Color Controller E-85

Installation and Service Guide

A guide for service technicians

Replacement parts and specifications are subject to change.

For the most current parts list, contact your authorized service/support center.

January 19, 2018

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Introduction

This document includes information about servicing the Color Controller E-85, which is referred to in this document as the "E-85".

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-85 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-85safely, always pay attention to CAUTION icons and messages.

Important: The IMPORTANT icon indicates operational requirements and restrictions. To operate the E-85 correctly and avoid damage to the E-85 or other property, always pay attention to IMPORTANT icons and messages.

About the E-85

The E-85 adds computer connectivity and highly efficient PostScript and PCL printing ability to the Pro C9200 series (Pro C9210/Pro C9200) printer.

With the E-85, customers can use the printer as a PostScript and PCL printer. Once it is connected to the printer through the network, customers can print to the E-85 from supported client computers on the network.

The E-85 ships with software preinstalled so that customers can use it immediately. However, as part of servicing the E-85, you may need to reinstall software.

How the E-85 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-85 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-85

Before you service the E-85, 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 43).

Tools you will need

To install or service the E-85, you will need the following tools and parts:

- ESD wrist grounding strap and antistatic mat
- Flathead screwdriver
- #0, #1, and #2 Phillips head screwdrivers
- Needlenose pliers
- E-85 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-85 and how to avoid damage to E-85 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-85 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-85

Only the site administrator should assign an IP address to a network device, including the E-85. If you enter an incorrect IP address for the E-85, 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-85 contains hazardous moving parts. When servicing the E-85, keep away from moving fan blades.

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

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

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

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

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

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

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

Use caution with sharp edges

The edges of some E-85 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-85 or an appropriate replacement power cable. For replacement parts, see your authorized service support center.
- Before you open the E-85, unplug the E-85.
- Keep the power cable away from foot traffic.
- Do not place objects on the power cable.
- Do not plug the E-85 into a 2-hole, ungrounded outlet by means of a 3-prong adapter.
- Do not plug the E-85 into a circuit connected to heating or refrigeration equipment (including a water dispenser).
- Do not plug the E-85 into a switchable outlet.
- Do not pull the cable to unplug the E-85. 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-85

If liquid spills on the E-85, immediately unplug the E-85.

Do not open the power supply

For more information about the power supply, see “Power supply” on page 74.

Do not open the hard disk drive

For more information about the hard disk drive, see “Hard disk drives” on page 76.

Lift the E-85 carefully

The E-85 weighs approximately 22kg. At least two persons are required to move the device.

Never lift the E-85 by grasping the top panel. The top panel does not support the weight of the E-85.

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

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

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

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

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

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

Power supply cord notice

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

Lithium battery notice

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

Short circuit protection

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

Installing hardware

About the installation process

It is strongly recommended that you review this chapter before you install the E-85. 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-85 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-85 set at the factory (see "To change the E-85 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-85

1. Check installation requirements and verify site conditions.

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

2. Unpack the E-85 (see page 16).

3. If applicable, connect the monitor, keyboard, mouse, and furniture to the E-85.

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

4. Connect the following cables (see page 17).

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

5. (Optional) If the E-85 requires a static IP address (for example, in a non-DHCP network environment), work with the site administrator to configure one.

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

7. Complete the installation (see page 26).

Remind site administrator to install current user software on client computers that print to the E-85 (see *Printing* and *Utilities*, which are part of the user documentation set).

To change the E-85 language

1 Access Configure (see page 28).

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-85 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-85, check site conditions and inform the customer of any installation requirements.

To check the customer site

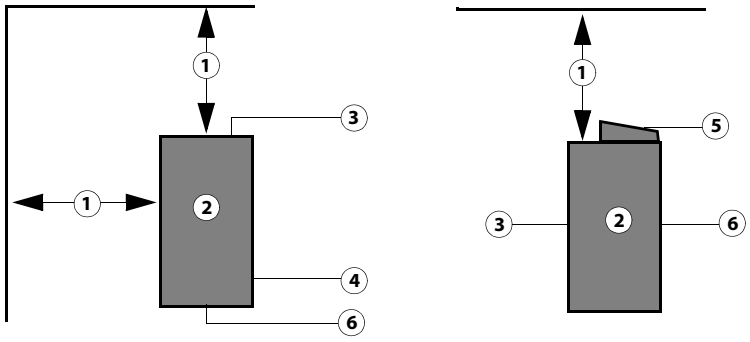
- Is the printer configured for use with the E-85?

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

- Is there adequate space for the E-85 near the printer?

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

Figure 1: Space requirements for the E-85 without optional furniture



1 20cm+ (8 in.)

2 E-85

3 Connector panel

4 *Side panel*

5 *Fiery Quick Touch display panel*

6 *Front panel*

- Is a dedicated, grounded electrical outlet for the E-85 available near the printer?

  Do not run the E-85 and the printer on the same circuit. If the customer has provided one, use a surge suppressor for the E-85.

- Will the network be available at the time of installation? (See the site administrator.)

Setting customer expectations

When the site is ready, installation of the E-85 takes about 1 hour. Inform the customer of the following:

- Some nodes on the network may be unavailable during service.
- The site administrator must be available during the installation for network connectivity.

  Equipment downtime and impact on the network can be minimized if the site administrator installs a network connector for the E-85 and confirms network functionality with the connector in place before the date scheduled for the E-85 installation.

- The site administrator must have a networked computer available during the installation. The appropriate software must be installed in advance. Documentation for the networked computer and the network operating software should be available.
- The site administrator is responsible for installing the user software shipped with the E-85 onto networked Windows and Mac OS computers that will print to the E-85 (user documentation is also included).

Unpacking the E-85

Warning: Before you unpack the E-85, it is strongly recommended that you review all "Precautions" on page 10 to avoid injury or damage to the E-85.

The E-85 ships with all of the cables and documentation required for setup.

The E-85 weighs approximately 22kg. At least two persons are required to move the device.

To unpack the E-85

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 Remove the top cover from the main shipping container.

2 Remove the box that contains the E-85.

3 Remove the accessory kit from the E-85 box and check it for damage.

4 Remove the media pack from the accessory kit and check it for damage.

5 Carefully lift the E-85 out of the box.

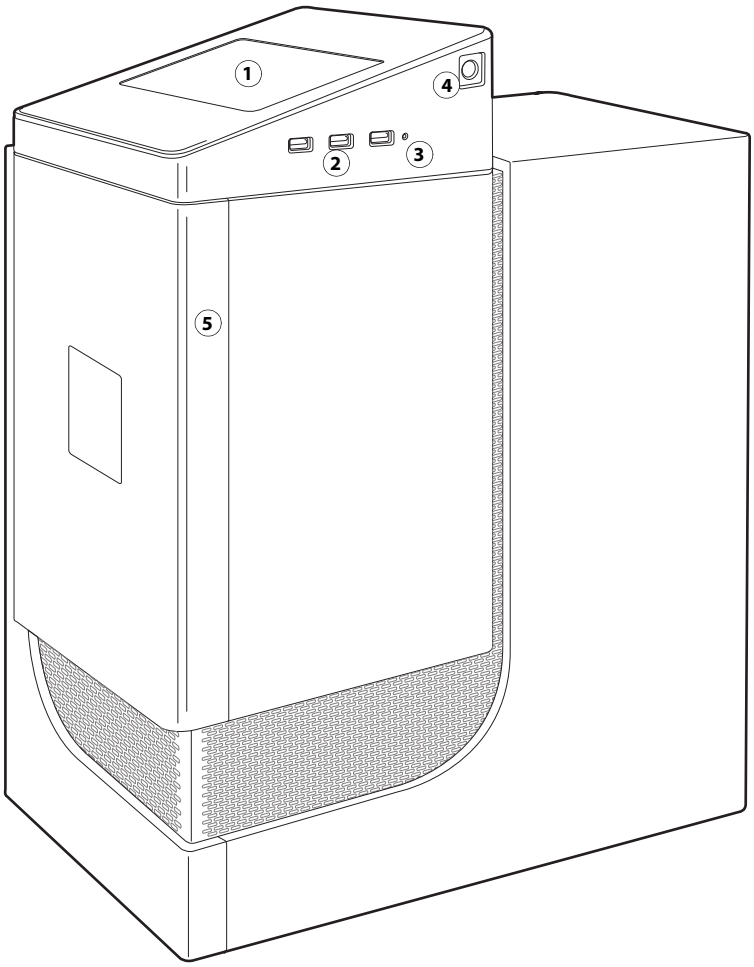
Connecting the E-85

Before you connect the E-85, it is strongly recommended that you review all "Precautions" on page 10 to avoid injury or damage to the E-85. You must connect the following to the E-85:

- Power cable
- Network cable
- Crossover Ethernet cable (lower RJ-45)
- Scan crossover cable
- Monitor cable (option)
- Wireless adapter for keyboard and mouse (option for furniture)

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

Figure 2: E-85 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.

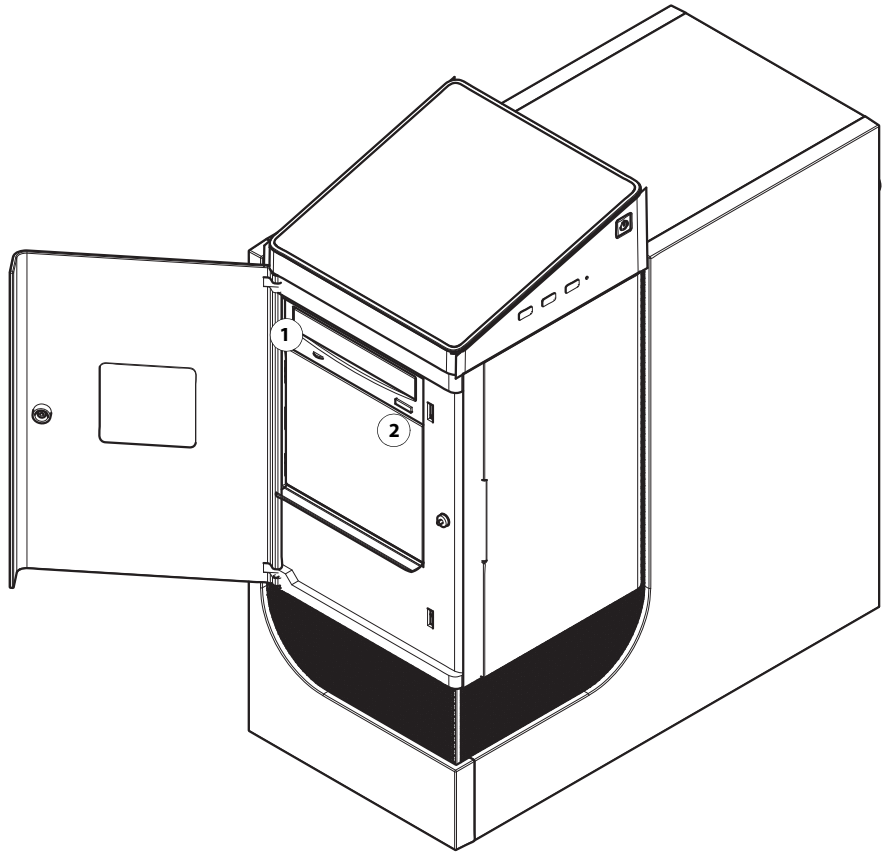
3 *Reset button*

4 *Power button*

5 *Front panel door*

Figure 3: E-85 connector panel

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

Before using the E-85, connect the monitor, keyboard, mouse, and power to the E-85 if applicable.

To connect the monitor, keyboard, mouse, power cable

1. Make sure that the E-85 is installed in the furniture.

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

2. Connect the monitor cable to the HDMI port from the graphic board on the connector panel.

3. Connect the monitor power cable to an outlet of the power strip inside the furniture.

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

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 port that is attached to the furniture stand.

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-85 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

Use the following procedure to connect the E-85 to the printer.

To connect to the printer

1. Shut down the E-85 (see page 38).

2. Locate the two printer interface cables provided with the E-85.

3. Power off the printer using the main power switch located behind the front cover.

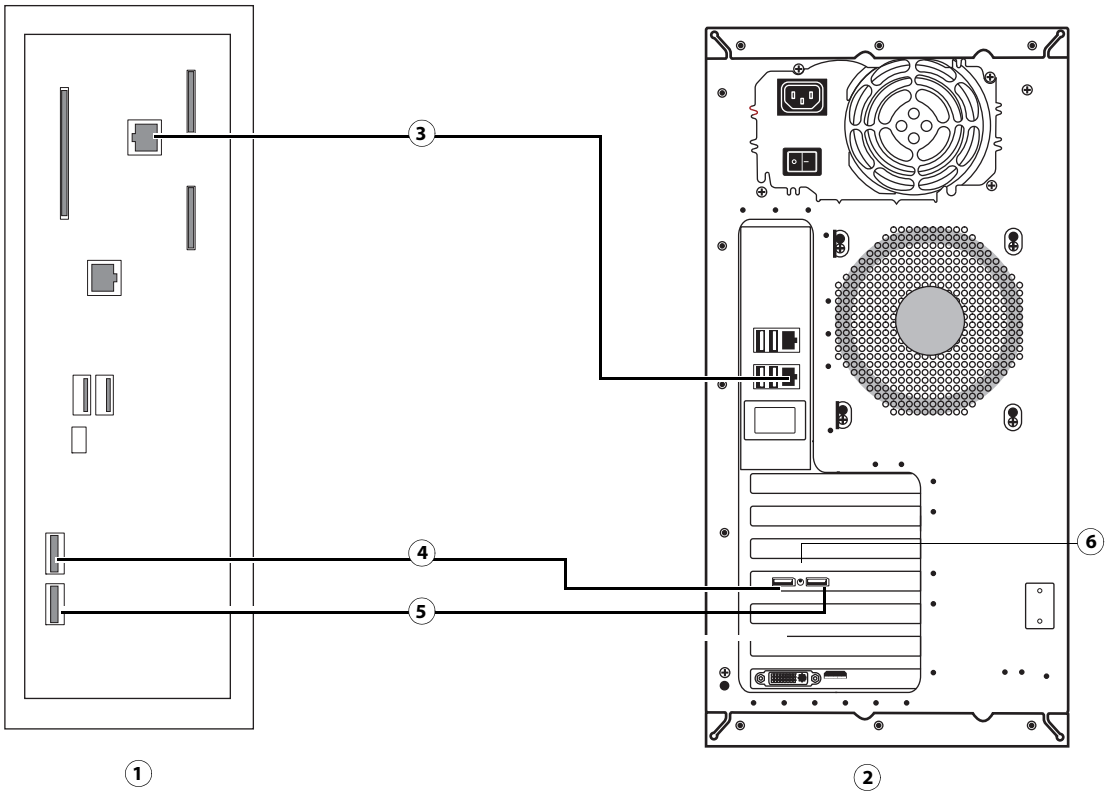
4. If needed, shut down the E-85 (see page 40).

5. Locate the printer interface cable (crossover Ethernet cable) that shipped with the E-85.

   For information on the USB connection used for the power synchronization, see “Power synchronization” on page 25.

6 Locate the crossover Ethernet cable that shipped with the E-85.

Figure 5: Printer and E-85 cable connection



1 *printer connector panel*

2 *E-85 connector panel*

3 *Crossover Ethernet cable connection*

4 *DTU cable connection - port A (Yellow, Magenta*

5 *DTU cable connection - port B (Cyan, Black)*

6 *Power synchronization OFF/ON switch on the printer interface board. Default position is OFF.*

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-85 shutdowns could result.

7 Make sure that the power switch on the back of the E-85 is in the ON (|) position.

8 Power on the E-85 by pressing the power button ( ) on the front of the system. Wait approximately 2 minutes for the system to reach Idle.

The static Fiery logo and server name appear on the E-85 Control Panel when the system reaches Idle.

9 After the E-85 reaches Idle, power on the printer using its main power switch.

Connecting to the network

Use the following procedure to connect the E-85 to the customer network.

To connect to the network

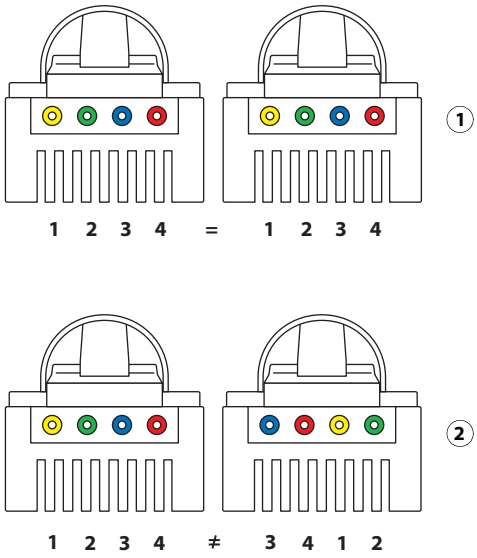
1 Shut down the E-85 before connecting it to any network device (see page 38).

2 Obtain the appropriate straight-through Ethernet cable for the customer network connection:

- For 10BaseT link speed, use a cable that is Category 3 or higher.
- For 100BaseTX, use Category 5 or higher (4-pair/8-wire, short-length).
- For 1000BaseT, use Category 5e or higher (4-pair/8-wire, short-length).

Note: Be sure to use a *straight-through* Ethernet cable for the network connection. To verify the cable type, align the connectors on each end of the cable, as shown in Figure 6. On a straight-through cable, the wire arrangements are identical on both ends; on a crossover cable, the wire arrangements are different.

Figure 6: Straight-through and crossover Ethernet cables



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

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

Note: Align cable connectors side by side and examine wires

3 Connect one end of the network cable to the network connector on the back of the E-85 (see Figure 21 on page 44).

The motherboard in the E-85 has an external Ethernet network connector that supports 10/100/1000 Mbps link speed.

4 Connect the other end of the cable to the customer network.

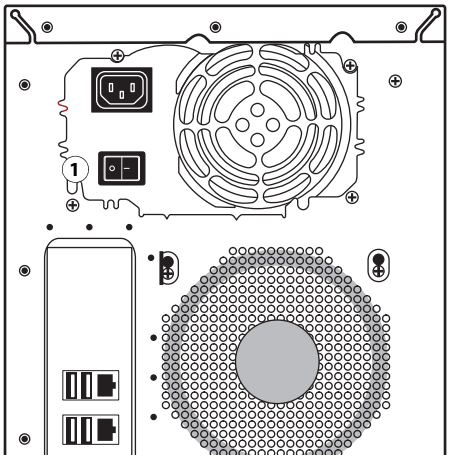
Starting the E-85 for the first time

This section describes how to start the E-85 for the first time after connecting the cables.

To start the E-85

1 Make sure that the power switch on the back of the E-85 is in the ON (|) position.

Figure 7: E-85 power switch

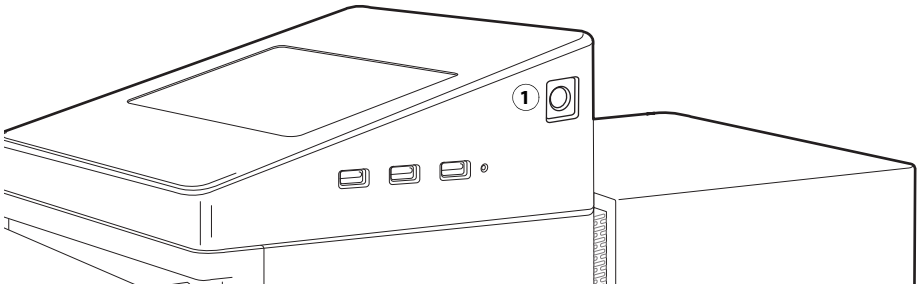


1 Power switch

2 Power on the E-85 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-85 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-85

If the customer requires the E-85 to be configured with a static IP address (for example, in a non-DHCP network environment), obtain a valid static IP address from the site administrator and configure the E-85 as described in the following procedure.

To configure a static IP address for the E-85

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-85 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.

Power synchronization

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

When you enable power synchronization, the E-85 synchronizes power with the printer's main power off/on status. If the printer powers off, the E-85 receives signals from the printer through the USB cable connected to the printer interface board, and automatically starts the shutdown process. If the E-85 receives the startup signals from the printer, the E-85 automatically powers on and begins the startup sequence.

When you enable power synchronization, the E-85 synchronizes power with the printer's main power off/on status. If the printer powers off, the E-85 receives signals from the printer through the printer interface cables connected to the printer interface board, and automatically starts the shutdown process. If the E-85 receives the startup signals from the printer, the E-85 automatically powers on and begins the startup sequence.

Important: After the power synchronization is enabled, make sure to control the E-85 power using the printer.

To enable the power synchronization feature at the E-85

1 Shut down the E-85 (see page 38).

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

Important: Do not change the switch position when the E-85 is powered on.

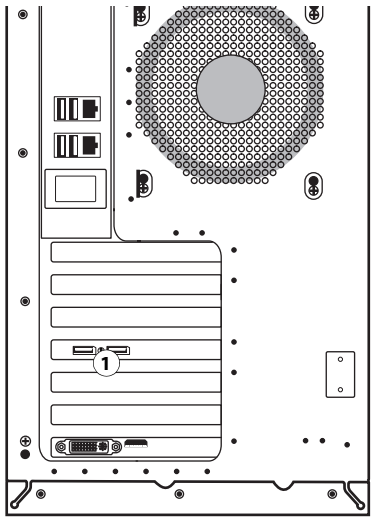


Figure 9: Power synchronization switch

3 Power on the printer.

The E-85 will automatically start up.

To disable the power synchronization

1 Turn off the printer using the main power switch.

Wait until the E-85 shuts down.

2 Make sure that the power switch on the connector panel of the E-85 is OFF position (|).

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

Important: Do not change the switch position when the E-85 is powered on.

Start the E-85 (see page 38).

Completing the installation

To complete the installation of the E-85 at the customer site, do the following:

1 Print the Test Page and Server Configuration page (see "Printing E-85 pages from the monitor, keyboard, and mouse" on page 27).

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-85 hard disk drive to an image file.

Fiery System Installer is provided in System Software DVD 1. For detailed instructions, see "Installing system software" on page 97.

7 Inform the site administrator that E-85 user software must be installed on networked computers that print to the E-85.

8 Ask the site administrator to make sure that all media shipped with the E-85 is stored in a safe location, accessible to you.

9 For additional installation instructions, see the service documentation that accompanies the E-85.

Using the E-85

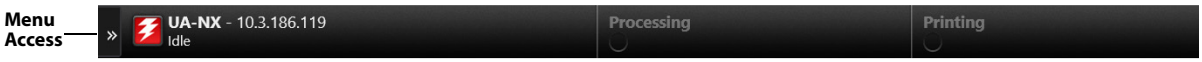
You can access the E-85 by using the Fiery QuickTouch™. You can shut down, restart, or reboot the E-85 as well access other functions.

- The printer touch panel (see page 33)
- Fiery NX Station, including a monitor, keyboard, and mouse.
- The Fiery QuickTouch, a seven-inch LCD color touch screen interface for the E-85.

Fiery Ticker

When you log on to the E-85 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-85 and printer using the Fiery Notes.
- Manage the E-85 by using Command WorkStation or WebTools
- Shut down, restart, or reboot the E-85

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-85 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-85-to-printer interface work. The Test Page is a color file that resides on the E-85 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-85, the customer's current settings for Setup, the current calibration, and the IP address of the E-85.

  Printing the Server Configuration page can be helpful during installation, Setup, and service. After installing the E-85 (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-85 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-85 pages.

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

The E-85 sends the selected page to the printer.

3 If you printed the E-85 Test Page, examine the quality of the Test Page from the printer.

If the Test Page prints, you know the E-85 is functional and the connection between the E-85 and the printer is working. If the Test Page fails to print, look up printing problems in "Table 6: E-85 error messages and conditions" on page 109.

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 6: E-85 error messages and conditions" on page 109, or see *Color Printing*, which is part of the user documentation set.

Command WorkStation

As an E-85 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-85.

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-85 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*.

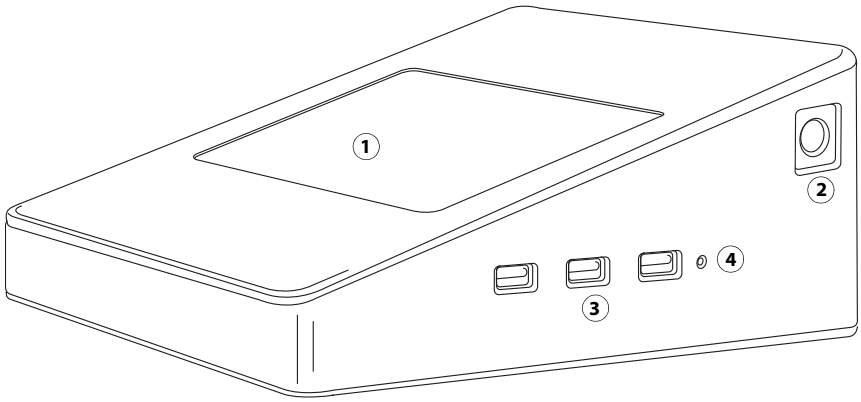
If you use the Fiery Setup Wizard (from Command WorkStation or WebTools) and click Finish at the end of the wizard, the Fiery Setup dialog box does not display again in any location.

Fiery QuickTouch

The Fiery QuickTouch on the front of the E-85 allows you to do the following:

- View print job status and alerts
- Use Fiery System Restore to back up and restore the E-85
- Replace the motherboard (when the motherboard replacement dongle is inserted into a USB port)
- View the IP address of the E-85
- Shut down, restart, or reboot the E-85 (see page 38).
- Interact with the E-85 during software installation and initial setup (see page 96)
- Run certain diagnostics (for service purposes only)

Figure 11: Fiery QuickTouch touch panel features

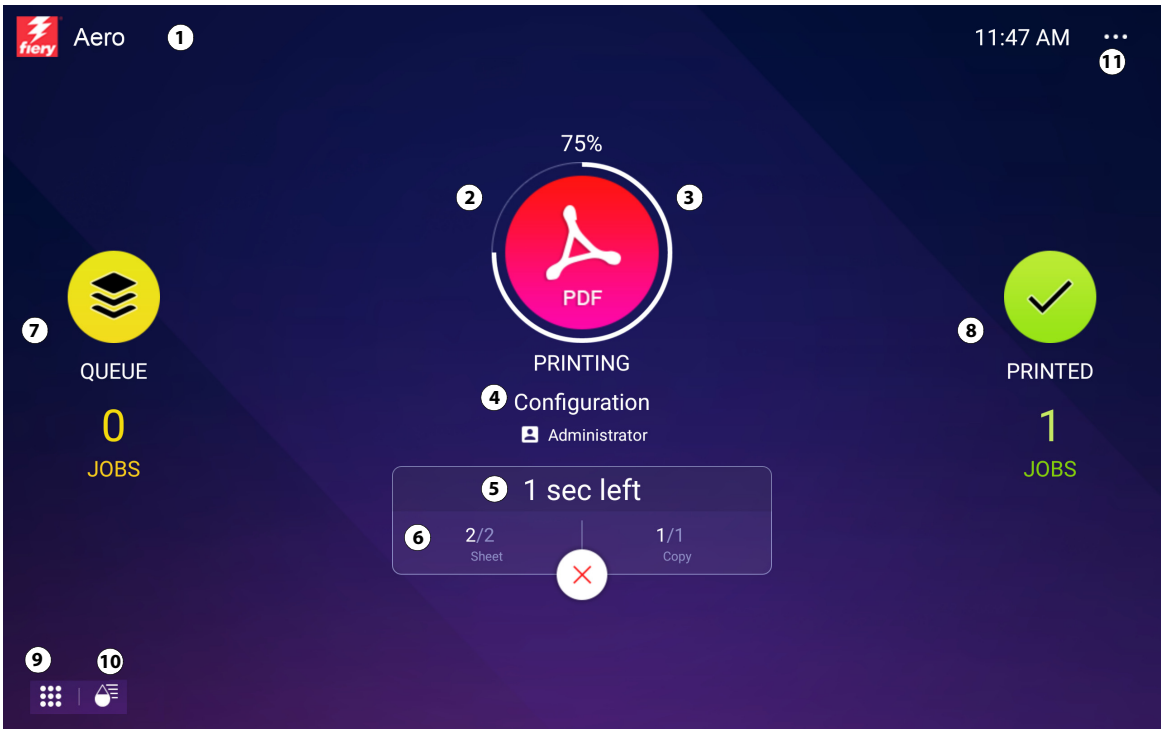


1	*Fiery QuickTouch LCD*	3	*USB 3.0 ports*
2	*Power button*	4	*Reset button (requires pin)*

Overview of Fiery QuickTouch menu options

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

Figure 12: Fiery QuickTouch main menu



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

1 *E-85 name and status*

Tapping the Fiery icon shows more information about the E-85 and the network address.

2 *Icon of the print job type*

If there are no print jobs being processed, an Idle status displays.

3 *Printing progress of the active print job*

4 *File name of the active print job*

5 *Time left to complete the active print job*

6 *Number of pages and copies that are printing*

7 *Queued jobs list*

Tapping the Queue icon shows a list of jobs that are queued.

8 *Printed jobs list*

Tapping the Printed icon shows the printed jobs list.

9 *Quick Launch*

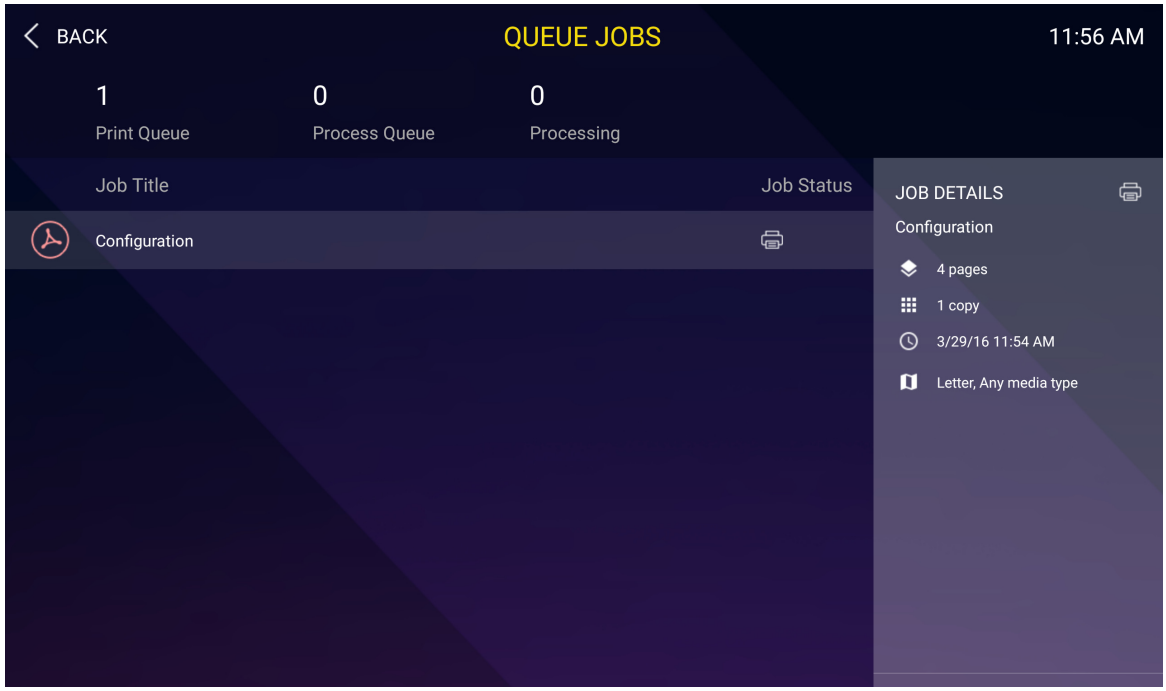
The Quick Launch button displays additional applications.

10 *Shows consumables*

11 *Quick Options and current local time*

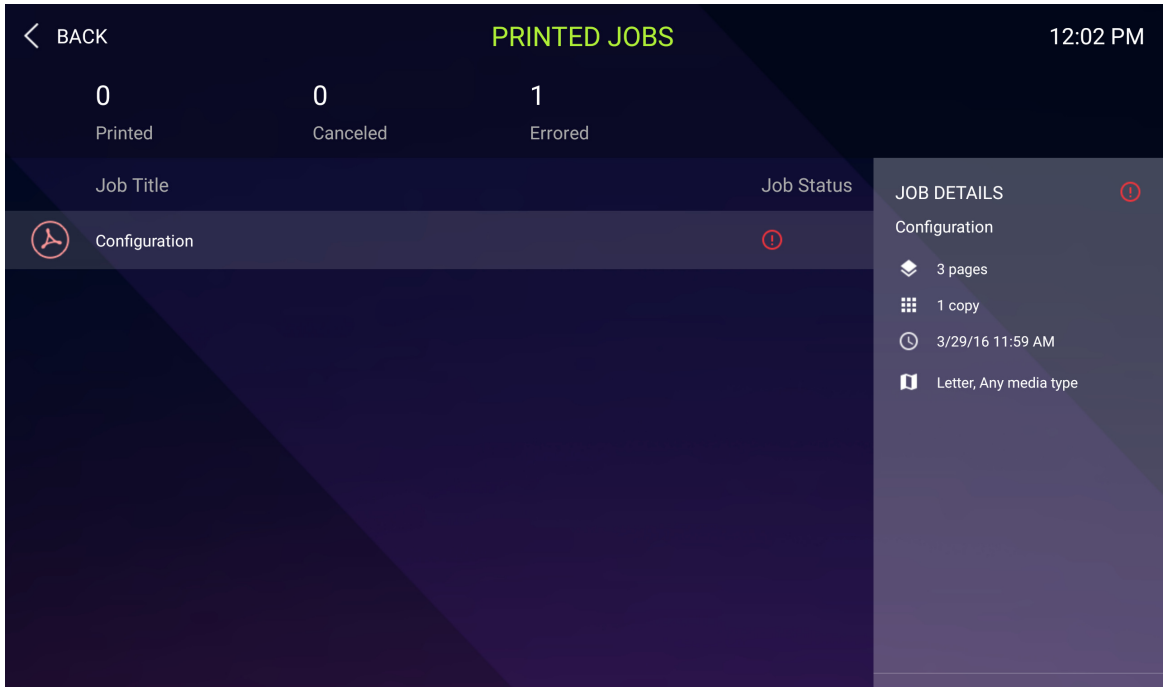
The Queue job list shows queued jobs and detailed information about each job.

Figure 13: Queue Jobs window



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

Figure 14: Printed Jobs window



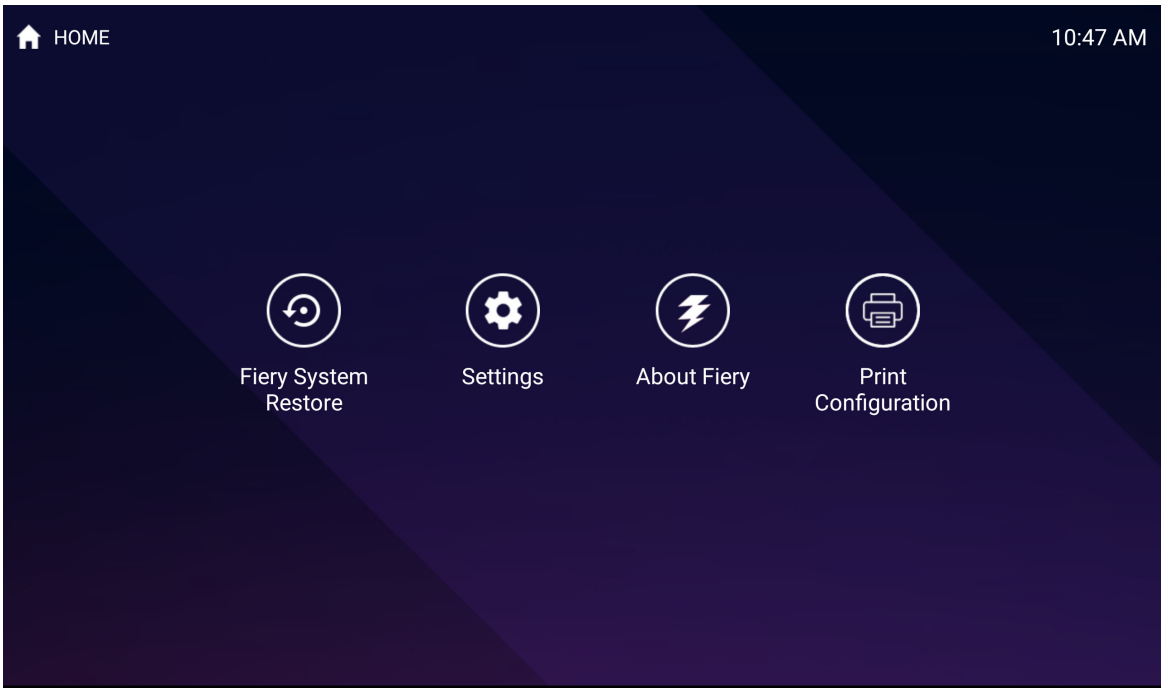
In either the Queue jobs or Printed jobs screen, you can tap Back to go back to the Home screen.

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-85, see "Using Fiery System Restore" on page 89.

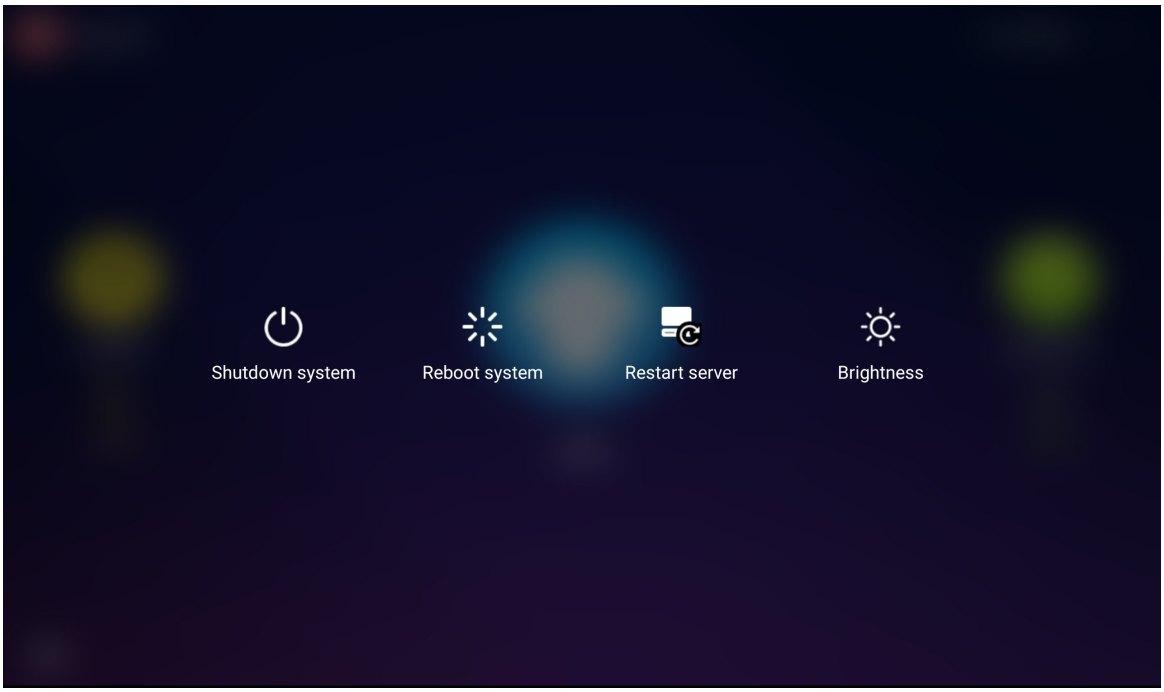
Quick options

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

To access to the Fiery screen on the printer touch panel

1 Press Home button on the printer operational 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 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-85 and the printer. Use this command to interrupt the current E-85 job, for example, to perform maintenance tasks. Jobs continue to process on the E-85. After you complete maintenance tasks, choose Resume Printing to continue printing jobs from the E-85.
Resume Printing	Resume print activity between the printer and the E-85 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 *Utilities*.
Calibration	Calibrate the E-85 using ColorCal. For more information, see *Color Printing*.

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-85.
Printable Info	Allows you to print these system pages from the E-85:
	PS Test Page/PCL Test Page: Confirms that the E-85 is properly connected to the printer, and provides color and grayscale samples to troubleshoot problems with the printer or the E-85. Settings on the Test Page may include: Server Name, color settings, printer model, and date and time the Test Page was printed.
	PS Font List/PCL Font List: Prints a list of all fonts currently on the E-85 hard disk drive.
	Configuration: Provides general information about the hardware and software configuration of the E-85, the current settings for Setup, the current calibration, the IP address of the E-85, and a log of system updates.
	Color Charts: Prints samples of the RGB, CMY, and PANTONE colors available from the E-85.
	Custom Paper Instructions: Provides the instructions for setting up custom paper entry.
	Calibration Instructions: Prints the information on how to perform the calibration.
	Job Log: Prints a log of the last 55 jobs.
	E-mail Log: Prints a log listing recent e-mail activity.
	FTP Log: Prints a log listing recent FTP activity.
	Note: To print the E-mail or FTP log, you must first enable the appropriate service.
Setup	Enter the Setup menu and change Setup option settings.
Clear Job Log	Clears the job log from the E-85.
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-85 hard disk, the index of archived jobs (in the Archive window), all FreeForm masters, and the index of FreeForm masters (in the FreeForm window). Consult with your administrator or operator before choosing Clear Server.
Restart Fiery	Shut down all E-85 activity in the correct manner and then restart. The following options are available from the submenu that appears: **Restart Fiery Service:** Resets the server software but does not reboot the entire system. Network access to the E-85 is temporarily interrupted and all currently processing jobs are aborted and may be lost. **Restart System:** Shuts down and then reboots the E-85. Network access to the E-85 is terminated and all currently processing jobs are aborted and may be lost. Shut Down: Shuts down all E-85 activity properly.

Printable Info menu

This section describes how to print pages such as the Test Page and Configuration page from the Printable Info menu (described on page 35). The Printable Info menu is accessed through the Fiery tab (see page 35).

Printing the **Configuration page** can be helpful during installation, Setup, and service. After installing the E-85 (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-85 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-85 is functional and that the connection between the E-85 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-85 using the power button on the front panel and allow it to start up completely (approximately three minutes).

   Note: If the power synchronization is enabled, the E-85 will automatically powers on when you power on the printer. The default setting for power synchronization is OFF. See "Power synchronization" on page 25 for more information.
3. Make sure that Idle appears on the Fiery Main menu.

   If Busy or Printing appears, the E-85 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-85 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-85 is functional and the connection between the E-85 and the printer is working. If the Test Page fails to print, look up printing problems in the Troubleshooting table on page 109.

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

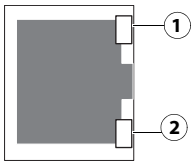
- All color patches should be visible, even though they may be very faint in the 5% and 2% range.
- Each color's patch set should show uniform gradation from patch to patch as the color lightens from 100% to 0%.

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 6: E-85 error messages and conditions" on page 109, or see *Color Printing* on the User Documentation CD.

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 17: 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
Solid amber	1000 Megabits/second

Starting, shutting down, restarting, and rebooting

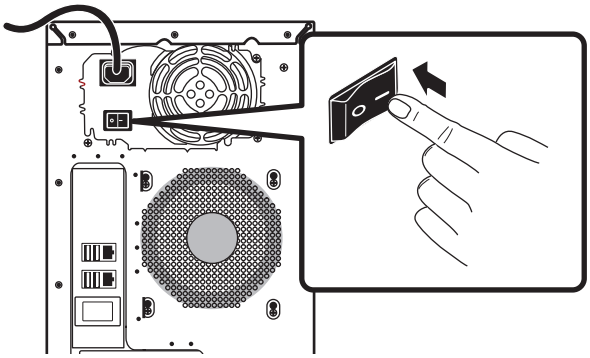
Generally, you can leave the E-85 and the printer running all the time. Restarting the E-85 resets the E-85 system software, but does not reboot the entire system. Network access to the E-85 is temporarily interrupted and all currently processing jobs are terminated.

Important: Unless instructed otherwise by a troubleshooting procedure, always shut down the E-85 from the Fiery QuickTouch monitor or from the monitor attached to the E-85. Do not use the power button on the side to shut down the E-85.

To start the E-85

1 Make sure that the power switch on the back of the E-85 is in the ON (|) position.

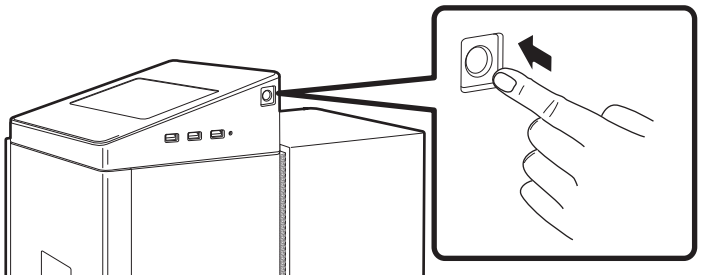
Figure 18: E-85 power switch



2 Power on the E-85 using the power button ( ) on the side of the display panel.

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

Figure 19: E-85 power button



3 Check the Fiery QuickTouch display panel.

Allow startup to proceed without interruption. Do not press any buttons while the system is starting.

4 (If applicable) On the monitor, log in.

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

If it is not the first time the E-85 has been started after installing system software, the site administrator may have set a different user name and password. The site administrator at the customer site must provide you with the correct user name and password to enable your logon to the system (the password is case-sensitive and must be typed exactly).

Note: If the password is lost, you must reinstall all system software (see page 97).

5 Wait for Fiery Ticker to display and reach Idle (requires approximately 3 minutes).

6 If Command WorkStation starts automatically, connect to the E-85 with Administrator privileges.

If Command WorkStation was connected to the E-85 during the previous session, the connection may be reestablished automatically.

If the E-85 is currently disconnected, select the E-85 from the Servers List and click Connect. Choose Administrator from the User menu, type Fiery.1 in the Password field, and then click Login.

Note: Fiery.1 is the default password required to connect to the E-85 with Administrator privileges. The password can be changed in E-85 Setup. For more information, see *Configuration and Setup*, which is part of the user documentation set.

To shut down, restart, or reboot from the monitor

1 Make sure that the E-85 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, click Power icon, and select Shut down.
- Click the Windows Start button, click Power icon, and select Restart.
- Click ">>" icon in the Fiery Ticker and select Server Actions > Restart Fiery. Click OK.

4 If you shut down the E-85, move the E-85 power switch to the off (O) position for maximum energy savings or service (wait 10 seconds before you proceed).

5 On the monitor, log in.

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

If it is not the first time the E-85 has been started after installing system software, the site administrator may have set a different user name and password. The site administrator at the customer site must provide you with the correct user name and password to enable your logon to the system (the password is case-sensitive and must be typed exactly).

Note: If the password is lost, you must reinstall all system software (see page 97).

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If the E-85 is currently disconnected, select the E-85 from the Servers List and click Connect. Choose Administrator from the User menu, type Fiery.1 in the Password field, and then click Login.

Note: Fiery.1 is the default password required to connect to the E-85 with Administrator privileges. The password can be changed in E-85 Setup. For more information, see *Configuration and Setup* which is part of the user documentation set.

To shut down, restart, or reboot the E-85 from the Fiery QuickTouch

Note: Notify the site administrator before you remove the E-85 from the network.

1 Make sure that the E-85 is not receiving, processing, or printing any files.

If the system has just finished processing, wait at least 5 seconds after the system reaches Idle before beginning the shutdown procedure.

2 At the Idle is displayed, press the bots at the upper right corner of the screen.

3 Make a selection:

- To shut down the E-85, select Shutdown system.
- To reboot the entire system including the operating system, select Reboot system.
- To restart the Fiery system software only, select Restart server.

4 At the confirmation screen, select OK.

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

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

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

Note: Notify the network administrator before you remove the E-85 from the network.

1 Make sure that the E-85 is not receiving, processing, or printing any jobs.

If Printing appears on the Fiery QuickTouch, the E-85 is processing. You must wait until the system finishes and reaches Idle before restarting or shutting down.

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

2 Press Home button on the printer operational panel.

3 From the Home screen of the printer touch panel, select EFI Fiery. If the EFI Fiery icon does not display, move to the other screen by swiping the screen until the EFI Fiery icon appears.

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

Note: Notify the network administrator before you remove the E-85 from the network.

4 Press the Fiery tab.

5 Press Restart Fiery.

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

- Restart Fiery Service (soft reset)—Resets the E-85 server software but does not reboot the entire system. Network access to the E-85 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-85 activity properly and then reboots. Network access to the E-85 is temporarily interrupted and all currently processing jobs are aborted and may be lost.
- Shut Down—Shuts down all E-85 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-85 is terminated and all currently processing jobs are aborted and may be lost.

Note: Use the reset button on the front of the E-85 only if the system is unresponsive to keyboard or mouse actions.

7 Press OK.

Replacing parts

Generally, the E-85 requires no regular service or maintenance. Use the procedures in this chapter to inspect, remove, reseat, and replace major hardware components.

Overview

This chapter includes information about servicing the following components:

- Boards and cables
- Fiery QuickTouch display module
- Motherboard components (DIMMs, CPUs, battery)
- Fan
- Power supply
- Hard disk drives
- DVD drive

Replacement parts are available from your authorized service/support center. The terms “replace” and “replacing” are typically used throughout this document to refer to the re-installation of existing components. Install new components only when necessary. If you determine that a component you removed is not faulty, reinstall it.

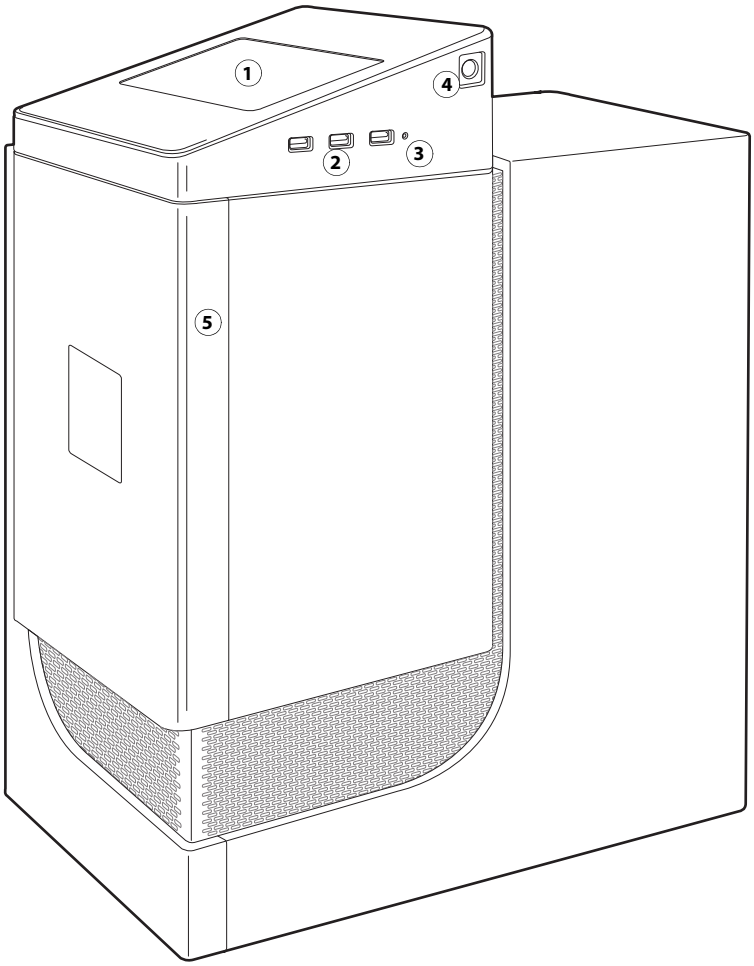
Caution: When servicing the E-85, follow the precautions listed on page 10.

For a list of the tools required to service the E-85, see page 10.

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

E-85 diagrams

Figure 20: E-85 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.

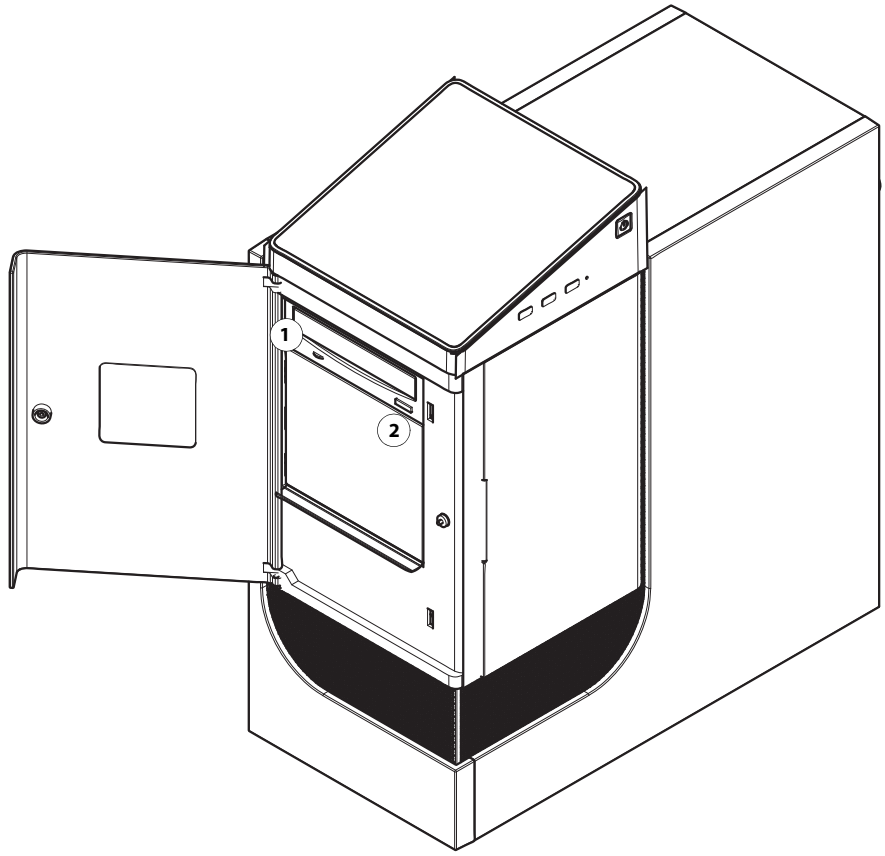
3 *Reset button*

4 *Power button*

5 *Front panel door*

Figure 21: E-85 connector panel

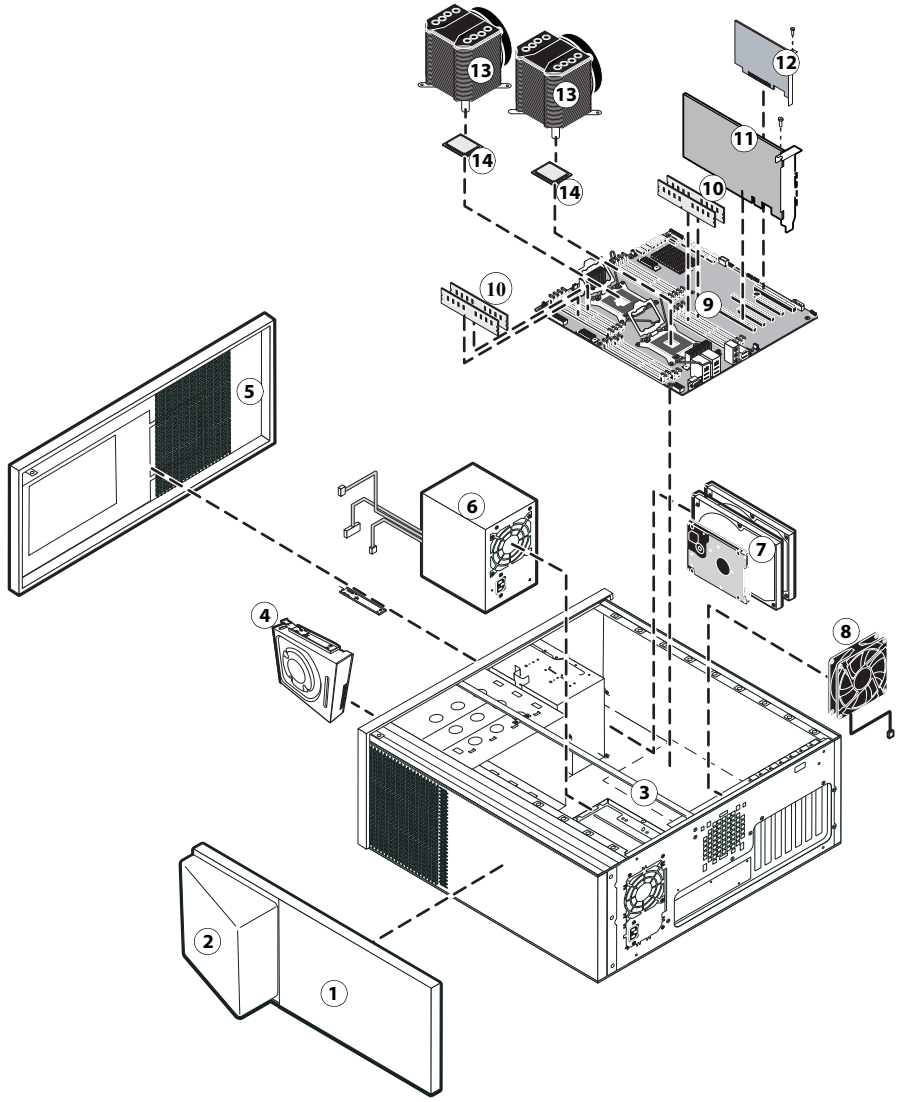
Figure 22: Inside the front door



1 DVD drive (inside behind door)

2 Eject button (inside behind door)

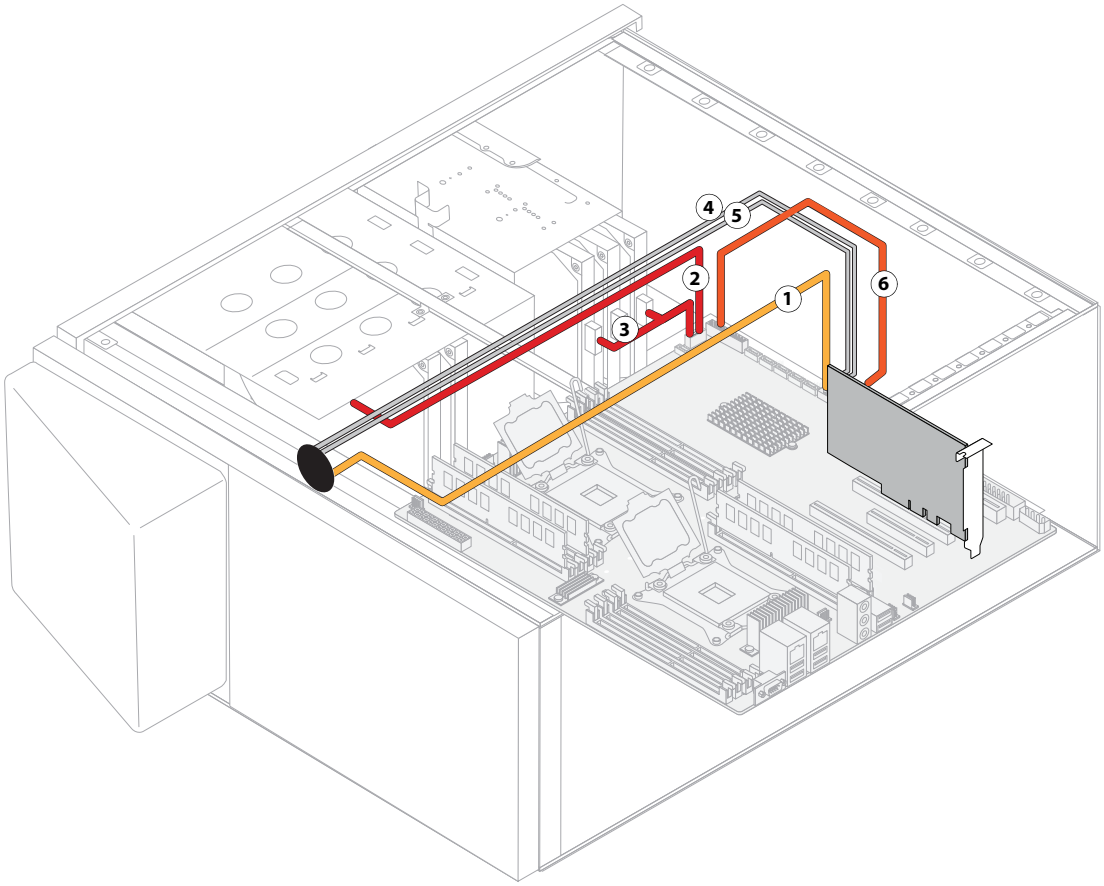
Figure 23: Exploded view of the E-85

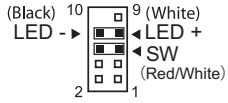


1	*Top chassis cover*	*8*	*Back fan*
2	*Fiery QuickTouch display panel*	*9*	*Motherboard*
3	*Chassis*	*10*	*DIMMs*
4	*DVD drive*	*11*	*Printer interface board*
5	*Front chassis cover*	*12*	*Graphics board*
6	*Power supply and power cables*	*13*	*CPUs cooling assemblies*
7	*HDDs (hard disk drives)*	*14*	*CPUs*

Note: Monitor, mouse, keyboard, furniture, and other accessories are not shown.

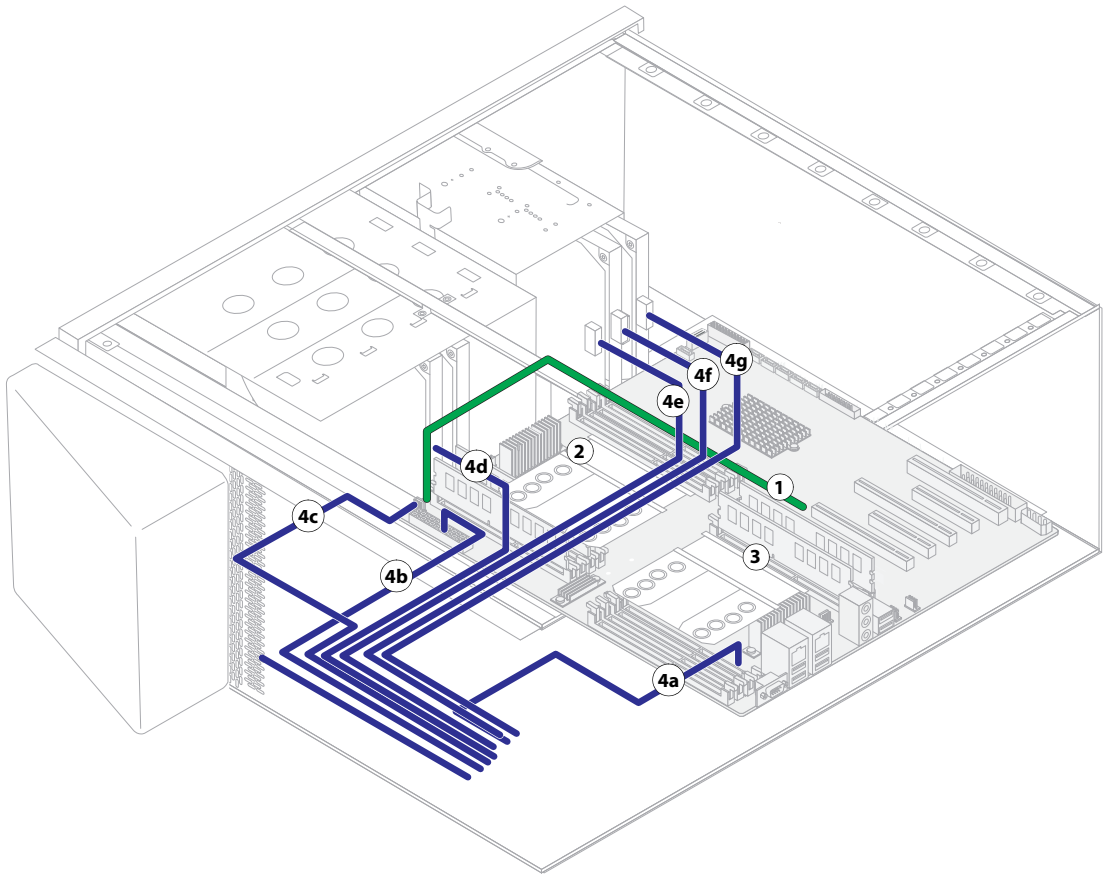
Figure 24: Data cable connections in the E-85



Cable key		From	To (on motherboard)
1	*Fiery QuickTouch USB cable*	*Fiery QuickTouch*	*USB3_2*
2	*SATA data cable*	*DVD drive* • Connector labeled 01	*Mini SAS Connector (SATA0) - Connector labeled 01*
3	*SATA data cables*	*HDD1, HDD2, and HDD3* • HDD1 - Connector labeled 02 • HDD2 - Connector labeled 03 • HDD3 - Connector labeled 04	*Mini SAS Connector (SATA1-3)*
4	*Power switch*	*connector (pin 5, 6) on the printer interface board*	*Align triangle on cable connector as shown.* 
5	*LED cable*	*connector (pin 7, 8) on the printer interface board*	
6	*10-pin power button cable*	*connector on the printer interface board*	*FPIO_1*

Note: For detailed locations of the connectors on the motherboard, see page 58.

Figure 25: Power cable connections in the E-85



Cable key		*From*	*To (on motherboard)*
1	*Back fan cable*	*Back fan*	*SYS_FAN1 (3-pin connector)*
2	*CPU0 fan cable*	*CPU0 fan*	*CPU0_FAN*
3	*CPU1 fan cable*	*CPU1 fan*	*CPU1_FAN*
4	*Power supply cables*	*Power supply (not shown)*	*a. PW3 (8-pin connector)*
			b. PW1 (24-pin connector)
			c. PW2 (8-pin connector)
			d. Molex power connector—DVD drive data/power cable
			e. SATA power connector—HDD1
			f. SATA power connector—HDD2
			g. SATA power connector—HDD3

Note: For detailed locations of the connectors on the motherboard, see page 58.

Accessing internal components

This section describes how to shut down and open the E-85. Always use the following procedures when opening the E-85 for inspection or service.

Shutting down the E-85

If the E-85 is powered on, you must shut down the system before you access the internal components. See "Starting, shutting down, restarting, and rebooting" on page 38.

Opening the E-85

Warning: Before you open the E-85, it is strongly recommended that you review "Precautions" on page 10 to avoid injury or damage to the E-85.

To open the E-85

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

1. Shut down the E-85 (see page 48).
2. Wait 10 seconds after the E-85 powers off, and then remove all external cables from the back of the system.
3. Remove the E-85 from the furniture (see page 134).
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.

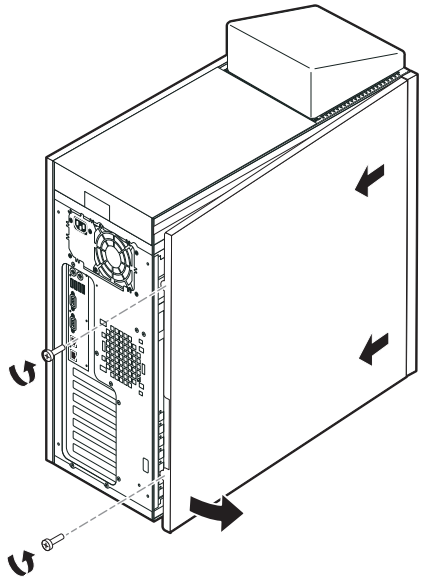
   Note: When removing multiple panels from the E-85, use the following order:

   - Left side panel
   - Right side panel
   - Front panel
   - Top panel with Fiery QuickTouch
5. Place the E-85 on a flat surface. Carefully position the E-85 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.

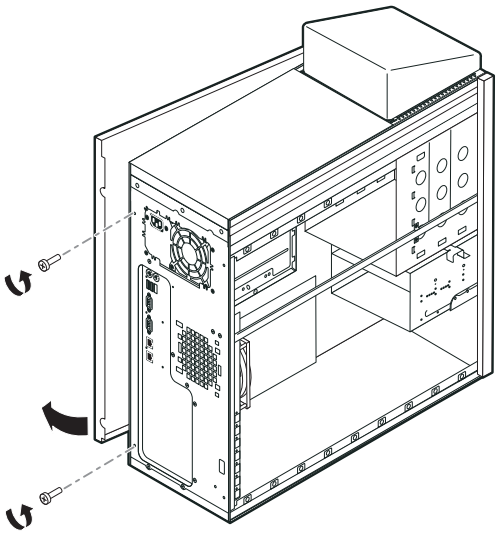
Figure 26: Removing the left panel



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 27: Removing the right panel

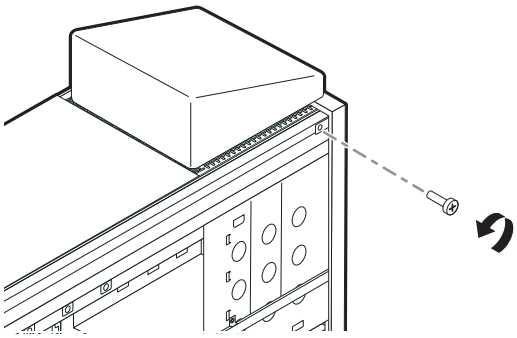


4 From the back of the unit, slide the left side chassis cover toward the rear of the unit and remove.

To remove the front panel

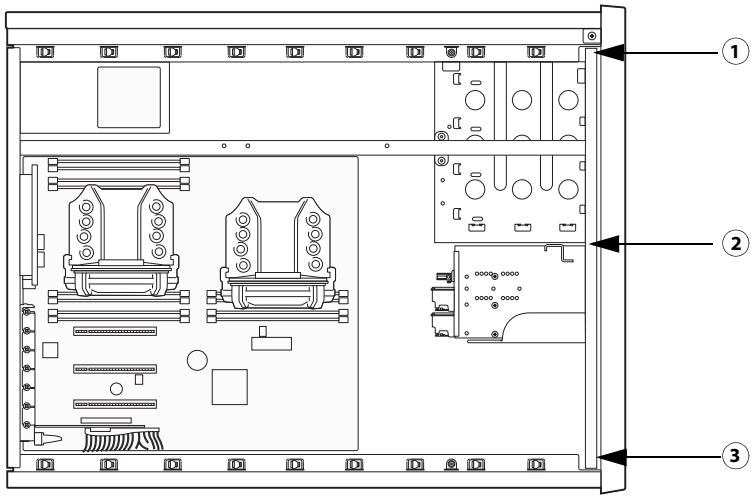
1 Remove the anchor screw from the front bezel.

Figure 28: Front bezel anchor screw



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

Figure 29: Front bezel tabs



1 Top tab (one on each side of bezel)

2 Middle tab (one on each side of bezel)

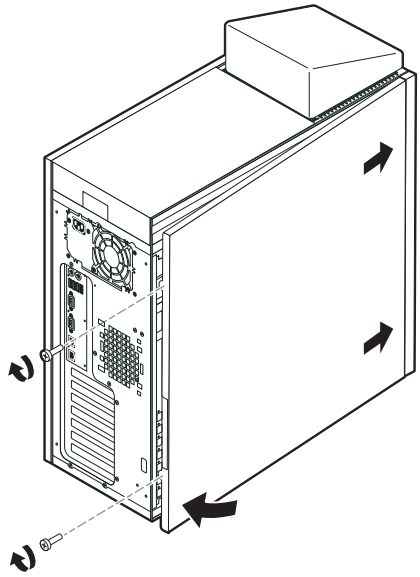
3 Bottom tab (one on each side of bezel)

To replace the chassis panels

1 Attach the front bezel to the front of the unit snapping tight the six tabs. See Figure 29.

2 Insert the anchor screw to secure the front bezel. See Figure 28.

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-85.

Follow the directions to remove the chassis covers. See "Opening the E-85" on page 48. 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.

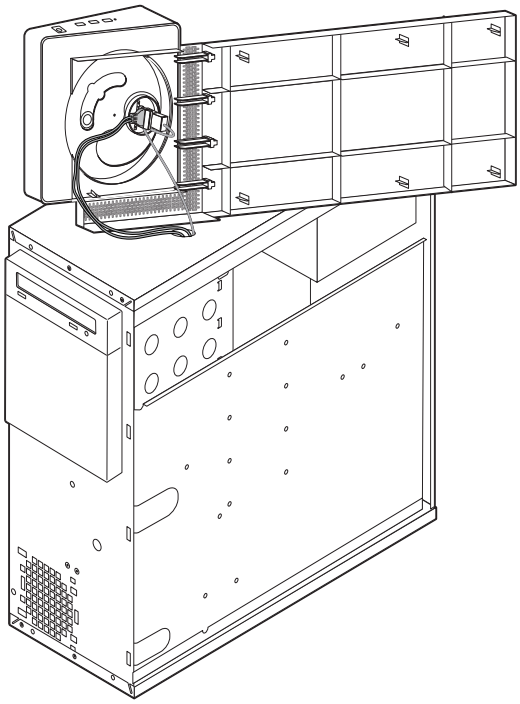
Caution: It is highly recommended that you use a screwdriver with a magnetic tip when removing or replacing screws on the Fiery QuickTouch. If you do not, the screws you remove or replace might fall inside the Fiery QuickTouch device.

To remove the Fiery QuickTouch

1 Follow the instructions to remove the side and front chassis covers.

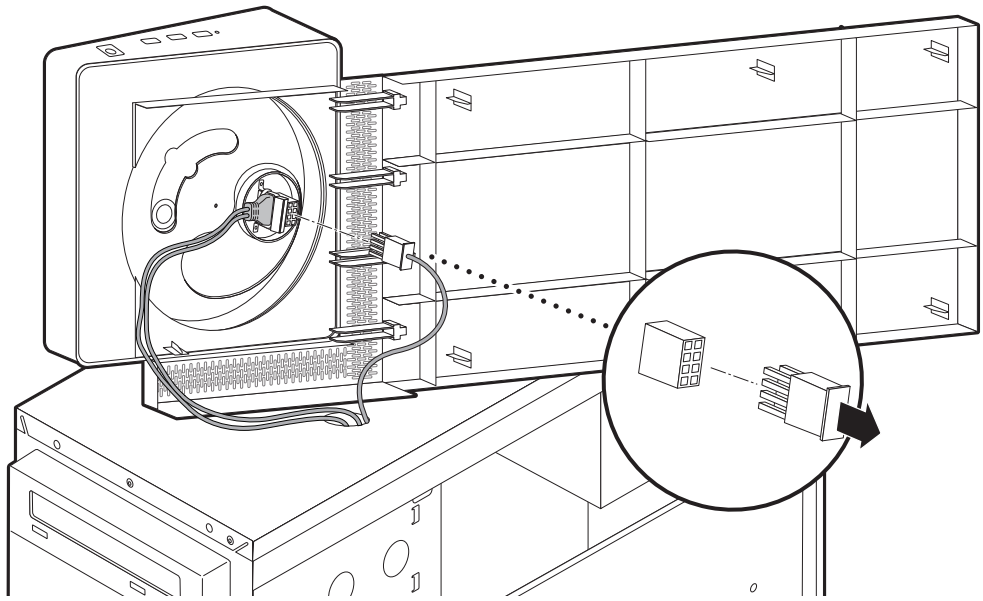
2 To remove the top bezel, slide the bezel forward and release it from the top of the chassis.

3 Stabilize the unit and set the Fiery QuickTouch on its side atop the unit.



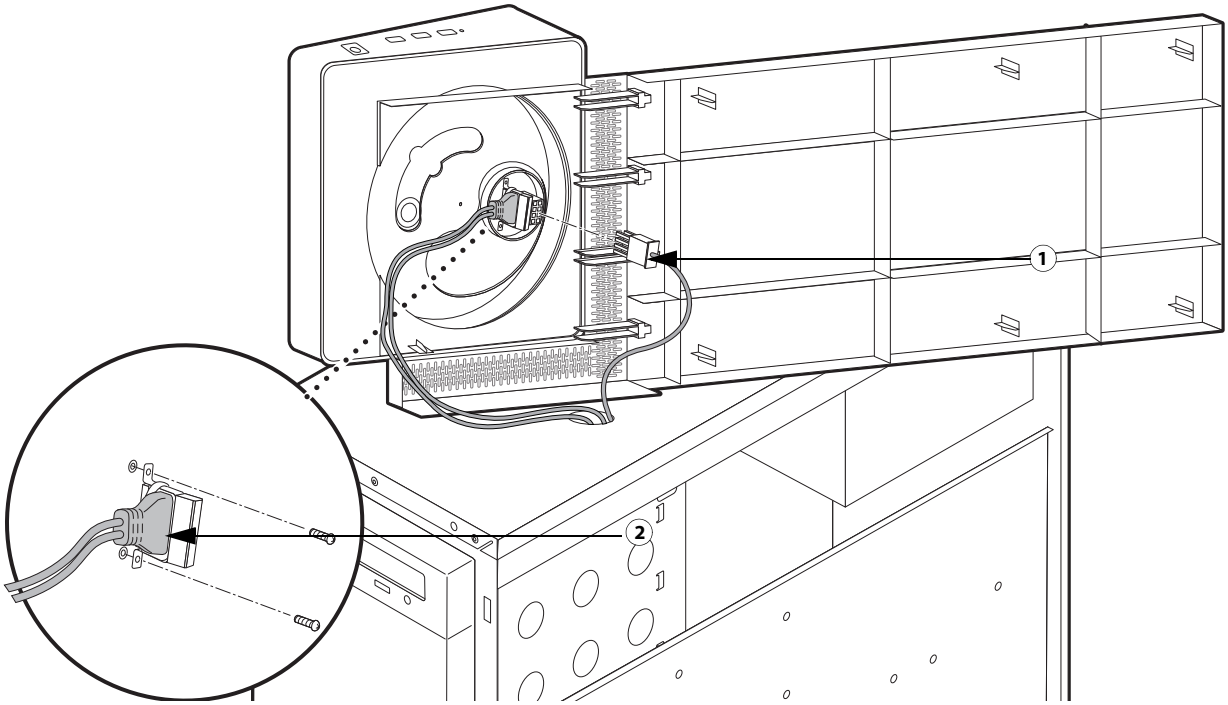
4 Remove the two connectors to the Fiery QuickTouch.

a Remove the power harness by unplugging it.



b 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.

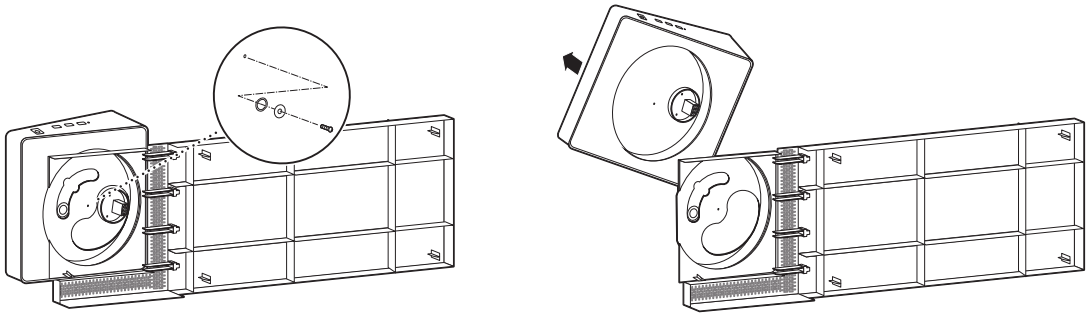


1 Power harness connector

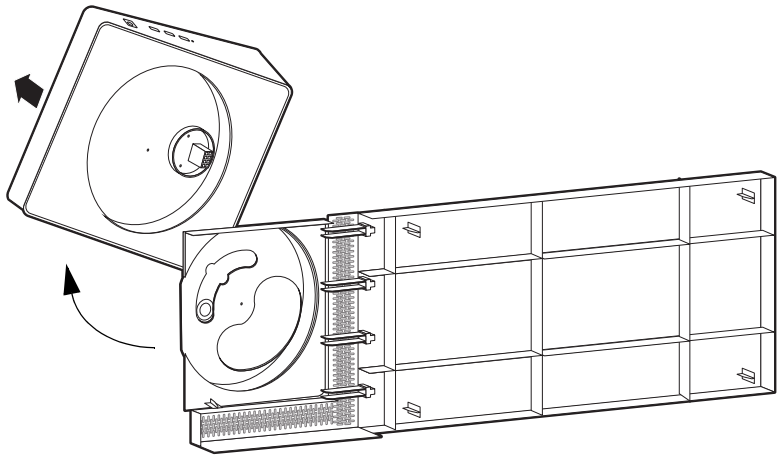
2 USB connector

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 Replace the top bezel on top of the unit and slide back in place.

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

9 Replace the chassis panels (see page 50).

Removing and replacing boards

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

- Printer interface board
- Graphics board
- Motherboard

The E-85 is shipped from the factory with a standard board configuration, as shown in Figure on page 46. If an optional component has been installed, see the documentation that accompanies the option kit.

Printer interface board

The printer interface board is a custom board connected to the motherboard. It processes image data and allows the E-85 to communicate with the printer.

For information about the location of this board on the motherboard, see page 56.

Figure 30: Printer interface board assembly

To remove the printer interface board

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

1 Shut down the E-85, remove all cables from the back, and open the E-85 (see page 48).

2 Remove the screws that secures the board's mounting bracket to the connector panel and save them for later.

3 Gently pull the board out its connector on the motherboard and place it in an antistatic bag.

To install the printer interface board

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

1 Insert the board into the *PCIE_4* connector on the motherboard (see Figure 32 on page 58).

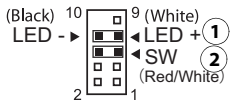
The component side of the board must face down, toward the base of the chassis. The board connector is keyed to fit only one way.

When reseating the board, be careful not to disturb any motherboard cables that are installed nearby.

2 Attach the board to the connector panel with the screws you removed earlier.

3 Connect the SW/LED cables from the Fiery QuickTouch panel to the J352 connector.

Figure 31: J352 connector on the printer interface board



Align triangle on cable connector as shown.

1 LED cable connection

2 SW cable connection

4 Reassemble the E-85 and verify its functionality (see page 83).

Graphics board

The graphics board provides the external DVI, HDMI , and VGA ports for the monitor video cable. Connect your monitor to the appropriate port. The model and appearance of the board may vary between systems. No additional software is required to use the monitor ports provided by the board.

To remove the graphics board

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

1. Shut down the E-85, remove all cables from the back, and open the E-85 (see page 48).
2. Remove the screws that secures the board's mounting bracket to the connector panel and save them for later.
3. Gently pull the board out its connector on the motherboard and place it in an antistatic bag.

   Be careful not to disturb nearby cables.

To install the graphics board

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

1. Insert the board into the *PCIE_1* (bottom) connector on the motherboard.

   The component side of the board must face down, toward the base of the chassis. The board connector is keyed to fit only one way.

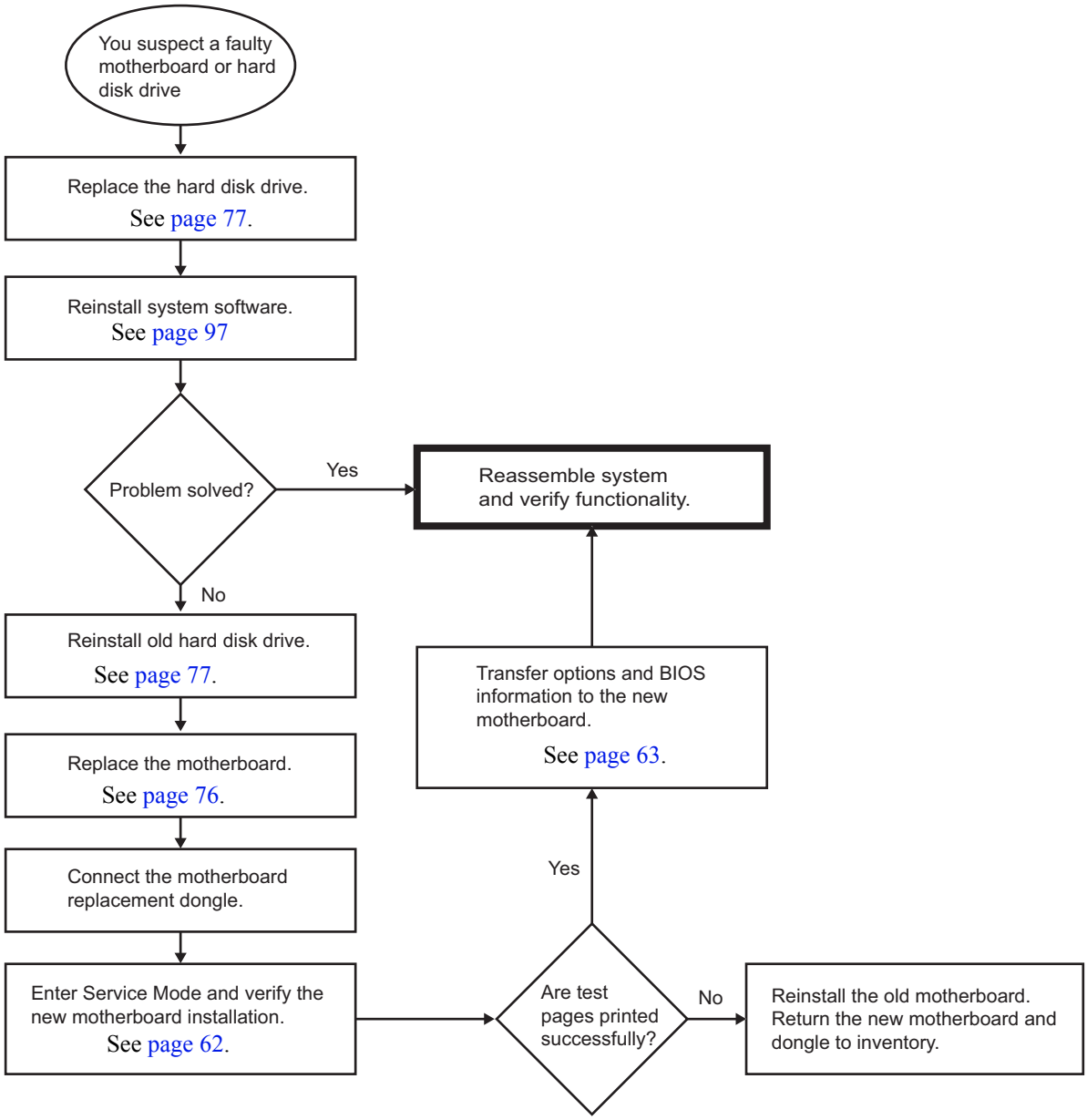
   When reseating the board, be careful not to disturb any motherboard cables that are installed nearby.
2. Attach the board to the connector panel with the screws you removed earlier.
3. Reassemble the E-85 and verify its functionality.

Motherboard

The motherboard contains two CPUs. The CPUs control 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-85 and external devices.

If you are installing a replacement motherboard, be sure to order the correct motherboard kit for your system and tag designation.

Motherboard replacement overview



Motherboard parts and connectors

Figure 32: E-85 Motherboard

Motherboard jumpers

Important: Do not move or change any of the default jumper configurations.

Removing the motherboard

Before you remove the motherboard, you must remove:

- All boards installed on the motherboard
- All cables connecting the motherboard to other components (including the three motherboard power cables, back fan cables, DVD/HDD data/power cables, Fiery QuickTouch USB cable, and SW/LED cable)

Caution: Follow standard ESD precautions (see page 11) when handling components. 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.

To remove motherboard components from the motherboard

1 Shut down the E-85, remove all cables from the back, and then open the system (see page 48).

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

2 Remove the printer interface board assembly from the motherboard (see page 55).

To access the mounting screws for the board brackets, you must first remove the bracket cover plate from the connector panel.

3 Remove the following cables attached to the motherboard (for the location of each connector on the motherboard, see Figure 24 on page 46 and Figure 25 on page 47):

- Back fan cable
- Mini SAS HDD/DVD data cable
- Fiery QuickTouch USB cable
- 8-pin motherboard power cable (PW2)
- 8-pin motherboard power cable (PW3)
- 24-pin motherboard power cable (PW1)
- Power/LED cable (FPIO_1)

To remove the motherboard

Note: This procedure assumes that you have removed the printer interface board and cables from the motherboard, as described in "To remove motherboard components from the motherboard" on page 58.

1 Remove all screws securing the motherboard to the chassis (for screw locations, see page 58).

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.

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

- DIMMs (see page 66)
- CPUs (see page 69)

Replacing the motherboard

Important: Follow the procedures in this section to replace the motherboard. Failure to follow these procedures can cause a corrupted system (not easily repaired in the field) or an incomplete installation.

If you are installing a new motherboard:

- Transfer the DIMMs and CPUs from the old motherboard. Spare motherboards ship with replacement thermal compound for use when transferring the CPUs.
- Make sure that the new motherboard solves the problem that you are troubleshooting *before you transfer options to the new motherboard*. Transferring options permanently customizes the new motherboard so that it cannot be returned to inventory and cannot be installed in another E-85. If the new motherboard does not solve the problem, do not transfer options. Return the new motherboard and unused motherboard replacement dongle to inventory.
- Do not reinstall system software. Reinstalling system software is not necessary when installing a new motherboard and can result in an error if done before transferring options.
- BIOS chips are not interchangeable. Do not transfer the BIOS chip from the old motherboard onto the new motherboard. Doing so can damage the E-85.
- Do not install a new hard disk drive at the same time that you install a new motherboard.

  It is unlikely that both the hard disk drive and the motherboard are defective, therefore, avoid replacing both to solve one problem. If troubleshooting strategies (checking cables and connections, etc.) do not resolve the problem and you suspect either the hard disk drive or the motherboard is at fault, use the following order: replace the hard disk drive; install system software; verify the problem still exists; then move on to other procedures, such as replacing the motherboard. Otherwise, you may need to return the E-85.

- Transfer options to the new motherboard using the motherboard replacement dongle (for details, see page 63).

To install the motherboard

1 If protective covers are present on the CPU sockets on the new motherboard, remove them. Then install the covers on the CPU sockets on the old motherboard to protect the circuitry.

2 If you are installing a new motherboard, install the DIMMs and CPUs from the old motherboard onto the new motherboard. For DIMMs, see page 66; for CPUs, see page 69.

⚠ **Important:** Follow these guidelines:

- Make sure to use the fresh thermal compound that came with the new motherboard when transferring CPUs onto the new motherboard (for details, see page 71).
- Make sure that the motherboard is placed on an antistatic surface with some padding.
- Do not transfer the BIOS chip from the old motherboard onto the new motherboard. Doing so can cause the system to shut down due to incompatibility issues.

3 Align the mounting holes in the motherboard with the mounting posts on the chassis.

4 Install the CPU cooling assemblies that you removed earlier.

For detailed installation instructions, see page 69.

5 Insert the motherboard mounting screws that secure the motherboard to the chassis (see Figure 32 on page 58).

⚠ **Important:** Always install the CPU cooling assemblies before installing the motherboard mounting screws. You may flex and damage the motherboard if you perform the installations in the wrong order.

⚠ **Important:** Partially tighten each mounting screw before completely tightening any one screw. Do not over-tighten the screws; doing so could damage traces on the motherboard.

To replace motherboard components

1 Replace the following cables attached to the motherboard (for the location of each connector on the motherboard, see Figure 32 on page 58):

- Power and LED cable

  For the location of the pins, see Figure 32 on page 58.

- 24-pin motherboard power cable
- 8-pin motherboard power cables

  You may connect either 8-pin cable to either power connector.

- Fiery QuickTouch USB cable
- Mini SAS DVD/HDD data cable
- Back fan cable

2 Replace the printer interface board assembly to connector PCI-E1 x16 on the motherboard (see page 55).

When installing the boards, verify the following:

- The main board is installed in connector PCI-E1 x16 (PCIE_6, topmost) on the motherboard, and the board connector is properly aligned with the PCI connector. For the correct connector and slot assignments, see Figure 32 on page 58.
- The three bracket screws are installed on the connector panel slot.
- Unused slots have slot covers installed on the connector panel. Uncovered slots reduce the air flow and could cause the E-85 to overheat.

3 Replace the bracket cover plate to the connector panel (see Figure 21 on page 44).

4 Replace the graphics board to the PCI-E x8 (lowest) connector.

5 Reassemble the E-85 but do not power on the system.

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, 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 62).

  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 62.

  ⚠ **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-85 is powered off, no media is in the DVD drive, you have installed a new motherboard, and that you have reassembled the E-85 and attached external cables.

1. Make sure the E-85 is connected to the printer.
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 wireless adapter) that may be currently connected to any other USB port.

   Reconnect other dongles and USB devices only after you verify that the E-85 starts up successfully in Service Mode.
4. Power on the E-85 and allow it to boot without interruption.
   - At the Log On to Windows dialog box, log in as **Administrator**, 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-85 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 Fiery QuickTouch screen.
5. Print the E-85 Test Page.
6. Ask the site administrator to connect the E-85 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 63), 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 102.

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-85 is fully assembled with the new motherboard, and verified in Service Mode (see page 62).

1. Verify that all power is turned off on the E-85.
2. Insert the motherboard replacement dongle into a USB port.
3. Turn on the E-85.

   Wait until the E-85 reaches Idle.
4. On the Fiery QuickTouch screen, press the server name at the upper left corner of the display.
5. Select Motherboard Replacement icon.

   The screen displays "Reading dongle...", then displays the number of licenses left to apply to the transfer.
6. 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.
7. Reboot the E-85.
8. Remove the motherboard replacement dongle after the E-85 reaches Idle.

Replacing parts on the motherboard

This section describes how to remove and replace the battery, DIMMs, and CPUs on the motherboard.

Before performing any of these procedures, shut down and open the E-85 (see page 48).

Motherboard battery

The battery is located at socket BAT on the motherboard.

Note: Spare batteries are not available through your authorized service/support center. To replace the battery, use a 3V manganese dioxide lithium coin cell battery (Panasonic CR2032 or equivalent).

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

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

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

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

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

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

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

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

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

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

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

To replace the motherboard battery

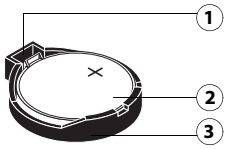
1 Shut down the E-85, remove all cables from the back, and open the system (see page 48).

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

2 Locate the battery on the motherboard (see “Motherboard battery” on page 64).

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

Figure 33: Motherboard battery



1 *Clip*

2 *Battery*

3 *Socket*

4 Slide the battery out of its socket.

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

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

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

7 Reassemble the E-85 and verify its functionality (see page 83).

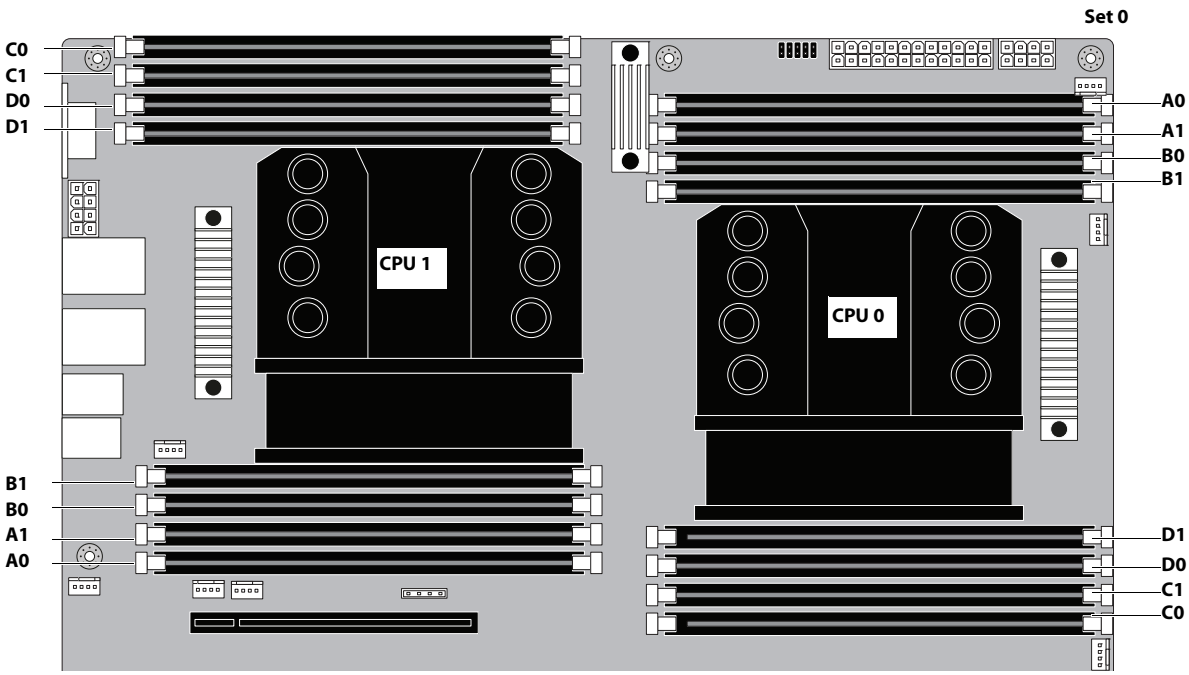
8 Configure the time and date in Setup.

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

DIMMs

The motherboard has 16 DIMM sockets organized into two sets, as shown in Figure 34.

Figure 34: Motherboard DIMM sockets



The E-85 standard configuration provides four 4GB DIMMs, for a total of 16GB of memory (Socket A0 for both Set 0 and Set 1, and Socket B0 for both Set 0 and Set 1).

Note: DIMMs must be correctly installed in order for the E-85 to function properly. To ensure proper operation, replace DIMMs only with approved replacement DIMMs from EFI.

Note: When installing DIMMs, note the following:

- There are eight channels (A to D channels for Set 0 and Set 1) for DIMM slots. Use the same DIMM type for each channel.

- When installing more than eight DIMMs, use the following table for the available slots.

Table 3: Available DIMM slots

Number of DIMMs	4	5	6	7	8	10	12	14	16
Set 0 - Socket A0	o	o	o	o	o	o	o	o	o
Set 0 - Socket A1						o	o	o	o
Set 0 - Socket B0	o	o	o	o	o	o	o	o	o
Set 0 - Socket B1						o	o	o	o
Set 0 - Socket C0		o	o	o	o	o	o	o	o
Set 0 - Socket C1							o	o	o
Set 0 - Socket D0				o	o	o	o	o	o
Set 0 - Socket D1							o	o	o
Set 1 - Socket A0	o	o	o	o	o	o	o	o	o
Set 1 - Socket A1								o	o
Set 1 - Socket B0	o	o	o	o	o	o	o	o	o
Set 1 - Socket B1								o	o
Set 1 - Socket C0			o	o	o	o	o	o	o
Set 1 - Socket C1									o
Set 1 - Socket D0					o	o	o	o	o
Set 1 - Socket D1									o

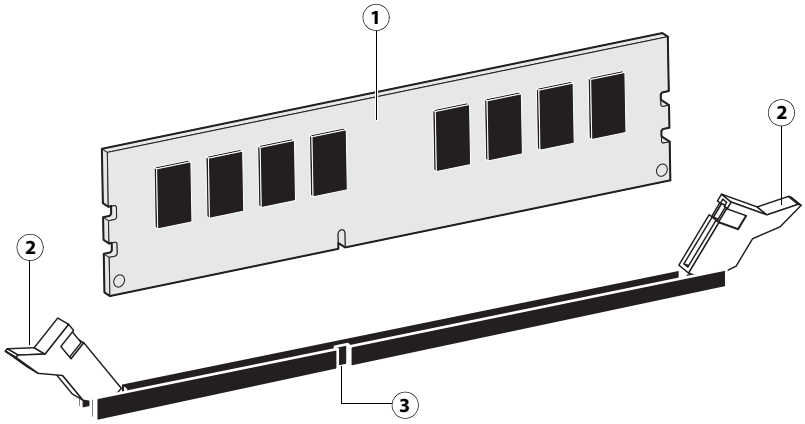
To replace a DIMM

1 Shut down the E-85, remove all cables from the back, and open the system (see page 48).

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

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

Figure 35: Releasing a DIMM



1 DIMM

2 Lever

3 Socket notch

3 Lift the DIMM straight out of the socket.

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

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

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

5 Reassemble the E-85 and verify its functionality (see page 83).

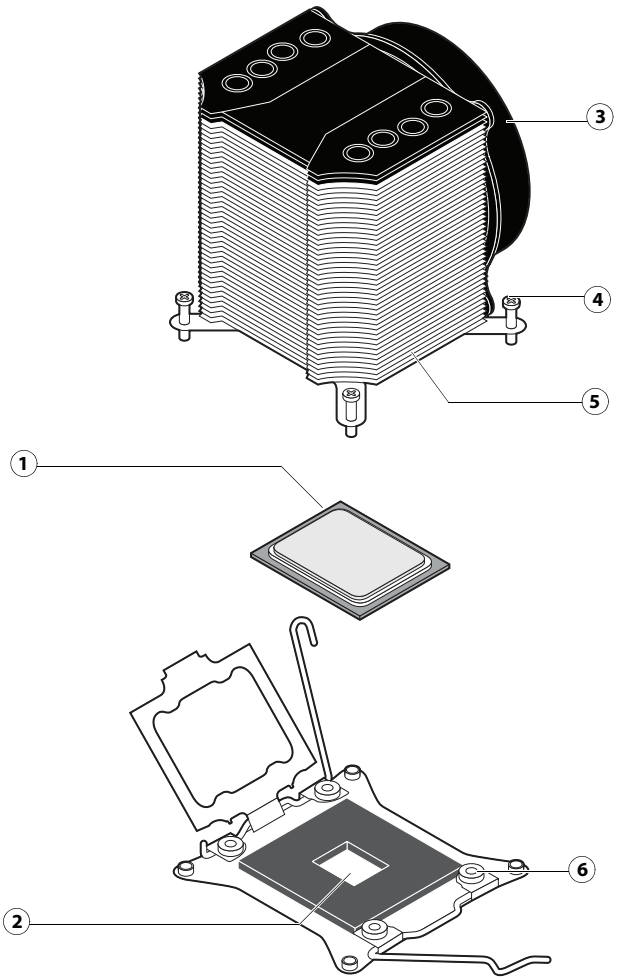
6 If you installed a new DIMM, configure the time and date in Setup.

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

Motherboard CPUs

The CPUs are installed in Zero Insertion Force (ZIF) sockets on the motherboard. Before removing a CPU from its socket, you must disconnect the CPU fan cable from the motherboard and remove the CPU cooling assembly from the motherboard. The CPU cooling assembly consists of a fan and a heatsink.

Figure 36: CPU, socket, and cooling assembly



1	*CPU*	4	*Mounting screw (1 of 4)*
2	*CPU socket in motherboard*	5	*Heatsink*
3	*CPU fan*	6	*Mounting hole in motherboard (1 of 4)*

Caution: Follow standard ESD precautions when handling the motherboard and all components (see page 11).

Important: To avoid flexing and possibly damaging the motherboard, always service the CPU cooling assemblies one at a time. If you must service both CPU cooling assemblies, observe the following guidelines: remove, service, and replace the first cooling assembly; then remove, service, and replace the second cooling assembly.

An exception is allowed if you are removing the CPU cooling assemblies to service the motherboard. In this case, remove

the motherboard mounting screws to relieve tension on the motherboard, and then remove both cooling assemblies from the motherboard as described in the following steps.

To remove a CPU cooling assembly

1 Shut down the E-85, remove all cables from the back, and then open the system (see page 48).

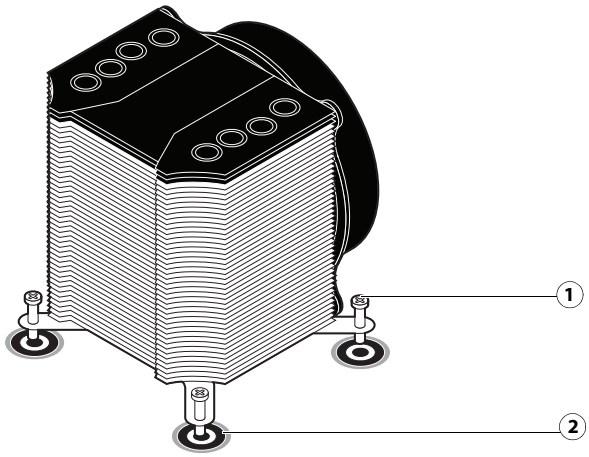
To access the CPU cooling assembly, you must remove the left panel.

2 Remove the CPU fan cable from its connector on the motherboard (see Figure 25 on page 47).

3 Loosen the four mounting screws that secure the CPU cooling assembly to the motherboard (see Figure 37).

Partially loosen each screw before loosening any one screw entirely.

Figure 37: Removing/replacing the CPU cooling assembly



1 Mounting screw (1 of 4)

2 Mounting hole in motherboard (1 of 4)

4 Lift the CPU cooling assembly off the CPU.

Caution: Be aware that both the cooling assembly and the CPU may be very hot. Also, use caution when removing the cooling assembly, as the thermal compound applied to the bottom of the heatsink may damage the CPU if the heatsink is removed too forcefully.

First, carefully rotate the cooling assembly on top of the CPU, applying firm pressure to break the thermal seal. Then lift the cooling assembly off the CPU.

To remove a CPU

Note: This procedure assumes that you have removed the CPU cooling assembly, as described on page 70.

1 Lift the CPU socket levers to release the socket cover (see Figure 38).

2 Carefully open the socket cover.

3 Grasp the CPU by its edges, gently lift it from the socket and place it on an antistatic surface.

Important: You may have to insert a small, non-magnetic flathead screwdriver between the CPU and the socket to partially disengage the CPU. Use caution when removing, handling, and setting aside the CPU, as the pins on the underside can bend easily.

To replace a CPU

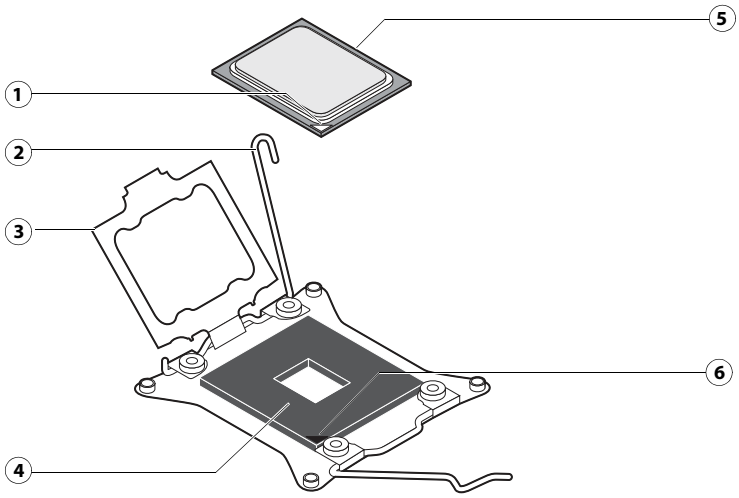
1 Wipe the contact surface of the CPU chip with a clean, lint-free cloth to ensure proper contact with the new heatsink.

Important: If you removed the original CPU from the motherboard to install it on a new motherboard, be sure to remove all thermal compound residue from the surface of the CPU and the base of the heatsink. It may help to scrape all the residue off the surface using the flat edge of a non-conductive tool. Use a lint-free cloth moistened with alcohol to clean the base of the heatsink.

2 Insert the CPU into the socket. Make sure that you align the arrow indicating pin 1 on the CPU with the arrow on the CPU socket.

3 Carefully close the socket cover, and lower the socket levers to secure the cover.

Figure 38: Replacing a CPU



1 *Arrow on CPU indicates pin 1*

2 *Socket lever*

3 *Socket cover*

4 *CPU socket*

5 *CPU*

6 *Arrow on socket indicates pin 1*

To replace a CPU cooling assembly

Note: This procedure assumes that you have installed the CPU in the motherboard CPU socket, as described in page 71.

1 Prepare the surfaces of the CPU and CPU cooling assembly for proper thermal conduction:

Important: If you removed the original CPU cooling assembly from the motherboard to install it on a new motherboard, first remove all thermal compound residue from the surface of each CPU and the base of each heatsink. (Use the flat edge of a non-conductive tool to scrape off the residue, and a lint-free cloth moistened with alcohol to clean the base of the heatsink.) Then apply fresh thermal compound to the surface of each CPU using the applicator provided with the new motherboard.

- If you are installing a new CPU cooling assembly, make sure that fresh thermal compound is present on the base of the new heatsink. New cooling assemblies ship with thermal compound preapplied to the base of the heatsink.

2 Place the cooling assembly on the CPU (see Figure 37 on page 70).

Align the four mounting screws in the cooling assembly with the four mounting holes in the motherboard. Make sure that the thermal compound on the base of the assembly completely covers the CPU chip. Incorrect installation could cause the CPU to overheat.

3 Tighten the four screws to secure the cooling assembly to the motherboard.

To avoid flexing and possibly damaging the motherboard, partially tighten each screw before you tighten any one screw completely.

4 Connect the CPU fan cable to its designated connector on the motherboard (see page 58).

5 Reassemble the E-85 and verify its functionality (see page 83).

6 If you installed a new CPU, configure the time and date in Setup.

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

Back Fan

Inside the E-85, one back fan runs continuously when the system is on. The fan circulates air inside the E-85 to cool integrated circuits within the system. You should hear the fan start as soon as you power on the E-85. If you do not hear the fan, the most likely problem is a faulty cable connection (see Figure 25 on page 47).

Replace the Back fan

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

To remove the back fan

1 Shut down the E-85, remove all cables from the back, and then open the system (see page 48).

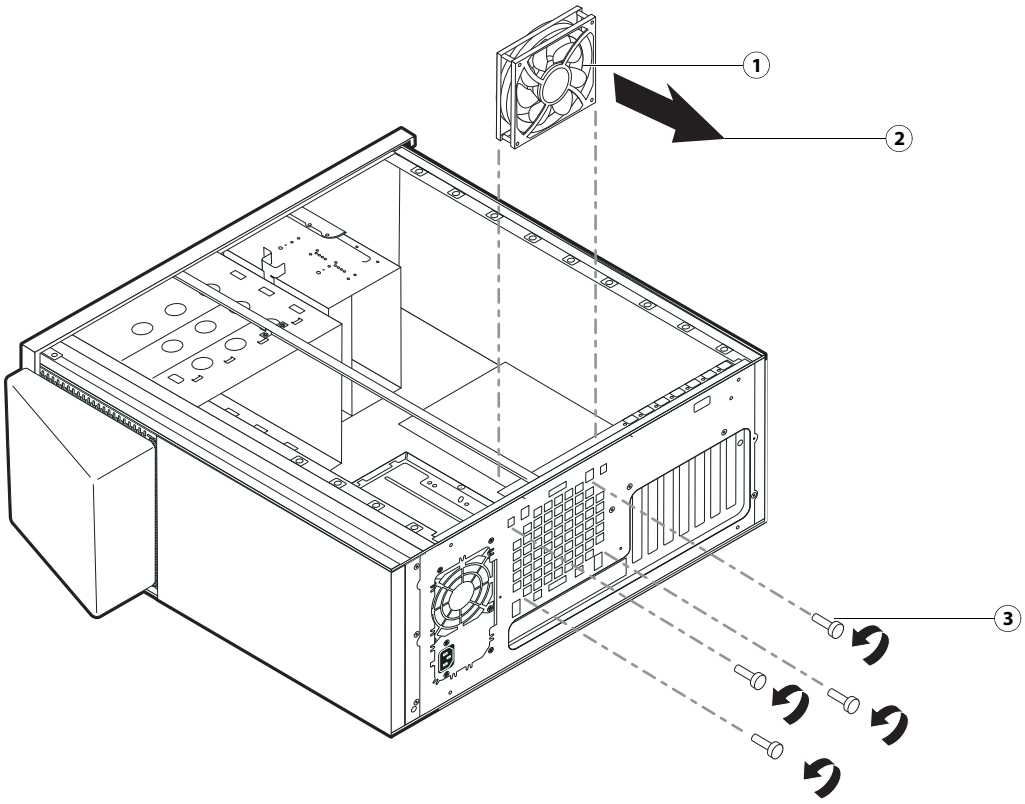
To access the fan, you must remove the left panel.

2 Detach the 3-pin fan cable connector from its connector on the motherboard.

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

To remove a rivet, use a flathead screwdriver to pry loose the rivet head while squeezing and pushing the locking end of the rivet with your fingers or a screwdriver.

Figure 39: Removing/replacing the back fan



1 Fan assembly

2 Airflow direction

3 Screw (1/4)

To replace the back fan

1 Position the fan against the chassis.

When correctly positioned, the metal grille on the fan should be facing away from the connector panel, and the fan cable should be able to reach its connector on the motherboard.

2 Align the four holes on the fan with the four holes in the chassis, and replace the four rivets that secure the fan to the chassis (see Figure 39 on page 73).

Hold the fan firmly against the chassis, and push each rivet all the way until it snaps into locked position. Make sure that the fan is tightly secured to the chassis.

Note: If you damaged the original rivets while removing the old fan, use the rivets provided in the bag labeled “BACK FAN.” This bag of rivets accompanies the spare fan kit.

3 Connect the 3-pin fan connector to the top three pins of connector REAR FAN (J50) on the motherboard (see Figure 25 on page 47 and Figure 32 on page 58).

4 Reassemble the E-85 and verify its functionality (see page 83).

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 132.

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-85, remove all cables from the back, and then open the system (see page 48).

To remove the power supply, you must remove the left and right panels.

2 Remove the 24-pin power cable from connector PW1 on the motherboard.

3 Remove the 8-pin power cables from connectors PW2 and PW3 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.

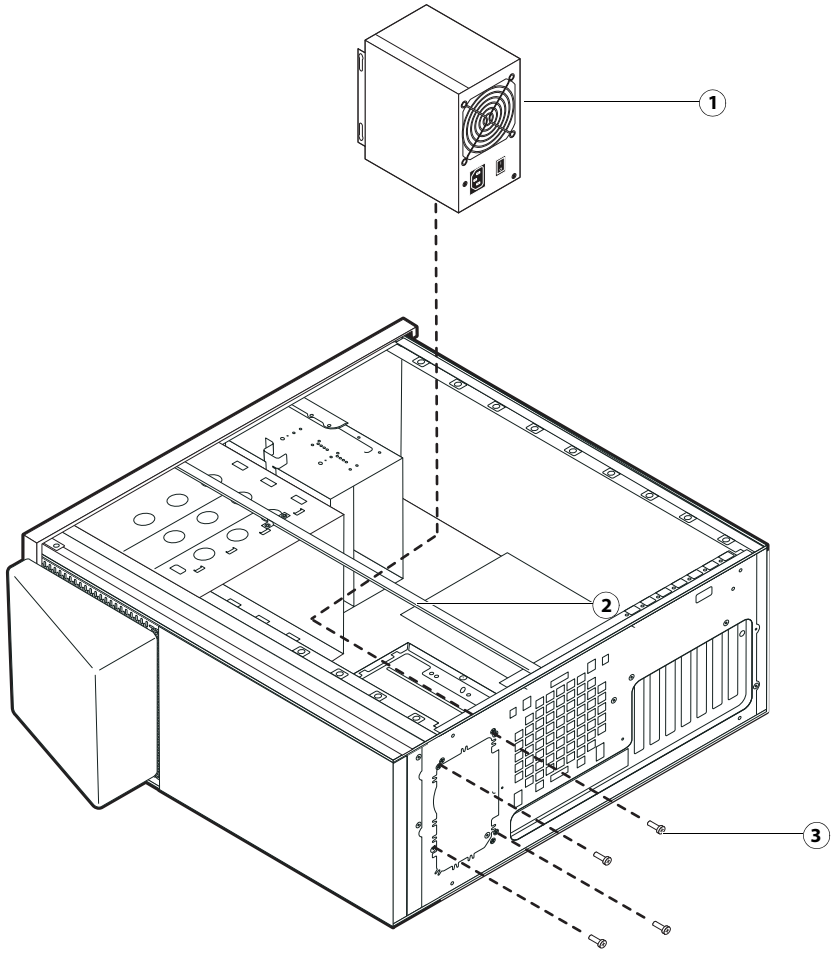
8 Place the E-85 in the upright position.

9 Remove the motherboard from the chassis (see page 59).

10 Remove the four connector panel screws that secure the power supply to the back of the chassis (see Figure 40).

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

Figure 40: Removing/replacing the power supply



1 *Power supply unit*

2 *Chassis bar*

3 *Screw (1 of 4)*

Note: To service the power supply, place the E-85 in an upright position.

To replace the power supply

1 Make sure that the E-85 is in upright position.

2 Position the power supply inside the chassis (see Figure 40 on page 75).

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 four screws that secure the power supply to the connector panel of the chassis.

4 Replace the motherboard (see page 60).

5 Connect one of the SATA power cables to the power connector on the dual data/power cable that connects to the DVD drive.

6 Connect three of the other SATA power cables to the SATA power connectors on the three hard disk drives.

7 Connect the power cables to the motherboard (see Figure 25 on page 47 and Figure 32 on page 58):

- 8-pin power cables to connectors PW2 and PW3

  You may connect either 8-pin cable to either power connector on the motherboard.

- 24-pin power cable to connector PW1

8 Replace the tie wraps that you removed earlier.

9 Reassemble the E-85 and verify its functionality (see page 83).

Hard disk drives

The factory-installed hard disk drives (HDD) are formatted and loaded with system software, network drivers, and printer fonts. The hard disk drives are also used to store spooled print jobs.

If you replace a hard disk drive with a new one, you must reinstall system software and user software on the system. (Replacement hard disk drives are not shipped with preinstalled software.) The E-85 remains enabled for features such as the Fiery Graphic Arts Package, once the software is reinstalled.

This section includes separate procedures for replacing a hard disk drive installed inside the E-85 and replacing a hard disk drive installed inside the enclosure of the HDD Security Option.

Proper handling

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

- Use standard ESD practices when grounding yourself and the E-85.
- Keep magnets and magnetic-sensitive objects away from the hard disk drives.
- Do not remove the screws on top of the hard disk drives. Loosening these screws voids the warranty.
- Never drop, jar, bump, or put pressure on the hard disk drives.
- Handle the hard disk drives by the sides and avoid touching the printed circuit boards.
- Allow the hard disk drives to reach room temperature before installation.

Hard disk drive problems may be caused by the following:

- Loose or faulty connection
- Faulty hard disk drive

If you are replacing a hard disk drive with a new one, you must have the following:

- The appropriate system software and documentation for the E-85 you are servicing
- A compatible version of the user software for the networked computers that will be printing to the E-85

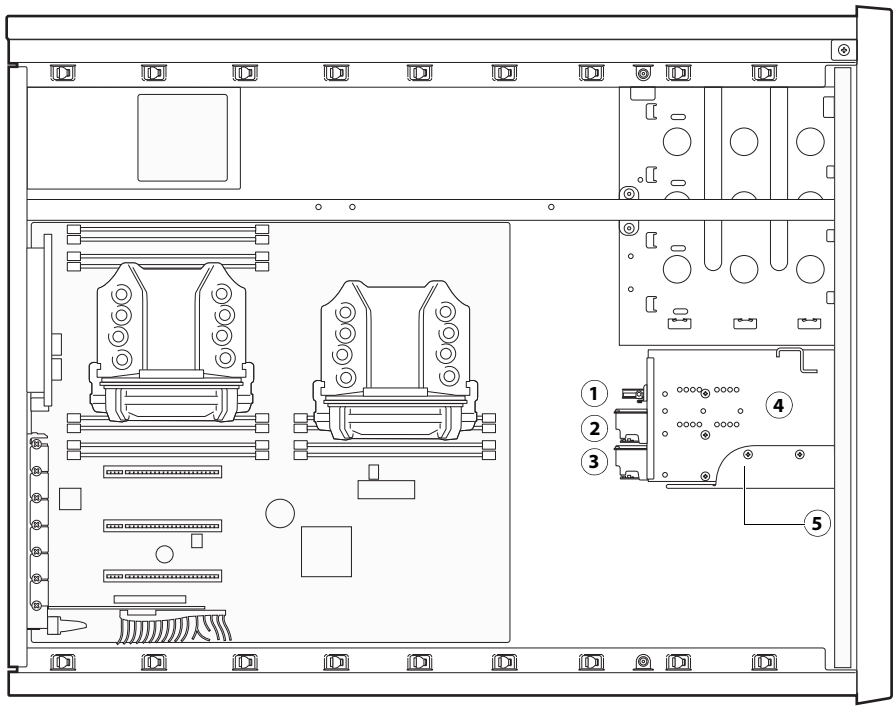
Servicing hard disk drives inside the E-85

This section describes how to remove and replace hard disk drives installed inside the E-85.

The hard disk drives are identified as follows:

- HDD1 is the 500GB hard disk drive installed in the top slot of the chassis. HDD1 is partitioned into drive letters c:\ and d:\.
- HDD2 is the 2TB hard disk drive installed in the middle slot of the chassis.
- HDD3 is the 2TB hard disk drive installed in the bottom slot of the chassis. HDD2 and HDD3 are configured together as a single RAID drive, represented by drive letter e:\.

Figure 41: E-85 hard disk drives (HDDs)



1 *HDD1*

2 *HDD2*

3 *HDD3*

4 *HDD sled*

5 *Bracket screw*

To remove a hard disk drive

1 If you have not done so already, ask the site administrator to print the Job Log and save any custom simulation and output profiles. If possible, print the following:

- Server Configuration page lists any installed options and records the customer's current Setup configuration (for more information, see page 27).
- Font List lists the fonts currently on the hard disk drives. Along with the fonts provided, the customer may have installed additional fonts (for more information, see page 27).

2 Shut down the E-85, remove all cables from the back, and then open the system (see page 48).

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

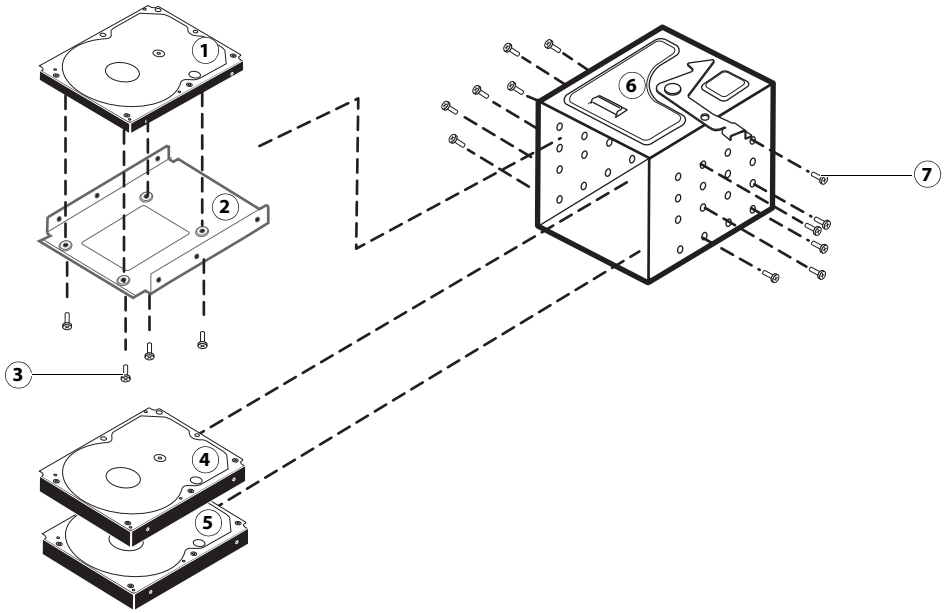
3 Remove the power cables from all three hard disk drives.

4 Remove the data cables from all three hard disk drives.

5 Remove the screw that secures the HDD bracket to the HDD slot in the chassis.

6 Press the latches on the sides of the hard disk drive and slide the hard disk drive assembly out from the chassis (see Figure 42).

Figure 42: Removing/replacing the hard disk drive with sled



1 *HDD1 (2.5 inch)*

2 *Mounting bracket for 2.5 inch HDD*

3 *Screws (1 of 4) for 2.5 inch HDD*

4 *HDD2 (3.5 inch)*

5 *HDD3 (3.5 inch)*

6 *HDD sled*

7 *Screws (1 of 12)*

7 If you are replacing the old hard disk drive with a new hard disk drive, remove the four screws that secure the old hard disk drive to its bracket, and remove the hard disk drive (see Figure 42).

Set the screws aside so you can replace them later.

Important: Make sure to support the hard disk drive as you remove the screws. Do not loosen or remove the screws on the hard disk drive covers. Loosening or removing these screws breaks the seal and voids the hard disk drive warranty

Do not touch the drives 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 drives.

If you are replacing the HDD1 (top), detach the HDD bracket by removing the four screws (see Figure 42).

8 Place the hard disk drive in an antistatic bag.

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

To replace a hard disk drive

Important: Do not replace the hard disk drive and the motherboard at the same time. Doing so may result in system corruption.

It is unlikely that both the hard disk drive and the motherboard are defective; therefore, avoid replacing both to solve one problem. If troubleshooting strategies (checking cables and connections, see page 103) do not solve the problem and you suspect the hard disk drive or the motherboard are 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 so, perform other procedures, such as replacing the motherboard (see page 56).

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 mounting holes with the four holes in the bracket.

Position the hard disk drive as shown in Figure 42 on page 79.

3 Replace the four screws that secure the hard disk drive to the bracket.

Make sure that you use the same screws that you removed earlier.

4 Slide the hard disk drive assembly into its slot in the chassis (see Figure 42 on page 79).

Make sure that the latches on the hard disk drive bracket are securely locked in the slot.

5 Connect the data cables between the hard disk drives and the Mini SAS connector on the motherboard:

For the locations of the Mini SAS connector on the motherboard, see Figure 32 on page 58.

6 Connect the SATA power cable connectors to all three hard disk drives.

7 Reassemble the E-85 (see page 83).

8 Connect the cables that you removed from the back of the E-85.

9 If you replaced a hard disk drive with a new hard disk drive, install system software and user software (see page 97).

If a startup error appears on the monitor when you power on the E-85, check the connections.

10 Verify E-85 functionality (see page 83).

Servicing hard disk drives inside the security enclosure

This section describes how to replace hard disk drives installed inside the enclosure that ships with the HDD Security Option.

To install a replacement hard disk drive inside the security enclosure

Important: Be sure to perform all the steps of this procedure exactly as described. If you fail to perform all the steps of this procedure, system problems may result.

1 Remove the old hard disk drive from the enclosure, and install the replacement hard disk drive inside the enclosure.

For detailed instructions, see the documentation that accompanies the HDD Security Option.

2 Power off the enclosure using the enclosure's main power button.

3 Wait one minute.

4 Power on the enclosure using the enclosure's main power button.

5 Install system software (see page 100).

If a startup error appears on the monitor when you power on the E-85, check the connections.

6 Verify E-85 functionality (see page 83).

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-85, remove all cables from the back, and then open the system (see page 48).

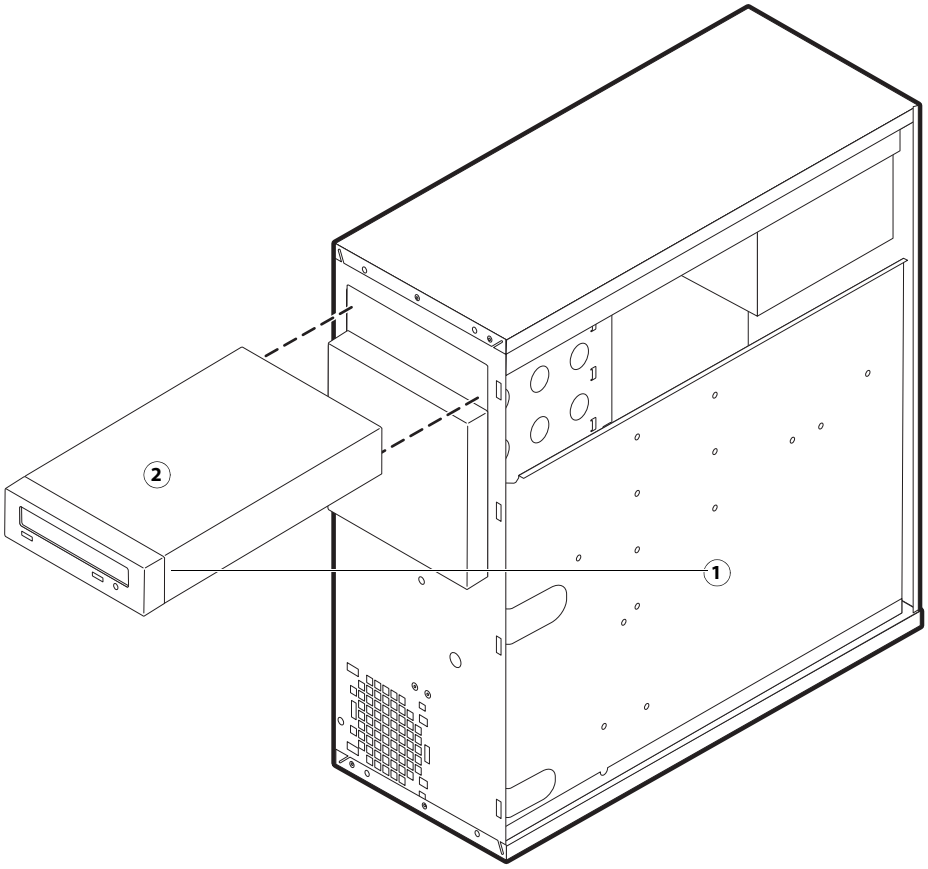
To access the DVD drive, you must remove the left, right, and front panels from the chassis.

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 43: 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-85 and verify its functionality (see page 83).

Restoring and verifying functionality after service

Complete your inspection and service by reassembling and verifying the E-85.

Warning: Do not lift the E-85 without assistance. Follow standard ESD precautions when handling internal components (see page 11).

To reassemble and verify the E-85

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

When routing cables in the E-85 make sure that:

- Covers are securely installed after routing cables.
- Cables are not looped around internal circuit boards, or components (such as capacitors and resistors).
- Cable routing does not interfere with the operation of internal components.
- Cables do not lie on or against any internal heating element.
- Cables do not interfere with removing or replacing components.
- Cables do not interfere with opening or closing E-85 panels.
- Cables are not tangled.
- Cable slack is secured with tie wraps.

2 Restore the system to the upright position.

3 Replace any panels that you removed earlier, as described in "Opening the E-85" on page 48.

4 Reinstall the E-85 in the furniture, as described in "To replace the E-85 in the furniture" on page 135.

This replacement procedure includes reattaching the monitor assembly and the left panel.

5 If you installed a new hard disk drive, install system software (see page 97).

Replacement hard disk drives are not shipped with pre-installed system software.

6 If you replaced the motherboard with a new motherboard, make sure that the new motherboard solves the problem that you are troubleshooting (see page 62), and then transfer options to the new motherboard (see page 63).

7 Make sure to configure the date and time in Setup.

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

8 Before you leave the customer site, verify the E-85 operation.

Verify the E-85 operation

1 Make sure you reassemble the E-85 (see page 83). For cable connections see page 46 and page 47.

2 Connect the monitor, keyboard, mouse, and dongles to the E-85 (see page 20).

3 Connect power to the E-85 (see page 20).

4 Connect to the printer (see page 20).

5 Power on the E-85 (see page 38).

If the E-85 does not start, see startup problems in "Table 6: E-85 error messages and conditions" on page 109.

6 Print the Test Page and the Server Configuration page (page 27).

If the Test Page does not print, verify that the printer interface cables are securely connected and on the correct ports; verify that the printer interface board is securely connected to the motherboard; look up printing problems in "Table 6: E-85 error messages and conditions" on page 109.

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

7 Connect to the network (see page 22).

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

If the job does not print or has poor image quality, look up print problems in "Table 6: E-85 error messages and conditions" on page 109 and the user documentation Troubleshooting topics.

Performing Backup and Restore

This chapter provides information about how to back up or restore information to the system. The E-85 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-85. 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-85. You can create a backup and restore the backup when the E-85 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 4 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 87.

Table 4: 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.	• 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.	• 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.	• Fiery System Restore • Fiery System Installer
Fiery System Installer on DVD: Fiery System Installer > Backup Hard Disk Drive(s)	Customized image, manually backed up. Includes contents of C drive (except for items excluded by standard Windows back up process, such as items in recycle bin). Includes software updates and current configuration settings. If jobs option is selected, also includes print jobs, job log, and job settings (such as paper size).	Can create a bootable or non-bootable image.	Bootable image: USB device only. Non-bootable image: Network location, local folder, external hard disk, or USB device.	• If bootable, can restore directly from image • Fiery System Restore (can restore images that include print job information) • Fiery System Installer
Additional Fiery System Installer option: A factory default backup image is included on the hard disk (Restore from recovery partition).	Factory default image. Includes factory default version of software and configuration settings. Does not include print job information (print jobs, job logs, and job settings).	If the hard disk is still viable, System Software 1 DVD can boot from this factory default image.	Included as part of original system image. If the hard disk is crashed, this image is not accessible.	• Fiery System Installer • 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 a remote location using WebTools, see "Backing up the system configuration" on page 87.
- To create a backup using Fiery System Restore, see "Using Fiery System Restore" on page 89.

- To create a backup using Fiery System Installer, see "Using Fiery System Installer" on page 92.

When backing up an existing E-85 installation

- For an existing E-85 installation, first check if a backup image exists either on the server or an external location.If a backup image exists, check if it is up to date. Compare the date stamp of the existing backup image to the date of the last patch installation.
- If a backup image does not exist, create a new one after installing all available software updates.

- The backup image may be saved to or found in any of the following locations:
  - Local Disk
  - USB drive
  - External hard disk drive
  - Network
- If you do not have a backup with the system settings and jobs, the system can access a preinstalled recovery backup on the hard disk drive provided with the E-85. 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-85.

- 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.

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 (Fiery Advanced Controller Interface only)
- FreeForm/VDP resources
- Paper Catalog
- Virtual Printers
- Server Presets
- Fonts
- Job Log

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

If you cannot create a configuration file, ask the site administrator to archive 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-85 with Administrator privilege.

   The default Administrator password is Fiery.1 (case-sensitive), but the site administrator may have changed the password.
3. From Server menu, select Device Center. In Device Center window, select Tools > Backup & Restore.
4. In the Backup & Restore dialog box, select Backup > Next, and then select the items you want to back up. Click Next.
5. Enter a file name and location, specify if you want to add the date to the file name, and then click Next.
6. Click Finish.

To save the system configuration using Configure

1. Ask the site administrator to print the Job Log, Server Configuration page, and Font List (if possible).
2. Start a web browser and access the E-85 by entering the server name or IP address of the E-85.
3. In WebTools, select Configure icon on the left side.
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, select Fiery Server > Backup.
6. In the Backup dialog box, select the items you want to back up.
7. Enter a file name, 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-85 to its previous state using a previously-saved system configuration file. For more information about the system configuration file, see page 88.

If you could not save a system configuration file, you must configure Setup. After you exit Setup and the E-85 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-85 with Administrator privilege.

   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. In Device Center window, select Tools > Backup & Restore.

3. In the Backup & Restore dialog box, select Restore > Next, and then select the item you want to restore. Click Next.

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

4. Select items to restore and click Next.

5. Click Finish.

To restore the system configuration using Configure

1. Start a web browser and access the E-85 by entering the server name or IP address of the E-85.

2. In WebTools, click Configure icon on the left side.

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, select Fiery Server > Restore.

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

   For more information, see page 88.

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-85 for quick recovery later when any problem happens. You can restore the E-85 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 can access the Fiery System Restore from the WebTools Home tab.

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

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-85, or restore the E-85.

To access the Fiery System Restore from Command WorkStation

1 Start Command WorkStation and login to the E-85 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 from WebTools

1 From a client computer, start a web browser and enter the IP address or the DNS name of the E-85.

2 In WebTools, select Fiery System Restore icon on the left side.

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-85. Refer to the following tasks if you are using Fiery System Restore on Fiery QuickTouch.

To setup automatic scheduled backup

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

1 In Fiery System Restore window, click Schedule Backup.

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 Select Enable automatic backup, and select when you want to start the backup process on the E-85.

Note: The backup process takes more than an hour to complete and it requires the E-85 to be Idle status. If the E-85 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-85 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 in 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-85. You must specify the file name of the backup image. The default image name is the server name of the E-85.

3 Make sure to connect the USB drive to the USB connector on the E-85.

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 Fiery System Restore window, select Restore.

2 Make sure that your backup image is accessible from the E-85.

If you restore a backup image stored on the USB flash drive, be sure to attached the USB drive to one of the USB drive on the E-85.

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-85.

5 Click Continue.

Note: The E-85 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 95. You need to connect a monitor, keyboard, and mouse to the E-85.

Using Fiery System Installer

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

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

You can perform the following tasks from Fiery System Installer.

- **New Installation:** Installs the system software from the media shipped with the E-85. Use this option only when the system backup is not available. See also "Installing system software" on page 97.
- **Restore from backup or recovery partition:** You can restore the system by selecting the backups that you created before. If there is no backup available in the system or in any attached devices, you can only perform the restore from the recovery partition.
- **Back up hard disk drive(s):** Use this option when you create the system backups. You can specify the location of the backup, file name, and other attributes of the backups.
- **Platform Utilities:** You can perform the backup management tasks from this option 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 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 DVD 1 into the DVD drive of the E-85.
- Reboot the E-85 (see page 38).
- 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-85 from the backup media to avoid the situation where the HDD fails and cannot boot the E-85. See page 93 for booting from the bootable media. Bootable media is used for system restoration when a hardware failure occurs.

- 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-85.

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.

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-85.

To restore the system using Fiery system installer

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

1 Start Fiery System Installer.

- Insert System Software DVD 1.
- Reboot the E-85 (see page 38).
- 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-85.

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 DVD 1, or when the E-85 does not boot from the built-in hard disk drive.

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.

Important: This procedure requires a monitor, mouse, and keyboard to be attached to the E-85.

1. Shut down the E-85.
2. Attach the bootable backup media to the E-85.
3. Press the power button to turn on the E-85.
4. Select the option to change the boot order, and select the item starting from "UEFI".

   The name of the bootable media appears next to UEFI (for example, UEFI: FLASH Drive AU_USB20 8.07).

   Fiery System Installer starts in the same language that the backup was created in. You cannot choose another language.
5. Follow the instruction on the screen to complete the restoration.

Platform Utilities

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

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.

Installing System Software

This chapter provides information about how to install system software.

- The E-85 ships with system software preinstalled on the hard disk drives (HDDs).
- A re-installation of the system software DVDs will be required if you have replaced the hard disk drive or tried restoring the system from backup images and the restore 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-85 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-85 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-85, 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-85 ships with preinstalled user software on the hard disk drives. During system software re installation, 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 (see page 26). 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-85 configuration before you reinstall system software. After the installation is completed, be sure to restore the configuration that you saved earlier.
- **Monitor profiles:** When you reinstall system software, monitor profiles saved on the hard disk drives are deleted. Monitor profiles for the E-85 monitor are automatically reinstalled when you reinstall Command WorkStation on the system.
- **Compatibility:** After you upgrade system software, remind the site administrator to upgrade user software on all computers connected to the E-85. Using old user software with new system software may negatively affect the system.

Installing system software

Install both system software and user software DVDs when you replace a hard disk drive or upgrade to the latest version of the E-85 software. You can install software from the following disks:

- System Software DVD 1, 2 and 3—Windows operating system and server software for the E-85.
- User Software DVD 4—Fiery User Software for installation on the E-85 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 97.
- "Installing or upgrading the system and user software with Fiery System installer" on page 97.
- "After installing or updating the system software" on page 99.
- "Verify the E-85 operation" on page 100.
- "Before you leave the customer site" on page 100.

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. For more information, see page 27.
  - 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-85 except the keyboard and mouse. If you do not remove dongles or devices, the system software installation will fail.

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

For more information, see page 96.

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

The Fiery System Installer is a tool found on System Software DVD 1that you can use to install system software as well as perform other tasks. You can perform the following tasks using Fiery System Installer;

- **New Installation:** Installs the system software from the media shipped with the E-85. Use this option only when the system backup is not available. "Installing system software" on page 97.

- **Restore from backup or recovery partition:** You can restore the system by selecting the backups that you created before. If there is no backup available in the system or in any attached devices, you can only perform the restore from the recovery partition. "Restoring the system configuration" on page 89.
- **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."Backup with Fiery System Installer" on page 92.
- **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."Platform Utilities" on page 95.

Note: You can use the Fiery QuickTouch to operate Fiery System Installer. You can also use a monitor, mouse, and keyboard attached if available.

The System Software installation takes approximately 2 hours to complete.

If you do not, installation will fail.

1. Insert System Software DVD 1 into the DVD drive.
2. Reboot the E-85.

   Wait while the system boots from the DVD.
3. When the language selection screen displays, select a language.
4. When "What do you want to do?" screen displays four choices, select New Installation.

You can choose to skip installation or install each of the following. If you choose to install, you will need the DVDs to complete these installations. If you choose to skip, you can install the optional software later.

5. After you select New Installation, a warning message appears as follows:

   "This installation will erase all data on the hard disk drive(s). Continue?

   - Click Continue to the New Installation
   - Click the back arrow to exit and return to the previous menu.
6. After copying the System Software DVD 1 contents to the hard drive (approximately five to seven minutes), when prompted, eject the DVD and insert the System Software DVD 2.
7. After copying the System Software DVD 2 contents to the hard drive (approximately five to seven ten minutes), when prompted, eject the DVD and insert the System Software DVD 3.
8. After copying the System Software DVD 3 contents to the hard drive (approximately eight minutes), when prompted, eject the DVD and insert the User Software DVD 4.

   When the contents of the User Software DVD 4 are copied to the hard disk (approximately eight minutes after), eject the User Software DVD 4. The E-85 reboots to begin the software installation.

9 If at step 4, you select the installation of Fiery Color Profiler Suite, you will be prompted to insert each of these DVDs.

Time required to install Fiery Color Profiler Suite is approximately five minutes.

After the last DVD is ejected, the installation process continues for another thirty minutes.

The following steps are for use with the monitor, keyboard, and mouse. If you are not using this interface kit, skip to step 12.

10 At the Admin login, enter the password and then press Enter.

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

11 Follow the on-screen instructions in the Fiery Setup Wizard to configure the E-85 for the customer's print environment.

Once you have completed configuring the Fiery Setup Wizard, you must restart the server for the changes to take effect. If desired, you can print a Server Configuration Sheet after the restart.

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-85, Command WorkStation starts also.

13 Install and activate Fiery Impose and Fiery Compose.

Note: If Fiery Impose and Compose are activated, you must deactivate them before you reinstall.

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

14 Shut down the E-85 (see page 38).

After installing or updating the system software

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

2 Start the E-85 (see page 23).

3 Install any required software patches (see page 101).

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

In Configure (see page 28), click Server > System Updates > Proxy Settings, and enter the proxy server information. Save your changes and reboot the E-85.

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

Verify the E-85 operation

1 Print the Test Page and the Server Configuration page (page 27).

If the Test Page does not print, verify that the printer interface cables are securely connected and on the correct ports; verify that the printer interface board is securely connected to the motherboard; look up printing problems in "Table 6: E-85 error messages and conditions" on page 109.

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

2 Verify that the E-85 is connected to the network (see page 22).

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

If the job does not print or has poor image quality, look up print problems in "Table 6: E-85 error messages and conditions" on page 109 and the user documentation Troubleshooting topics.

Before you leave the customer site

1 Remind the site administrator to do the following:

- Import archived jobs.

  Please note that some archived jobs may not print.

- 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-85 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-85, disconnect the cables and perform the installation again, starting from "Installing or upgrading the system and user software with Fiery System installer" on page 97.

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.

Installing software patches

As part of reinstalling system software, you must reinstall software patches. For a list of patches that were installed on the E-85, see the Server Configuration page that you printed before reinstalling. You may also need to reinstall software patches as part of upgrading system software.

Important: If you upgraded system software, do not assume that the software patches listed on the Server Configuration page are required for the upgrade. You must contact your authorized service/support center for a list of required software patches. If you install a software patch that is not required for an upgrade, the system may be corrupted.

To download software patches

1. Start WebTools and connect to the E-85.
2. On the WebTools Home page, click the Check for Product Updates.

Troubleshooting

This chapter identifies the source of common problems that may occur with the E-85 and suggests ways of correcting them. Suggested actions may include reading user documentation.

Troubleshooting process

Problems may occur in one of the following areas:

- Inside the E-85
- In the interface between the E-85 and the printer
- In the interface between the E-85 and the workstations or computers to which it is connected

Troubleshooting the printer, network, remote computers, software applications, and Windows operating system is beyond the scope of this chapter.

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

Install new components only when necessary. If you determine that a component that you removed is not faulty, reinstall it.

Preliminary on-site checkout

Your goal in the preliminary on-site checkout is to solve problems quickly with a minimum of troubleshooting. Start by verifying that the network is functioning, no unauthorized software or hardware is installed on the E-85, and the problem is not with a particular print job or application. To help verify these issues, contact the on-site administrator.

Most problems with the E-85 are caused by loose board or cable connections; therefore, this section begins by describing the quick checks you can do to locate and fix these more obvious problems. Check the external connections to the back of the E-85 before you check internal board and cable connections or replace any components.

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 remedy the problem.

This section includes the following:

- “Checking interface cables” on page 103

  This section describes the quick checks that you can do to make sure that the problem is not caused by a loose connection at the back of the E-85.

- “Checking internal components” on page 103

  This section describes the quick checks that you can do to make sure that the problem is not caused by a loose board or cable connection inside the E-85.

- "Inspecting the system" on page 104

  This section provides a more comprehensive checklist that you can use to check the E-85 internally and externally. If your initial checks fail, you may want to go through this checklist before concluding that you need to replace a cable or component.

To troubleshoot specific symptoms, see "Table 6: E-85 error messages and conditions" on page 109.

Checking interface cables

Before removing the left panel of the E-85 to check internal components, eliminate the most obvious sources of problems. Verify the following:

- All interface cables to the system are plugged into the proper connectors on the connector panel of the E-85 (see Figure 3).
- The power cable is plugged into the wall supply.
- The E-85 is powered on.
- The upper LED next to the 10/100/1000 Mbps network port is blinking to indicate network activity (see page 37).

Figure 44: E-85 connector panel

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

Checking internal components

To check the internal components, you must remove the left panel of the E-85.

Caution: Before you remove E-85 panels to inspect and handle internal components, see "Precautions" on page 10. Use standard ESD precautions when handling printed circuit boards and other electronic components.

Use the guidelines and procedures in Replacing parts when disassembling, checking, and reassembling the E-85.

To check internal components

1 Shut down, remove all cables from the back, and then open the E-85 (see page 48).

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

Important: Before you touch any components inside the E-85, attach a grounding strap to your wrist and discharge any static electricity on your body by touching a metal part of the E-85.

2 Inspect the inside of the E-85.

- Make sure that no foreign materials have been dropped into the chassis.
- Look for loose boards and reseat each board securely in its connector on the motherboard.
- Look for loose cables. Reseat each connector firmly.

- Make sure that each connector is properly aligned with its mating connector. If the pins are offset from each other, the board affected will not function properly.

3 Reassemble the E-85 and verify its functionality (see page 83).

Inspecting the system

If checking cable and board connections does not fix the problem, consider inspecting the system component by component (see Table 5) and verifying that each hardware component is properly installed and configured before you decide to replace costly components.

If a component in the system you are servicing does not meet a condition listed in Table 5 and it is not clear how to fix the problem (for example, if the system hangs before reaching Idle), locate the behavior in "Table 6: E-85 error messages and conditions" on page 109 to see the suggested action(s) for solving the problem.

Table 5: Verifying the system

Conditions to verify	Part and additional page references
When the problem occurs, verify the following: • Power cable is connected properly to the E-85 and to the power outlet. • The E-85 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.	External connectors, chassis fans, and power connector, page 103.
When the problem occurs, collect logs by doing the following: 1 Log into the E-85. You can log into the E-85 with a monitor, keyboard, and mouse, or from a client computer with Remote Desktop. 2 On a web browser, type the following URL: http://10.10.100.2:8080/getlog **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. 3 Save the log file to your local system. Click File > Save As..., and save the log file as a .txt file. You can send the log to EFI technical support. If the problem occurs at power up or reboot, verify that: • 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 screen has functionality. If the Fiery QuickTouch does not power up after a reboot, do one of the following: • Restart the E-85. • Reboot the E-85. • Shut down the E-85, wait one minute, and then power on the E-85 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.	Fiery QuickTouch, page 51.
If the problem occurs at power up or reboot, verify the following: • Fiery QuickTouch lights up and logo displays. • Monitor is plugged into correct port and is powered on. • DVD drive is present and no media is in the drive. • DVD drive accepts inserted media. • No error messages or system hangs occur on the monitor before Idle. DVD drive SATA cable is: • Firmly connected to motherboard SATA_6G_0 • Not visibly damaged	DVD drive, page 81.

Conditions to verify	Part and additional page references

• All replaceable parts are:
  • 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.
	Chassis, page 48.

• 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.	Motherboard (with motherboard replacement dongle), page 56. **Important:** When replacing the motherboard, carefully review the cautions on page 63.
• Each DIMM is well-seated and installed in the correct slot. • DIMM connectors are not oxidized (reseating removes oxidation).	DIMM for E-85, page 66.
Printer interface board is: • Present • Installed in the correct slot • Well-seated • Not visibly damaged Required cables (if applicable) is: • Present • Firmly connected in the correct connectors • Not visibly damaged	Printer interface board assembly, page 55.
Graphic board is: • Present • Installed in the correct slot • Well-seated • Not visibly damaged All fan and ribbon cables on the board are: • Present • Firmly connected in the correct connectors • Not visibly damaged	Graphics board,page 56.

Conditions to verify	Part and additional page references
Each CPU is: • Present • Installed in the correct socket • The correct speed (CPU speeds must match) • Well-seated • Not visibly damaged The CPU cooling unit is: • Ready for efficient thermal transfer • Well-aligned	CPU and CPU cooling assembly, page 69.
Fan is: • Properly positioned (not backwards) • Installed in the correct connector • Not visibly damaged (fan, fan cable, cable connector, and motherboard connector)	Fan, page 72.
The power supply is: • Present • Correctly installed • Not visibly damaged Cable connectors are: • Firmly connected • Not visibly damaged • Installed in the correct devices	Power supply, page 74.
The hard disk drives are: • Present • Correctly installed • Not visibly damaged Hard disk drive data cables are: • Present • Firmly connected to the correct SATA connectors on the motherboard (see page 80) • Not visibly damaged Hard disk drive power cables are: • Present • Firmly connected to the SATA power connectors on the hard disk drives. • Not visibly damaged	Hard disk drive (3), page 76.

Conditions to verify	Part and additional page references
The DVD drive is: • Present • Correctly installed • Not visibly damaged Also verify that the DVD drive data/power cable is connected to SATA0 on the motherboard.	DVD drive, page 81.
Each cable required is: • Present • The correct type • Installed in the correct connector • Well-seated • Not visibly damaged (cable or connector)	Data/power cable (to DVD drive), page 81. Cable (to each hard disk drive), page 76. Power cable, page 17.
The mouse, monitor, and keyboard are present and appear undamaged. The cables required are: • Present • Installed in the correct connector • Well-seated • Not visibly damaged (cable or connectors)	For the following items, see the documentation that accompanies the package. • Mouse, page 17. • Monitor, page 17. • Keyboard, page 17.

Error messages and conditions

To learn possible causes and solutions for a specific error message or condition, find the symptom in Table 6 and perform the appropriate suggested actions.

Important: Do not install a new hard disk drive and a new motherboard in the E-85 at the same time. If you suspect that the E-85 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 perform the system update procedure (see "Replacing the motherboard" on page 59).

Note: For ordering information on replaceable components, see the Parts List document. If replacing a specified component does not correct the problem, make sure that you install the old component back in the E-85.

Table 6: E-85 error messages and conditions

Symptom	Possible cause	Suggested action
Beep codes during startup		
4 beeps, followed by 3 beeps, followed by 1 beep, followed by 2 beeps	Missing, unmatched, incorrect, or faulty DIMMs	1 Check for missing DIMMs and reseat the DIMMs to remove any oxidation on the connectors (see page 66). 2 If the problem persists, test the DIMMs by removing all DIMMs except for the ones installed in A0 and E0 and reboot the system. If the system boots to Idle, install a different DIMM in the available slot indicated in "Table 3: Available DIMM slots" on page 67 and reboot the system. Continue to install a different DIMM in the slot and reboot the system until the system fails to reach Idle. The last DIMM that you installed may be faulty and should be replaced. **Note:** If the system fails to reach Idle with each DIMM installed in the next available slot, the DIMM socket may be faulty and you may need to replace the motherboard.
Startup		
E-85 does not start up.	The E-85 is powered off.	Press the power button on the front panel.
	One of the following: • Faulty power supply (power supply may not be supplying power to the motherboard) • Faulty motherboard (motherboard power plane may not be supplying power to components)	1 Recheck all of the cables and connections. 2 Listen for the power supply fan and feel for air at the back of the unit where the power supply is located. If you do not feel air from the power supply fan, you may have a faulty power supply, which you will need to replace (see page 74). 3 Feel for air at the back of the unit where the back fan is located to make sure that air is coming out the fan vent. If the problem persists, you may need to replace the motherboard (see page 56).
Fiery QuickTouch does not light up.	One of the following: • Faulty Fiery QuickTouch cable or connections • Faulty Fiery QuickTouch	1 Press the reset button using a pin. 2 Recheck the Fiery QuickTouch connections. If the problem persists, replace the Fiery QuickTouch (see page 56).

Symptom	Possible cause	Suggested action
Startup (continued)		
Fiery QuickTouch is discolored and/or no logo appears on the LCD.	One of the following: • Faulty Fiery QuickTouch cable or connections • Faulty Fiery QuickTouch • Loose CPU connection(s) • Faulty CPU(s) • Faulty motherboard	1 Recheck the Fiery QuickTouch cable connection. If the problem persists, replace the Fiery QuickTouch (see page 56). 2 If the problem persists, verify the CPU and CPU fan connections, and verify that the CPU heatsinks are securely installed (see page 69). Test the CPUs by removing the CPU installed in socket CPU1 and rebooting. • If the system fails to boot up properly, the CPU in socket CPU0 is faulty and should be replaced. • If the system boots up properly, the CPU in socket CPU0 is good and the CPU that you removed from socket CPU1 may be faulty. To test this, remove the CPU from socket CPU0, install the other CPU in socket CPU0, and reboot. If the system fails to boot up properly, the CPU currently installed in socket CPU0 is faulty and should be replaced.

Symptom	Possible cause	Suggested action
Startup (continued)		
System does not display the Windows Log on window within five minutes of power up, or does not display Fiery Ticker within five minutes of logging on.	One of the following: • System was powered off and then powered on before waiting 10 seconds • Improperly installed keyboard and mouse connections • Missing, unmatched, incorrect, or faulty DIMMs • Faulty or overheated CPU(s) • Faulty motherboard	1 Power off, wait 10 seconds, and then power on again. 2 If problem persists, check all cables and connections again and reboot. Make sure that the keyboard and mouse are installed in the proper connectors. Power off, wait 10 seconds, and power on again. 3 Check the DIMMs and reseat them to remove any oxidation on the connectors (see page 66). Make sure that the DIMM configurations in both socket sets are identical (see page 66). 4 If the problem persists, test the DIMMs by removing all DIMMs except for the ones installed in A0 and E0 and reboot the system. If the system boots to Idle, install a different DIMM in the available slot indicated in "Table 3: Available DIMM slots" on page 67 and reboot the system. Continue to install a different DIMM in the slot and reboot the system until the system fails to reach Idle. The last DIMM that you installed may be faulty and should be replaced. **Note:** If the system fails to reach Idle with each DIMM installed in the next available slot, the DIMM socket may be faulty and you may need to replace the motherboard. 5 If the problem persists, verify CPU and CPU fan connections, and verify that the CPU heatsinks are securely installed (see page 69). Test the CPUs by removing the CPU installed in socket CPU1 and rebooting. • If the system fails to boot up properly, the CPU in socket CPU0 is faulty and should be replaced. • If the system boots up properly, the CPU in socket CPU0 is good and the CPU that you removed from socket CPU1 may be faulty. To test this, remove the CPU from socket CPU0, install the other CPU in socket CPU0, and reboot. If the system fails to boot up properly, the CPU currently installed in socket CPU0 is faulty and should be replaced. 6 If the problem persists, you may need to replace the motherboard (see page 56).

Symptom	Possible cause	Suggested action
Startup (continued)		
Monitor does not light after three minutes.	One of the following: • Faulty monitor or monitor connections • Monitor is not powered on • Faulty graphics board	1 Recheck the monitor connections to power and to the E-85. 2 Make sure that the monitor is powered on. 3 Reseat the graphics board in its connector on the motherboard, and recheck the cable connections on the board itself. 4 Replace the monitor. 5 Replace the graphics board.
System hangs during motherboard BIOS control of startup.	One of the following: • Missing, unmatched, incorrect, or faulty DIMMs • Faulty or overheated CPU(s)	1 Recheck all of the cables and connections and reboot. 2 Check the DIMMs and reseat them to remove any oxidation on the connectors (see page 66). Make sure that the DIMM configurations in both socket sets are identical (see page 66). 3 If the problem persists, test the DIMMs by removing all DIMMs except for the ones installed in A0 and E0 and reboot the system. If the system boots to Idle, install a different DIMM in the available slot indicated in "Table 3: Available DIMM slots" on page 67 and reboot the system. Continue to install a different DIMM in the slot and reboot the system until the system fails to reach Idle. The last DIMM that you installed may be faulty and should be replaced. **Note:** If the system fails to reach Idle with each DIMM installed in the next available slot, the DIMM socket may be faulty and you may need to replace the motherboard. 4 If the problem persists, verify the CPU and CPU fan connections, and verify that the CPU heatsinks are securely installed (see page 69). Test the CPUs by removing the CPU installed in socket CPU1 and rebooting. • If the system fails to boot up properly, the CPU in socket CPU0 is faulty and should be replaced. • If the system boots up properly, the CPU in socket CPU0 is good and the CPU that you removed from socket CPU1 may be faulty. To test this, remove the CPU from socket CPU0, install the other CPU in socket CPU0, and reboot. If the system fails to boot up properly, the CPU currently installed in socket CPU0 is faulty and should be replaced.

Symptom	Possible cause	Suggested action
Startup (continued)		
System does not immediately respond before the Windows logo screen.	One of the following: • Corrupt system software • Faulty hard disk drive • Faulty motherboard	1 Recheck all cables and connections. 2 Restore the backup, or reinstall system software 3 If the problem persists, check for a faulty hard disk drive. Reboot the system. At the Serial ATA AHCI BIOS screen on the monitor, wait for the Port-XX displays to appear and press the Pause/Break key. If a hard disk drive description appears next to the Port-01, Port-02, and Port-03 entries, all three hard disk drives are good. If "No device detected" appears next to: • Port-01, the 500GB hard disk drive in the top slot of the chassis may be faulty. • Port-02, the 2TB hard disk drive in the middle slot may be faulty. • Port-03, the 2TB hard disk drive in the bottom slot may be faulty. Replace the SATA data cable to the suspected faulty drive. If the problem persists, replace the faulty drive. 4 If the problem persists, replace the motherboard (see page 56). If replacing the motherboard does not correct the problem, make sure you reinstall the old board in the E-85.
System hangs and displays the message: Operating system not found.	Hard disk drive data cables are faulty, loose, or improperly connected.	Check and reseat the data cables to the hard disk drives. Make sure that each cable is connected to the correct hard disk drive, and to the correct SATA connector on the motherboard (see page 46).

Symptom	Possible cause	Suggested action
Startup (continued)		
System hangs during Windows control of startup, during or after the Windows logo screen.	One of the following: • Media in DVD drive during startup • Corrupt system software • Missing or faulty DIMMs • Faulty hard disk drive • Faulty or overheated CPU(s) • Faulty motherboard	1 Make sure that no DVD is in the media drive during startup, and then reboot the system. 2 Recheck all cables and connections. 3 If the problem persists, restore the backup, or reinstall the system software. Corrupt system software may cause the system to hang at this screen. 4 Check the DIMMs and reseat them to remove any oxidation on the connectors (see page 66). Make sure that the DIMM configurations in both socket sets are identical (see page 66). 5 If the problem persists, test the DIMMs by removing all DIMMs except for the ones installed in A0 and E0 and reboot the system. If the system boots to Idle, install a different DIMM in the available slot indicated in "Table 3: Available DIMM slots" on page 67 and reboot the system. Continue to install a different DIMM in the slot and reboot the system until the system fails to reach Idle. The last DIMM that you installed may be faulty and should be replaced. **Note:** If the system fails to reach Idle with each DIMM installed in the next available slot, the DIMM socket may be faulty and you may need to replace the motherboard. 6 If the problem persists, check for a faulty hard disk drive. Reboot the system. At the Serial ATA AHCI BIOS screen on the monitor, wait for the Port-XX displays to appear and press the Pause/Break key. If a hard disk drive description appears next to the Port-01, Port-02, and Port-03 entries, all three hard disk drives are good. If "No device detected" appears next to: • Port-01, the 500GB hard disk drive in the top slot of the chassis may be faulty. • Port-02, the 2TB hard disk drive in the middle slot may be faulty. • Port-03, the 2TB hard disk drive in the bottom slot may be faulty. Replace the SATA data cable to the suspected faulty drive. If the problem persists, replace the faulty drive. (Suggested actions continued on the following page.)

Symptom	Possible cause	Suggested action
Startup (continued)		
System hangs during Windows control of startup, during or after the Windows logo screen.	See previous page.	(Continued from previous page.) 7 If the problem persists, verify the CPU and CPU fan connections, and verify that the CPU heatsinks are securely installed (see page 69). Test the CPUs by removing the CPU installed in socket CPU1 and rebooting. • If the system fails to boot up properly, the CPU in socket CPU0 is faulty and should be replaced. • If the system boots up properly, the CPU in socket CPU0 is good and the CPU that you removed from socket CPU1 may be faulty. To test this, remove the CPU from socket CPU0, install the other CPU in socket CPU0, and reboot. If the system fails to boot up properly, the CPU currently installed in socket CPU0 is faulty and should be replaced. 8 If the problem persists, you may need to replace the motherboard (see page 56). If replacing the motherboard does not correct the problem, make sure you reinstall the old board in the E-85.

Symptom	Possible cause	Suggested action
Startup (continued)		
Fiery Ticker hangs at the message: Starting... Please Wait	One of the following: • Corrupt system software • Faulty hard disk drive	1 Recheck all cables and connections. 2 Run Cleanup on the E-85. • Make sure that the E-85 is not in use. • Go to *EFI\server\spool*. • Double-click the cleanup.bat file. • Power off the E-85. • Power on the E-85. 3 If the problem persists, restore the backup, or reinstall system software. 4 If the problem persists, check for a faulty hard disk drive. Reboot the system. At the Serial ATA AHCI BIOS screen on the monitor, wait for the Port-XX displays to appear and press the Pause/Break key. If a hard disk drive description appears next to the Port-01, Port-02, and Port-03 entries, all three hard disk drives are good. If "No device detected" appears next to: • Port-01, the 500GB hard disk drive in the top slot of the chassis may be faulty. • Port-02, the 2TB hard disk drive in the middle slot may be faulty. • Port-03, the 2TB hard disk drive in the bottom slot may be faulty. Replace the SATA data cable to the suspected faulty drive. If the problem persists, replace the faulty drive.
The system takes a long time to start up.	Possibly one of the following: • The system may be taking longer to boot up to finalize installation of a patch or update. • The hard disk drive may have fallen to the bottom of the boot order in the BIOS. This can happen if the system is powered on when the hard disk drive is missing, faulty, or not connected. • System software may be corrupted.	1 If the slow startup happens following installation of a software patch or update, shut down, and then restart to see if the problem persists. 2 If the problem persists, make sure that the hard disk drive is present and properly connected. When you reboot the E-85, the hard disk drive will be moved to the top of the boot order in the BIOS. 3 If the problem persists, restore the backup, or reinstall the system software.

Symptom	Possible cause	Suggested action
Shutdown		
Fiery QuickTouch LCD remains lit even after the system has shut down.	The system has been powered off manually using the power button on the front panel.	1 Power on the E-85 by pressing the power button on the front panel. 2 When the system reaches Idle, choose Shut Down from the Windows Start menu. Select Shut Down and click OK. Always use this procedure to shut down the E-85. If you use the power button to shut down, the LCD will fail to shut down properly.
System problems		
DVD drive is not responding or cannot be located; or media cannot be ejected from the drive.	One of the following: • A CD or DVD is stuck in the drive • Loose cable connections to the DVD drive or faulty cable • Faulty DVD drive • Faulty motherboard	1 Press the button on the front of the DVD drive to eject the media. 2 If the media still does not eject, try one of the following: • Open the front door and press the eject button to eject CD/DVD. • In Windows, go to My Computer. Right-click the icon for the DVD drive and choose Eject. 3 If the media still does not eject, check the cable connections to the DVD drive (see page 46 and page 47). 4 Check the DVD cable connection to the motherboard. 5 If the problem persists, you may need to replace the DVD drive (see page 81). 6 If the problem persists, you may need to replace the motherboard (see page 56).
Clock is slow.	Missing or dead battery on the motherboard	Replace the battery on the motherboard, and then update the system date and time.

Symptom	Possible cause	Suggested action
System problems (continued)		
System performs slowly or hangs periodically.	One of the following: • Missing or faulty DIMMs, or faulty DIMM connections • Faulty hard disk drive • Overheated or faulty CPU(s) • Faulty motherboard	1 Check the DIMMs and reseat them to remove any oxidation on the connectors (see page 66). Make sure that the DIMM configurations in both socket sets are identical (see page 66). Make sure that an even number of DIMMs is installed. Odd-numbered configurations are not supported. 2 If the problem persists, test the DIMMs by removing all DIMMs except for the ones installed in A0 and E0 and reboot the system. If the system boots to Idle, install a different DIMM in the available slot indicated in "Table 3: Available DIMM slots" on page 67 and reboot the system. Continue to install a different DIMM in the slot and reboot the system until the system fails to reach Idle. The last DIMM that you installed may be faulty and should be replaced. **Note:** If the system fails to reach Idle with each DIMM installed in the next available slot, the DIMM socket may be faulty and you may need to replace the motherboard. 3 If the problem persists, check for a faulty hard disk drive. Reboot the system. At the Serial ATA AHCI BIOS screen on the monitor, wait for the Port-XX displays to appear and press the Pause/Break key. If a hard disk drive description appears next to the Port-01, Port-02, and Port-03 entries, all three hard disk drives are good. If "No device detected" appears next to: • Port-01, the 500GB hard disk drive in the top slot of the chassis may be faulty. • Port-02, the 2TB hard disk drive in the middle slot may be faulty. • Port-03, the 2TB hard disk drive in the bottom slot may be faulty. Replace the SATA data cable to the suspected faulty drive. If the problem persists, replace the faulty drive. (Suggested actions continue on the following page.)

Symptom	Possible cause	Suggested action
System problems (continued)		
System performs slowly or hangs periodically.	See previous page.	(Continued from previous page.) 4 If the problem persists, verify the CPU and CPU fan connections, and verify that the CPU heatsinks are securely installed (see page 69). Test the CPUs by removing the CPU installed in socket CPU1 and rebooting. • If the system fails to boot up properly, the CPU in socket CPU0 is faulty and should be replaced. • If the system boots up properly, the CPU in socket CPU0 is good and the CPU that you removed from socket CPU1 may be faulty. To test this, remove the CPU from socket CPU0, install the other CPU in socket CPU0, and reboot. If the system fails to boot up properly, the CPU currently installed in socket CPU0 is faulty and should be replaced. 5 If the problem persists, you may need to replace the motherboard (see page 56).
Check power & cable	One of the following: • The printer is not ready to print • Problem with the connection between the E-85 and the printer	1 Make sure the printer is powered on and ready to print. 2 Check again that the printer interface cables are present and properly connected to the E-85 and the printer (see Figure 3 on page 19). 3 Check again that the printer interface board is present and properly connected to the motherboard (see page 55). 4 If the problem persists, replace the printer interface cables one at a time (see Figure 3 on page 19). 5 If the problem persists, try replacing the printer interface board assembly (see page 55). 6 If the problem persists, you may need to service the printer.

Symptom	Possible cause	Suggested action
System problems (continued)		
Cycle Printer Power	One of the following: • Interface cable between E-85 and printer is loose or disconnected • The printer is powered off or not ready to print	1 Make sure the printer is powered on and ready to print. 2 Check again that the printer interface cables are present and properly connected to the E-85 and the printer (see Figure 3 on page 19). 3 If the problem persists, power off/on the printer and the E-85, waiting one minute after the E-85 reaches Idle before you power on the printer. 4 Check again that the printer interface board is present and properly connected to the motherboard (see page 55). 5 If the problem persists, replace the printer interface cables one at a time (see Figure 3 on page 19). 6 If the problem persists, try replacing the printer interface board assembly (see page 55). 7 If the problem persists, you may need to service the printer.
Service messages		

1 file(s) copied hangs during system software installation after removing first DVD and recycling power.	One of the following:
	• Normal behavior
	• Corrupted installation
	• Lost communication with hard disk drives due to one of the following:
	  • Faulty hard disk drive cable
	  • Faulty hard disk drive
	  • Faulty motherboard
		1 Wait 5-10 minutes to make sure that the system is really hanging. If so, power off, wait 10 seconds, and then power on again.
		2 If the problem persists, restore the backup, or reinstall system software.
		3 If the problem persists, recheck cables and connections.
		4 If the problem persists, check for a faulty hard disk drive.
		Reboot the system. At the Serial ATA AHCI BIOS screen on the monitor, wait for the Port-XX displays to appear and press the Pause/Break key. If a hard disk drive description appears next to the Port-01, Port-02, and Port-03 entries, all three hard disk drives are good.
		If “No device detected” appears next to:
		• Port-01, the 500GB hard disk drive in the top slot of the chassis may be faulty.
		• Port-02, the 2TB hard disk drive in the middle slot may be faulty.
		• Port-03, the 2TB hard disk drive in the bottom slot may be faulty.
		Replace the SATA data cable to the suspected faulty drive. If the problem persists, replace the faulty drive.
		5 If the problem persists, replace the motherboard (see page 56).

Symptom	Possible cause	Suggested action
Service messages (continued)		
One of the disks is bad. Cannot continue with installation.	System software installer has detected that one of the hard disk drives is faulty.	If the problem persists, check for a faulty hard disk drive. Reboot the system. At the Serial ATA AHCI BIOS screen on the monitor, wait for the Port-XX displays to appear and press the Pause/Break key. If a hard disk drive description appears next to the Port-01, Port-02, and Port-03 entries, all three hard disk drives are good. If "No device detected" appears next to: • Port-01, the 500GB hard disk drive in the top slot of the chassis may be faulty. • Port-02, the 2TB hard disk drive in the middle slot may be faulty. • Port-03, the 2TB hard disk drive in the bottom slot may be faulty. Replace the SATA data cable to the suspected faulty drive. If the problem persists, replace the faulty drive.
Wrong/Missing Dongle	One of the following: • The wrong dongle or no dongle is installed on the E-85 USB port during the options transfer procedure • Motherboard USB port is faulty	1 Install the correct dongle on the E-85 USB port and repeat the options transfer procedure (see "Transferring options and BIOS information to the new motherboard" on page 63). 2 If the problem persists, install the dongle on another available USB port and repeat the options transfer procedure. 3 If the problem persists and you are sure you have the proper dongle, you may need to replace the motherboard (see page 59).
Used Dongle	The dongle has already been used to transfer options and cannot be reused.	Obtain an unused dongle and try again.
Fiery Ticker messages		
Please check Fiery Hardware	Possibly one of the following: • Network port is physically damaged. • Network driver is disabled. • Wrong system software has been installed. • BIOS files have been corrupted on the motherboard.	1 If you installed the system software and this error message displays on the 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 a different motherboard. If so, replace the BIOS chip with one from the original motherboard. 3 If the problem persists, replace the motherboard (see page 57).
No service dongle	Motherboard replacement dongle is not attached after you replace the motherboard and attempt to transfer options to the new motherboard.	1 Turn off the E-85 and attach the correct dongle. 2 Restart the option and BIOS transfer procedure (see page 63).

Symptom	Possible cause	Suggested action
Network		
If you suspect a network problem, consider the following: • If the E-85 does not appear in the list of printers on the network, there may be another device on the network with the same Ethernet hardware address. • There may be conflicting network settings in Setup and on the customer's workstation. • Inappropriate Setup options may cause printing problems. • Missing or incorrectly placed printer description files may cause application-specific printing errors. For additional information, see *Configuration Guide*, which is part of the user documentation set.		
Unable to connect to the network, or neither LED on the 10/100/1000Mbps network connector is lit.	One of the following: • Cable is connected to the wrong Ethernet port. Cable should be connected to the upper Ethernet port. • Faulty network cable or connection • Faulty network • Faulty Ethernet interface on the E-85 motherboard	1 Make sure that the network cable is the correct type and is connected to the designated network port on the back of the E-85 (see page 22). 2 Check the cable connection to the network. 3 Replace the cable with a new or tested cable. 4 If the problem persists, request that the site administrator check Network Setup. 5 If the problem persists, request that the site administrator check other devices on the network. If other devices are not functioning, there could be a problem with the network. 6 If the rest of the network is functioning properly and the problem persists, replace the motherboard (see page 56).

System starts up slowly (seems to hang) and then displays one or more DHCP error messages on the monitor.	One of the following:
	• Normal behavior
	System is searching for a nonexistent DHCP server. DHCP is enabled by default on the E-85 but the customer's network is not using DHCP.
	• If the customer's network is using DHCP:
	  • Network cable or connection is faulty.
	  • Network is faulty.
	  • Ethernet interface on the E-85 motherboard is faulty.
		1 If the problem persists, request that the site administrator change the default in E-85 Network Setup.
		2 If neither LED on the 10/100/1000Mbps network connector is lit on the E-85 connector panel, check the cable connection to the connector panel and the network. Make sure that the cable is the correct type.
		3 If the network cable is the correct type and is properly connected to the back of the E-85, connect a new network cable to the back of the E-85.
		4 If the problem persists, request that the site administrator check other devices on the network.
		If other devices are not functioning, it could be a problem with the network.
		5 If the rest of the network is functioning properly and the problem persists, replace the motherboard (see page 56).

Symptom	Possible cause	Suggested action
Printing		
Note: Intermittent print quality problems are difficult to trace. Before you try to troubleshoot print quality problems, print a Test Page to make sure that the printer itself does not need servicing or adjusting.		
Test Page fails to print.	Printer is not ready to print.	Make sure that the printer is powered on and ready to print.
	There is a problem with the connection between the E-85 and the printer.	1 Make sure that the printer is powered on and ready to print. 2 Recheck that the printer interface cables are present and properly connected to the E-85 and the printer (see Figure 3 on page 19). 3 If the problem persists, power off/on the printer and the E-85, waiting one minute after the E-85 reaches Idle before you power on the printer. 4 Check again that the printer interface board is present and properly connected to the motherboard (see page 55). 5 If the problem persists, replace the printer interface cables one at a time (see Figure 3 on page 19). 6 If the problem persists, try replacing the printer interface board assembly (see page 55). 7 If the problem persists, you may need to service the printer.
	Corrupted system software (Possible causes continue on following page.)	Restore the backup, or reinstall system software.
Test Page fails to print.	(Continued from previous page.) Faulty hard disk drive	Check for a faulty hard disk drive. Reboot the system. At the Serial ATA AHCI BIOS screen on the monitor, wait for the Port-XX displays to appear and press the Pause/Break key. If a hard disk drive description appears next to the Port-01, Port-02, and Port-03 entries, all three hard disk drives are good. If “No device detected” appears next to: • Port-01, the 500GB hard disk drive in the top slot of the chassis may be faulty. • Port-02, the 2TB hard disk drive in the middle slot may be faulty. • Port-03, the 2TB hard disk drive in the bottom slot may be faulty. Replace the SATA data cable to the suspected faulty drive. If the problem persists, replace the faulty drive.

Symptom	Possible cause	Suggested action
Printing (continued)		
E-85 appears on the list of printers on the customer's workstation, but certain jobs do not print.	PostScript error	1 Make sure that Print to PostScript Error in Setup is set to Yes. 2 Check for error messages on the E-85 output.
	Application problem	1 Print a job from a different application to determine if the problem is associated with a particular application. 2 Make sure that the connection between the E-85 and the workstation is working by downloading a Test Page from the workstation or printing a simple file, such as a text file. 3 Resend the problem file.
Server Configuration page is completely or mostly blank.	One of the following: • Missing, unmatched, incorrect, or faulty DIMMs • Corrupt system software	1 Check for missing DIMMs and reseat the DIMMs to remove any oxidation on the connectors (see page 66). 2 If the problem persists, test the DIMMs by removing all DIMMs except for the ones installed in A0 and E0 and reboot the system. If the system boots to Idle, install a different DIMM in the available slot indicated in "Table 3: Available DIMM slots" on page 67 and reboot the system. Continue to install a different DIMM in the slot and reboot the system until the system fails to reach Idle. The last DIMM that you installed may be faulty and should be replaced. **Note:** If the system fails to reach Idle with each DIMM installed in the next available slot, the DIMM socket may be faulty and you may need to replace the motherboard. 3 If the problem persists, restore the backup, or reinstall the system software.

Symptom	Possible cause	Suggested action
Printing (continued)		
A print job stalls or stops after one or a few pages.	PostScript or application error	1 Cancel the E-85 print job. 2 If this fails to clear the problem, reboot the E-85. 3 If the problem persists, right-click Fiery Bar, and in the shortcut menu click Clear Server.
	Missing, incorrect, or faulty DIMMs or faulty DIMM connections	1 Power off the E-85; check for missing DIMMs and reseat the DIMMs to remove any oxidation on the connectors (see page 66). Make sure that an even number of DIMMs is installed. Odd-numbered configurations are not supported. 2 Verify the memory amount on the Server Configuration page. 3 If the problem persists, test the DIMMs by removing all DIMMs except for the ones installed in A0 and E0 and reboot the system. If the system boots to Idle, install a different DIMM in the available slot indicated in "Table 3: Available DIMM slots" on page 67 and reboot the system. Continue to install a different DIMM in the slot and reboot the system until the system fails to reach Idle. The last DIMM that you installed may be faulty and should be replaced. **Note:** If the system fails to reach Idle with each DIMM installed in the next available slot, the DIMM socket may be faulty and you may need to replace the motherboard. 4 If the problem persists after replacing the DIMMs, you may need to replace the motherboard (see page 56).
Job fails during processing	Interference from old and/or corrupt file(s).	Run Cleanup on the E-85. 1 Make sure that the E-85 is not in use. 2 Go to *EFI\server\spool*. 3 Double-click the cleanup.bat file. 4 Power off the E-85. 5 Power on the E-85.

Symptom	Possible cause	Suggested action
Printing (continued)		
Color quality is not consistent.	Problem with the printer	Test the printer and service, if necessary (see the service documentation that accompanies the printer).
	File or application problem	1 Print the E-85 Test Page (see page 27). 2 If the quality of the Test Page is good, there may be a file or an application problem.
	Out of calibration or calibration information/curves on the active partition are corrupted. (Possible causes continue on the following page.)	1 Start Command WorkStation and click the Calibrate icon in the toolbar. Click Restore Device in the Calibrator window, and then click OK. Restore Device restores the currently selected E-85 calibration set to factory defaults. If restoring default calibration does not solve the problem, you may need to service the printer. 2 If restoring default calibration fixes the color quality, the custom calibration may have been the cause of the problem. Request that the site administrator recalibrate the E-85. For more information, see *Color Printing*, which is part of the user documentation set. 3 If the problem persists after recalibration, the calibration information on the hard disk drive may be corrupt. Reinstall the system software. 4 If the problem persists, check for a faulty hard disk drive. Reboot the system. At the Serial ATA AHCI BIOS screen on the monitor, wait for the Port-XX displays to appear and press the Pause/Break key. If a hard disk drive description appears next to the Port-01, Port-02, and Port-03 entries, all three hard disk drives are good. If "No device detected" appears next to: • Port-01, the 500GB hard disk drive in the top slot of the chassis may be faulty. • Port-02, the 2TB hard disk drive in the middle slot may be faulty. • Port-03, the 2TB hard disk drive in the bottom slot may be faulty. Replace the SATA data cable to the suspected faulty drive. If the problem persists, replace the faulty drive.

Symptom	Possible cause	Suggested action
Printing (continued)		
Color quality is not consistent. (Continued from previous page.)	Loose or faulty cable connections, or problem with the printer interface board	1 Recheck the printer interface cables and connections at the back of E-85 and the printer (see page 17). 2 Reboot the E-85. 3 Restore the backup, or reinstall system software. 4 Replace the printer interface cables one by one. 5 Replace the printer interface board assembly. 6 Replace the motherboard.
Print quality is poor.	Missing or outdated printer description file	Make sure that the appropriate printer description file is installed. For information about printer files, see *Printing*, which is part of the documentation set.
	Application cannot find the appropriate printer description file	
	Problem with the printer (Possible causes continue on the following page.)	Test the printer and service, if necessary (see the service documentation that accompanies the printer).

Symptom	Possible cause	Suggested action
Printing (continued)		
Print quality is poor. (Continued from previous page.)	Out of calibration or calibration information/curves on the active partition are corrupted	1 Start Command WorkStation, click the Calibrate icon in the toolbar. Click Restore Device in the Calibrator window, and then click OK. Restore Device restores the currently selected E-85 calibration set to factory defaults. If restoring default calibration does not solve the problem, you may need to service the printer. 2 If restoring default calibration fixes the color quality, the custom calibration may have been the cause of the problem. Request that the site administrator recalibrate the E-85. For more information, see *Color Printing*, which is part of the user documentation set. 3 If the problem persists after recalibration, the calibration information on the hard disk drive may be corrupt. Reinstall the system software. 4 If the problem persists, check for a faulty hard disk drive. Reboot the system. At the Serial ATA AHCI BIOS screen on the monitor, wait for the Port-XX displays to appear and press the Pause/Break key. If a hard disk drive description appears next to the Port-01, Port-02, and Port-03 entries, all three hard disk drives are good. If "No device detected" appears next to: • Port-01, the 500GB hard disk drive in the top slot of the chassis may be faulty. • Port-02, the middle 2TB hard disk drive may be faulty. • Port-03, the bottom 2TB hard disk drive may be faulty. Replace the SATA data cable to the suspected faulty drive. If the problem persists, replace the faulty drive.
	Loose or faulty cable connections, or problem with the printer interface board	1 Recheck the printer interface cables and connections at the back of the E-85 and the printer (see Figure 3 on page 19). 2 Reboot the E-85. 3 Restore the backup, or reinstall system software. 4 Replace the printer interface cables one by one. 5 Replace the printer interface board assembly. 6 Replace the motherboard.

Symptom	Possible cause	Suggested action
Printing (continued)		
Pages come out blank or tinted with a color.	Loose cable connection between the E-85 and the printer	1 Recheck the printer interface cables and connections at the back of E-85 and the printer (see page 17). 2 Reboot the E-85.
	Problem with the printer	Test the printer and service, if necessary (see the service documentation that accompanies the printer).
	Loose or faulty cable connections, or problem with the printer interface board	1 Recheck the printer interface cables and connections at the back of E-85 and the printer (see page 17). 2 Reboot the E-85. 3 Restore the backup, or reinstall system software. 4 Replace the printer interface cables one by one. 5 Replace the printer interface assembly. 6 Replace the motherboard.
Paper Catalog or Stock Library entries are missing from the Press Interface.	Paper Catalog or Stock Library entries have been deleted from the Manage Stock Library interface.	Re-synchronize the Paper Catalog entries between the E-85 and printer.
If the user can print the E-85 Test Page but cannot print a job from a computer on the network, request that the site administrator do the following: • Check all components of the network, including cables, connectors, terminators, network adapter boards, and network drivers. • Activate the network and use it to communicate with other printers. • Check the corrective actions listed in the user documentation. • Confirm that the applicable network settings in Setup (such as AppleTalk zone, IP address, Subnet mask, and Gateway address) match the settings used in the network. **Note:** EPS file generation is not completely standardized among applications. Some users may encounter problems while printing certain EPS files.		

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-85 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-85 user software installed
- Description of any other actions performed on the E-85 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-85 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 chapter provides an overview of E-85 features.

Hardware features

- (2) quad-core Intel Xeon E5-2637 V4 CPU (3.5GHz, up to 3.7GHz with Turbo)
- (4) 4GB DIMMs
- RJ-45 connectors for 10Mbps, 100Mbps, or 1000Mbps connectivity over twisted pair cable
- (2) 2TB hard disk drive, (1) 500GB hard disk drive
- DVD-RW drive
- (Optional) EFI ES-2000 Spectrophotometer
- (Optional) keyboard, monitor, and mouse

Physical specifications

- Operating Environment:
  Temperature: +5°C to +40°C
  Relative Humidity: 10%-85% (non-condensing)
- Power Supply Rating: 100-240V, 50-60Hz, 5 - 10A
- Maximum Power Consumption: 600W (6A @100V)
- Typical power consumption: 200W, (2A @ 100V)
- Dimensions (Depth x Height x Width):
  57.15 cm (22.5 in.) x 52.70 cm (20.75 in.) x 23.50 cm (9.25 in.)
- Weight: 21.77 kg (48.00 lb)

Networking and connectivity

- Supports AppleTalk and TCP/IP protocols simultaneously
- Supports EtherTalk Phase 2
- RJ-45 Ethernet connector that supports 10BaseT/100BaseTX/1000BaseT twisted pair network connectivity

Safety and emissions compliance

The E-85 is certified to meet the Restriction of Hazardous Substances Directive (RoHS). In addition, it meets or surpasses the following government standards:

Safety approvals

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

EMI/EMC approvals

- FCC Title 47, Part 15 Subpart B, Class A- NA
- Industry Canada, ICES-003, Class A-NA
- EN55032: 2012/AC:2013-Class A - EU
- CISPR32: 2015 - Australia and New Zealand- Class A
- EN61000-3-2: 2014
- EN610003-3: 2013
- EN55024:2010 (EU)
- EAC - Russia
- CCC - China

Servicing the System with Furniture

This chapter describes how to remove the E-85 from the furniture to access internal components for service.

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

Procedures

If the E-85 is installed in the optional furniture, you need to remove it from the furniture before performing most service procedures.

Figure 45: E-85 installed on the furniture

To remove the E-85 from the furniture

To avoid injury, do not lift the E-85 without assistance. The E-85 weighs approximately 22kg. At least two persons are required to move the device.

1 Make sure the E-85 is powered off and all the cables are removed from the back of the E-85.

2 Open the back door of the NX Station and remove all the cables from the connector panel of the E-85.

3 Pull the server tray of the NX Station out of the stand.

To replace the E-85 in the furniture

To avoid injury, do not lift the E-85 without assistance. The E-85 weighs approximately 22kg. At least two persons are required to move the device.

1 Make sure that all the chassis panels are attached.

2 Lift the E-85 and place it on the server tray.

3 Slide the tray into the stand.

4 Reconnect all the cables.

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