the cable are connected to the power supply and to Mini SAS on the motherboard.

- 4 Reassemble the E-45 and verify its functionality (see [page 84](#)).

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 104](#).

To reassemble the E-45 and verify functionality

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

When routing cables inside the E-45, 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-45 panels
 - Cable slack is secured with a tie-wrap
- 2 Restore the E-45 to the upright position.
 - 3 Replace any panels that you removed earlier, as described on [page 50](#).
 - 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 67](#)).
 - 5 If the E-45 is to be mounted on the furniture with the monitor, see the reassembly instructions that is provided with the furniture assembly ([page 122](#)).
 - 6 Connect the power cable to the E-45 (see [page 18](#)).
 - 7 Connect the E-45 to the printer (see [page 21](#)).
 - 8 Print the Test Page and Configuration page.
 - If pages do not print, verify that the interface cables are properly connected.
 - 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-45 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. This backup captures all settings, files, and jobs on the E-45. You can restore this backup after you replace the HDD.

- Fiery System Restore

You can access Fiery System Restore from the WebTools or Fiery QuickTouch. This backup captures all settings and files on the E-45. You can create a backup and restore the backup when the E-45 is not working. You can also schedule the automatic backup. This method does not require you to use the System Software DVD 1.

See [Table 3](#) for more detailed information on the Fiery System Installer and Fiery System Restore.

- Command WorkStation and Configure WebTools

This backup captures the customer settings and data. You can restore the custom settings after you reinstall the system software or upgrade to the newer version.

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 88.

Table 3: 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 or Fiery QuickTouch: Fiery System Restore > Manual Backup > Media selection > 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

Backup method	Description of backup image	Bootable option	Possible destination	Restore method
Fiery System Restore in WebTools or Fiery QuickTouch: Fiery System Restore > Manual Backup > Media selection > 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
Fiery System Restore in WebTools or Fiery QuickTouch: Fiery System Restore > Schedule 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 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 • Fiery System Restore



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 Fiery System Restore (from Command WorkStation, WebTools, or Fiery QuickTouch), 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 88.
- To create a backup using Fiery System Restore, see [“Using Fiery System Restore”](#) on page 91.

- To create a backup using Fiery System Installer, see [“Using Fiery System Installer”](#) on page 93.

When backing up an existing E-45 installation

- For an existing E-45 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. See the System Update log for patch information. See [“System Update Log”](#) on page 88.
 - 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-45. See “Backing up the system configuration”.
 **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-45.
- 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, all the existing data in the drive will be lost when you create a backup on these media.

System Update Log

To read a list of applied system updates, you must print a system configuration page. The applied system updates are listed in the Configuration page sections: Fiery Updates, Application Updates, and OS Updates. If there have been no patches added to the system software, the System Updates sections will not be listed in the Configuration page nor will the System Updates be listed in the Fiery Ticker.

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
- Command WorkStation settings (if you are using a keyboard, monitor, and mouse)
- 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-45 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 WebTools

- 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-45 by entering the server name or IP address of the E-45.
- 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-45 to its previous state using a previously-saved system configuration file. For more information about the system configuration file, see [page 89](#).

If you could not save a system configuration file, you must configure Setup. After you exit Setup and the E-45 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-45 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-45 by entering the server name or IP address of the E-45.
- 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 89](#).
- 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-45 for quick recovery later when any problem happens. You can restore the E-45 either from images stored on the local hard disk, or from a bootable USB drive. Fiery System Restore also provides the feature of creating the scheduled backups.

You must log in to the E-45 as a system administrator to use the Fiery System Restore features.

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

To access Fiery System Restore on Fiery QuickTouch

- 1 On Fiery QuickTouch, tap the Quick launch icon on the bottom-left corner of the screen.
- 2 Tap the Fiery System Restore icon and log in as a system administrator.
- 3 Follow the on-screen menus to schedule automatic backups, manually back up the E-45, or restore the E-45.

To access the Fiery System Restore from Command WorkStation

- 1 Start Command WorkStation and login to the E-45 with Administrator privileges.

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

- 2 From Server menu, select Device Center.
- 3 Click Tools on the left side, and then click Fiery System Restore.

The Fiery System Restore will be displayed on a default web browser window.

To access the Fiery System Restore features on WebTools

- 1 From a client computer, start a web browser and enter the IP address or the DNS name of the E-45.
- 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.

Note: The following tasks describe using Fiery System Restore on WebTools. Fiery QuickTouch uses the same menu selections and features for backing up and restoring the E-45. Refer to the following tasks if you are using Fiery System Restore on Fiery QuickTouch.

To setup automatic scheduled backup

- 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-45.

Note: The backup process takes more than an hour to complete and it requires the E-45 to be Idle status. If the E-45 is not in Idle status, the backup process does not start.

- 3 Click Save.

To create a manual backup

- 1 In Fiery System Restore window, click **Backup Now**.

If you have not logged in as an Administrator user, you are required to do so. Enter the administrator's password (default password is Fiery.1), and click **Log In**.

- 2 In Backup dialog box, select the media in which you want your backup file saved, and click **Continue**.

- **USB:** Select this option when you create a backup on a USB flash drive. If you want to create a backup of the current E-45 on the USB flash drive, select **New image**. You can select **Create bootable image** to make the USB flash drive a bootable media.

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

Note: The minimum size for the USB flash 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 flash 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.

- **Internal hard drive:** Select this option when you create a backup on the HDD of the E-45. You must specify the file name of the backup image. The default image name is the server name of the E-45.

- 3 Make sure to connect the USB drive to the USB connector on the E-45.

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

- 4 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-45.

If you restore a backup image stored on the USB drive, be sure to attach the USB drive to one of the USB drive on the E-45.

- 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-45.

5 Click Continue.

Note: The E-45 must remain powered ON during the backup or restore process.

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 96. You need to connect a monitor, keyboard, and mouse to the E-45.

Using Fiery System Installer

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



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-45. Use this option only when the system backup is not available. See also [“Installing system software”](#) on page 99.
- **Restore using a backup image or the recovery partition:** You can restore the system by selecting the backups that you created before. If there is no backup available in the system or in any attached devices, you can only perform the restore from the recovery partition.
- **Back up hard disk drive(s):** Use this option when you create the system backups. You can specify the location of the backup, file name, and other attributes of the backups.
- **Platform Utilities:** You can perform the backup management tasks from this option such as erasing hard disks or using Windows Task Manager to explore the system.

Note: The Platform Utilities is available only on the monitor.

Note: You can use the E-45 Fiery QuickTouch 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 1 DVD into the DVD drive of the E-45.
- Reboot the E-45 (see [page 41](#)).
- 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, 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-45 from the backup media to avoid the situation where the HDD fails and cannot boot the E-45. See [page 94](#) 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 USB drive or external hard disk drive will be lost when you create a backup on these media.

- 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-45.

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-45.

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 1 DVD.
- Reboot the E-45 (see [page 41](#)).
- 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-45.

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.



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 1 DVD, or when the E-45 does not boot from the built-in hard disk drive.

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.

1 Shut down the E-45.

2 Attach the bootable USB backup media to the E-45.

Make sure to remove any media in the DVD drive. Do not attach other USB devices to the E-45.

3 Press the power button to turn on the E-45.

The E-45 will boot from the bootable USB backup media.

4 Follow the instructions on the Fiery QuickTouch display or the monitor (if available) to restore the backup image.

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.

Note: The Platform Utilities is available only on the monitor.

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. Windows Task Manager displays the programs, processes, and services that are currently running on the E-45. You can use Windows Task Manager to monitor performance or to close a program that is not responding.

Installing System Software

This chapter provides information about how to install system software.

The E-45 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-45 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-45 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-45, 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-45 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-45 configuration before you reinstall system software. After the installation is completed, be sure to restore the configuration that you saved earlier. For instructions, please see [“Performing Backup and Restore”](#) on page 86.
- **Compatibility:** After you upgrade system software, remind the site administrator to upgrade user software on all computers connected to the E-45. Using old user software with new system software may negatively affect the system.

- **Calibration:** All calibrated data are deleted when you install system software. If you need to keep the calibrated data, export the output profile with the calibration measurement data which you calibrated, export the calibration measurement data, and then upgrade the system software. After the upgrade, import the output profile and then the calibration measurement data (.cm0 file).

To export the output profile

- 1 Launch Command WorkStation and log into the E-45 as administrator.
- 2 Select Device Center > Resources > Profiles.
- 3 From the Output Profiles list, select the output profile that you calibrated, and click Export.
- 4 Specify the location where you want to save the profile and click Select Folder.

To export the calibration measurement data

- 1 Launch Command WorkStation and log into the E-45 as administrator.
- 2 Select Device Center > General > Tools.
- 3 Click Manage in Calibration area.
- 4 In the Calibrator window, select the calibration settings you want to save, click View Measurement, and then click Export Measurement.
- 5 Specify the location where you want to save the measurement data and click Save.

After you upgrade the system software, follow the procedures below to import the output profile and calibration measurement data.

To import the output profile

- 1 Launch Command WorkStation and log into the E-45 as administrator.
- 2 Select Device Center > Resources > Profiles.
- 3 Click Import and select the profile that you want to import.
- 4 Navigate to the folder where the output profile is located.
- 5 Click Open.

To import the calibration measurement data

- 1 Launch Command WorkStation and log into the E-45 as administrator.
- 2 Select Device Center > General > Tools > Calibrate.
- 3 Select the calibration setting (Plain Paper or Glossy Paper).
- 4 In Measurement method menu, select Load measurement from file, and select the file you exported in “To export the calibration measurement data”.

You need to select the measurement data that matches the calibration setting you selected.

- 5 Click Open.

Installing system software

Install both system software DVDs when you replace a hard disk drive or upgrade to the latest version of the E-45 software. You can install software from the following disks:

- System Software DVD 1—Fiery System Software for the E-45.
- System Software DVD 2 and 3—Windows operating system.
- User Software DVD 4—Fiery User Software for installation on the E-45 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 99.
- [“Installing or upgrading the system and user software with Fiery System Installer”](#) on page 99.
- [“After installing or updating the system software”](#) on page 101.
- [“Verify the E-45 operation”](#) on page 101.
- [“Before you leave the customer site”](#) on page 102.

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-45 except the keyboard and mouse. If you do not remove dongles or devices, the system software installation may fail.

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

For more information, see [page 88](#).

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

You can use the E-45 or Fiery QuickTouch to use 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.

Note: During the installation, you need to access the DVD drive often. Keep the front door open when you install the system software.

Note: If Fiery Impose or Fiery Compose is activated, you must deactivate them before you reinstall.

- Disconnect the network cable, crossover Ethernet cable, and printer interface cables from the back of the E-45 (see [Figure 3](#) on page 19).

If you do not, installation will fail.

1 Insert System Software DVD 1 into the DVD drive.

2 Reboot the E-45.

Wait while the system boots from the DVD.

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

The language selection screen displays on the monitor and on Fiery QuickTouch. If you select a language on either device, you will need to complete the entire installation on that device, and the other device's screen will be locked for the duration of the installation.

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 1 DVD contents to the hard drive, eject DVD 1 and insert System Software DVD 2.

7 After copying the System Software DVD 2 contents to the hard drive, eject DVD 2 and insert System Software DVD 3.

8 After copying the System Software DVD 3 contents to the hard drive, eject DVD 3 and insert User Software DVD 4.

When you eject User Software DVD 4, the E-45 reboots to begin the software installation.

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

The following steps are for use with a keyboard, monitor, and mouse. If you are not using a keyboard, monitor, and mouse, skip to [step 15](#).

10 When the E-45 becomes Idle, click the mouse to show the login screen on the 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-45 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 Wait for the Command WorkStation to start.

During the installation, a localhost connection to Command Workstation is created so when you start the E-45, Command WorkStation starts also.

13 (Optional) Install and activate Fiery Impose.

For more information, see the installation document that accompanies the Fiery Impose kit (Installing the Fiery Option).

14 (Optional) Install and activate Fiery Compose.**15** Shut down the E-45 (see [page 41](#)).**After installing or updating the system software****1** Restore the dongles and devices that you removed in a previous step.**2** Start the E-45 (see [page 41](#)).**3** Install any required software patches by System Updates (see [page 102](#)).**4** (Optional) Reinstall and reactivate Color Profiler Suite software on the E-45:

Use the Color Profiler Suite CD to reinstall the software on the E-45. For complete instructions, see the documentation that accompanies the Color Profiler Suite kit.

5 (Optional) Reinstall and reactivate Fiery Impose and/or Compose on the E-45.**6** (Optional) Set up the proxy configuration if you have a proxy server.

In Configure, click Fiery Server > System Updates > HTTP Proxy Settings, and enter the proxy server information. Save your changes and reboot the E-45.

You can also enter the proxy server information in System Updates application if a monitor, mouse, and keyboard are attached to the E-45.

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

Verify the E-45 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, and verify that the printer interface board is securely connected to the motherboard.

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

2 Verify that the E-45 is connected to the network (see [page 40](#)).**3** Ask the site administrator to download a test job over the network.

If the job does not print or has poor image quality, see the Troubleshooting topics in *Configuration and Setup*, which is part of the user documentation.

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-45 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-45 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-45, disconnect the cables and perform the installation again, starting from [“Installing or upgrading the system and user software with Fiery System Installer”](#) on page 99.

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-45 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-45. 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.

Troubleshooting

The E-45 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-45
- In the interface between the E-45 and the printer
- In the interface between the E-45 and the workstations or computers to which it is connected

This chapter identifies the source of common problems that may occur with the E-45 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 10](#).

Preliminary on-site checkout

Most problems with the E-45 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-45, 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-45, 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.

Checking external connections

Before removing the side and front panels of the E-45 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 50](#)).
- 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-45.



Important: Before you remove the E-45 panels, be aware of the safety precautions that you should take when handling the E-45. Use standard ESD precautions when handling printed circuit boards and electronic components. To review the safety precautions, see [page 10](#).

To check internal components

- 1 Shut down, and then open the E-45 (see [page 50](#)).



Important: Before you touch any components inside the E-45, attach a grounding strap to your wrist and discharge any static electricity on your body by touching a metal part of the E-45.

- 2 Inspect the inside of the E-45

- 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-45 and verify its functionality (see [page 84](#)).

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 105. 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, and it is not obvious what action(s) you should take to fix the problem (for example, if the system hangs before reaching Idle), identify the symptom and perform the suggested action(s) for the condition.

Conditions to verify	Part and additional page references
<p>When the problem occurs, verify the following:</p> <ul style="list-style-type: none"> • Power cable is connected properly to the E-45 and to the power outlet. • The E-45 is powered on. • Chassis fans are operating. • At least one LED on the network connector is lit. • All external cables required are present, in correct connectors, well-seated. • Cables, cable connectors, and mating connectors appear undamaged. 	<p>External connectors, chassis fan, and power button, “Checking external connections” on page 104 and “Checking internal components” on page 105.</p>
<p>When the problem occurs, collect logs by doing the following:</p> <ol style="list-style-type: none"> 1 Log into the E-45. You can log into the E-45 with a monitor, keyboard, and mouse, or from a client computer with Remote Desktop. 2 On a web browser, type the following URL: <code>http://10.10.100.2:8080/getlog</code> <p>Note: You may need to either add the URL to your trusted sites list, or set the URL to bypass proxy depending on your network security settings.</p> <ol style="list-style-type: none"> 3 Save the log file to your local system. Click File > Save As..., and save the log file as a .txt file. <p>You can send the log to EFI technical support.</p> <p>If the problem occurs at power up or reboot, verify that:</p> <ul style="list-style-type: none"> • The Fiery QuickTouch is turned on and functional. • The system does not hang, and no error messages occur before the systems reaches Idle. • After the system reaches Idle, the Fiery QuickTouch LCD touch screen has functionality. <p>If the Fiery QuickTouch does not power up after a reboot, do one of the following:</p> <ul style="list-style-type: none"> • Restart the E-45. • Reboot the E-45. • Shut down the E-45, wait one minute, and then power on the E-45 by pressing the power button on the front panel. • Reset the Fiery QuickTouch: press the reset button on the Fiery QuickTouch through the pinhole, and hold the button down for two seconds. 	<p>Fiery QuickTouch, page 31.</p>

Conditions to verify	Part and additional page references
<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 • Not visibly damaged • Chassis and contents have not been tampered with (no unauthorized additions or changes have been made). • Chassis does not contain any foreign objects. 	<p>Chassis, page 46.</p>
<ul style="list-style-type: none"> • Motherboard, including components and traces, appears undamaged and no foreign objects are evident. • Each CPU is present, installed in the correct connector, well-seated, and appears undamaged. • Each CPU cooling unit is well-aligned and firmly attached. • Each fan (including fan cable) is well-positioned, installed in the correct connector, and appears undamaged. • Boards required on the motherboard are present, well-seated, and in the correct slots. • Battery is installed. 	<p>Motherboard (with the motherboard replacement dongle), page 58.</p> <p>Important: When replacing the motherboard, carefully review the cautions on page 63.</p>
<ul style="list-style-type: none"> • Each DIMM is well-seated and installed in the correct slot. • DIMM connectors are not oxidized (reseating removes oxidation). 	<p>DIMMs for E-45, page 69</p>
<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 57</p>
<p>Each CPU is:</p> <ul style="list-style-type: none"> • Present • Installed in the correct socket • The correct speed (CPU speeds must match) • Well-seated • Not visibly damaged <p>The CPU cooling unit is:</p> <ul style="list-style-type: none"> • Ready for efficient thermal transfer • Well-aligned 	<p>CPU with cooling assembly, page 69</p>

Conditions to verify	Part and additional page references
<p>Fan is:</p> <ul style="list-style-type: none"> • Properly positioned (not backwards) • Installed in the correct connector • Not visibly damaged (fan, fan cable, cable connector, and motherboard connector) 	<p>Fan, page 75</p>
<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 77</p>
<p>The hard disk drives are:</p> <ul style="list-style-type: none"> • Present • Correctly installed • Not visibly damaged <p>Hard disk drive data cables are:</p> <ul style="list-style-type: none"> • Present • Firmly connected to the correct SATA connectors on the motherboard (see page 79) • Not visibly damaged <p>Hard disk drive power cables are:</p> <ul style="list-style-type: none"> • Present • Firmly connected to the SATA power connectors on the hard disk drives. • Not visibly damaged 	<p>Hard disk drive, page 79</p>

Conditions to verify	Part and additional page references
The drive required is: <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 DVD drive SATA cable is: <ul style="list-style-type: none">• Firmly connected to motherboard SATA_6G_0• Not visibly damaged	DVD drive, page 83
Each cable required is: <ul style="list-style-type: none">• Present• The correct type• Installed in the correct connector• Well-seated• Not visibly damaged (including connectors)	Hard disk drive data cable, page 79 DVD drive power and data combination cable, page 83 Power supply, page 77
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-45 connector panel. The cables required are: <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 (if applicable)

Error messages and conditions

To address specific error messages or conditions, see “[E-45 error messages and condition](#)” on page 111. 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-45 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-45.

Table 4: E-45 error messages and condition

Symptom	Possible cause	Suggested action
Beep codes during Startup		
1 beep	No error. The E-45 is starting up normally.	None
1 beep, followed by 3 beeps, followed by 3 beeps, followed by 1 beep	Missing, unmatched, incorrect, or faulty DIMMs	Check for missing, unmatched, incorrect or faulty DIMMs and reseat the DIMMs to remove any oxidation on the connector (see page 69).
Startup		
E-45 does not start and the Fiery QuickTouch is black.	Possibly one of the following: <ul style="list-style-type: none"> • The E-45 is powered off • Power cable is not plugged into the power connector on the E-45 connector panel, or into the wall power outlet • The connector panel power switch is in the OFF position • Fiery QuickTouch cables are not connected to the motherboard, the Fiery QuickTouch, 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 50). 3 Listen for the power supply fan and feel for air at the back of the unit where the power supply is located. If air is not coming from the power supply fan, isolate a possible faulty power cable as follows: <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. 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 63). 5 Review the jumper section on page 75 and ensure that the jumper is in the default position.

Table 4: E-45 error messages and condition (Continued)

Symptom	Possible cause	Suggested action
E-45 is getting power, but the Fiery QuickTouch is black.	<ul style="list-style-type: none"> Fiery QuickTouch cables are not connected to the motherboard, the Fiery QuickTouch, or both Faulty LED cable Faulty Fiery QuickTouch display module 	<ol style="list-style-type: none"> 1 Recheck all cables and connections. 2 Use a different power/LED cable. 3 If the problem persists and you have verified that the power supply and motherboard are functioning properly as described earlier, replace the Fiery QuickTouch display module (see page 54).
Fiery Ticker messages		
Please check Fiery Hardware.	<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 63).
No service dongle	Motherboard replacement dongle is not attached after you replace the motherboard and attempt to transfer options to the new motherboard.	Turn off the E-45, attached the correct dongle, and restart the option and BIOS transfer procedure (see page 68).
Fiery Quick Touch functions		
E-45 is getting power, the Fiery QuickTouch screen is not black, but the buttons on the Fiery QuickTouch do not function.	<p>Possibly one of the following:</p> <ul style="list-style-type: none"> Problem with the Fiery application Faulty Fiery QuickTouch display module 	<ol style="list-style-type: none"> 1 Recheck all cables and connections. 2 Reboot the E-45. 3 If the problem persists, restore the backup, or reinstall system software (see page 97). 4 If the problem persists, replace the Fiery QuickTouch display module (see page 54).

Table 4: E-45 error messages and condition (Continued)

Symptom	Possible cause	Suggested action
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-45.2 If the problem persists, check the cable connections to the DVD drive (see page 50).3 If the problem persists, you may need to replace the DVD drive (see page 83).4 If the problem persists, you may need to replace the motherboard (see page 63).
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 97).4 Check for missing or faulty DIMM and reseat the DIMM to remove any oxidation on the connector (see page 69).5 If the problem persists, you may need to replace the motherboard (see page 63).
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 97

Table 4: E-45 error messages and condition (Continued)

Symptom	Possible cause	Suggested action
System performance (continued)		
The E-45 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-45 BIOS. (If the battery was removed from the E-45 motherboard during service and the time and date were not configured in Setup afterward, the E-45 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-45 and remove the User Software DVD when it ejects. If not already connected, connect a keyboard and a monitor to the E-45. Power on the E-45 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-45 reaches Idle, power off and then begin a full software installation again, starting with the System Software DVD (see page 97). If the problem persists, obtain another User Software DVD and begin software installation again starting with the System Software DVD (see page 97). If the problem persists, you may need to replace the DVD drive (see page 83). 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 79). If replacing the hard disk drive does not correct the problem, reinstall the old hard disk drive in the system.
Network		
<p>If you suspect a network problem, keep in mind the following:</p> <ul style="list-style-type: none"> If the E-45 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 4: E-45 error messages and condition (Continued)

Symptom	Possible cause	Suggested action
Network (continued)		
Unable to connect to the network, or the green LED on the RJ-45 network port is not lit.	<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-45 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-45 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 25. 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 97). 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 63).
System starts up slowly then displays one or more DHCP error messages on the Fiery QuickTouch.	<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-45, but the customer's network is not using DHCP • Ethernet interface on the E-45 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 25. 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 97). 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 63).

Table 4: E-45 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-45 and the printer.	<ol style="list-style-type: none"> 1 If the problem persists: <ul style="list-style-type: none"> • Recycle power on the printer. • Recycle power on the E-45 by shutting down through the Functions menu, waiting 10 seconds, and then powering the E-45 back on. 2 If the problem persists, replace the printer interface (Data Transfer Unit) cables and board (see page 57). 3 If the problem persists, you may need to service the printer.
The E-45 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"> 1 Make sure that Print to PostScript Error in Setup is set to Yes. 2 Check for error messages on the E-45 output.
	An application problem	<ol style="list-style-type: none"> 1 Print a job from a different application to determine if the problem is associated with a particular application. 2 Make sure that the connection between the E-45 and the workstation is working by downloading a Test Page from the workstation, or by printing a simple file such as a text file. 3 Resend the problem file.
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"> 1 Cancel the E-45 print job. 2 If this fails to clear the problem, reboot the E-45. 3 If the problem persists, choose the Clear Server command from Command WorkStation. 4 Set Print Cover Page to Yes and resend the problem job. The Cover Page will indicate "PS Error." For more information about the PostScript error, double-click the problem job in the Command WorkStation window. 5 If the problem persists, restore the backup, or reinstall system software (see page 97). Corrupt system software may cause the system to hang.
	Incorrect or faulty DIMM or faulty DIMM connection	<ol style="list-style-type: none"> 1 Reseat the DIMMs to remove any oxidation on the connectors (see page 69). 2 Verify memory amount on the Configuration page. 3 If the problem persists after replacing the DIMM, replace the motherboard (see page 69).

Table 4: E-45 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	<ol style="list-style-type: none">1 Print a E-45 Test Page.2 If the quality of the E-45 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.)
<p>If the user can print the E-45 Test Page, but cannot print a job from a computer on the network, make sure that the network administrator has:</p> <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>		

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-45 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-45 user software installed
- Description of any other actions performed on the E-45 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-45 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-45 features, specifications, and safety certifications.

Hardware features

- Intel Core i5-6500 quad core 3.2GHz CPU (up to 3.6GHz with Turbo Boost enabled)
- Memory: 8GB (2 x4GB)
- 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 (Depth x Height x Width):
46.36 cm (18.25 in.) x 52.71 cm (20.75 in.) x 23.50 cm (9.25 in.)
- Weight: 16.56 kg (36.5 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-45 has been certified to meet or surpass the following government standards:

Safety approvals

- IEC 60950-1:2005 (Second Edition) + Am 1:2009 + Am2:2013 and IEC 62368-1:2014 (Second Edition)

- UL 60950-1:2007 R10.14 (TUV NRTL) and UL 62368-1:2014
- CAN/CSA C22.2 No. 60950-1:2007 +A1:2011 +A2:2014 (TUV NRTL) and CAN/CSA C22.2 No. 62368-1-14
- T-Mark by TUV, EN 60950-1:2006+A11+A1+A12+A2 and EN 62368-1: 2014 +A11
- CCC - China
- EAC - Russia

EMI/EMC approvals

- FCC Title 47, Part 15 Subpart B, Class A- NA
- Industry Canada, ICES-003, Class A-NA
- VCCI CIRPR 32-1: 2016, Class A - Japan
- EN55032:2012/AC: 2013 (EU), Class A
- AS/NZS CISPR 32: 2015, Class A
- EN61000-3-2: 2014
- EN610003-3: 2013
- EN55024:2010 (EU)
- CCC - China
- KCC - Korea
- EAC Russia

Servicing the E-45 with furniture

This chapter describes how to remove the E-45 from the furniture in order to access internal components for service.

For the assembly instruction on the Fiery NX Station, see the documentation provided with the Fiery NX Station kit.

Procedures

If the E-45 is installed in the optional furniture, you must remove it from the furniture before performing most service procedures.

Figure 37: E-45 installed on the furniture



Removing the E-45 from the furniture

- 1 Make sure the E-45 is powered off and all the cables are removed from the back of the E-45.
- 2 Open the back door of the NX Station and remove all the cables from the connector panel of the E-45.
- 3 Pull the server tray of the NX Station out of the stand.

Replacing the E-45 in the furniture

- 1 Make sure that all the chassis panels are attached.
- 2 Lift the E-45 and place it on the server tray.
- 3 Slide the tray into the stand.
- 4 Reconnect all the cables.

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