Color Controller E-41A

Installation and Service Guide

A guide for service technicians

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

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PREFACE

The *Installation and Service Guide* is intended for authorized E-41A and copier/printer service technicians installing or servicing the Color Controller E-41A. If you are not an authorized service technician, do not attempt to install or service the Color Controller E-41A. Electronics For Imaging, Inc. does not warrant the performance of the server if it is installed or serviced by non-authorized personnel.

NOTE: The term "E-41A" is used throughout this guide to refer to the Color Controller E-41A. The term "copier/printer" is used throughout this guide to refer to the Pro C751/ Pro C751EX/Pro C651EX.

E-41A customer media pack

The E-41A customer media pack contains the following:

- System Software media (for service use only; multiple languages; includes the Microsoft Windows XP Pro for Embedded Systems operating system software and Fiery Server Software)
- User Software media
- Fiery Options Utility DVD (for service use only)
- Fiery Clone Tool (for service use only; includes documentation)
- User Documentation CD
- Printed *Welcome* document
- Printed *Secure Erase Administrator Guide*
- Printed *Release Notes*
- Other documentation

About the documentation

The documentation for the E-41A is described in the following sections.

Service documentation

The scope of the *Installation and Service Guide* is limited to describing how to install E-41A hardware and system software and how to service and troubleshoot the E-41A. The Troubleshooting chapter focuses on the individual components of the E-41A hardware, as well as the E-41A connection to the network and copier/printer.

Details about the copier/printer, network, remote computers, software applications, and Microsoft Windows operating system software are beyond the scope of this guide.

For details about the content, terminology, and conventions of this guide, see the sections beginning on page 11.

Customer documentation

Customer documentation (also known as "user documentation") is designed primarily for users and administrators. It also contains information that may be useful to service technicians; therefore, cross-references to the customer documentation are included in the *Installation and Service Guide*.

Service technicians can obtain user documentation from the User Documentation CD. Client users can obtain user documentation by using a Web browser to download documentation files from the E-41A. The documents are provided as Adobe Acrobat PDF (Portable Document Format) files, which are indexed and cross-referenced. In addition, some E-41A utilities (such as Command WorkStation) offer built-in Help.

For a complete description of the E-41A user documentation, see *Welcome* on the User Documentation CD.

About this guide

The *Installation and Service Guide* is organized into the following topics:

- Preface

  General information, including a list of precautions.

- Introduction

  General description of the E-41A.

- Installation

  Checking the customer site and unpacking the E-41A; installing and connecting the E-41A.

- Using the E-41A

  Overview of the E-41A functions and user interfaces; printing system pages; shutting down and restarting the E-41A.

- Service Procedures

  Removal and replacement procedures for E-41A components; restoring and verifying functionality.

- System and user software

  Overview of the system software; installing system and user software; backing-up and restoring configuration settings; updating system and user software.

- Troubleshooting

  Common problems and ways of correcting them; startup error messages; general system error conditions.

- Specifications

  E-41A specifications.

- Servicing the E-41A with Furniture (FACI option)

  Assembly and disassembly instructions for systems that are mounted on the optional furniture with the optional monitor attached.

NOTE: The E-41A *Installation and Service Guide* is not intended for customer use. Do not leave the *Installation and Service Guide* at the customer site after servicing the E-41A.

About the illustrations in this guide

Illustrations reflect the current shipping version of the E-41A at the time of publication. Components shown in these illustrations are subject to change. To receive information about any E-41A components that do not match the illustrations in this guide, contact your authorized service/support center.

Terminology and conventions

The following sections explain the terminology and conventions used throughout this guide.

Service technician

In this guide, responsibilities attributed to the service technician may include the following:

- Making sure that the customer site has an appropriate electrical outlet and sufficient physical space for the E-41A
- Unpacking the E-41A
- Installing and connecting the E-41A

NOTE: The preceding functions may be performed by a trained rigger or service technician.

- Servicing the E-41A components
- Installing system and user software on the E-41A

Network administrator

In this guide, responsibilities attributed to the network administrator include the following:

- Verifying that the customer site is network-ready
- Configuring E-41A Network Setup options
- Configuring the connection between the E-41A and the Command WorkStation application installed on the E-41A
- Installing the user software shipped with the E-41A onto the networked Windows and Apple Mac OS computers that will print to it
- Configuring the connection between each remote computer and the E-41A

E-41A components

The terms “replace” and “replacing” are used throughout this guide to mean the reinstallation of existing components. Install new components only when necessary.

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

The term “Control Panel” refers to the area on the front of the E-41A, including the green/red activity light, the display window (LCD—liquid crystal display), and the buttons to the left and right of the display window.

The term “LCD” refers to the display window of the E-41A Control Panel.

The term “monitor” refers to the optional E-41A flat panel monitor.

The term “DVD drive” (Digital Versatile Disk drive) refers to the E-41A DVD drive.

The term “system software” refers to the following software installed on the E-41A hard disk drive (HDD):

- Windows XP Pro for Embedded Systems operating system software and Fiery Server Software (System Software DVD)
- User Software (User Software DVD)

For other terms used to identify components of the E-41A, see the reference key in Figure 11 on page 49.

Connectors and components labeled “not used”

Connectors and components labeled “not used” are disabled or are not used in the standard E-41A configuration.

Document conventions

References to E-41A user documentation, such as *Configuration and Setup,* are displayed in italics. The user documentation files are installed from the User Documentation CD.

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

WARNING The WARNING format indicates a potentially hazardous situation which, if instructions are not followed, could result in death or serious injury. To use the E-41A safely, always pay attention to these WARNINGs.

CAUTION The CAUTION format indicates a caution concerning operations which, if not performed correctly, may lead to injury. To use the E-41A safely, always pay attention to these CAUTIONs.

IMPORTANT The IMPORTANT format indicates operational requirements and restrictions. To operate the E-41A correctly and avoid damage to the E-41A or other property, be sure to read the IMPORTANT items carefully.

Precautions

Always observe the following general precautions when installing and servicing the E-41A:

- **Avoid pressing the surface of the LCD.**

  Applying excessive pressure to the LCD window will cause it to change color.

- **Use a soft cloth moistened with Lens and Mirror Cleaner to clean the surface of the E-41A display window.**

  Other solvents, such as water, may damage the polarizer on the display window.

WARNING

Never lift the E-41A by grasping the top panel. The top panel does not support the weight of the system.

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.

DVERTENCIA: 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.

IMPORTANT

- **When connecting or disconnecting the power cord:**
  - *Only use* the power cord that shipped with the E-41A or an appropriate replacement power cord available from an authorized provider.
  - *Always* disconnect the power cord from the E-41A back panel before opening the unit and servicing internal components.
  - *Do not* pull on the power cord when unplugging the E-41A. Pull the plug instead.
  - *Do not* place objects on the power cord. Place the power cord away from foot traffic.
  - *Do not* tamper with or disable the power cord grounding plug.
  - *Do not* use a 3-prong adapter in a 2-hole ungrounded outlet.
  - *Do not* use an extension cord.
  - *Do not* plug the E-41A into a circuit with heating or refrigeration equipment (including water dispensers).
  - *Do not* plug the E-41A into a switchable power outlet. This can result in the E-41A being turned off accidentally.
- **Never set any liquid on or near the E-41A or copier/printer. If liquid is spilled into the E-41A or copier/printer, disconnect the power cord immediately.**
- **Do not attempt to open the power supply, DVD drive, or hard disk drive (HDD).**

- **Handle the E-41A LCD window with care.**

  If the E-41A LCD window breaks and the liquid crystal inside leaks out, avoid contact with it. If you come in contact with the liquid crystal, wash it off your skin immediately with soap and water.

- **Use care when handling parts of the E-41A, as some edges on the unit may be sharp.**

- **Do not install third-party applications onto the E-41A. Third-party applications are not supported and can cause system problems. Although virus scans are permitted on the E-41A, virus-protection software should not be loaded in memory-resident mode.**

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

  Depending on the changes made, the E-41A may become unstable or even unusable. If this occurs, we recommend that you reinstall the E-41A System Software, which reliably restores the Windows operating system software to its factory defaults.

- **Never alter an existing network without permission.**

  The E-41A will probably be connected to an existing Local Area Network (LAN) based on Ethernet hardware. The network is the link between the customer's computer, existing laser printers, and other prepress equipment. Never disturb the LAN by breaking or making a network connection, altering termination, installing or removing networking hardware or software, or shutting down networked devices without the knowledge and explicit permission of the system or network administrator or shop supervisor.

- **Unless you are the network administrator, never assign an IP address in E-41A Network Setup.**

  In a DHCP environment, the system assigns the IP address automatically. In a non-DHCP environment, you should enter only the IP address that has been assigned by the network administrator. Only the network administrator should assign an IP address to a network device. Assigning the E-41A an incorrect IP address may cause unpredictable errors on any or all devices connected to the network.

Creating an ESD safe environment

IMPORTANT

- **Follow standard ESD (electrostatic discharge) precautions while working on the internal components of the E-41A.**

  Static is always a concern when servicing electronic devices. It is highly unlikely that the area around the copier/printer and the E-41A is static-free. Carpeting, leather-soled shoes, synthetic clothing fibers, silks, and plastics may generate a static charge of more than 10,000 volts. Static discharge is capable of destroying the circuits etched in silicon microchips, or dramatically shortening their life span. By observing standard precautions, you may avoid extra service calls and save the cost of a new board.

  When possible, work on a ground-connected antistatic mat. Wear an antistatic grounding strap, grounded at the same place as the antistatic mat. If that is not possible, do the following:

  - Attach a grounding strap to your wrist. Attach the other end to a good ground.
  - When you unpack the E-41A from the carton for the first time, touch a metal area of the copier/printer to discharge the static on your body.
  - Before you remove any of the E-41A panels and handle internal components, touch a metal part of the E-41A.
  - Leave new electronic components inside their antistatic bags until you are ready to install them. When you remove components from an antistatic bag, place them on a grounded antistatic surface, component-side up.
  - When you remove an electronic component, place it in an antistatic bag immediately. Do not walk across a carpet or vinyl floor while carrying an unprotected board.
  - During service to the motherboard, avoid using excessive force and always place the motherboard on a grounded, non-metallic, 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.

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

Power Supply Cord Notice

IMPORTANT

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

ATTENTION: Le cordon d'alimentation doit être débranché pour une mise hors tension totale du produit. La prise de courant doit être située ou installée à proximité du matériel et être facilement accessible.

ATTENZIONE: Il cavo di alimentazione deve essere scollegato per interrompere completamente la corrente. Accertarsi che la presa di corrente si trovi o sia installata vicino alla macchina e sia facilmente accessibile.

ACHTUNG: Der Netzstecker dient zur sicheren Trennung des Gerätes von der Stromversorgung. Stellen Sie sicher, dass sich die Steckdose in unmittelbarer Nähe des Gerätes befindet und leicht zugänglich ist.

CUIDADO: El cable de alimentación eléctrica se utiliza como dispositivo de desconexión principal. Asegúrese de que el enchufe-toma esté situado/instalado cerca del equipo y que sea fácilmente accesible.

CUIDADO: O cabo de força é usado como dispositivo principal de desconexão. Assegure-se de que a saída de energia esteja localizada/instalada próxima ao equipamento e facilmente acessível.

VOORZICHTIG: Het netsnoer moet worden uitgetrokken om de stroomvoorziening te onderbreken. Zorg ervoor dat het stopcontact zich dicht bij het apparaat bevindt en gemakkelijk toegankelijk is.

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.

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

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

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

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

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

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

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

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

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

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

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).

ATTENTION : La protection contre les courts-circuits (surtension) du produit est assurée par l'installation électrique du local où il est installé. S'assurer qu'un fusible ou un disjoncteur inférieur ou égal à 120 V CA , 15 A aux Etats-Unis (240 V CA, 10 A dans les autres pays) est utilisé pour les conducteurs de phase (conducteurs de courant).

AVVERTENZA: La protezione contro i short-circuit (sovracorrente) del prodotto dipende dall'impianto elettrico dell'edificio in cui è installato. Accertarsi che sui conduttori di fase (che portano la corrente) venga utilizzato un fusibile o interruttore non superiore a 120 Vc.a., 15 A negli Stati Uniti (240 Vc.a., 10 A internazzionale).

WARNUNG: Dieses Produkt ist darauf angewiesen, dass im Gebäude ein Kurzschluss- bzw. Überstromschutz installiert ist. Stellen Sie sicher, dass eine Sicherung oder ein Unterbrecher von nicht mehr als 240 V Wechselstrom, 10 A (bzw. in den USA 120 V Wechselstrom, 15 A) an den Phasenleitern (allen stromführenden Leitern) verwendet wird.

DVERTENCIA: Este producto depende de la instalación del edificio en lo relativo a la protección frente a cortocircuitos (sobretensión). Asegúrese de utilizar un fusible o un interruptor de circuito que no sea de más de 120 V CA, 15A en EE.UU. (240 V CA, 10A internacional) en los conductores de fase (todos los conductores que transportan corriente).

ADVERTÊNCIA: Esse produto depende da instalação de proteção contra curto-circuito (sobrecarga) do edifício. Assegure-se de que um fusível ou disjuntor de até 120 VAC, 15A U.S. (240 VAC, 10 A internacional) seja usado nos condutores de fase (todos os condutores de corrente).

WAARSCHUWING: Dit apparaat wordt tegen kortsluiting (overstroom) beveiligd via de elektrische installatie van het gebouw. Zorg ervoor dat de fasegeleiders (alle stroomvoerende geleiders) beveiligd zijn met een zekering of stroomonderbreker met een maximale capaciteit van 120 V wisselstroom, 15 A in de V.S. (240 V wisselstroom, 10 A internationaal).

Tools you will need

To install or service the E-41A, 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-41A documentation, including the customer media pack and any related service bulletins

IMPORTANT

Avoid touching magnetic tools to storage media such as HDDs. Contact between magnetic tools and magnetic storage media may result in data corruption.

INTRODUCTION

The E-41A adds computer connectivity and highly efficient Adobe PostScript 3 color printing capability to the copier/printer. It is optimized for high-speed network communications, processing, rasterization, and printing of continuous tone color and monochrome pages.

Features

The E-41A, as an integral part of a color printing system, enables users to:

- Send images over AppleTalk and TCP/IP networks to E-41A supported devices.
- Spool print jobs and select a printing priority for each job. Users can control spooled print jobs sent to the E-41A with remote user software running on networked Windows and Mac OS computers.
- Print color, grayscale, and black-and-white jobs.
- Use the copier/printer as a high-resolution color scanner with Fiery Scan software.
- Use 136 resident fonts (126 Adobe Type 1 PostScript and 10 TrueType), plus several Adobe Multiple Master fonts used for font substitution when printing PDF files. Command WorkStation or any third-party LaserWriter downloader, such as the Adobe Font Downloader, can be used to download additional fonts.
- Use built-in ColorWise color management and NetWise network features.

The E-41A also supports the Microsoft version of Internet Printing Protocol (IPP) for Windows XP, Windows Vista, Windows Server 2003/2008/2008 R2, Windows 7, and e-mail printing.

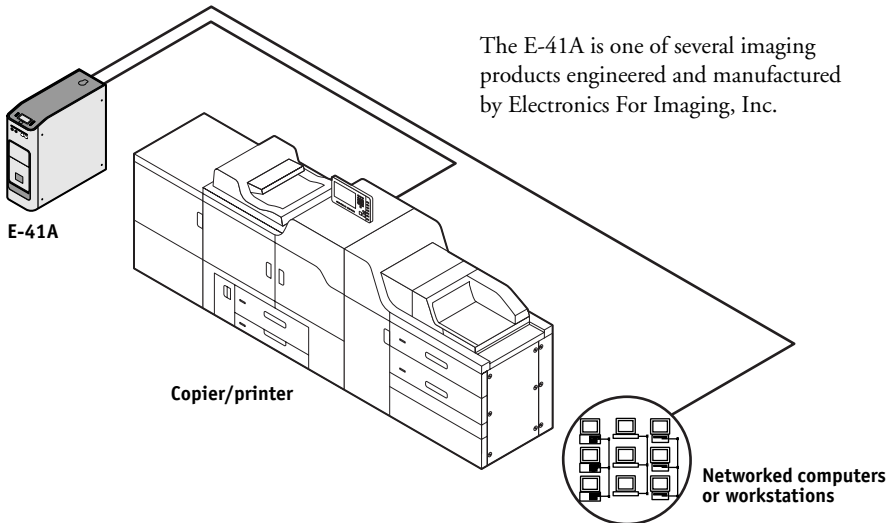


FIGURE 1: Printing system

How the E-41A operates

The E-41A enables the customer to use the copier/printer as a high-performance, networked PostScript color printer and scanner. Users at the customer site can print to the E-41A from networked Windows computers, Mac OS computers, and networked UNIX workstations running TCP/IP.

The E-41A custom-designed boards and system software provide efficient image processing and printing controls. The main functions of E-41A components and software are described in the following paragraphs.

The E-41A uses the motherboard and a custom video board to process image data for printing and scanning images.

The motherboard includes an Intel Core 2 Duo E8400 3.0GHz CPU that controls the image data transfer to and from the motherboard and runs the interpreter. The interpreter rasterizes the page description file and compresses the image pattern into memory using compression technology.

The interpreter outputs compressed raster data through the image frame buffer memory to the E-41A video board. The video board decompresses the image data and sends it to the copier/printer through a crossover Ethernet copier/printer interface cable connected to an RJ-45 port on the E-41A back panel. The raster data is supplied to the copier/printer, which then renders the final image on paper at full rated engine speed.

High-speed DIMMs (dual in-line memory modules) on the motherboard hold the image data during printing. The E-41A is configured with two 1GB DIMMs for a total of 2GB of memory.

When Fiery Scan uses the copier/printer as a scanner, the E-41A acquires RGB (red, green, and blue) image data from the copier/printer, stores it in memory, and transmits it to the computer that requested the scan.

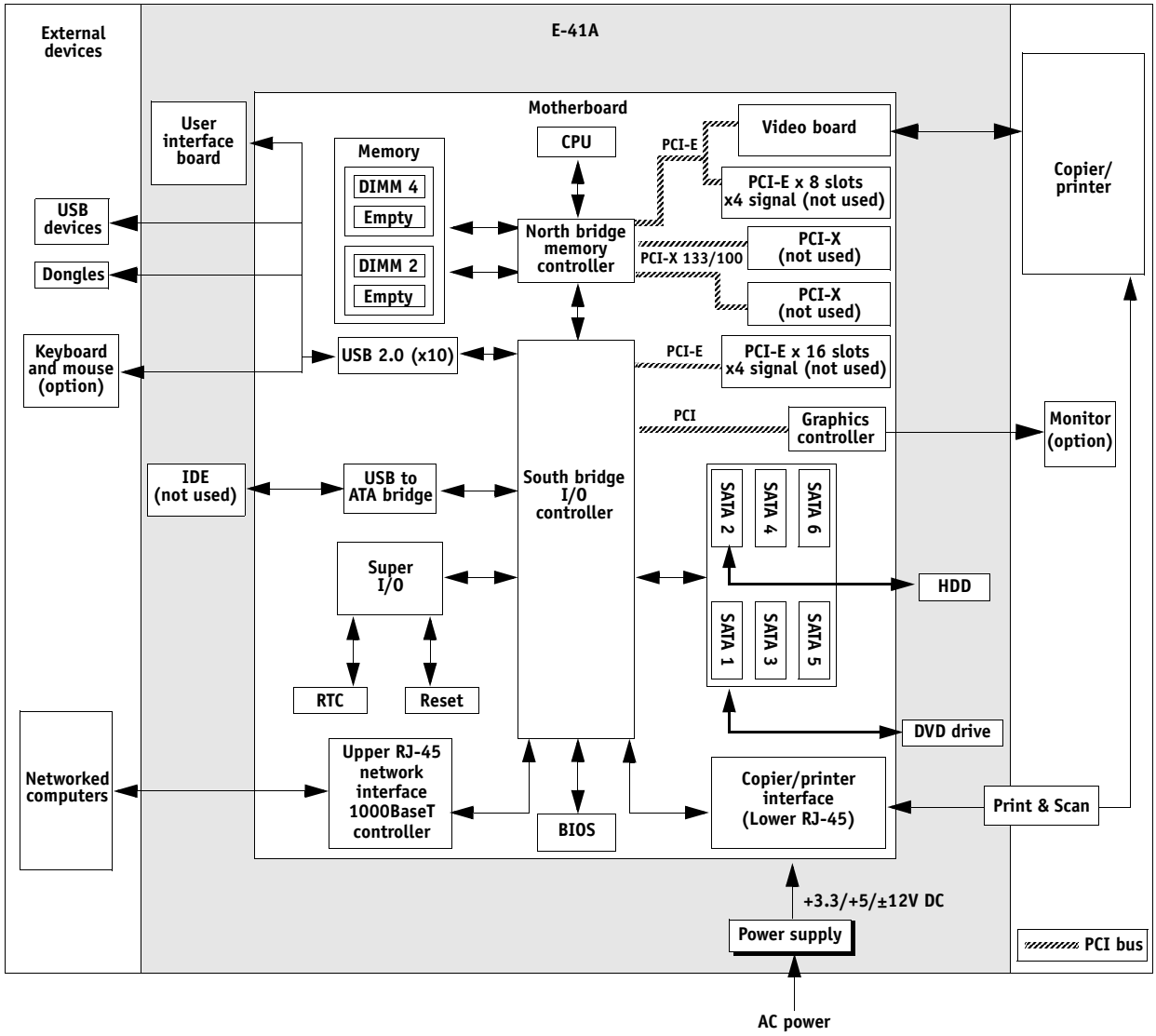


FIGURE 2: E-41A functional diagram

INSTALLATION

This chapter includes information about the following:

- Installation sequence (see below)
- Checking the customer site (see page 24)
- Unpacking the E-41A (see page 26)
- Installing the E-41A and connecting it to the copier/printer and network (see page 29)
- Completing the installation (see page 32)
  - Print a Test Page and Configuration page (page 38).
  - Remind the site administrator to install current user software on networked computers that print to the E-41A (see *Printing* and *Utilities* on the User Documentation CD).

Installation sequence

Familiarize yourself with this chapter before you attempt an installation. The installation sequence described in this chapter is designed to make your job as easy as possible. Installation problems are easier to avoid and diagnose if you proceed from the component to the system level and verify functionality at each stage. Figure 3 on page 23 outlines the recommended installation procedure for connecting the E-41A to the copier/printer.

Because the E-41A is a node on the customer's computer network, make sure that you coordinate your scheduled installation with the network administrator at the customer site. For Network Setup information, refer the network administrator to *Configuration and Setup* on the User Documentation CD.

NOTE: You can change the default language preinstalled at the factory using the Configure tool available through Command WorkStation and WebTools. Launch Configure and then navigate to Server > General > Choose Server Language and then click Apply.

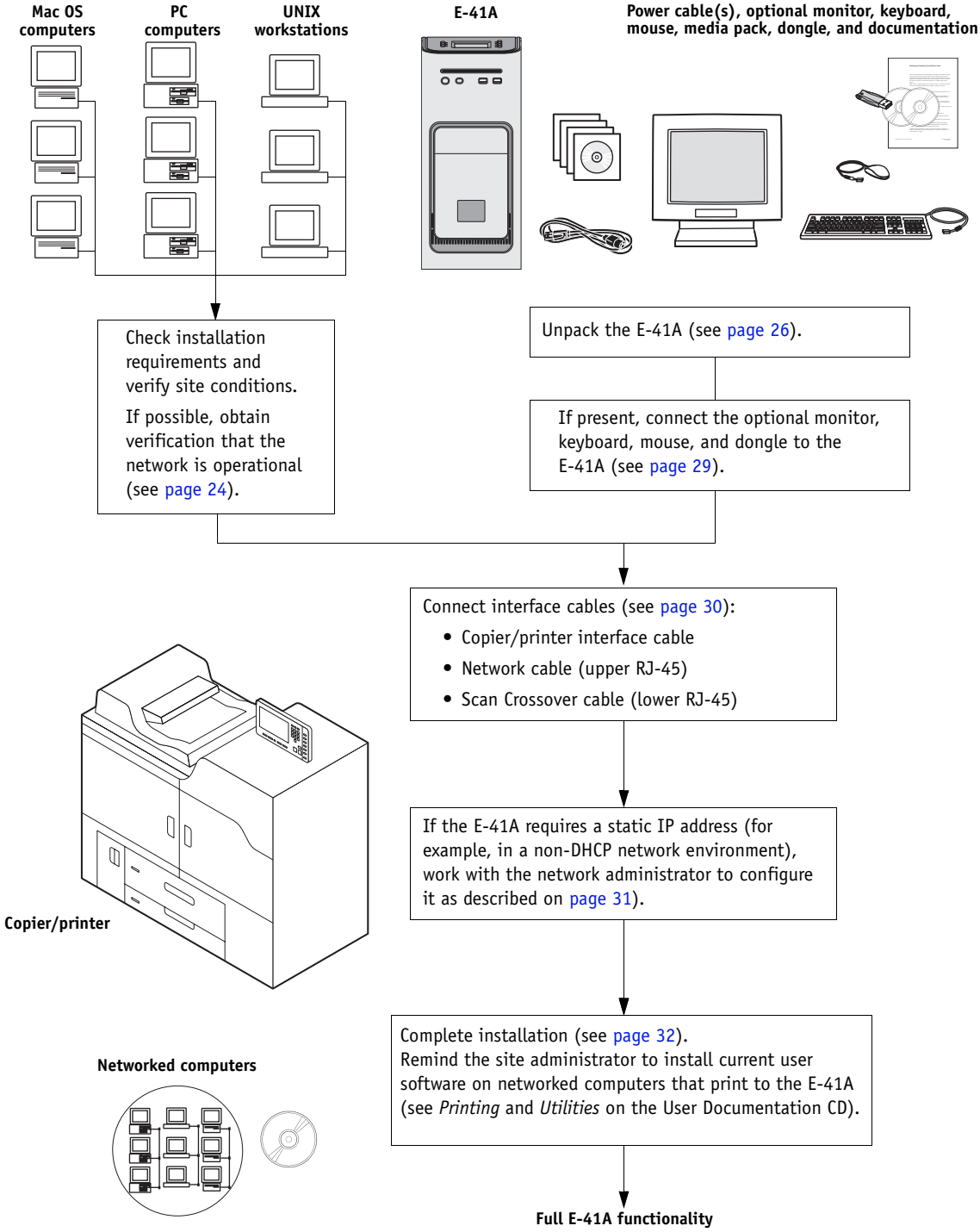


FIGURE 3: Summary of installation steps and references

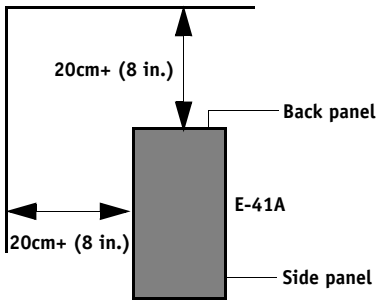
Checking the customer site

Before you install the E-41A, check site conditions and inform the customer of any installation requirements.

Copier/printer readiness

- ❑ **Is the copier/printer configured for use with the E-41A?**
- ❑ **Is space available near the copier/printer for the E-41A?**

Make sure that adequate space is available for the E-41A. Allow enough space at the back panel for the cables to route easily and at the side panel so that the E-41A does not interfere with use of or service to the copier/printer (such as clearing a paper jam). You may need to move the copier/printer away from the wall so that the interface connectors are accessible.



- ❑ **Does the copier/printer require service or adjustments?**

Print the copier/printer Test Page before you install the E-41A.

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

Power

- ❑ **Is a dedicated, grounded electrical outlet for the E-41A available near the copier/printer?**

Locate the grounded electrical outlet that will supply power to the E-41A. Do not run the E-41A and the copier/printer on the same circuit. Use a surge suppressor for the E-41A if the customer has provided one.

- *Do not* use a 3-prong adapter in a 2-hole ungrounded outlet.
- *Do not* use an extension cord.
- *Do not* plug the E-41A into a circuit with heating or refrigeration equipment (including water coolers).
- *Do not* plug the E-41A into a switchable wall outlet. This can result in the E-41A being turned off accidentally.
- *Do not* pull on the cable when unplugging the E-41A. Pull the plug instead.

Network

- ❑ **Make sure that the network will be available at the time set for installation.**
- ❑ **Verify with the network administrator that the network is functioning before you attach the E-41A.**
- ❑ **Make sure that the configuration requirements specified in *Configuration and Setup* (on the User Documentation CD) have been met for remote computers and the network.**

Setting customer expectations

When the site is ready, installation of the E-41A takes about one hour. Inform the customer of the following:

- Some nodes on the network may be unavailable for up to one hour.
- The copier/printer may be unavailable for up to one hour.
- The network administrator must be available during the installation for network connectivity.

  Equipment downtime and impact on the network can be minimized if the network administrator installs a network connector for the E-41A and confirms network functionality with the connector in place before the date scheduled for the E-41A installation.
- The network administrator must make a networked computer available during the installation. The appropriate software must be installed in advance. Documentation for the networked computer and network operating software should be available.
- The network administrator must install the user software shipped with the E-41A onto networked Windows and Mac OS computers that print to the E-41A (user documentation is also included).

NOTE: This guide covers hardware installation and service and provides general information about connecting the E-41A to the customer's network. Network Setup and configuration information exceeds the scope of this guide. For Network Setup and configuration information, refer the network administrator to *Configuration and Setup* on the User Documentation CD.

Unpacking the E-41A

The E-41A is assembled and shipped from the factory with all necessary cables (except the network cable) and documentation (see page 27).

NOTE: The E-41A weighs approximately 20 kg (44 lbs). Use caution when you move the E-41A.

WARNING

Never lift the E-41A by grasping the top panel. The top panel does not support the weight of the system.

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

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

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

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

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

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

TO UNPACK THE E-41A

1. **Open the box and remove the packing material.**

   Save the original boxes and packing material in case you need to transport the E-41A at a later date.

2. **Remove the contents from the top container. Inspect the contents for visible damage. The top container should include the following items:**

   - Bags containing the copier/printer interface cable (Ethernet crossover, 39.3 ft./12m) and region-specific AC power cables
   - Customer Kit containing the EFI/Fiery decal and other Ricoh-provided materials
   - Printed *Quick Setup*
   - Customer media pack (includes disks for system software, user software, Fiery Options Utility DVD, user documentation, and other documentation)

3. **Set aside the remaining components from the top container.**

4. **Remove the top container and any packing material.**

   Set aside the packing material and note the orientation of the E-41A inside the shipping container, in case you need to repack it later.

5. **Carefully lift the E-41A out of the box.**

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

6. **Give the media pack to the customer or network administrator.**

   Let the customer or network administrator know that in order to take full advantage of the E-41A, the user software must be installed on computers that will print to the E-41A.

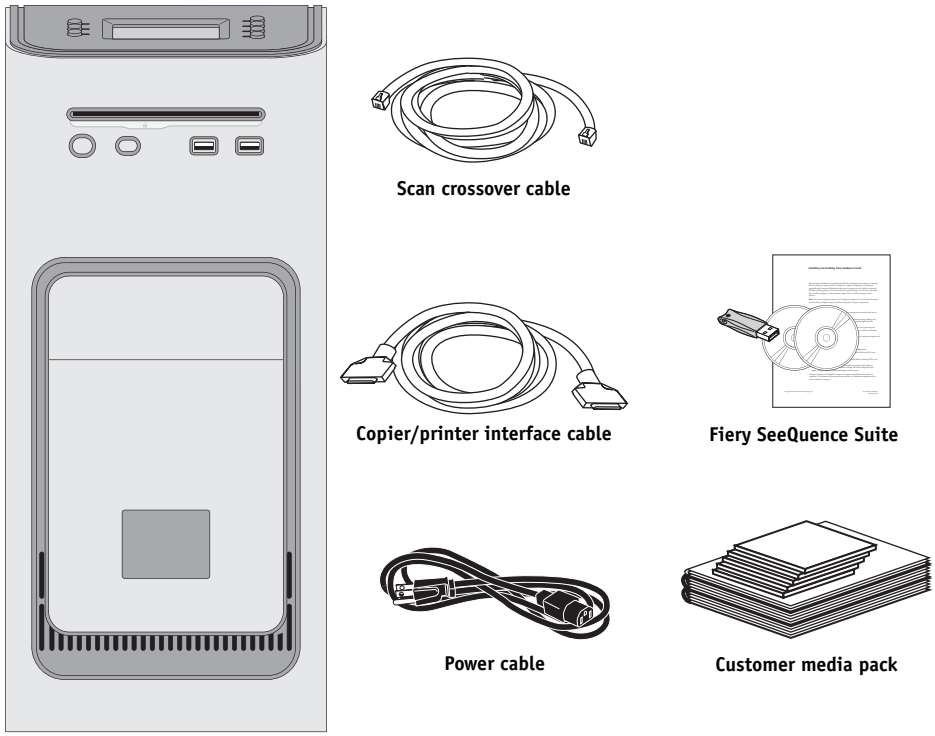


FIGURE 4: E-41A shipping contents

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

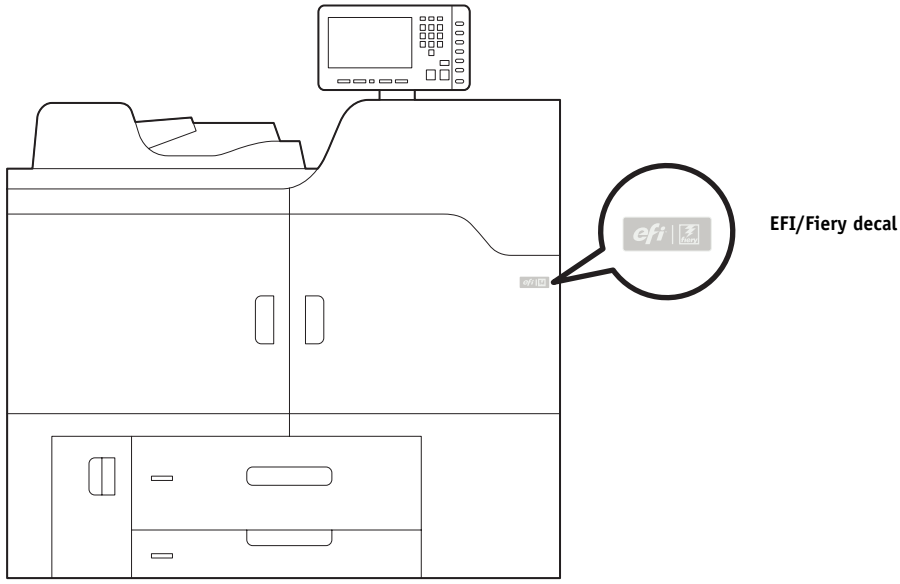


FIGURE 5: Affixing the decal to the copier/printer

Connecting the E-41A

You are now ready to make the following connections:

- Optional monitor, keyboard, and mouse (if present)
- Optional dongle (if present)
- Power cable connection
- Copier/printer interface cable connection
- Network cable connection

For detailed information about the monitor, keyboard, and mouse, see the documentation that accompanies the optional kit.

IMPORTANT

Follow standard ESD precautions when handling components.

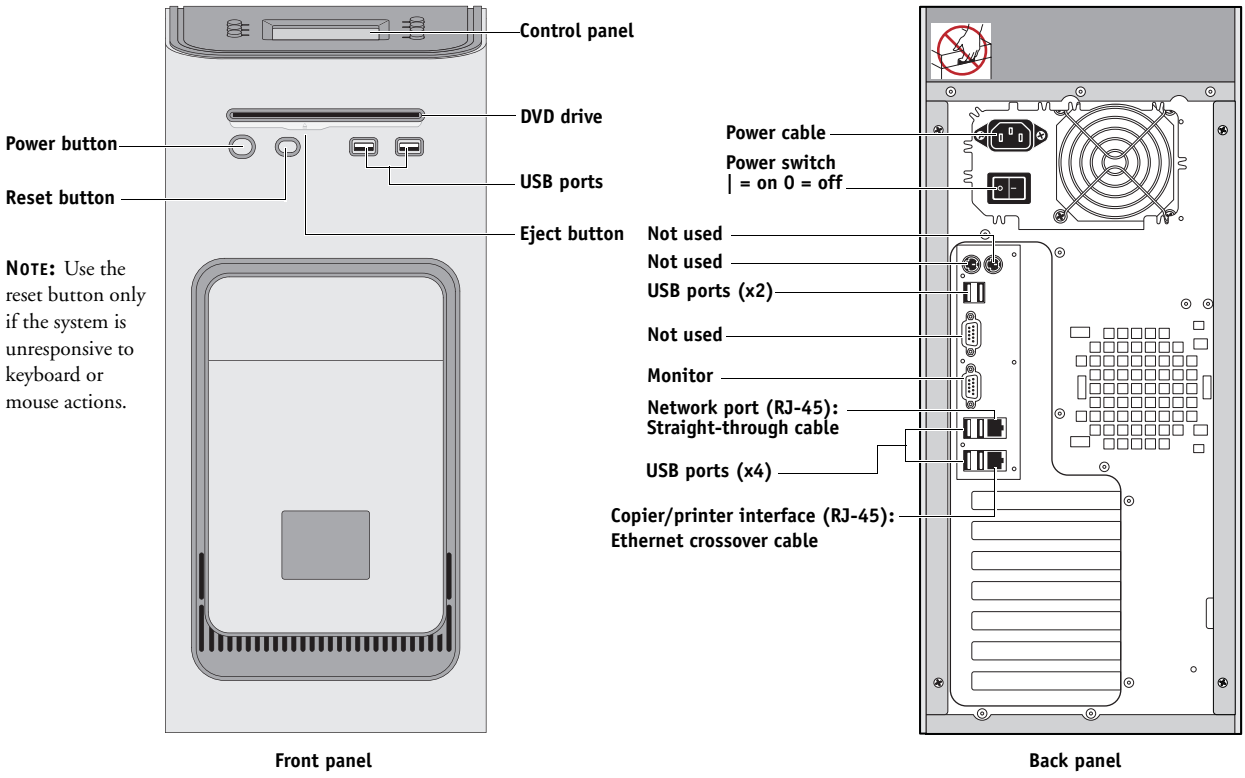


FIGURE 6: E-41A connections

TO CONNECT POWER

1. **Connect the recessed end of the E-41A power cable to the power connector on the back of the E-41A (see Figure 6 on page 29).**
2. **Connect the other end of the E-41A power cable to a wall outlet.**

   Make sure to use the correct power cable for your region. Also, to prevent the risk of cross-talk, make sure that the copier/printer interface cable does not touch the system power cables. Otherwise, image quality problems or E-41A shutdowns could result.

TO CONNECT TO THE COPIER/PRINTER

1. **Make sure that the E-41A and the copier/printer are powered off.**
2. **Connect one end of the copier/printer interface cable to the lower RJ-45 port on the E-41A back panel.**
3. **Connect the other end of the copier/printer interface cable to the copier/printer.**

   Make sure that you connect the cable to the correct RJ-45 port (see Figure 6 on page 29). The network and copier/printer interface cables look similar but are not interchangeable. The copier/printer interface cable included with the E-41A is a 39.3 ft. Ethernet *crossover* cable that connects to the **lower** RJ-45 port on the E-41A back panel. The network cable at the customer site is a *straight-through* Ethernet cable that connects to the **upper** RJ-45 port on the E-41A back panel. To verify the cable type, align the connectors on each end of the cable as shown in Figure 7. On a straight-through cable, the wire arrangements are identical on both ends; on a crossover cable, the wire arrangements are different.

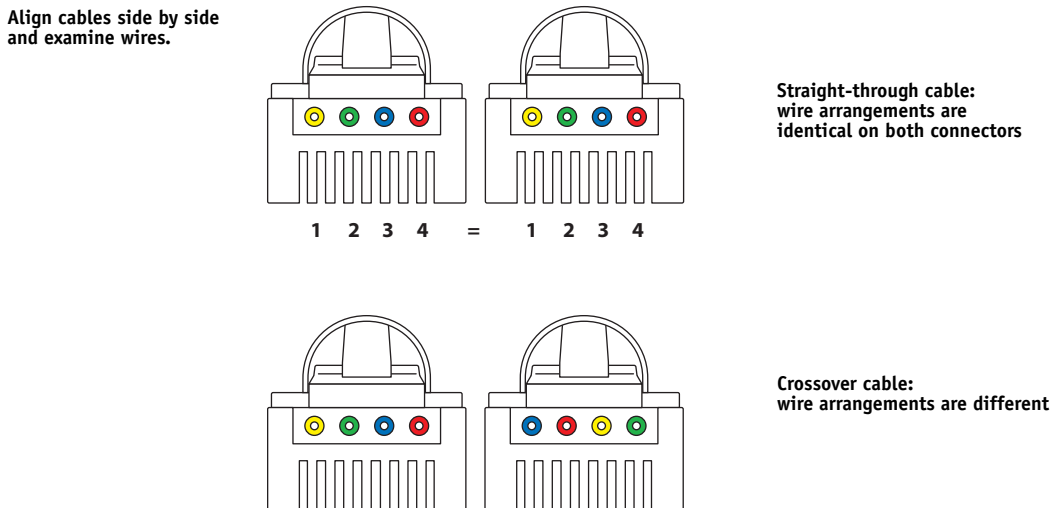


FIGURE 7: Straight-through and crossover Ethernet cables

TO CONNECT TO THE NETWORK

1. **Make sure that the E-41A is powered off.**
2. **Connect the straight-through network cable to the upper RJ-45 port on the E-41A back panel (see Figure 6 on page 29).**

IMPORTANT

Make sure that you connect the cable to the correct RJ-45 port (see Figure 6 on page 29). The network and copier/printer interface cables look similar but are not interchangeable. The network cable at the customer site is a *straight-through* Ethernet cable that connects to the **upper** RJ-45 port on the E-41A back panel. The copier/printer interface cable included with the E-41A is a 39.3 ft. Ethernet *crossover* cable that connects to the **lower** RJ-45 port on the E-41A back panel.

The E-41A provides twisted pair connectivity to an Ethernet network. When the network cable is connected, the Ethernet interface automatically detects the speed of the network environment. Depending on your network speed, the following unshielded twisted pair (UTP) network cables are supported:

- For 10BaseT, Category 3 or higher
- For 1000BaseT, Category 5e or higher (4-pair/8-wire, short-length)

NOTE: After power on, the network administrator should perform Network Setup, verify the network connection, verify that the E-41A appears in the list of printers, and print a few test documents from a networked computer that will use the E-41A. For more information, see *Configuration and Setup* on the User Documentation CD.

Completing installation and starting up

To finish the installation of the E-41A at the customer site, make sure to do the following:

1. **Affix the EFI/Fiery decal to the engine (see page 28).**
2. **Make sure that the copier/printer is powered on.**
3. **Power on the E-41A (see page 42).**

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

4. **When the E-41A has finished starting, access the Fiery menu screen by pressing the "fierydriven®" button on the copier/printer Control Panel (see page 36).**

   The E-41A takes approximately three to five minutes to power on and display Idle on the Fiery menu screen of the copier/printer Control Panel.

5. **Perform any required system software upgrades (see page 113).**

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

6. **Print the Test Page and Configuration page (see page 38) and ask the customer to verify the output.**
7. **If more than one E-41A is (or will be) installed at the customer site, advise the site administrator that it may be helpful to create a backup of the Setup configuration settings and place the backup file on a thumb drive or CD, which can then be used to configure Setup on other E-41A print servers. For details, see *Configuration and Setup*.**
8. **Ask the network administrator to perform Setup and print some test documents over the network.**
9. **Store the output and the current Configuration page(s) near the copier/printer.**
10. **Inform the site administrator that the E-41A user software must be installed on networked computers that print to the E-41A.**
11. **Ask the site administrator to make sure that all media (DVDs and/or CDs) shipped with the E-41A is stored in a safe location accessible to you.**

USING THE E-41A

This chapter includes the following information:

- Using the E-41A Control Panel
- Using the copier/printer display panel
- Checking Network status LEDs
- Shutting down and restarting the E-41A

Overview

Two main user interfaces are available for the E-41A:

- The Control Panel on the front of the E-41A (see following figure)
- The copier/printer display panel (see page 36)

NOTE: A third user interface—the Fiery Advanced Controller Interface (FACI), which includes a monitor, keyboard, and mouse—is sold separately, as an optional kit.

Using the E-41A Control Panel

The Control Panel on the front of the E-41A allows you to do the following:

- Eject CDs and DVDs. (A hardware eject button is also provided below the disc slot.)
- View the IP address of the E-41A.
- Shut down, restart, or reboot the E-41A (see page 42).

NOTE: You can also shut down and restart the E-41A through the copier/printer display panel (see page 44).

- Interact with the E-41A during software installation (see page 107).

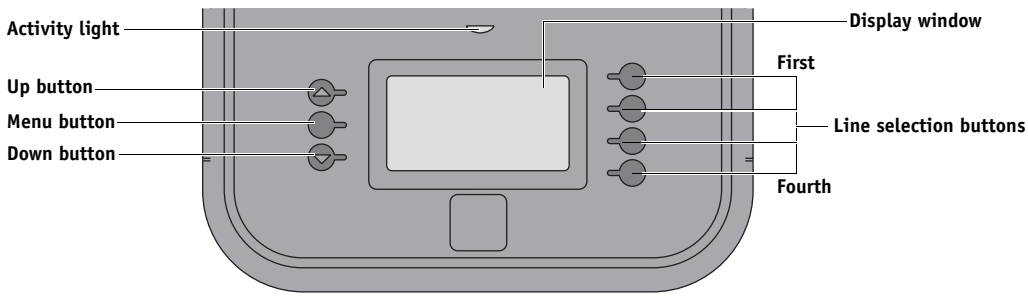


FIGURE 8: E-41A Control Panel

Buttons

Line selection buttons	Use the four line selection buttons on the right side of the Control Panel to select the command displayed on the corresponding line of the LCD display.
Up and Down buttons	Use these buttons to scroll to different screens in multi-screen lists or prompts.
Menu button	Press this button to view the Eject CD/DVD, IP Address, Restart Server, Shut Down System, and Reboot System options.

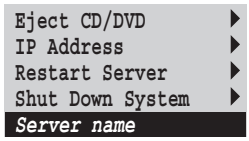
Activity light

The activity light on the E-41A Control Panel indicates current E-41A activity. If the light is:

Flashing amber	The E-41A is starting up and the BIOS has established communication with the User Interface Board (UIB).
Flashing green	The E-41A is continuing startup and the Windows operating system has established communication with the UIB.
Solid green	The E-41A is powered on and in the Idle state.
Solid amber	The E-41A is powered off, but the AC power cable is plugged into the power source. The Control Panel LCD continues to draw power when the E-41A is off.
Flashing or solid red	An error has caused printing to be disabled.
No light	The E-41A is powered off and the AC power cable is not connected to a power source.

E-41A Control Panel Functions menu

The following options are available from the E-41A Functions menu:



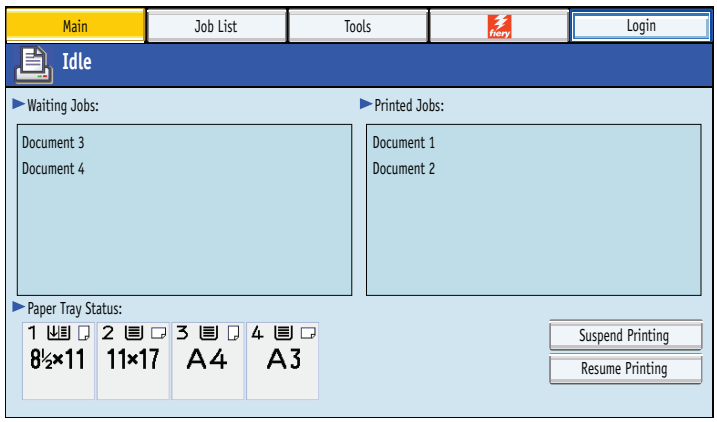
Use the line selection buttons to the right to select an option.

- Eject CD/DVD—Allows you to eject media from the DVD drive. Media is also automatically ejected whenever the E-41A is restarted, shut down, or rebooted. A hardware eject button is also provided below the disc slot.
- IP Address—Displays the current IP address of the E-41A.
- Restart Server—Includes options to Restart (soft reset) or Reboot (hard reset) the E-41A. Selecting Restart resets the E-41A server software, but does not reboot the entire system. Selecting Reboot shuts down all E-41A activity and reboots the system. When you select Restart or Reboot, network access to the E-41A is temporarily interrupted and all currently processing jobs are aborted and may be lost.
- Shut Down System—Shuts down all E-41A server software and powers off the system. Always select this option to power off the system.

NOTE: Avoid using the reset button on the front panel, as doing so may cause the system to operate unpredictably. Use the reset button on the front of the E-41A only if the system is frozen and unresponsive to keyboard or mouse actions.

Using the copier/printer display panel

The "fierydriven®" area of the copier/printer display panel allows you to interact with the E-41A from the copier/printer. The menus provide access to many of the same options available from Command WorkStation.



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-41A and the copier/printer. Use this command to interrupt the current E-41A job, for example, to perform maintenance tasks. Jobs continue to process on the E-41A. After you complete maintenance tasks, choose Resume Printing to continue printing jobs from the E-41A.

Resume Printing — Resume print activity between the copier/printer and the E-41A after you select Suspend Printing.

Start Sample Print — Prints a sample sheet or sample set of the job currently printing on the E-41A. The sample print is sent to the output tray specified in E-41A Setup.

Job List tab

The Job List tab on the copier/printer display 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 tab for the desired list.

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-41A using ColorCal. For more information, see the Calibration Instruction Page and *Color Printing*.

Print Instructions — Print the Calibration Instruction Page containing instructions on how to calibrate the E-41A using ColorCal.

Scan tab

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

Fiery tab

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

Fiery Info — Displays information about the current configuration of the E-41A.

Printable Info — Allows you to print these system pages from the E-41A:

PS Test Page/PCL Test Page: Confirms that the E-41A is properly connected to the copier/printer, and provides color and grayscale samples to troubleshoot problems with the copier/printer or the E-41A. 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-41A hard disk.

Configuration: Provides general information about the hardware and software configuration of the E-41A, the current settings for Setup, the current calibration, the IP address of the E-41A, and a log of system updates.

Color Charts: Prints samples of the RGB, CMY, and PANTONE colors available from the E-41A.

Control Panel Map: Prints the Control Panel Map, which is an overview of the screens you can access from the Control Panel.

Calibration Instructions: Prints the Calibration Instruction Page containing instructions on how to calibrate the E-41A using ColorCal.

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.

Custom Paper Instructions: Prints a page containing instructions on how to create a custom Paper Catalog entry.

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.

Run Diagnostics — To troubleshoot video board or e-mail printing issues, choose this menu. For more information, see page 144.

Clear Server — Clear all jobs in all server queues, as well as all jobs archived on the E-41A 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-41A 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-41A is temporarily interrupted and all currently processing jobs are aborted and may be lost.

Restart System: Shuts down and then reboots the E-41A. Network access to the E-41A is terminated and all currently processing jobs are aborted and may be lost.

Shut Down: Shuts down all E-41A 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 38). The Printable Info menu is accessed through the Fiery tab (see page 38).

Printing the **Configuration page** can be helpful during installation, Setup, and service. After installing the E-41A (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-41A 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-41A is functional and that the connection between the E-41A and the copier/printer is working.

TO PRINT A PAGE FROM THE PRINTABLE INFO MENU

1. **If it is not powered on already, power on the copier/printer and allow it to warm up.**
2. **If it is not powered on already, power on the E-41A using the power button on the front panel and allow it to start up completely (approximately three minutes).**
3. **Make sure that Idle appears on the Fiery Main menu.**

   If Busy or Printing appears, the E-41A 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-41A sends the selected page(s) to the copier/printer.
6. **If you printed the Test Page, examine the quality of the page.**

   If the Test Page prints, you know the E-41A is functional and the connection between the E-41A and the copier/printer is working. If the Test Page fails to print, look up printing problems in the Troubleshooting table on page 141.

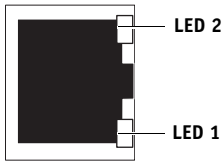
   When you examine the Test Page, keep in mind the following:

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

   Poor image or color quality may indicate a need to calibrate the system or service the copier/printer. Information on the Test Page includes the date and time of the last calibration, so the Test Page can be kept for future reference. For more information, look up printing problems in "E-41A error messages and conditions" on page 133, or see *Color Printing* on the User Documentation CD.

Network Status LEDs

Two LEDs next to the Ethernet connector indicate the network speed. When a data transfer occurs between the E-41A and the network, the appropriate LED(s) blink to indicate network activity. For additional network information, see *Configuration and Setup* on the User Documentation CD.



Ethernet network port (Upper RJ-45)

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

IMPORTANT

Make sure that you connect the cable to the correct RJ-45 port (see Figure 6 on page 29 and Figure 7 on page 30). The network and copier/printer interface cables look similar but are not interchangeable. The network cable at the customer site is a *straight-through* Ethernet cable that connects to the **upper** RJ-45 port on the E-41A back panel. The copier/printer interface cable included with the E-41A is a 39.3 ft. Ethernet *crossover* cable that connects to the **lower** RJ-45 port on the E-41A back panel.

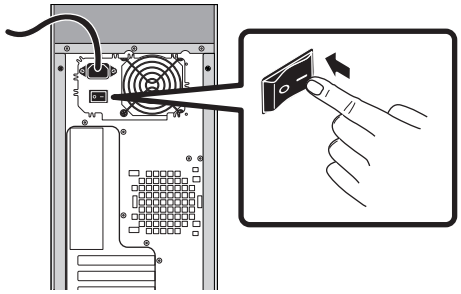
Starting, shutting down, restarting, and rebooting

The customer will generally leave the E-41A on all the time. Remember that when the E-41A is powered off, network access to the copier/printer is interrupted. Power off the E-41A when you need to service it and before you remove or attach any cables to it.

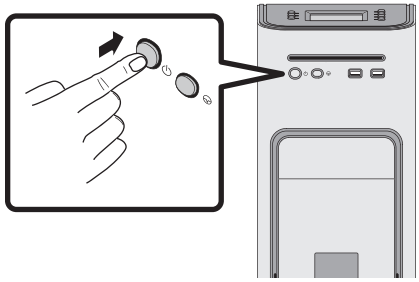
NOTE: Use the reset button on the front of the E-41A only if the system is unresponsive to keyboard or mouse actions.

TO START THE E-41A

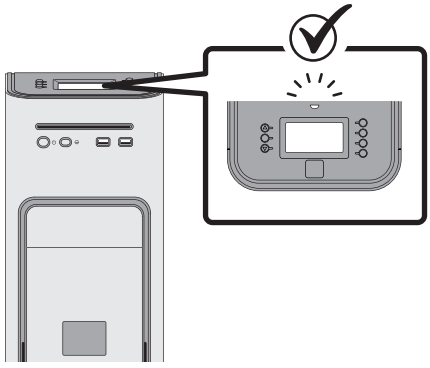
1. **Make sure that the power cable is attached and that the power switch (if present) is in the ON position.**



2. **Press the power button on the front panel.**



3. **Check the Activity light on the Control Panel.**



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

Configuring a Static IP Address

IMPORTANT

If you are working in a DHCP network environment, do not perform the following task.

If you are working in a static network environment, you must configure a static IP address the second time you start the Fiery controller. If you do not, the controller cannot be recognized on the network.

TO SET UP A STATIC IP ADDRESS

1. **Press the "fierydriven®" button on the copier/printer and make sure that Idle appears on the copier/printer display panel (see page 36).**
2. **Press the Fiery tab.**
3. **Press Setup.**
4. **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.
5. **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.
6. **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.
7. **On the Setup screen, press Exit Setup.**
8. **Press Reboot Now.**

TO SHUT DOWN, RESTART, OR REBOOT THE E-41A FROM THE COPIER/PRINTER DISPLAY PANEL

1. **Press the "fierydriven®" button on the copier/printer and make sure that Idle appears on the copier/printer display panel (see page 36).**

   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-41A from the network.

2. **Press the Fiery tab.**
3. **Press Restart Fiery.**
4. **At the next screen, select one of the following options:**

   - Restart Fiery Service (soft reset)—Resets the E-41A server software but does not reboot the entire system. Network access to the E-41A 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-41A activity properly and then reboots. Network access to the E-41A is temporarily interrupted and all currently processing jobs are aborted and may be lost.
   - Shut Down—Shuts down all E-41A 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-41A is terminated and all currently processing jobs are aborted and may be lost.

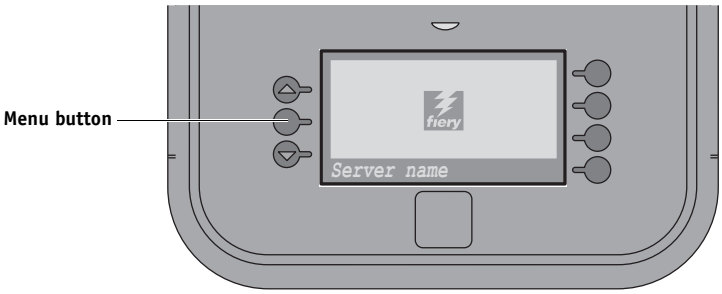
   NOTE: Use the reset button on the front of the E-41A only if the system is unresponsive to keyboard or mouse actions.

5. **Press OK.**

   Before accessing internal components, make sure that all cables are disconnected from the back of the E-41A.

TO SHUT DOWN, RESTART, OR REBOOT THE E-41A FROM THE E-41A CONTROL PANEL

1. **Make sure that the following logo screen is displayed on the E-41A Control Panel.**



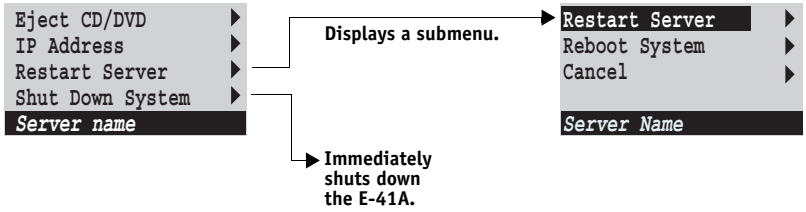
This logo screen indicates that the E-41A is Idle.

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

NOTE: Notify the network administrator before you remove the E-41A from the network.

2. **Press the Menu button once to display the Functions menu.**
3. **Make a selection:**

- To restart or reboot the E-41A, select Restart Server. A submenu displays, allowing you to select Restart Server, Reboot System, or Cancel.
- To shut down the E-41A immediately, select Shut Down System.



NOTE: Use the reset button on the front of the E-41A only if the system is unresponsive to keyboard or mouse actions.

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

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

Before accessing internal components, make sure that all cables are disconnected from the back of the E-41A.

SERVICE PROCEDURES

Generally, the E-41A requires no regular service or maintenance. Use the procedures in this chapter to inspect, remove, reseat, and replace major hardware components, as well as install system software.

Overview

This chapter includes information about servicing the following components:

- Boards and cables
- Motherboard components (DIMMs, CPU, CMOS, jumpers, and battery)
- Fans
- Power supply
- HDD (hard disk drive)
- DVD drive

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

IMPORTANT

When performing the service procedures described in this chapter, follow the precautions listed on page 14.

The tools required to service the E-41A are listed on page 18.

E-41A overview diagrams

The following figures provide an overview of E-41A components.

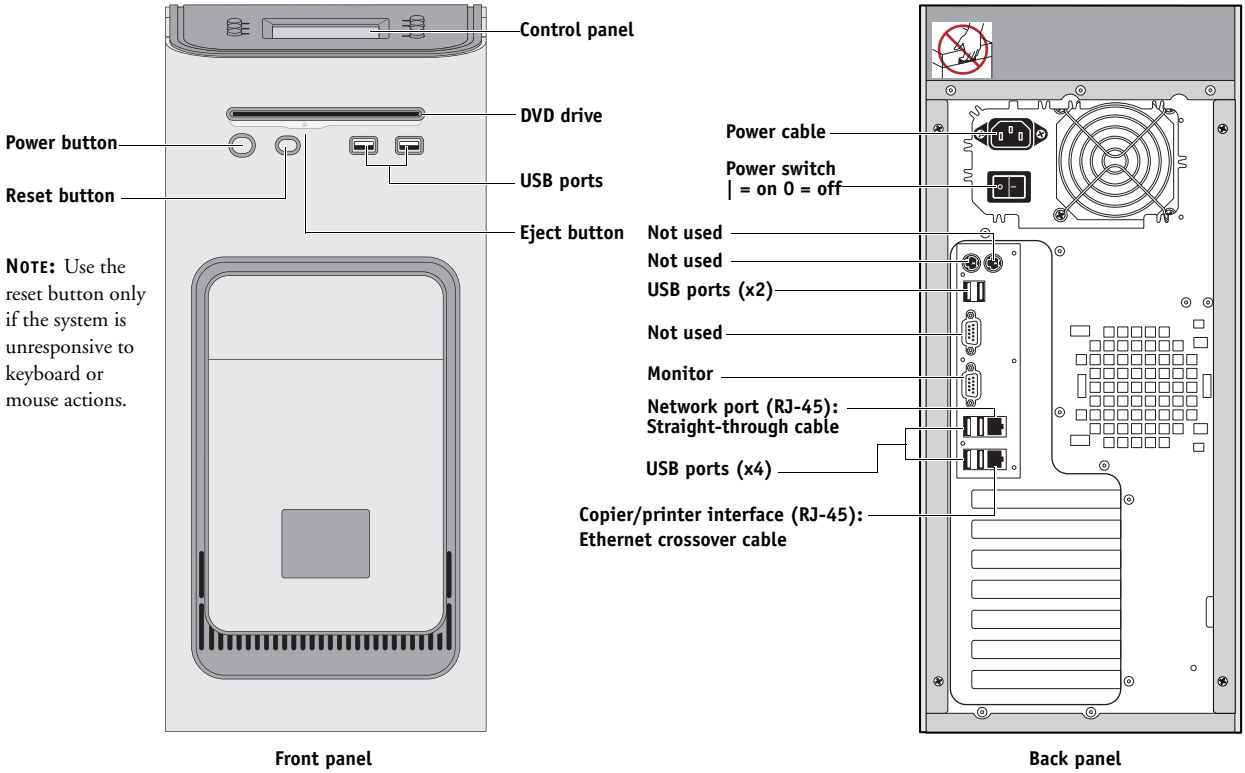
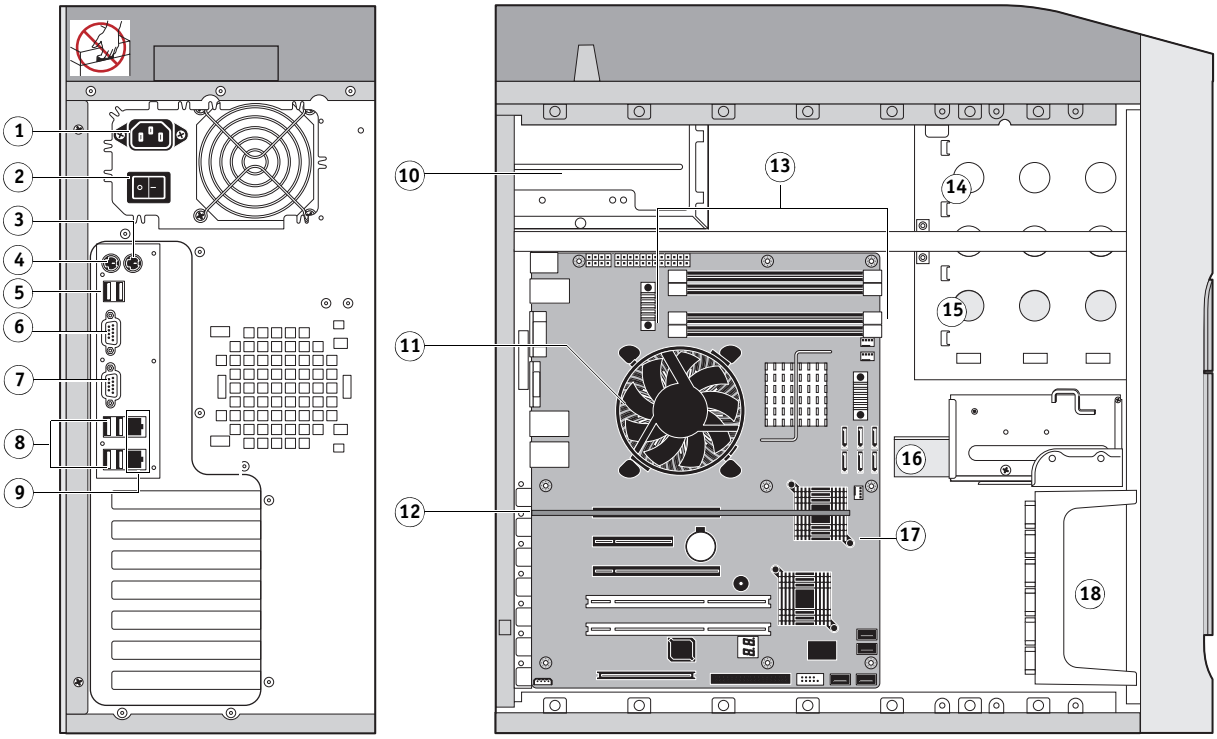


FIGURE 9: Front and back panels

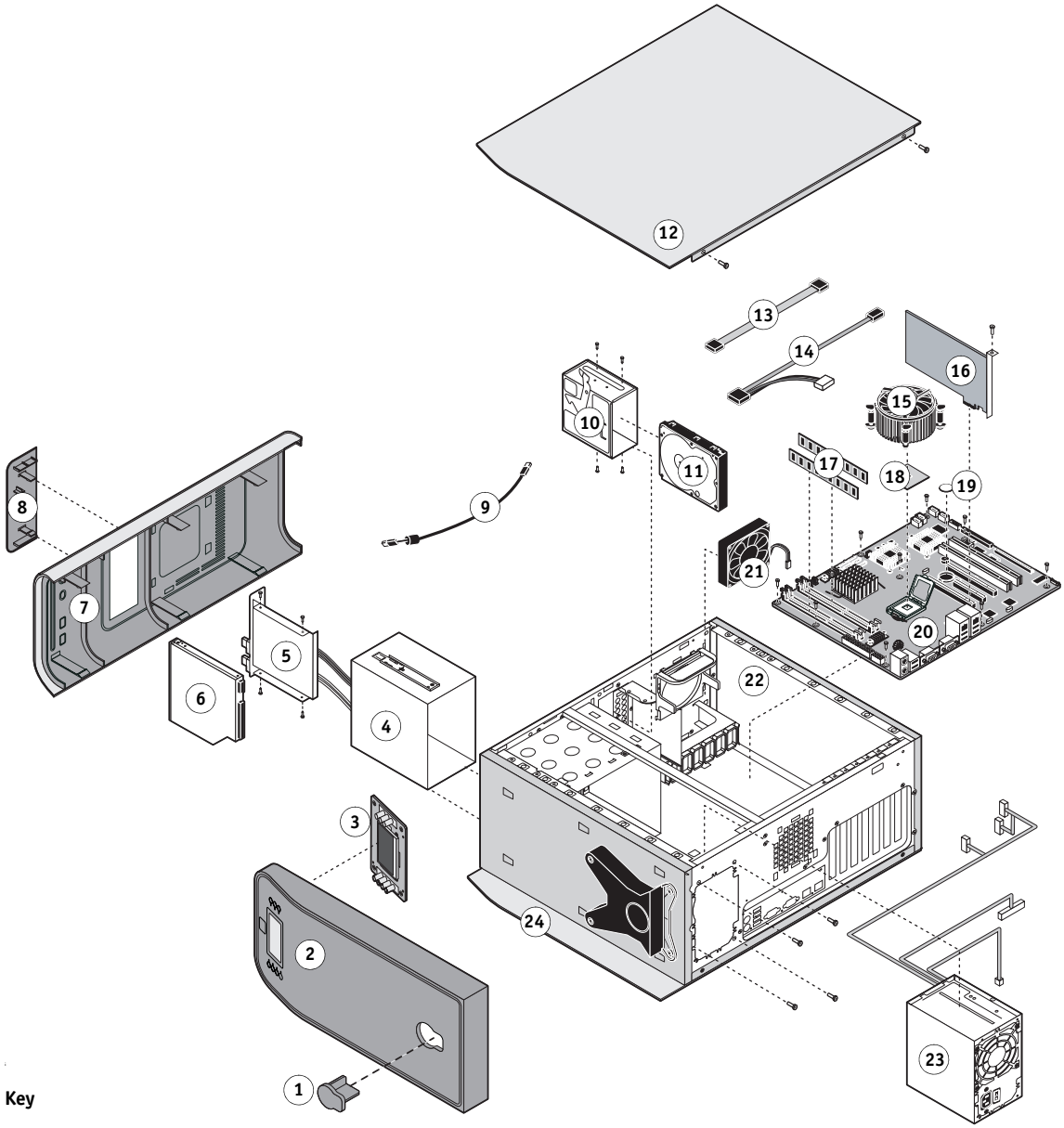


Key

1. Power cable connector
2. Power switch, back panel
3. Not used
4. Not used
5. USB ports (x2)
6. Not used
7. Monitor (option)
8. USB ports (x4)
9. Top = Network; Bottom = Copier/printer interface
10. Power supply
11. CPU cooling assembly
12. Video board (J12)
13. DIMM slots
14. DVD drive
15. Removable drive (option)
16. HDD in bracket
17. Motherboard
18. Front fan

NOT SHOWN: Cables, UIB, or front panel USB ports

FIGURE 10: Back panel and internal side view

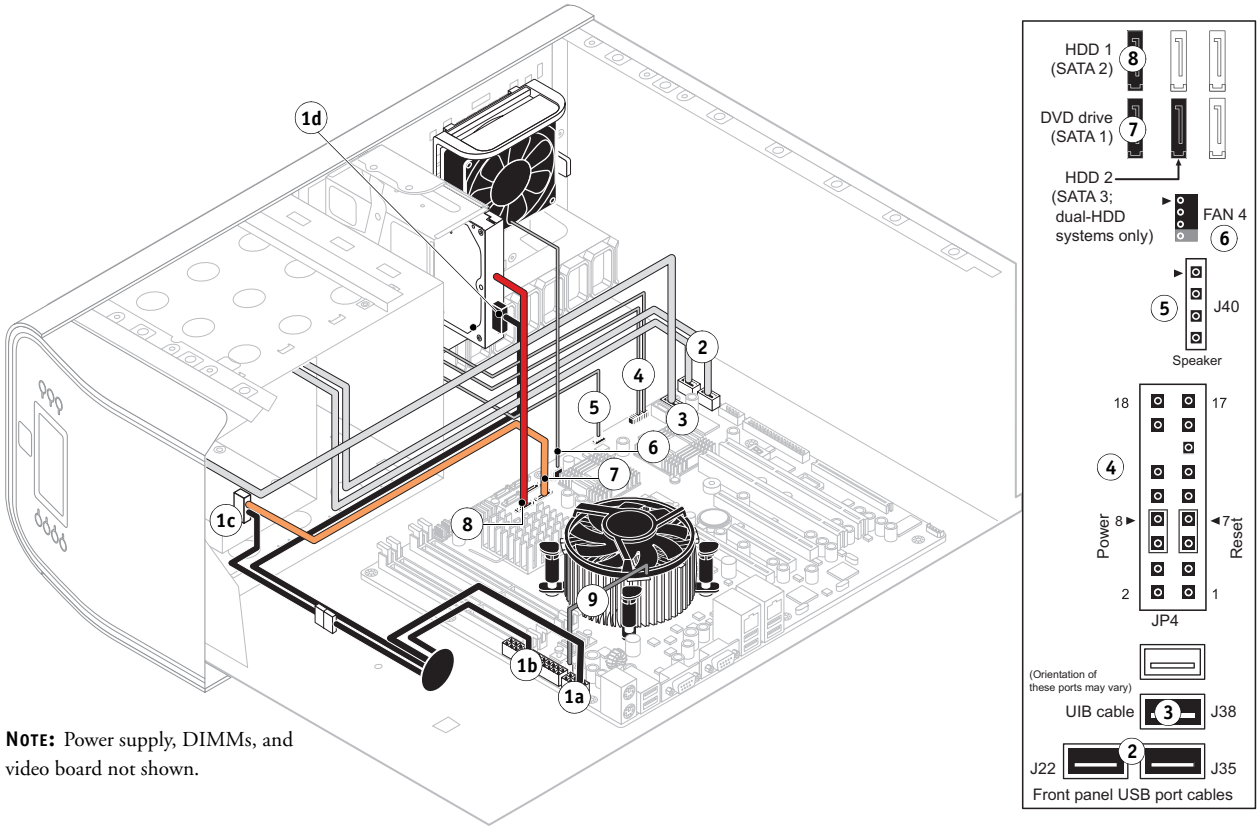


Key

1. Top panel plug
2. Top panel
3. User Interface Board (UIB)
4. Component sled
5. Switch bank assembly
6. DVD drive
7. Front panel
8. Upper faceplate
9. UIB cable
10. HDD bracket
11. HDD
12. Side panel (left)
13. HDD data cables
14. DVD drive power/data combination cable
15. CPU cooling assembly
16. Video board
17. DIMMs
18. CPU
19. Battery
20. Motherboard
21. Fan
22. Chassis
23. Power supply
24. Side panel (right)

NOT SHOWN: UIB buttons, CPU fan cable, tie-wraps, cable clamps, dongle(s), or external cables

FIGURE 11: Exploded view of E-41A components



NOTE: Power supply, DIMMs, and video board not shown.

Cable key	From	To
1. Power supply cable	Power supply	a. CPU power connector (PW1) b. Motherboard power connector (PW2) c. DVD drive power connector (combined with data) d. HDD power connector
2. Front panel USB port cables	Front panel	Motherboard connectors J22, J35 (see detail above)
3. UIB cable	User Interface Board	Motherboard connector J38 (see detail above)
4. Power and reset cables	Front panel	Motherboard connector JP4 (see detail above)
5. Speaker cable	Front panel	Motherboard connector J40 (see detail above)
6. Front panel fan cable	Front panel fan	Motherboard connector FAN 4
7. DVD drive power/data combo cable	DVD drive	Motherboard connector SATA 1 (see detail above)
8. HDD data cable	HDD	Motherboard connector SATA 2 (see detail above)
9. CPU fan cable	CPU fan	Motherboard connector FAN 1 (If present, keep the cable cover on the CPU fan cable.)

FIGURE 12: Power and data cable connections in the E-41A

Accessing internal components

This section describes how to shut down and open the E-41A. Always use the following procedures when opening the E-41A for inspection or service.

Shutting down the system

When shutting down the E-41A, do the following:

- Remove the power cable from the back panel before removing or connecting interface cables or accessing the internal components.

IMPORTANT

- Remember that when the E-41A is powered off, network access to the copier/printer is interrupted. Always obtain permission from the network administrator before you take the E-41A off the network.
- If you are cycling power, wait at least 10 seconds before powering back on.
- If you are unable to shut down the E-41A through the Control Panel, power off by holding down the power button on the front of the E-41A for up to eight seconds.

IMPORTANT

- Using the reset button may cause the system to operate unpredictably. Use the reset button on the front of the E-41A only if the system is frozen and unresponsive to keyboard or mouse actions.

TO SHUT DOWN THE E-41A FROM THE COPIER/PRINTER CONTROL PANEL

1. **Press the "fierydriven®" button on the copier/printer and make sure that Idle appears on the copier/printer Control Panel (see page 36).**

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

2. **Press the Fiery tab.**
3. **Press Restart Fiery.**
4. **At the next screen, select Shut Down.**

   NOTE: Use the reset button on the front of the E-41A only if the system is unresponsive to keyboard or mouse actions.

5. **Press OK.**

   Before accessing internal components, make sure that all cables are disconnected from the back of the E-41A.

TO SHUT DOWN FROM THE E-41A CONTROL PANEL

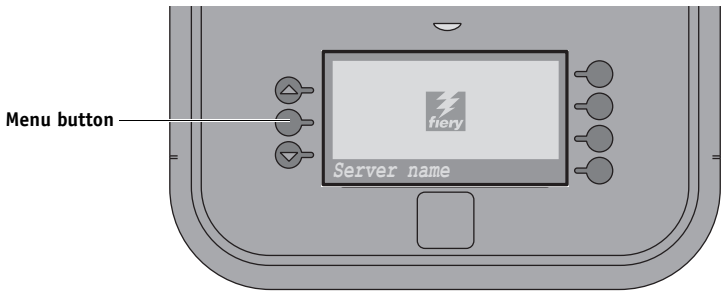
NOTE: Notify the network administrator before you remove the E-41A from the network.

1. **Make sure that the E-41A is not receiving, processing, or printing any jobs.**

   If Printing appears on the Control Panel, the E-41A is processing. You must wait until the system finishes and reaches the Idle state before restarting or shutting down.

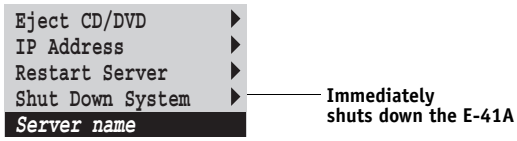
   If the system has just finished processing, wait at least five seconds after the system reaches Idle before beginning the shutdown procedure.

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



This logo screen indicates that the E-41A is Idle.

3. **Select Shut Down System.**



NOTE: Use the reset button on the front of the E-41A only if the system is unresponsive to keyboard or mouse actions.

Allow the system to shut down and power off.

Before accessing internal components following a shutdown, make sure that all cables are disconnected from the back of the E-41A.

Opening the E-41A

To service internal components, open the E-41A as described in the following procedure.

TO OPEN THE E-41A

WARNING

Never lift the E-41A by grasping the top panel. The top panel does not support the weight of the system.

1. **Shut down the E-41A (see page 51).**
2. **Remove all cables from the back of the E-41A.**
3. **If the E-41A is mounted on the optional furniture, and the optional monitor is attached, perform the disassembly instructions in "Servicing the E-41A with Furniture" on page 148.**
4. **Remove all panels necessary to access the component that you need to access.**

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

   NOTE: When removing multiple panels from the E-41A, use the following order:

   - Left panel (see page 54)
   - Right panel (see page 54)
   - Front panel (see page 55)
   - Top panel (see page 56)

   NOTE: When replacing panels, reverse the order.

5. **Place the E-41A on a flat surface. Attach an ESD wrist strap before handling internal parts (see "Precautions" on page 14).**
6. **Carefully position the E-41A so that it is resting on its side and the internal components are facing up.**

   Place removed components on a grounded, antistatic surface.

TO REMOVE AND REPLACE THE LEFT OR RIGHT PANEL

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

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

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

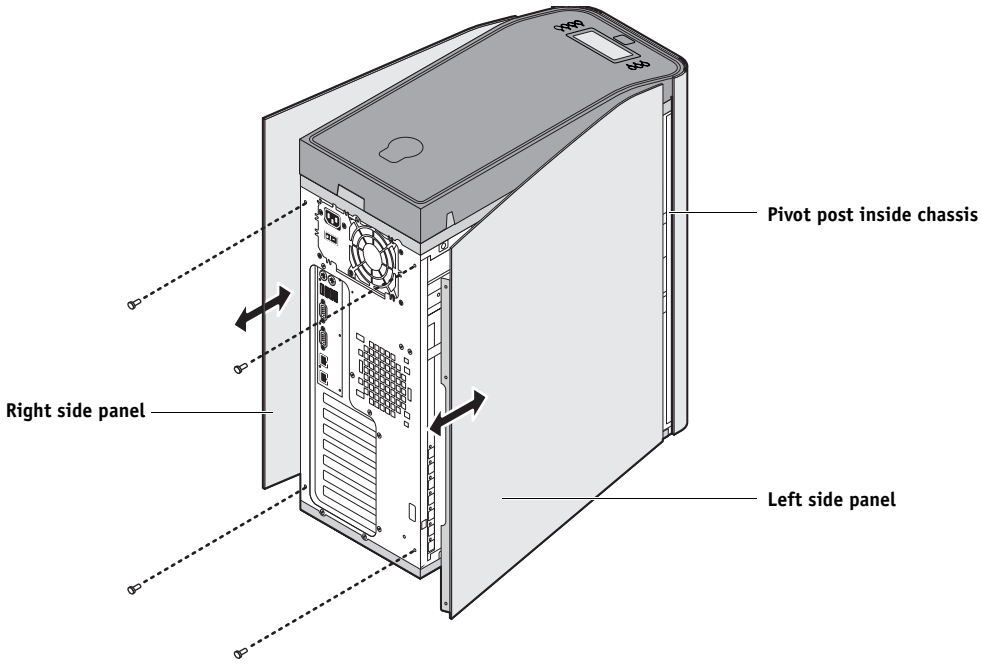


FIGURE 13: Removing/replacing the side panels

3. **To replace the panel, fit the front edge of the panel on the pivot post in the chassis.**

4. **Rotate the panel closed against the back of the chassis and replace the screws that you removed earlier.**

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

TO REMOVE AND REPLACE THE FRONT PANEL

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

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

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

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

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

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

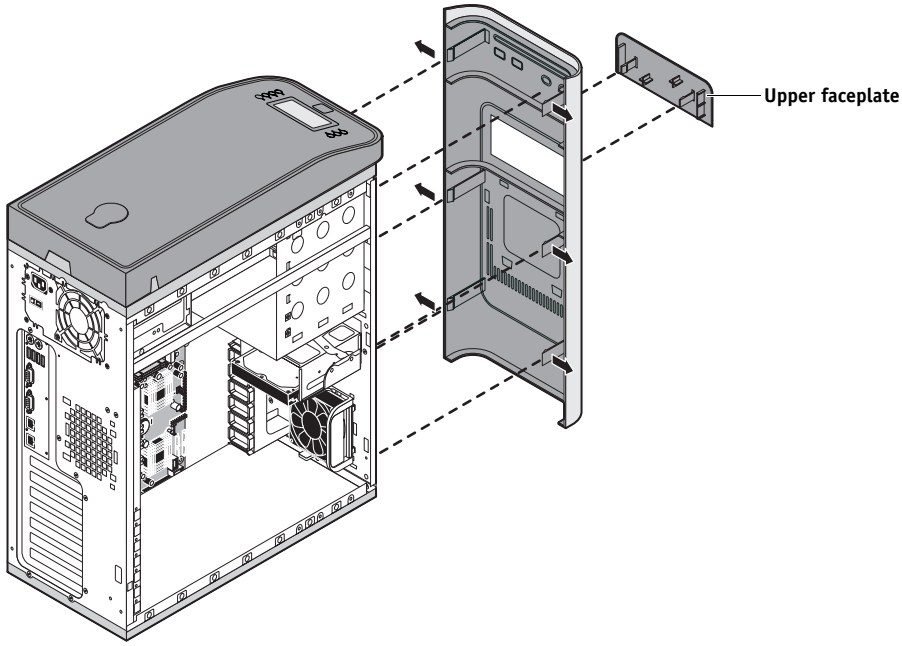


FIGURE 14: Removing/replacing the front panel

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

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

5. **Replace the upper faceplate.**

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

TO REMOVE AND REPLACE THE TOP PANEL

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

1. **Remove the plug from the top panel.**

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

2. **Loosen the top panel.**

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

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

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

4. **Remove the panel from the chassis.**

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

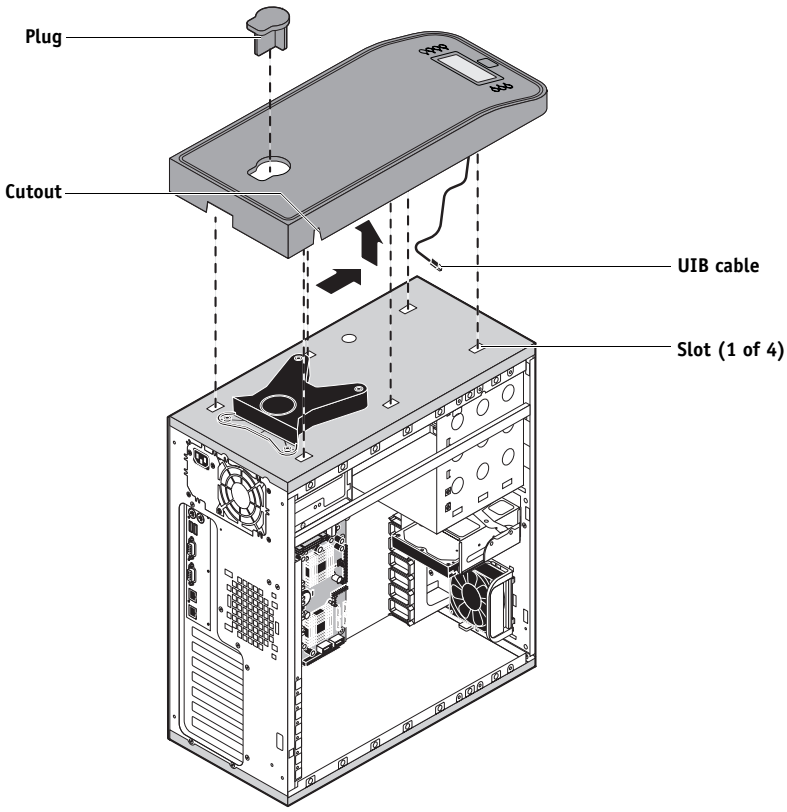


FIGURE 15: Removing/replacing the top panel

5. **To replace the top panel, first route the UIB cable through the hole in the top of the chassis and attach it to motherboard connector J38.**

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

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

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

7. **Replace the plug on the top panel.**

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

Removing and replacing boards

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

- Video board
- User Interface Board
- Motherboard

The E-41A is shipped from the factory with a standard board configuration, as shown in Figure 10 on page 48. If optional components have been installed, see the documentation that accompanies the particular option kit.

Video board

The video board is installed in motherboard connector J12. The video board processes the image data and sends it to the copier/printer through a crossover cable connected to the lower RJ-45 port on the E-41A back panel.

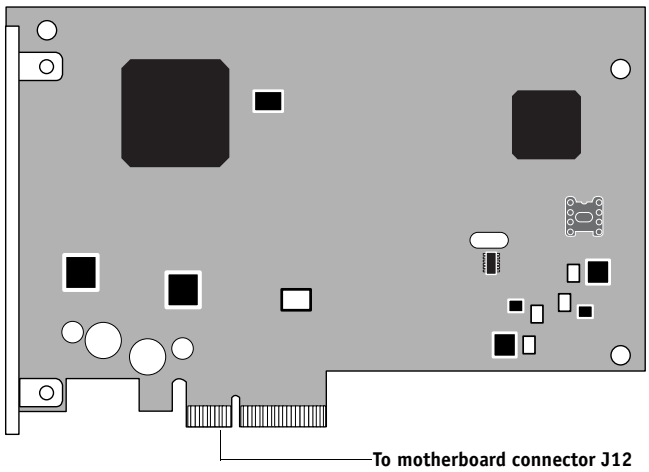


FIGURE 16: Diagram of the video board

TO REMOVE THE VIDEO BOARD

1. **Shut down and open the E-41A (see pages 51 and 53).**

   To remove the video board, you must remove the left panel.

2. **Remove the board mounting bracket screw that attaches the video board to the chassis.**

3. **Remove the video board from motherboard connector J12.**

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

4. **Place the video board in an antistatic bag.**

TO REPLACE THE VIDEO BOARD

1. **If you are replacing the copier/printer interface board with a new board, unpack the new board from the kit, locate the L-shaped mounting bracket in the spare kit and attach it to the new board.**

2. **Seat the video board in connector J12 on the motherboard (the topmost connector), and then secure it to the chassis with the board mounting bracket screw that you removed earlier.**

   The video board edge connector is keyed to fit in slot J12 only when properly oriented.

3. **Reassemble the E-41A and verify its functionality (see page 106).**

User Interface Board assembly

The User Interface Board (UIB) provides the interface between the E-41A and the user. The front of the UIB contains circuitry for the following:

- Activity lights (amber, green, and red LEDs)
- Display window (LCD)
- Four line selection buttons
- Up and Down buttons
- Menu button
- Jewel lights

The UIB cable is routed from a connector on the back of the User Interface Board to connector J38 on the motherboard (see Figure 20 on page 64).

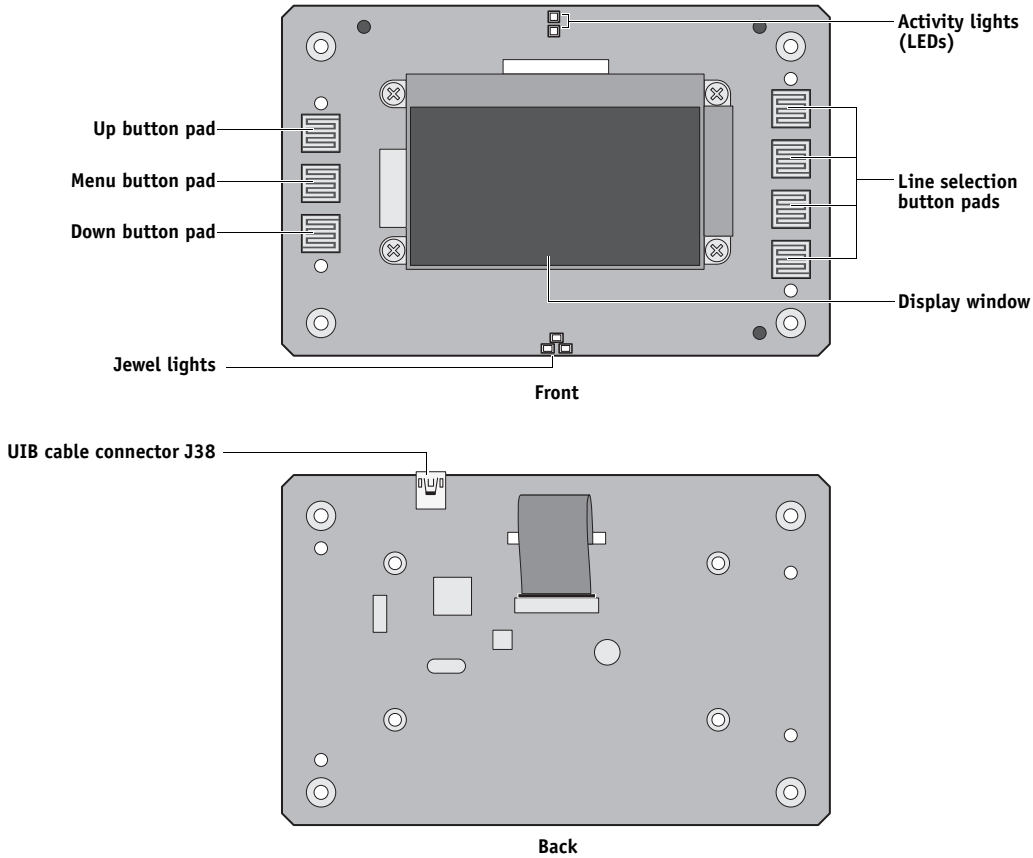


FIGURE 17: Diagram of the User Interface Board (front and back)

TO REMOVE THE USER INTERFACE BOARD

1. **Shut down and open the E-41A (see page 51).**

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

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

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

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

4. **Remove the four screws that secure the UIB to the underside of the top panel.**
5. **Remove the UIB from the top panel. Be sure to remove the plastic lens that covers the display window of the UIB.**

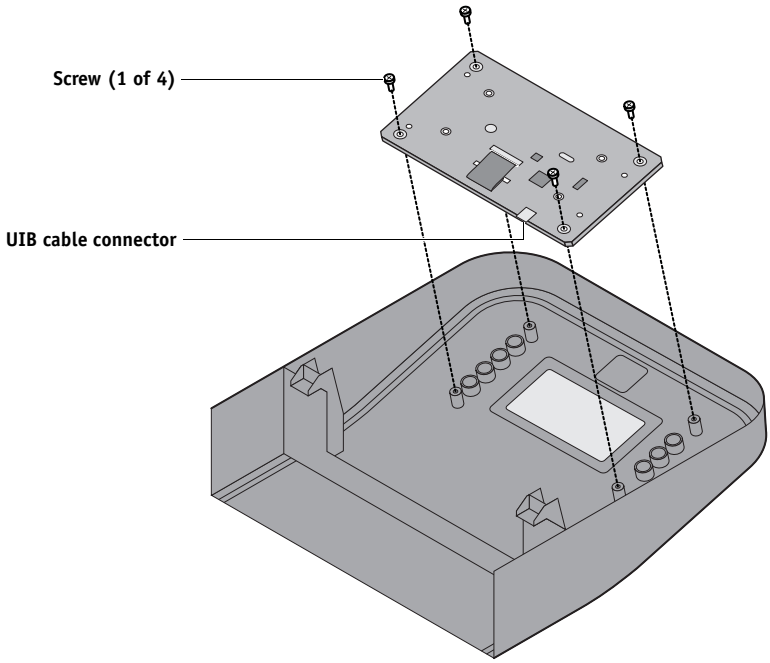


FIGURE 18: Removing/replacing the User Interface Board

6. **If you are removing the UIB to replace it with a new board, remove the UIB buttons from the old UIB (see Figure 19 on page 62).**

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

7. **Place the UIB in an antistatic bag.**

TO REPLACE THE USER INTERFACE BOARD

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

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

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

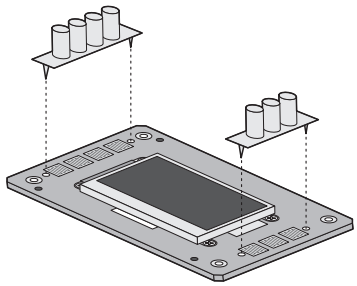


FIGURE 19: Removing/replacing the UIB buttons

2. **Attach the UIB cable to the connector on the back of the UIB (see Figure 18 on page 61).**
3. **Turn the top panel over to expose its underside and place it on a padded surface.**
4. **Position the plastic lens around the display window of the UIB.**
5. **Secure the UIB to the underside of the top panel.**

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

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

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

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

7. **Replace the top panel (see page 56).**

   Route the UIB cable through the chassis and connect it to motherboard connector J38 (see Figure 12 on page 50).

8. **Reassemble the E-41A and verify its functionality (see page 106).**

Motherboard

IMPORTANT

If you are removing the motherboard in order to replace it with a new motherboard, review the troubleshooting and motherboard cautions on page 67.

The Intel Core 2 Duo E8400 3.0GHz CPU mounted on the motherboard controls the image data transferred to and from the video board. The motherboard also controls HDD functions and the communication between the E-41A and external devices. The motherboard has four DIMM sockets. Two sockets contain a 1GB DIMM, for a total of 2GB of memory (see Figure 23 on page 79). The motherboard also includes the following PCI expansion slots (from top to bottom):

- One PCI-E x16 slots with x8 signal occupied by the video board
- One PCI-E x8 slots with x4 signal (not used)
- One PCI-E x16 slots with x4 signal (not used)
- Two PCI-X 133/100/66MHz (not used)

Removing the motherboard

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

- The left panel
- All boards installed on the motherboard
- All cables connected to the motherboard
  (Including the motherboard power cable, CPU power cable, front panel fan cable, HDD data cable, DVD drive power and data combination cable, power button cable, reset button cable, speaker cable, front panel USB port cables, and UIB cable.)

This section also includes information about the following:

- Replacing DIMMs
- Replacing the CPU
- Replacing the battery
- Clearing the CMOS
- Jumper configurations

IMPORTANT

Follow standard ESD and other safety precautions when handling components (see page 14). During service to the motherboard, avoid using excessive force and always place the motherboard on a grounded, non-metallic, static-free surface. Never allow any metal to touch the solder contacts on the underside of the motherboard, especially beneath the battery socket. Improper handling can short-circuit and permanently damage the motherboard.

Key

1. PS/2 ports (not used)
2. USB ports (x2)
3. Not used
4. Monitor
5. Network interface/USB ports (x2)
6. USB ports (x2)
7. CPU power (PW1)
8. CPU fan power (FAN 1)
9. Motherboard power (PW2)
10. CPU, heatsink, CPU fan
11. Battery (BT1)
12. Video board
13. Empty PCI-E (J11)
14. Empty PCI-E (J10)
15. Empty PCI-X (J17)
16. Empty PCI-X (J16)
17. BIOS chip (U29)
18. DIMM 4
19. DIMM 3
20. DIMM 2
21. DIMM 1
22. Not used (FAN 3)
23. Not used (FAN 2)
24. SATA 1, DVD drive data connection
25. SATA 2, HDD data connection
26. SATA 3 (Not used)
27. SATA 4 (Not used)
28. SATA 5 (Not used)
29. SATA 6 (Not used)
30. Front panel fan (FAN 4)
31. Speaker (J40); PWR & RST (JP4); CMOS (JP1)
32. Unused USB port
33. UIB cable (J38)
34. Front panel USB port cable (J35)
35. Front panel USB port cable (J22)
36. Unused (J20)
37. Unused (IDE)
38. Unused (J15)

MH—Mounting holes

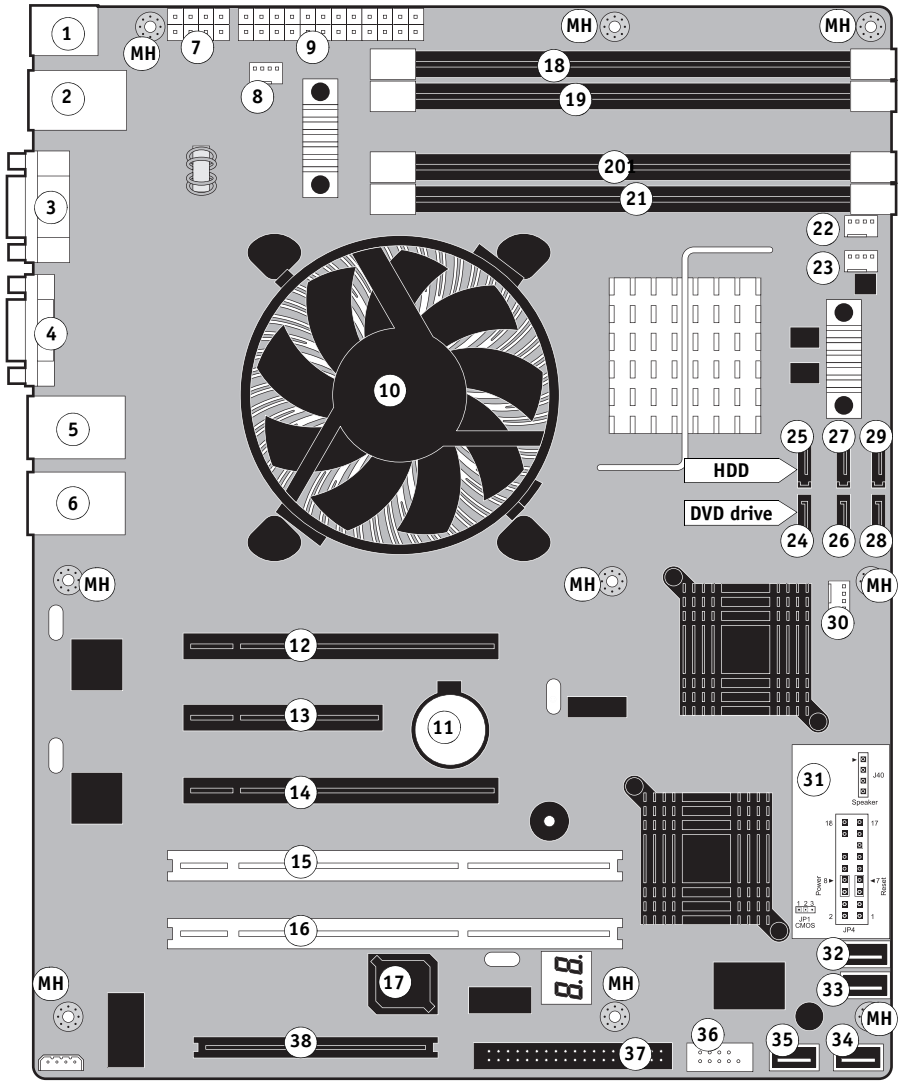


FIGURE 20: Diagram of the E-41A motherboard

TO REMOVE BOARDS AND CABLES FROM THE MOTHERBOARD

1. **Shut down and open the E-41A (see pages 51 and 53).**

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

2. **Remove all boards installed in slots on the motherboard.**

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

3. **Remove the following cables from the old motherboard:**

   NOTE: First remove any plastic cable clamp(s) securing internal cables and reusable tie-wraps, if present.

   - Front panel fan cable (FAN 4)
   - Reset button cable (JP4)
   - Power button cable (JP4)
   - Speaker cable (J40)
   - UIB cable (J38)
   - Front panel USB port cables (J22 and J35)
   - DVD drive cables:
     - SATA data cable from motherboard connector SATA 1
     - Power and data combination cable from the back of the DVD drive
   - HDD cables:
     - SATA data cable from motherboard connector SATA 2
     - Power supply cable from the back of the HDD
   - Motherboard power cable (20-pin, PW2)
   - CPU power cable (8-pin, PW1)

   For motherboard connector locations, see Figure 20 on page 64.

TO REMOVE THE MOTHERBOARD

NOTE: This procedure assumes that you have already performed the procedure "To remove boards and cables from the motherboard" on page 65.

1. **Remove the HDD bracket, with HDD attached (see page 95).**

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

2. **Remove the 9 mounting screws securing the motherboard to the chassis (for screw locations, see Figure 20 on page 64).**

3. **Remove the motherboard from the chassis.**

   Lift the edge of the motherboard (see Figure 21). Make sure that the back panel connectors on the motherboard 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.

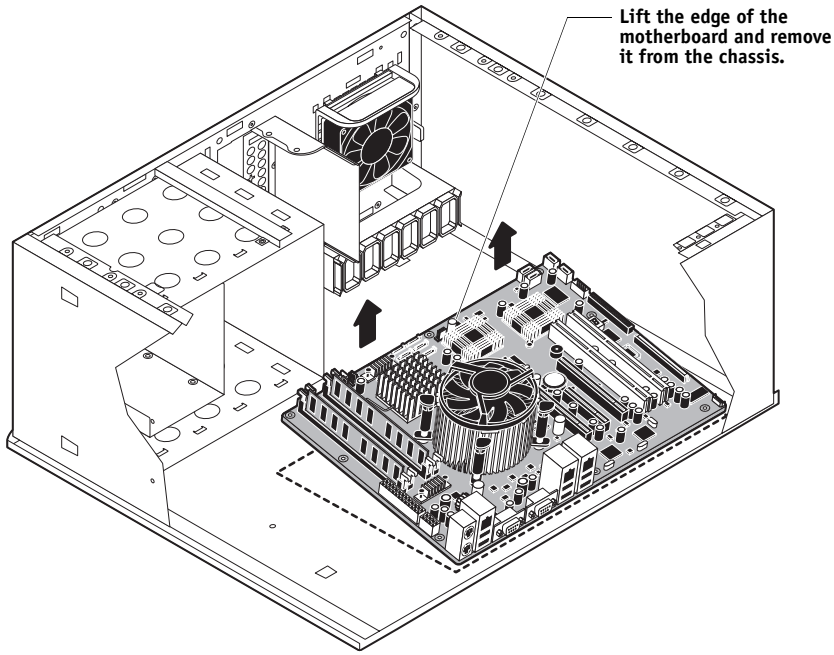


FIGURE 21: Removing the motherboard

Replacing the motherboard

IMPORTANT

Follow the procedures in this section to replace the motherboard. Failure to follow the instructions in this section may corrupt the system (not easily repaired in the field) or result in an incomplete installation (see "Error messages" on page 78).

IMPORTANT

Troubleshooting cautions

- Before deciding to install a new motherboard, consult "Troubleshooting" on page 122.
- Inspect all cables and internal components as described on pages 124 and 125. If these inspections do not solve the problem, locate symptoms in the troubleshooting table beginning on page 132 and perform the suggested actions in the order listed.
- If troubleshooting strategies (checking cables and connections, reinstalling system software, and so forth) do not solve the problem, and you suspect that either the HDD or the motherboard is faulty, always troubleshoot in the following order:

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

  – First, replace the HDD and install system software.

    Always replace a faulty HDD with a new HDD. Transferring a HDD from one E-41A to another is incorrect and strongly discouraged.

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

Motherboard cautions

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

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

IMPORTANT

- ***Do not* transfer the BIOS chip from the old motherboard onto the new motherboard.**

  BIOS chips are not interchangeable.

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

  Reinstalling system software is not necessary when installing a new motherboard and can result in an error if done before transferring options to the new motherboard (described on page 75.)

- **Before you use the one-time use dongle and Fiery Options Utility DVD to transfer options (for example, Fiery Graphic Arts, Premium Edition, if applicable) to the new motherboard, enter Service Mode (see page 73) and make sure that the new motherboard solves the problem that you are troubleshooting.**

  The E-41A can remain in Service Mode indefinitely. Use Service Mode to carefully verify the new motherboard before transferring options to the new motherboard.

  Transferring options to the new motherboard permanently customizes the new motherboard. Once customized, the motherboard cannot be returned to inventory or installed in another E-41A. If the new motherboard does not solve the problem in Service Mode, do not transfer options. Return the new motherboard and unexpended one-time use dongle to inventory.

- **If you can verify in Service Mode that the new motherboard solves the problem that you are troubleshooting, transfer options to the new motherboard using the Fiery Options Utility DVD and one-time use dongle included with the new motherboard (see page 75).**

IMPORTANT

- ***Do not* remove the one-time use dongle while transferring options to the new motherboard.**

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

TO REPLACE THE MOTHERBOARD

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

   - Unpack the new motherboard.
   - Open the load plate covering the CPU socket (see page 83) and remove the protective plastic cover on the CPU socket on the new motherboard. Later, you will transfer the protective plastic cover to the CPU socket of the old motherboard to protect the circuitry.
   - Remove the DIMMs from the old motherboard and install them on the new motherboard (see page 79).
   - Remove the CPU and cooling assembly from the old motherboard and install them on the new motherboard (see page 81). Make sure that the cable cover (if present) remains on the cooling assembly fan cable when transferring the cooling assembly to the new motherboard.

IMPORTANT

When transferring the CPU to the new motherboard, make sure to use the fresh thermal compound that came with the new motherboard. For more information about the thermal compound, see page 84.

IMPORTANT

Do not transfer the BIOS chip from the old motherboard onto the new motherboard. Doing so can damage the E-41A. BIOS chips are not interchangeable.

2. **Install the motherboard in the chassis.**

   Angle the motherboard so that the back panel connectors on the motherboard fit into the cutouts in the back of the chassis (see Figure 21 on page 66).

IMPORTANT

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

3. **Align the mounting holes on the motherboard with the standoffs located in the base of the chassis.**

4. **Secure the motherboard to the chassis using the 9 mounting screws that you removed earlier.**

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

   You are now ready to complete motherboard installation.

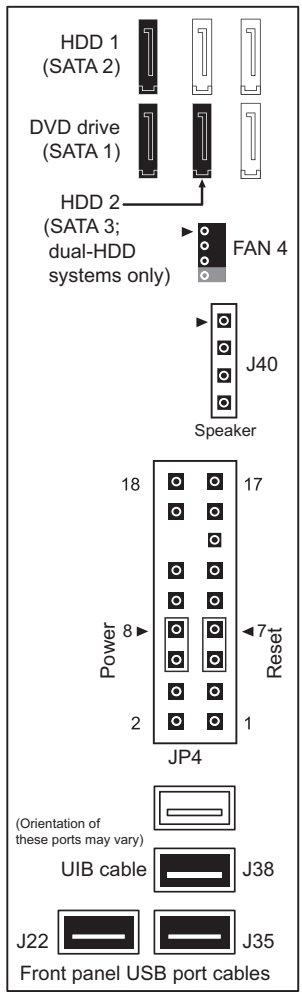
TO REPLACE BOARDS, CABLES, AND COMPONENTS

1. **Replace the HDD bracket, with HDD attached (see page 97).**

   You removed the HDD bracket to provide clearance for removing the motherboard.

2. **Replace the following cables:**

   - CPU power cable (8-pin, PW1)
   - Motherboard power cable (20-pin, PW2)
   - UIB cable (J38; see detail below)
   - HDD cables:
     - Power supply SATA cable to the back of the HDD
     - SATA data cable to the HDD and motherboard connector SATA 2
   - DVD drive cables:
     - Power and data combination cable to the back of the DVD drive
     - SATA data cable to motherboard connector SATA 1



IMPORTANT

NOTE: Connect the thin, black SATA power cable connectors to the HDD and DVD drive. Do not connect the white, 4-pin power cable connectors. Connecting both types of power cables will damage the HDD and DVD drive.

- Front panel USB port cables (J22 and J35; see detail)
- Speaker cable (J40; see detail)

  Make sure that the small triangle on the cable connector is aligned with pin 1 on J40.

- Power button cable (JP4 pins 6 and 8)

  Make sure that the small triangle on the cable connector is aligned with pin 8 on JP4.

- Reset button cable (JP4 pins 5 and 7; see detail)

  Make sure that the small triangle on the cable connector is aligned with pin 7 on JP4.

- Front panel fan cable (FAN 4)

3. **Secure cables as necessary with any plastic cable clamp that you may have removed earlier.**
4. **Replace the video board in motherboard connector J12 (see Figure 20 on page 64).**

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

IMPORTANT

NOTE: Make sure that unused back panel slots are covered with slot covers. Uncovered slots reduce air flow and may cause the E-41A to overheat.

5. **If you reinstalled the old motherboard, reassemble the E-41A and verify its functionality (see page 106).**
6. **If you replaced the motherboard with a new motherboard, clear the CMOS as follows:**

IMPORTANT

NOTE: You must clear the CMOS after installing a new motherboard to ensure compatibility between the new component and the previous settings stored in the BIOS. Make sure that the power cable is removed from the power outlet before clearing the CMOS.

- Remove the battery (see page 86).
- Wait 2 minutes to allow the motherboard electrical components to fully discharge.
- Reinstall the battery.

7. **If you replaced the motherboard with a new motherboard and cleared the CMOS, do the following:**
   - Reassemble the E-41A (see page 106).
   - Reset the time and date in Setup (see the *Configuration and Setup*).
   - Proceed to "Verifying new motherboard installation and transferring options" on page 72.

Verifying new motherboard installation and transferring options

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

- Verify all functionality by using the one-time use dongle to enter Service Mode. (Service Mode is not indicated on the monitor or LCD, but is entered once you power on with a new motherboard installed and the one-time use 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 one-time use dongle to transfer options to the new motherboard (see "Transferring options to the new motherboard" on page 75).

NOTE: Features of Impose and Compose are not available while in Service Mode.

- If the new motherboard solves the problem that you are troubleshooting, use the one-time use dongle and the Fiery Options Utility DVD 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 one-time use dongle to transfer options to the new motherboard (described below), do not install system software, and do not replace the HDD. Reinstall the old motherboard and return the new motherboard and the unused one-time use 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 one-time use dongle. For details, see "Transferring options to the new motherboard" on page 75.

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 one-time use 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-41A is powered off, no DVD is in the DVD drive, you have installed a new motherboard, and that you have reassembled the E-41A and attached external cables.

NOTE: Do not insert the Fiery Options Utility DVD into the DVD/CD-ROM drive yet. You will install the Fiery Options Utility DVD when you are ready to transfer options to the new motherboard (page 75) *after* you verify the system in Service Mode.

1. **Make sure the E-41A is connected to the copier/printer (see page 29).**
2. **Locate the one-time use dongle provided with the new motherboard and connect it to a USB port on the front or back panel.**
3. **Remove and set aside all other dongles and USB storage devices (such as a flash or thumb drive) that may be connected to any other USB port.**

   Reconnect other dongles and USB devices only after you verify that the E-41A starts up successfully in Service Mode.

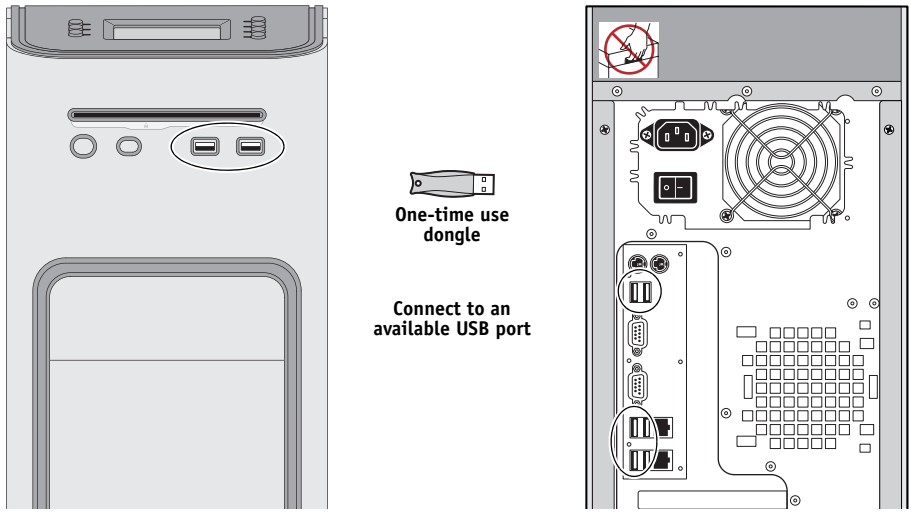


FIGURE 22: Connecting the dongle

4. **Power on the E-41A and allow it to boot without interruption.**

   If a monitor is connected to the E-41A:

   - At the Log On to Windows dialog box, type Administrator in the user name field, 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-41A is in Service Mode, so you can verify that the new motherboard solves the problem that you are trying to troubleshoot. Service Mode is not indicated on the monitor or on the E-41A Control Panel.

5. **Print the E-41A Test Page (see page 38).**

6. **Ask the network administrator to connect the E-41A to the network and download a print job over the network (see *Configuration and Setup* on the User Documentation CD).**

   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 75), do not install system software, and do not replace the HDD. Reinstall the old motherboard and return the new motherboard with the unexpended one-time use dongle to inventory. For more information about troubleshooting system problems, see "Troubleshooting" on page 122.

   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 (see page 75).

Transferring options to the new motherboard

After you verify that the new motherboard solves the problem that you are troubleshooting, you must use the Fiery Options Utility DVD and the one-time use dongle to transfer options to the new motherboard.

TO TRANSFER OPTIONS TO THE NEW MOTHERBOARD

NOTE: This procedure assumes that the E-41A is fully assembled, verified in Service Mode (see page 73), and powered off.

1. **Make sure that the one-time use dongle is firmly attached to a USB port on the E-41A and that no other dongles or USB storage devices (for example, a flash or thumb drive) are attached to the E-41A.**

   The options transfer process may fail if other dongles and/or USB storage devices are connected to the E-41A during the process.

2. **Power on the E-41A.**

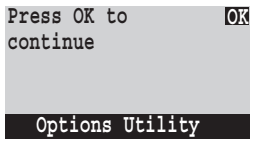
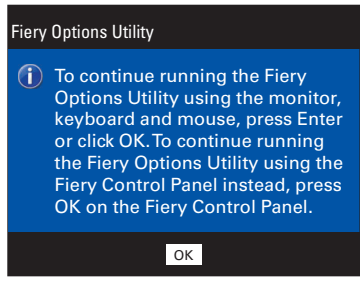
3. **Immediately insert the Fiery Options Utility DVD into the DVD drive.**

   NOTE: The Fiery Options Utility DVD must be in the DVD drive in time for the E-41A to boot from it. If the E-41A does not boot from the Fiery Options Utility DVD, allow the E-41A to start up, eject the CD, turn off the E-41A, and then repeat steps 2 and 3.

   NOTE: If an error message displays, see page 78.

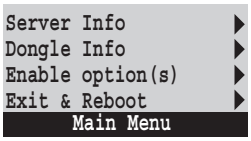
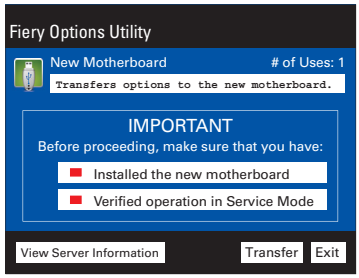
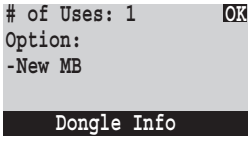
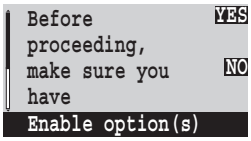
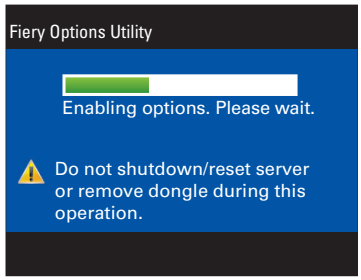
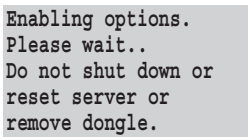
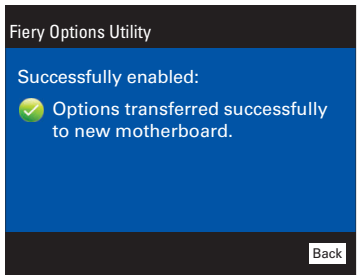
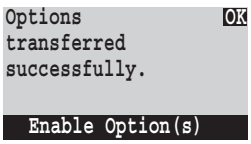
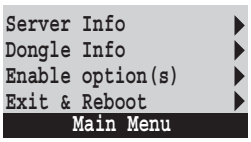
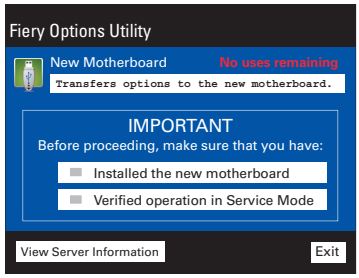
4. **To continue, choose the Control Panel or monitor (if present) as the interface to use throughout the option transfer process.**

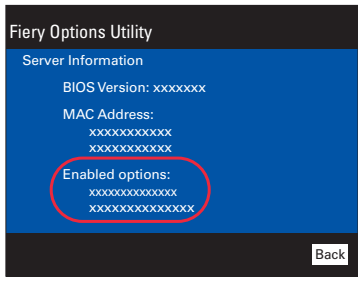
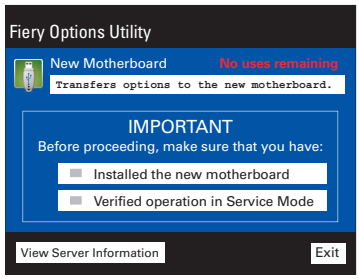
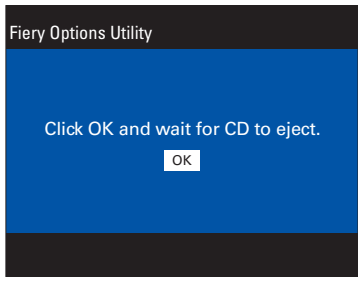
   The first screen that displays when you start the Fiery Options Utility allows you to choose the interface that you will use throughout the procedure. Choose an interface by selecting OK on the Control Panel or monitor. The interface not chosen is then disabled during the option transfer process.

Control Panel	Monitor
	

5. **Follow the prompts on the interface that you chose.**

NOTE: If an error message appears during the update process, see page 78.

Control Panel	Action	Monitor	Action
	Select **Enable option(s)**.		Click each item to confirm, and then select **Transfer** to transfer options. The **Transfer** button is unavailable until you click both items.
	To verify the type of dongle connected to the E-41A, select **Dongle Info.**		
	Select **YES** to confirm items and transfer options. **- or -** Select **NO** to return to the Main Menu.		Wait 1 minute or longer for the next prompt.
			
	Wait 1 minute or longer for the next prompt.		Select **Back**.
	Select **OK** to continue to the Main menu.		
	Select **Server Info**.		Select **View Server Information**.

Control Panel	Action	Monitor	Action
BIOS Version: x.xx xxxx OK Server Info MAC Address xxxxxxxxx xxxxxxxxx OK Server Info Enabled option: -[Option name] -[Option name] -[Option name] OK Server Info	Scroll down and verify that transferred options appear under Enabled option, then select **OK**.		Verify that transferred options appear under Enabled options, then select **Back**.
Server Info Dongle Info Enable option(s) Exit & Reboot Main Menu	Select **Exit & Reboot**.		Select **Exit**.
Select OK and wait for CD to eject. OK	Select **OK**.		Select **OK**.

After you select OK, the message "Please standby...System restarting..." displays. Allow the system to restart without interruption. The Fiery Options Utility DVD ejects automatically.

6. **Remove the Fiery Options Utility DVD and the one-time use dongle.**

   The new motherboard is now customized and cannot be used in another system.

7. **If a monitor is connected to the E-41A:**

   - When the Log On to Windows dialog box appears on the monitor, type Administrator in the user name field, type Fiery.1 in the password field, and then press Enter on the keyboard.

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

   - Wait for Idle to display on FieryBar on the monitor.

     If the E-41A is not connected to the copier/printer, or if the copier/printer is not powered on, a message displays indicating the status. Expect this message. The E-41A detects the copier/printer after you connect the E-41A to the copier/printer.

8. **Reattach any dongle(s) (for example, for Compose or Impose) or USB storage device you may have removed previously.**

Error messages

One of the following error messages may display on the E-41A Control Panel or monitor when you attempt to transfer options to the new motherboard.

Could not mount the dos/boot partition—You have attempted to transfer options using the Feature Update CD. The Feature Update CD is not supported by the E-41A. Obtain the Fiery Options Utility DVD and try the procedure again.

Invalid dongle found! Please remove dongle and connect the correct dongle—The attached dongle is not supported by the Fiery Options Utility. The dongle may have been attached by mistake. Obtain a valid dongle and try again.

More than one dongle found. Remove all dongles except the correct dongle—The Fiery Options Utility will not work when more than one dongle is attached to the system.

No uses remaining—The dongle has already been used and cannot be reused. Obtain an unused dongle and start again.

Check power and Video cable connections—There is a problem with the connection between the E-41A and the copier/printer. Make sure that the interface cables are properly connected and the copier/printer is on and ready to print.

If an error condition cannot be corrected, restore the previous hardware configuration, if possible, and contact your authorized service/support center.

Replacing parts on the motherboard

This section describes how to remove and replace the DIMMs, CPU, and battery on the motherboard. Before you perform any of these procedures, shut down and open the E-41A (see page 51).

DIMMs

The motherboard has four DIMM sockets. The E-41A standard memory configuration populates two sockets, each containing a 1GB DIMM, for a total of 2GB of memory.

NOTE: When installing DIMMs, note the following:

- Different capacity DIMMs look alike. Make sure that you know the capacity of each DIMM before you install it in a socket.
- Install only approved DIMMs available from your service representative.
- DIMMs must be installed in matched pairs. A matched pair is comprised of two alternate sockets (see below). DIMMs within a pair must be identical (same capacity and same number of chips on each side). For example, in a two-DIMM configuration, populate DIMM 4 and DIMM 2 with DIMMs of identical capacity, with the same number of chips on each side.

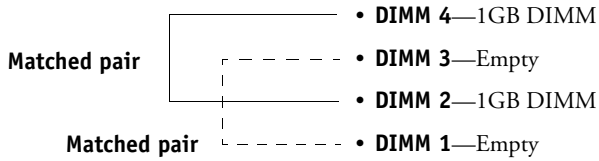


FIGURE 23: Motherboard DIMM sockets

TO REPLACE A DIMM

1. **Shut down, and then open the E-41A (see pages 51 and 53).**

   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.**

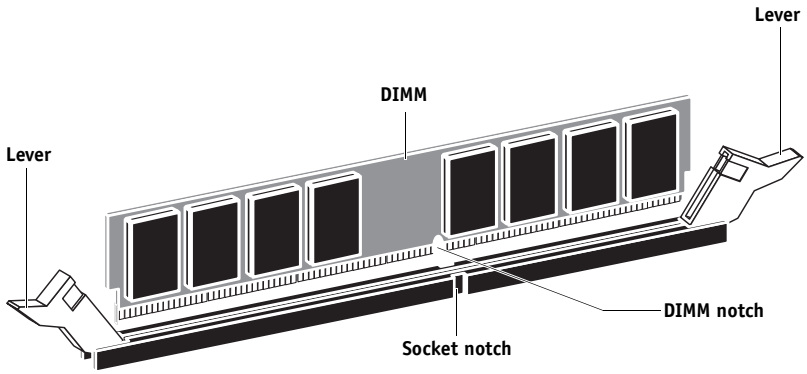


FIGURE 24: Releasing a DIMM

3. **Pull the DIMM straight out of the socket.**
4. **To replace a DIMM, insert the DIMM straight into the socket and close the levers at each side to lock it into place.**

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

IMPORTANT

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

5. **If you installed a new DIMM, clear the CMOS as follows:**

   NOTE: You must clear the CMOS after installing a new DIMM to ensure compatibility between the new component and the previous settings stored in the BIOS. Make sure that the power cable is removed from the power outlet before clearing the CMOS.

   - Remove the battery (see page 86).
   - Wait 2 minutes to allow the motherboard electrical components to fully discharge.
   - Reinstall the battery.

6. **If you installed a new DIMM and cleared the CMOS, make sure to reset the time and date in Setup (see *Configuration and Setup*).**
7. **Reassemble the E-41A and verify its functionality (see page 106).**

CPU

The CPU is installed in a socket on the motherboard. Before you remove the CPU from its socket, remove the motherboard from the chassis (see page 63), disconnect the CPU fan cable from the motherboard, and then remove the cooling assembly from the E-41A (see page 82). The CPU cooling assembly consists of a fan and a heatsink.

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

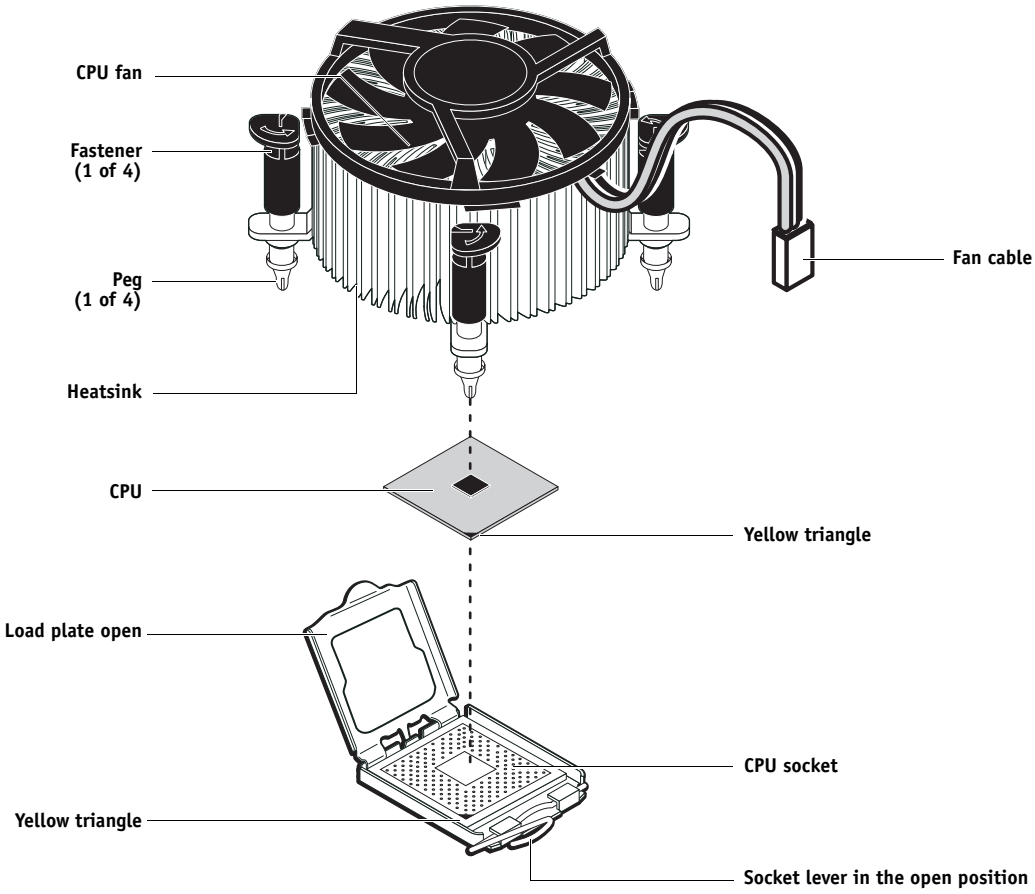


FIGURE 25: CPU cooling assembly

IMPORTANT

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

TO REMOVE THE COOLING ASSEMBLY

1. **Shut down, and then open the E-41A (see pages 51 and 53).**

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

2. **Remove the motherboard (see page 63).**

IMPORTANT

Place the motherboard on a padded, static-free work surface outside of the chassis when removing and replacing the cooling assembly. After you replace the cooling assembly, inspect the back of the motherboard to verify that the cooling assembly is fully mounted on the motherboard (see Figure 27 on page 85).

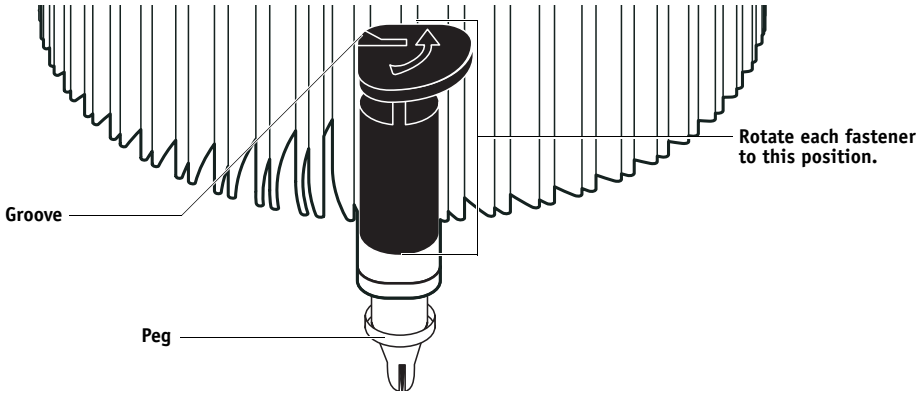
3. **Remove the CPU fan cable from motherboard connector FAN 1.**

4. **Remove the CPU cooling assembly.**

   - Insert a flathead screwdriver into the groove on the top of a fastener cap and rotate the fastener counterclockwise (that is, in the direction of the arrow) to the position shown below.
   - Pull straight up on the fastener cap until the peg is out of the motherboard.

IMPORTANT

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



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

CAUTION

Be aware that the cooling assembly and the CPU may be very hot. You may need to let the components cool before attempting to remove them.

TO REMOVE AND REPLACE THE CPU

1. **Unlock the CPU socket lever and raise it into the open position (flex the lever away from the retention post, and then raise it).**
2. **Open the load plate (see Figure 26 on page 83).**
3. **Grasp the CPU by its edges, lift it out of the socket, and then place the CPU in a safe place.**

   NOTE: If you remove the CPU from the motherboard to install it on a new motherboard, unpack the new motherboard and remove the protective plastic cover from the CPU socket. Transfer the protective cover to the CPU socket of the old motherboard to protect the circuitry.
4. **Wipe the contact surface of the CPU (the smooth, gray side of the chip) with a clean, lint-free cloth to ensure proper contact with the new heatsink.**

   If you remove the CPU from the motherboard to install it on a new motherboard, make sure that you completely remove any thermal compound residue on the surface of the CPU and at the base of the heatsink. It may help to scrape all the residue off of the surface using the flat edge of something non-conductive.
5. **Prepare the CPU socket by ensuring that:**
   - The socket lever is in the open position.
   - The load plate is open.
6. **Place the CPU in the socket.**

   The CPU and the socket are keyed to ensure correct installation. The notches on the edges of the CPU correspond with the two small posts inside the socket. Align the yellow triangle on the CPU with the yellow triangle on the socket. Do not force the CPU.
7. **Close the load plate.**
8. **Lower the socket lever and place it in the locked position under the retention post.**

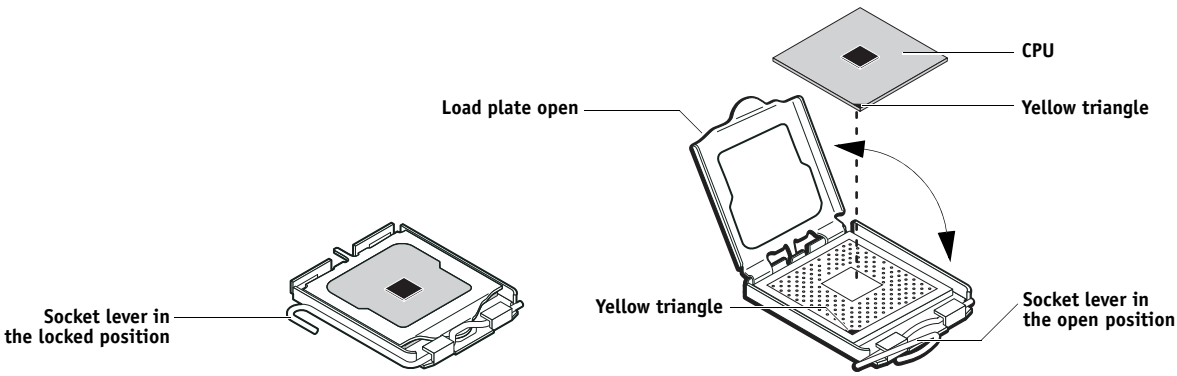
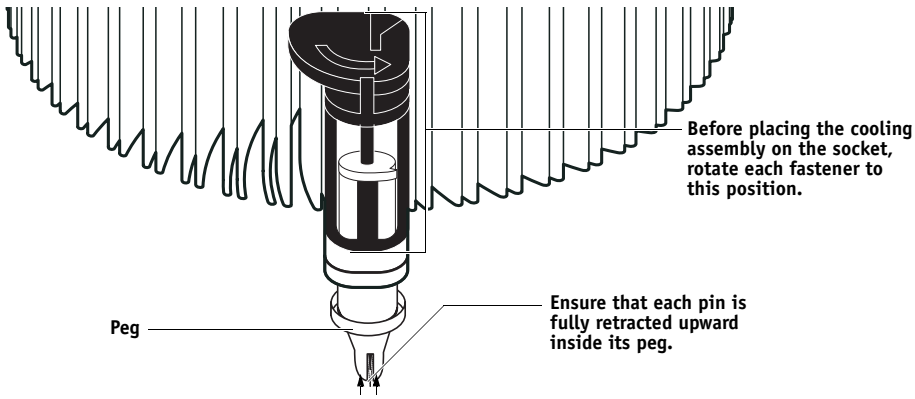


FIGURE 26: Removing/replacing the CPU

TO REPLACE THE CPU COOLING ASSEMBLY

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

1. **Prepare the CPU cooling assembly for installation.**
   - Make sure that the motherboard is placed on a padded, static-free work surface.
   - Apply a fresh thermal compound square, as described in the note above.
   - Rotate fasteners to the position shown below by turning them clockwise (that is, in the *opposite* direction of the arrow on top of the fastener).
   - Ensure that the pin inside each peg is fully retracted upward.
   - Align the cooling assembly so that when it is installed, the fan cable easily reaches the CPU fan power connector FAN 1 on the motherboard.
   - Align the pegs over their mounting holes in the motherboard.



2. **Place the heatsink over the CPU socket.**
3. **At alternate corners, press down on each fastener to engage the mount on the motherboard. Engage all four pegs.**

NOTE: Do not rotate the fasteners after installation.

IMPORTANT

Engaging the pegs at alternate corners applies clamping force equally over the CPU and socket. Avoid using excessive force and take care not to flex the motherboard when you engage the pegs.

4. **Turn the motherboard over and verify that the black pins protrude through the mounting holes on the underside of the motherboard.**

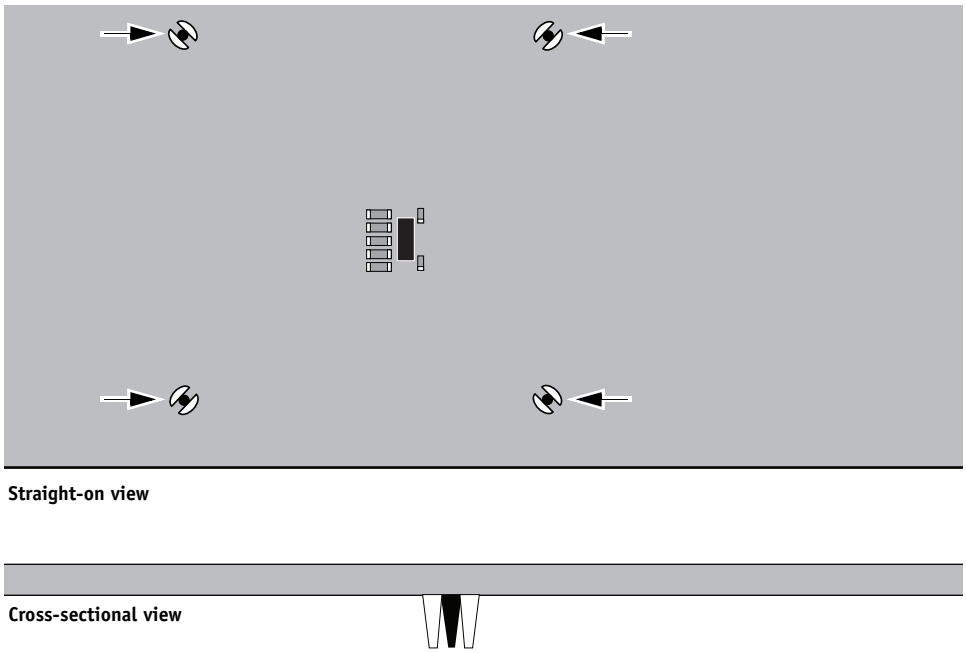


FIGURE 27: Inspecting the cooling assembly pins on the underside of the motherboard

5. **Connect the CPU fan cable to the motherboard connector FAN 1.**

IMPORTANT

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

6. **If you replaced the CPU with a new CPU, clear the CMOS as follows:**

IMPORTANT

You must clear the CMOS after installing a new CPU to ensure compatibility between the new component and the previous settings stored in the BIOS. Make sure that the power cable is removed from the power outlet before clearing the CMOS.

- Remove the battery (see page 86).
- Wait 2 minutes to allow the motherboard electrical components to fully discharge.
- Reinstall the battery.

7. **If you installed a new CPU and cleared the CMOS, make sure to reset the time and date in Setup (see *Configuration and Setup*).**
8. **Reassemble the E-41A and verify its functionality (see page 106).**

Battery

The battery on the motherboard is located at BT1. To replace it, use a 3V manganese dioxide lithium coin cell battery (Sony CR2032 or equivalent).

WARNING

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

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

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

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

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

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

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

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

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

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

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

TO REPLACE THE BATTERY

1. **Shut down, and then open the E-41A (see pages 51 and 53).**
2. **Locate the battery on the motherboard (see Figure 20 on page 64).**
3. **Carefully push the clip away from the battery until the socket ejects the battery.**

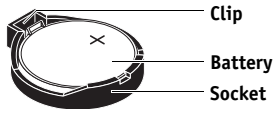


FIGURE 28: Motherboard battery

4. **Slide the battery out of its socket.**
5. **Wait 2 minutes to allow the motherboard electrical components to fully discharge.**
6. **To insert a new battery, slide it into the socket so that the positive (+) side of the battery faces up.**
7. **Press the battery down into the socket until it snaps into place.**

   Make sure that the battery is securely installed in the socket.
8. **Reassemble the system and verify its functionality (see page 106).**
9. **Configure the time and date in Setup (see *Configuration and Setup*).**

IMPORTANT

Failure to configure the time and date will cause the E-41A to hang when user software is being installed on the E-41A. (See page 138).

Clearing the CMOS

Clear the CMOS after installing a new motherboard, CPU, DIMM, or DVD drive to ensure compatibility between the new component and previous settings stored in the BIOS.

TO CLEAR THE CMOS

1. **Shut down, and then open the E-41A (see pages page 51 and page 53).**

IMPORTANT

Make sure to remove the AC power cable from the power outlet before opening the E-41A and clearing the CMOS.

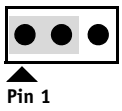
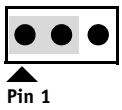
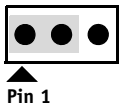
2. **Remove the battery (see page 86).**
3. **Wait 2 minutes to allow the motherboard electrical components to fully discharge.**
4. **Reinstall the battery (see page 86).**
5. **Reassemble the E-41A and verify its functionality (see page 106).**
6. **Reset the time and date in Setup (see *Configuration and Setup*).**

IMPORTANT

Failure to configure the time and date will cause the E-41A to hang when user software is being installed on the E-41A. (See page 138.)

Jumpers

This section lists the factory default configuration for jumpers on the motherboard. Jumper configurations should not be changed.

Jumper	Description
JP1  Pin 1	JP1 is the Clear CMOS and Password jumper. Default configuration: jumper cap installed on pins 1 and 2. NOTE: Because JP1 is not easily accessed on the motherboard and the jumper cap is very small, it is not necessary—and could introduce an error—to remove the jumper cap in order to clear the CMOS settings. Instead, clear the CMOS by denying power to the motherboard, as described earlier.
JP2  Pin 1	The jumper cap on JP2 should not be removed. Default configuration: Jumper cap installed on pins 1 and 2.
J2  Pin 1	The jumper cap on J2 should not be removed. Default configuration: Jumper cap installed on pins 1 and 2.

Fan

A fan mounted inside the E-41A chassis draws air into the E-41A to cool components. The fan runs continuously when the system is on. You should hear the fan start as soon as you power on the E-41A. If you do not hear the fan, there may be a faulty power connection (see page 50).

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

TO REMOVE THE FAN

1. **Shut down, and then open the E-41A (see pages 51 and 53).**

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

2. **Remove the fan cable from motherboard connector FAN 4.**

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

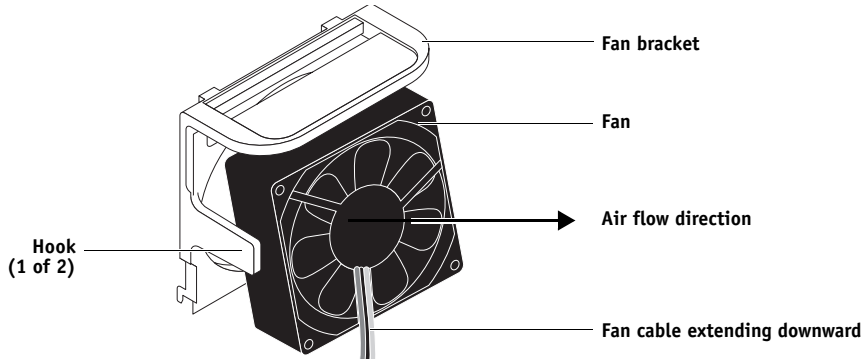


FIGURE 29: Removing the fan

4. **Remove the fan from the chassis.**

TO REPLACE THE FAN

1. **Align the fan.**

   An arrow on the side of the fan indicates the airflow direction. Make sure that the fan is positioned so that the arrow points inside the E-41A and the fan cable extends downward toward the motherboard (see Figure 29).

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

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

3. **Connect the fan cable to motherboard connector FAN 4.**

4. **Reassemble the E-41A and verify its functionality (see page 106).**

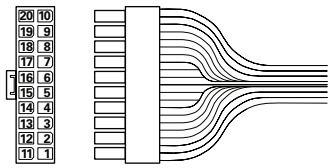
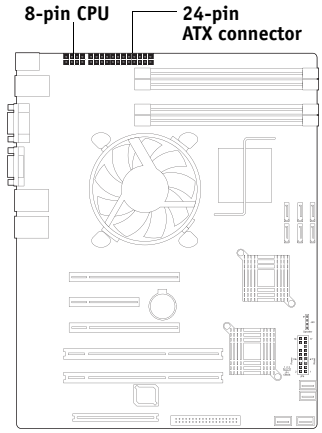
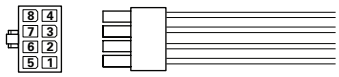
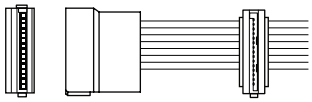
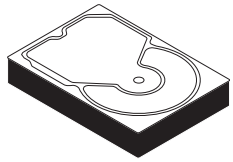
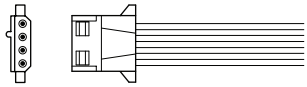
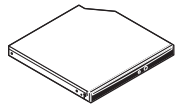
Power supply

The following table describes the power supply cables that connect to E-41A components. For more information on the power supply, see "Specifications" on page 146.

IMPORTANT

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

TABLE 1: Power supply cable details

Cable connector	Pin(s)	Wire color	Voltage	Connection
NOTE: All voltages listed in this table are direct current voltages (VDC).				
 20-pin ATX power connector to motherboard	1, 2	Orange	+3.3V	
	3, 5, 7, 13, 15, 16, 17	Black	COM	
	4, 6, 19, 20	Red	+5V	
	8	Gray	PW-OK	
	9	Purple	+5Vsb	
	10	Yellow	+12V	
	11	Orange	+3.3V	
		Brown	+3.3V sense	
	12	Blue	-12V	
	14	Green	PS-ON	
	18	White	-5V	
 8-pin CPU power connector to motherboard	1, 2, 3, 4	Black	COM	
	5, 6, 7, 8	Yellow & Black	+12V	
 SATA (5-pin) power connector to HDD	1	Yellow	+12V	
	2	Black	COM	
	3	Red	+5V	
	4	Black	COM	
	5	—	not connected	
 4-pin PATA power connector to DVD drive power/data combo cable	1	Yellow	+12V	
	2	Black	COM	
	3	Black	COM	
	4	Red	+5V	

TO REMOVE THE POWER SUPPLY

1. **Shut down, and then open the E-41A (see pages 51 and 53).**

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

2. **Remove the power cable from the HDD.**
3. **Remove the power and data combination cable from the DVD drive.**
4. **Remove the 20-pin motherboard power cable from motherboard connector PW2.**
5. **Remove the 8-pin CPU power cable from motherboard connector PW1.**
6. **Remove the reusable tie-wrap securing the power cables to the chassis support beam.**

   Do not cut the tie-wrap. Squeeze the tab to unlock it, and then open it completely and remove it. You will reattach the tie-wrap later when you replace the power supply.

7. **Remove the ferrites that are installed around the HDD power cables.**

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

8. **Remove four of the five screws that attach the power supply to the back of the chassis (see Figure 30 on page 91).**
9. **While supporting the power supply, remove the fifth screw.**

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

10. **Lift the power supply out of the chassis.**

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

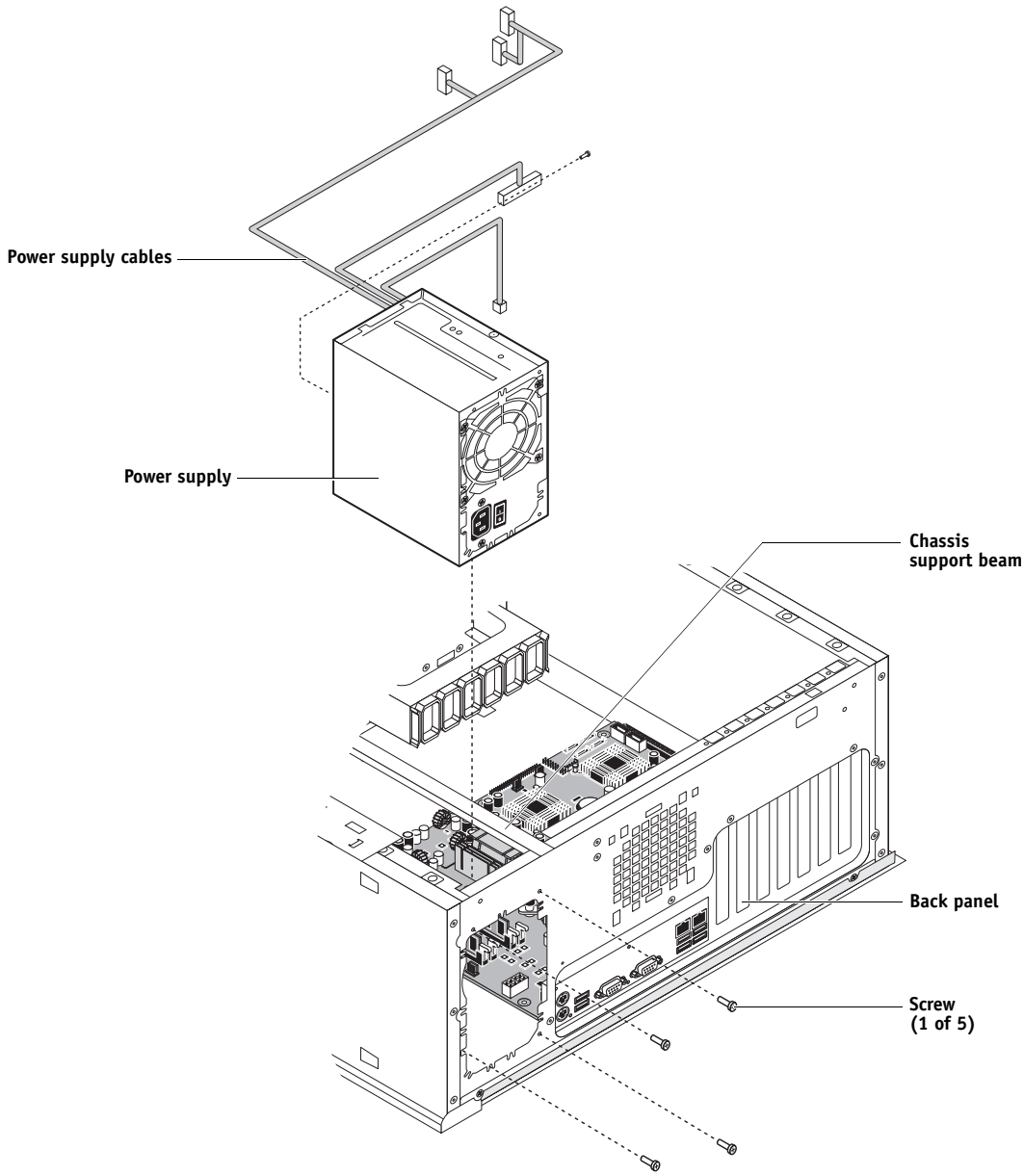


FIGURE 30: Removing/replacing the power supply

TO REPLACE THE POWER SUPPLY

1. **Support the power supply inside the chassis and align the mounting holes.**
2. **Attach the power supply to the chassis with the four screws that you removed earlier (see Figure 30 on page 91).**

   If you are installing a new power supply, make sure to use the screws that came with it to attach the new power supply to the chassis.
3. **Connect the 8-pin CPU power cable to motherboard connector PW1 (for connector locations, see Figure 20 on page 64).**
4. **Connect the 20-pin motherboard power cable to motherboard connector PW2.**
5. **Connect the power and data combination cable to the DVD drive.**
6. **Install the ferrite around the HDD power cable.**

   Use the ferrite that you removed earlier. Place the ferrite around the cable near the connector and snap the edges of the ferrite closed.
7. **Connect the power cable to the HDD.**

   IMPORTANT

   Connect the thin, black SATA power cable connector to the HDD. Do not connect the white, 4-pin power cable connector. Connecting both types of power cables will damage the HDD.
8. **Locate the reusable tie-wrap that you removed earlier and use it to attach the loose section of the power cable to the chassis support beam (see Figure 30 on page 91).**

   Gather the cable against the support beam with the tie-wrap, and then thread the tie-wrap to secure the cable.
9. **Reassemble the E-41A and verify its functionality (see page 106).**

Hard disk drive

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

If you replace the HDD with a new one, you must install system software as described on page 107. (Spare HDDs are not shipped with preinstalled system software.)

IMPORTANT

Do not replace the HDD and the motherboard at the same time. Doing so in the wrong order, without updating the system (see page 67), will cause the system to malfunction.

It is unlikely that both the HDD and the motherboard are defective. Avoid replacing both to solve one problem. If troubleshooting strategies (such as checking cables and connections; see pages 124 and 125) do not solve the problem, and you suspect either the HDD or the motherboard is at fault, use the following order to troubleshoot: replace the HDD, install system software, and then check to see if the problem persists. If it does, perform other procedures, such as replacing the motherboard (see page 67).

IMPORTANT

Proper handling

Improper handling can damage a HDD. Handle the HDD with extreme care.

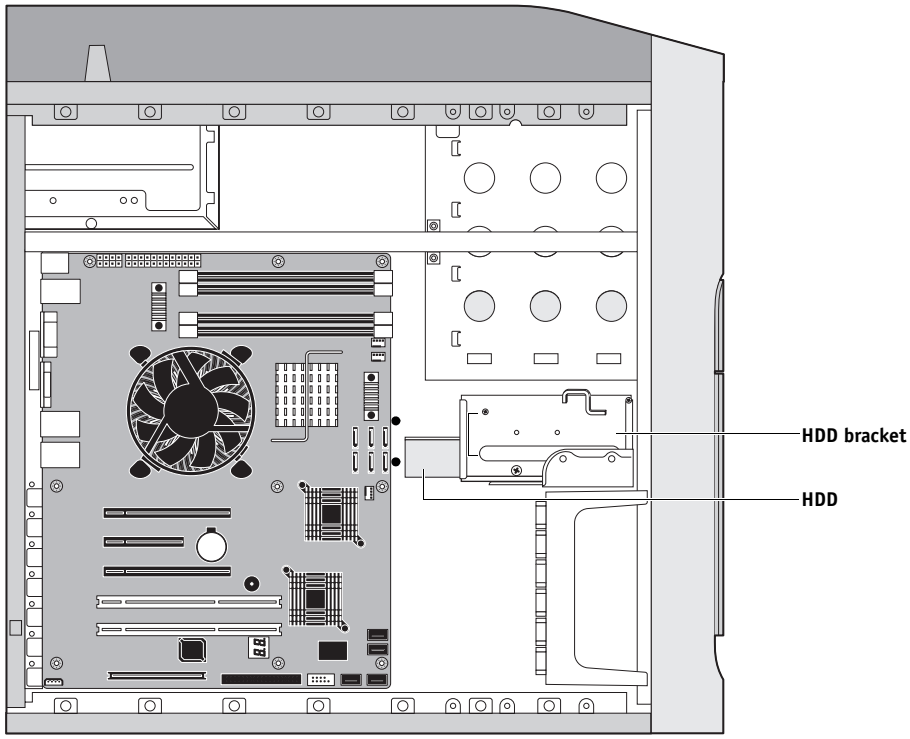
- Use proper ESD practices when grounding yourself and the E-41A.
- Keep magnets and magnetic-sensitive objects away from the HDD.
- Do not remove the screws on top of the HDD. Loosening these screws voids the warranty.
- Never drop, jar, bump, or put excessive pressure on the HDD.
- Handle the HDD by its sides and avoid touching the printed circuit board.
- Allow the HDD to reach room temperature before installation.

HDD problems may be caused by the following:

- Loose or faulty connections
- Faulty data or power cable
- Faulty HDD

IMPORTANT

Make sure that you attach an ESD grounding wrist strap and follow standard ESD precautions before handling E-41A components.



NOTE: Video board and internal cables are not shown.

FIGURE 31: E-41A HDD

The HDD is mounted inside a bracket.

If you are replacing the HDD with a new one, you will need:

- The appropriate system software and documentation for the E-41A that you are servicing.
- A compatible version of the user software for the networked computers that will print to the E-41A.

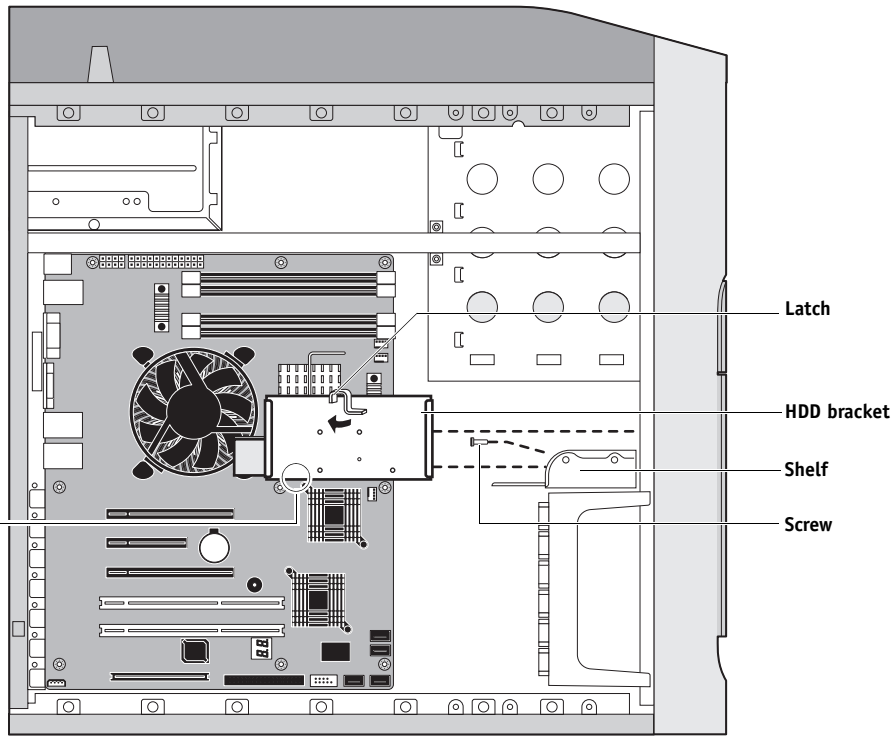
TO REMOVE THE HDD

1. **If you are removing the HDD in order to install a new drive, give the network administrator the opportunity to print the Job Log and save any custom simulations. If possible, print the Configuration page and Font List (see page 38).**
2. **Shut down and open the E-41A (see pages 51 and 53).Remove the power supply cable from the HDD.**
3. **Remove the HDD data cable from the HDD.**
4. **Remove the screw securing the HDD bracket to the bracket shelf.**
5. **Slide the HDD bracket off the shelf and lift it out of the chassis (see Figure 32).**

   Unlock the HDD bracket by moving the latch toward the back panel, and then sliding the bracket off the bracket shelf.

IMPORTANT

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



NOTE: Video board and internal cables are not shown.

FIGURE 32: Removing/replacing the HDD bracket

6. **Remove the four screws that attach the HDD to the HDD bracket (see below).**

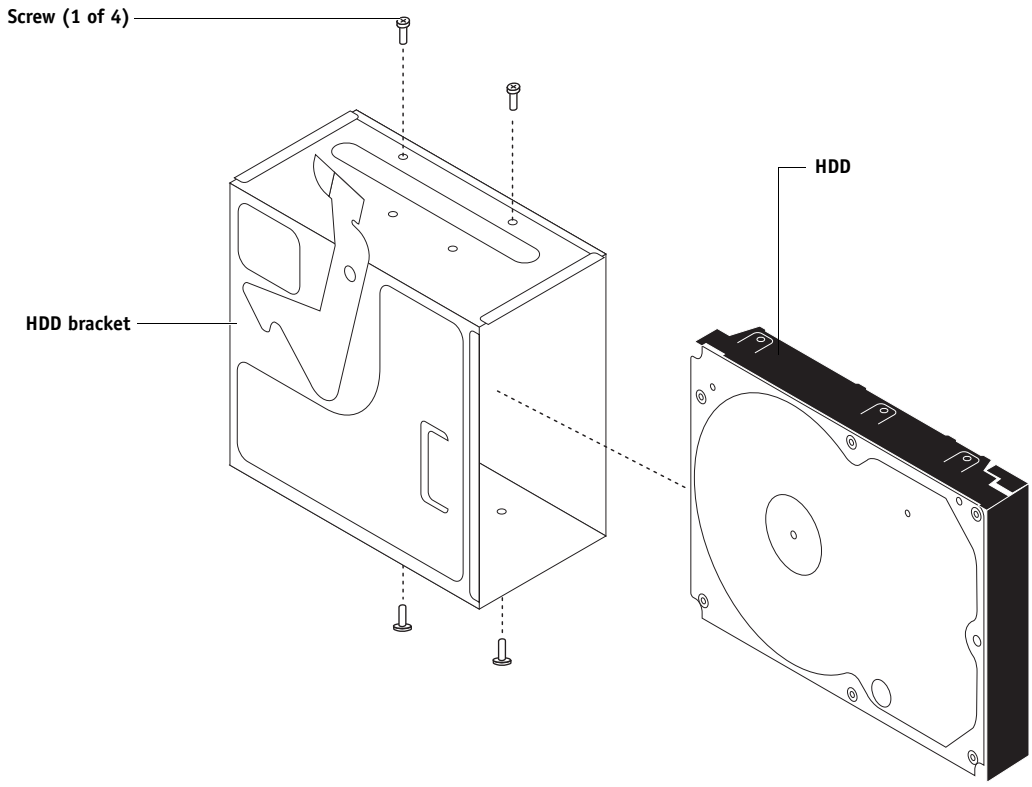


FIGURE 33: Removing/replacing the HDD from/in the HDD bracket

7. **Remove the HDD from the HDD bracket and place it in an antistatic bag.**

IMPORTANT

Do not unscrew the screws on the HDD cover. Loosening these HDD screws breaks the seal and voids the HDD warranty.

Do not touch the drive with magnetic objects (such as magnetic screwdrivers), and avoid placing items such as credit cards and employee ID cards that are sensitive to magnets near the HDD.

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

TO REPLACE THE HDD

IMPORTANT

Do not install a new HDD and a new motherboard at the same time. If you suspect that the E-41A needs a new HDD and a new motherboard, first install the new HDD and install system software, then install a new motherboard and transfer options (see pages 67 and 75).

1. **If you are installing a new HDD, unpack the drive.**

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

2. **Position the HDD inside the HDD bracket and align the front-most mounting holes on the HDD with the four holes in the bracket (see Figure 32 on page 95).**

   When correctly installed, the HDD extends about an inch past the rear of the bracket.

3. **Replace the four screws that you removed earlier to attach the HDD to the bracket.**

4. **Slide the bracket all the way onto the shelf and lock it by moving the latch toward the front panel.**

IMPORTANT

Avoid striking the DIMMs as you replace the HDD bracket.

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

5. **Secure the HDD bracket to the HDD shelf using the screw that you removed earlier.**

6. **Connect one end of the HDD data cable to the HDD and the other end to SATA 2 on the motherboard.**

7. **Connect the other end of the HDD data cable to the appropriate SATA connector on the motherboard (J19; see Figure 20 on page 64).**

8. **Connect the power cable to the HDD.**

IMPORTANT

Connect the thin, black SATA power cable connector to the HDD. Do not connect the white, 4-pin power cable connector. Connecting both types of power cables will damage the HDD.

9. **Reassemble the E-41A (see page 106).**

(Continued on next page)

10. **If you replaced the HDD with a new HDD, install system software (see page 107).**

    Troubleshooting tips:

    - Following system software installation, if the E-41A boots up much slower than usual, clear the CMOS as follows:
      - Make sure that the power cable is removed from the power outlet, and then remove the battery (see page 86).
      - Wait 2 minutes to allow the motherboard electrical components to fully discharge.
      - Reinstall the battery.
      - After reassembling the system, reset the time and date in Setup (see *Configuration and Setup* on the User Documentation CD).
    - If a startup error displays on the Control Panel when you power on the E-41A, check the connections.

11. **Verify functionality (see page 106).**

Switch bank assembly

The switch bank assembly attaches to the Component Sled. The switch bank assembly includes the following components:

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

NOTE: For more information about servicing the DVD drive, see page 103.

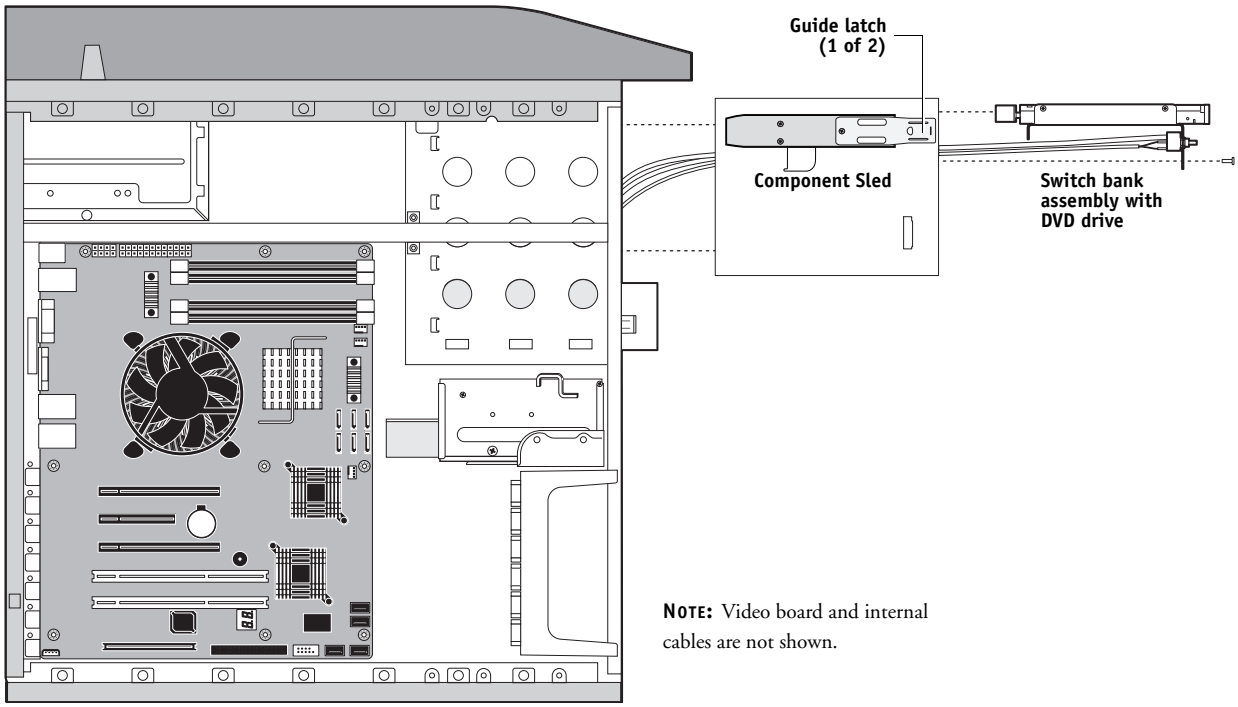


FIGURE 34: Component Sled with switch bank assembly

TO REMOVE THE SWITCH BANK ASSEMBLY

1. **Shut down, and then open the E-41A (see pages 51 and 53).**

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

2. **Disconnect the following cables:**

   - Power and data combination cable from the back of the DVD drive
   - Power and reset button cables from motherboard connector JP4
   - Speaker cable from motherboard connector J40
   - Front panel USB port cables from motherboard connectors J22 and J35

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

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

4. **Unharness the cables from the cable clamp(s) and tie-wraps inside the chassis.**

5. **Remove the Component Sled from the chassis (see Figure 34 on page 99).**

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

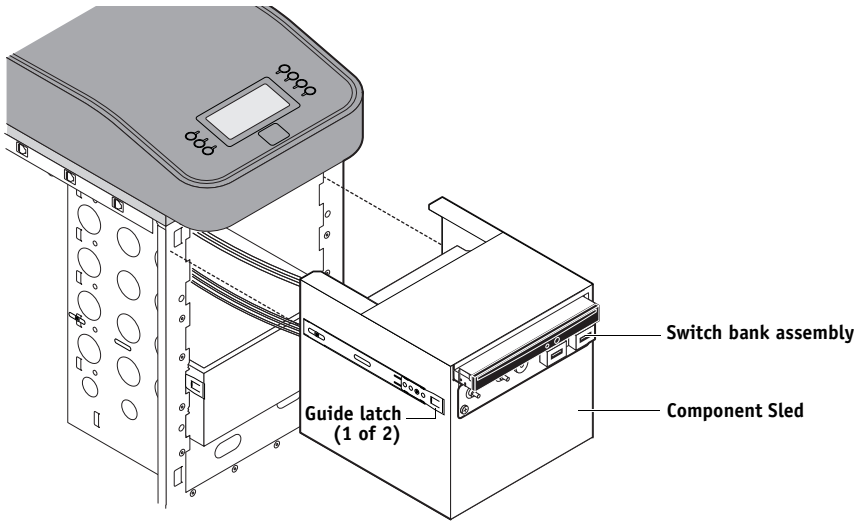


FIGURE 35: Removing/replacing the Component Sled from the chassis

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

6. **Remove the switch bank assembly from the Component Sled.**
   - Remove the three screws that attach the switch bank assembly to the Component Sled.
   - Pull the switch bank assembly straight out of the Component Sled.

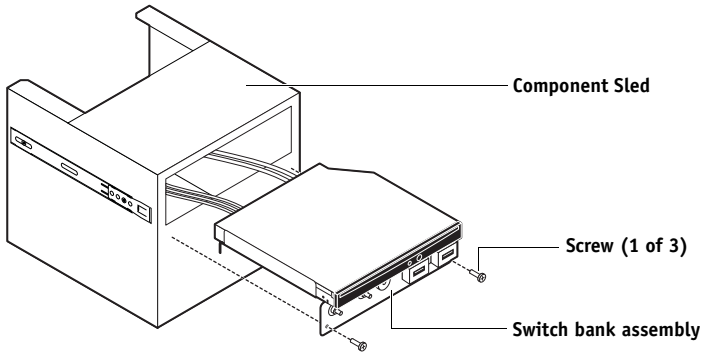


FIGURE 36: Removing/replacing the switch bank assembly

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

7. **If you are removing the switch bank assembly to replace it with a new assembly, remove the DVD drive (see page 104).**

TO REPLACE THE SWITCH BANK ASSEMBLY

1. **If it is not already attached, attach the DVD drive to the switch bank assembly (see page 105).**
2. **Install the switch bank assembly in the Component Sled (see Figure 36).**

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

   - Starting with the cables, insert the switch bank assembly through the opening in the front of the Component Sled. Be sure to fold the EMI gasket under and through the opening when inserting the assembly.
   - Replace the three screws that secure the switch bank assembly to the Component Sled.
3. **Install the Component Sled in the chassis (see Figure 35).**

   - Route the cables of the switch bank assembly in through the chassis so that the cables are within reach of their connectors on the motherboard.
   - Slide the sled into the front of the chassis until the guide latches click into place.

   NOTE: Be careful not to damage the EMI gasket around the slot in the chassis when installing the Component Sled.
4. **Connect the following cables (see Figure 20 on page 64 for the location of connectors on the motherboard):**

   - Power and data combination cable to the back of the DVD drive
   - DVD data cable to motherboard connector SATA 1
   - Power button cable to motherboard connector JP4, pins 6 and 8

     Make sure that the small triangle on the cable connector is aligned with pin 8 on JP4.
   - Reset button cable to motherboard connector JP4, pins 5 and 7

     Make sure that the small triangle on the cable connector is aligned with pin 7 on JP4.
   - Speaker cable to motherboard connector J40

     Make sure that the small triangle on the cable connector is aligned with pin 1 on J40.
   - Front panel USB port cables to motherboard connectors J22 and J35
5. **Install the ferrite around the two front USB port cables near the motherboard.**

   Use the ferrite that you removed earlier. Place the ferrite around both cables in between the two preinstalled tie-wraps, and snap the edges of the ferrite closed.
6. **Secure the cables with the cable clamp(s) inside the chassis.**
7. **Reassemble the E-41A and verify its functionality (see page 106).**

DVD drive

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

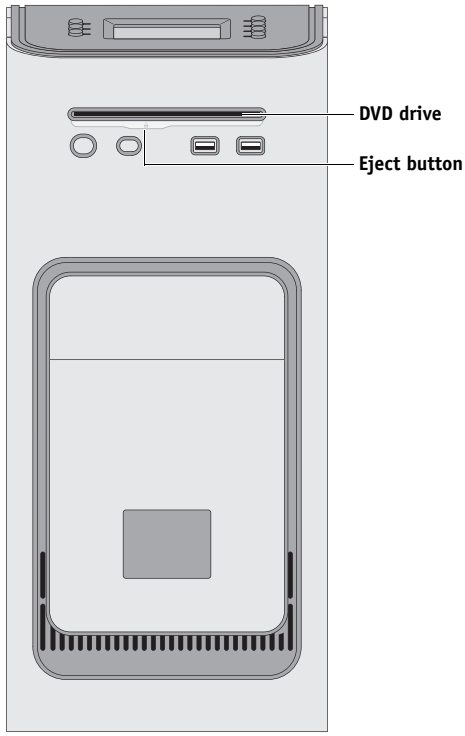


FIGURE 37: E-41A DVD drive

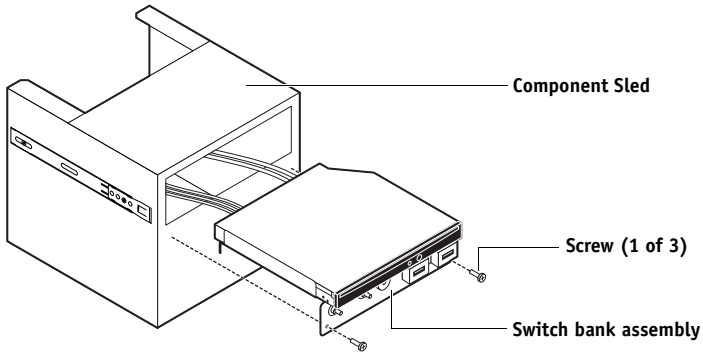
TO REMOVE THE DVD DRIVE

1. **Shut down, and then open the E-41A (see pages 51 and 53).**

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

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

3. **Remove the Component Sled from the chassis, and then remove the switch bank assembly from the Component Sled (see page 100).**



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

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

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

5. **Remove the DVD drive from the switch bank assembly.**

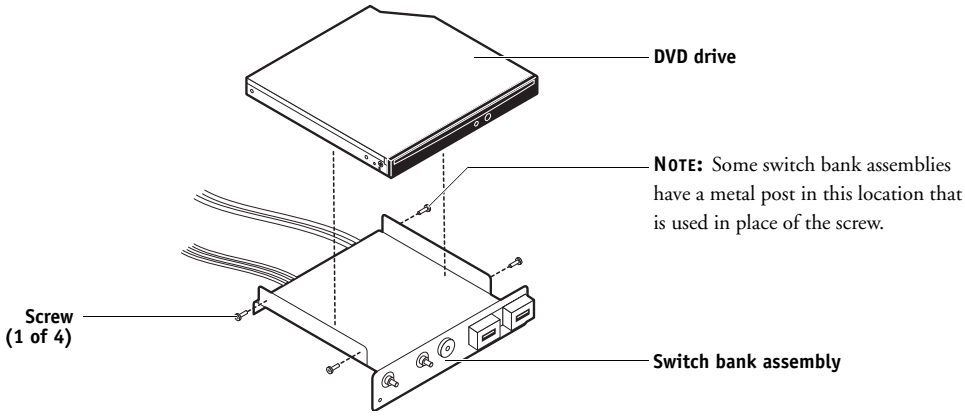


FIGURE 38: Removing/replacing the DVD drive

TO REPLACE THE DVD DRIVE

1. **Install the DVD drive in the switch bank assembly.**
2. **Install the switch bank assembly in the Component Sled, and then install the Component Sled in the chassis (see page 102).**
3. **Attach the power and data combination cable to the back of the DVD drive.**

   Make sure that the other end of the data cable is connected to motherboard connector SATA 1.
4. **If you replaced the DVD drive with a new DVD drive, clear the CMOS as follows:**

   IMPORTANT

   You need to clear the CMOS after installing a new DVD drive to ensure compatibility between the new component and the previous settings stored in the BIOS. Make sure the power cable is removed from the power outlet before clearing the CMOS.

   - Remove the battery (see page 86).
   - Wait 2 minutes to allow the motherboard electrical components to fully discharge.
   - Reinstall the battery.
5. **If you installed a new DVD drive and cleared the CMOS, make sure to reset the time and date in Setup (see *Configuration and Setup*).**
6. **Reassemble the E-41A and verify its functionality (see page 106).**

Restoring and verifying functionality after service

Before you leave the customer site, make sure that you complete the following steps. If you cannot complete a step, determine the reason and correct the problem before continuing. For more information, see Troubleshooting on page 122.

TO REASSEMBLE THE E-41A AND VERIFY FUNCTIONALITY

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

   When routing cables inside the E-41A, make sure that:

   - Cables are securely installed after routing cables
   - Cable routing does not interfere with the operation of internal components nor interfere with removing or replacing components
   - Cables are not tangled nor looped around internal circuit boards, or components (such as capacitors and resistors)
   - Cables do not lie on or against any internal heating element
   - Cables do not interfere with opening or closing E-41A panels
   - Cable slack is secured with a tie-wrap

2. **Restore the E-41A to the upright position.**
3. **Replace any panels that you removed earlier, as described on page 53.**
4. **If you replaced the motherboard, make sure that the new motherboard solves the problem that you are troubleshooting, and then transfer options to the new motherboard (see page 75).**
5. **If the E-41A is to be mounted on the optional furniture with the optional monitor, see the reassembly instructions on page 148.**
6. **Connect the power cable to the E-41A (see page 29).**
7. **If you cleared the CMOS during service, reset the E-41A time and date in Setup.**
8. **Connect the E-41A to the copier/printer (see page 29).**
9. **Print the Test Page and Configuration page (see page 40).**

   - If the E-41A does not start up, refer to the startup problems listed on page 133.
   - If pages do not print, verify that the interface cables are properly connected (see printing problems on page 141).
   - If image quality is poor, test the copier/printer. (See the service documentation that accompanies the copier/printer.)

10. **Connect to the network (see page 29).**
11. **Ask the network administrator to download a test job over the network.**

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

SYSTEM AND USER SOFTWARE

This chapter describes how to install system and user software on the E-41A HDD. It also details backing up and restoring Setup configuration settings (page 112) and updating system and user software (page 113).

Overview

The E-41A ships with pre-installed system software on the HDD (hard disk drive). If you must reinstall system and user software when servicing the E-41A, use the latest System Software and User Software DVDs.

NOTE: You can change the default language preinstalled at the factory using the Configure tool available through Command WorkStation and WebTools. Launch Configure and then navigate to Server > General > Choose Server Language and then click Apply.

Before you install system software

When installing software, keep in mind the following:

- **Jobs**—All jobs in all print queues and all jobs archived locally on the E-41A HDD are deleted when you install system and user software. To save jobs, ask the network administrator to archive them to a CD or location on the network, so that the jobs can be imported back into the E-41A queue after software installation. For more information, see Command WorkStation Help.

CAUTION

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

- **Job Log**—The list of jobs in the Job Log and any jobs in the queues are deleted when you install system and user software. The network administrator can use Command WorkStation to save a current list of jobs (not the actual jobs) from the Job Log.
- **Fonts**—All fonts on the HDD are deleted when you install system and user software. Resident fonts are reinstalled when you reinstall system and user software. Any customer-supplied fonts must be reinstalled by the network administrator using Command WorkStation.

  To determine which additional fonts were downloaded to the E-41A, print the Font List before you install the software and again after you complete the software installation. Any fonts not listed after installation must be reinstalled. For more information, see Command WorkStation Help.

- **Backing-up/Restoring Setup configuration**—The existing Setup configuration (typically configured by the customer; see *Configuration and Setup*) is deleted when you install system and user software. The Setup configuration can be backed-up before installing system software and saved to a file on a client computer, then restored to the E-41A after system software reinstallation (see page 112). Print a Configuration page (see page 38) before you install system and user software in order to preserve a record of the Setup configuration settings.
- **User documentation**—All user documentation files that are resident on the E-41A are deleted when you install system and user software. If user documentation is resident on the E-41A, remind the site administrator to reinstall the documentation files after you finish installing system and user software.
- **Custom simulation and output profiles**—Custom simulation and custom output profiles saved on the HDD are deleted when you install system and user software. Ask the site administrator to save a copy of any custom profiles to a CD or network location before you install system software. For more information, see *Color Printing*, *Fiery Color Reference*, and *Workflow Examples* on the User Documentation CD.
- **Monitor profiles**—Monitor profiles saved to the HDD are deleted when you install system and user software. Monitor profiles for the E-41A monitor are automatically reinstalled when you reinstall Command WorkStation on the system.
- **System software updates**—All updates to system software (Windows OS and Fiery System Software) which may be available for the E-41A and installed from any source (for example, System Updates (see page 113), patches provided on CD or downloaded by the customer) are deleted when you install system and user software.
- **Compatibility**—When upgrading the software on the E-41A, make sure that the latest user software is installed on all computers that print to the E-41A. Using incompatible versions of the software on the E-41A and the software on client computers may result in system problems.

Installing system and user software

System and user software are provided on the following media:

- System Software DVD
- User Software DVD

The System and User Software DVDs include the system software, fonts, and user software. You install system and user software when you:

- Remedy an error condition (see "Error messages and conditions" on page 132).
- Replace the HDD.
- Upgrade to a more recent version of the software.

Software installation takes approximately one hour (not including the time required to configure or restore Setup).

TO INSTALL SYSTEM AND USER SOFTWARE

IMPORTANT

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

1. **If you have not yet done so, consider backing up configuration settings. The settings are deleted when you install system and user software (see page 112).**
2. **Allow the network administrator the opportunity to print the Job Log. Also, print the following (if possible):**
   - Configuration page—lists any installed options and records the customer's current Setup configuration.
   - Font List—lists the fonts currently on the HDD. In addition to the fonts provided in system software, the customer may have installed other fonts.
3. **Remove all USB storage devices and dongles (if any) that may be connected to any E-41A USB ports.**

IMPORTANT

The system will hang if USB storage devices or dongles are connected to E-41A USB ports during software installation.

4. **Insert the System Software DVD into the DVD/CD-RW drive.**

   NOTE: If you installed a new HDD, power on the system, insert the System Software DVD, allow the system to boot, and then proceed to step 6.

5. **From the E-41A Control Panel or the copier/printer Control Panel (or the Start menu, if a monitor is connected), reboot the E-41A.**

   Allow the system to shut down and reboot. Do not push any buttons during this time.

6. **At the message "All data will be deleted?", select Yes.**

7. **When prompted, select a language.**

   Wait as messages display describing the installation process.

   NOTE: This installation segment takes approximately 12 minutes.

8. **At the message "System Software is copied to the system. Remove media and select OK to reboot," remove the System Software DVD, and then select OK.**

   The E-41A reboots several times and status messages display as the installation process continues.

   NOTE: This installation segment takes approximately 12 minutes.

9. **At the message "Please insert User Software to continue installation," insert the User Software DVD into the DVD/CD-RW drive.**

   NOTE: If a monitor is connected (FACI), click OK to continue.

   During this process, the following installations are performed:

   - The entire contents of the System Software DVD are copied to a shared folder on the E-41A HDD, in e:\efi\user_sw.

     After installation, when the E-41A is connected to the customer's network, users can access the user software in the shared folder and install it onto client computers.

   The message "Copying User Software to Fiery shared folder. Please wait" and other messages display describing the user software installation process.

   NOTE: This installation segment takes approximately 30 minutes.

10. **At the message "Setup finished. Remove CD/DVD. Press OK to reboot," remove the User Software DVD and select OK.**

    If the User Software DVD does not eject automatically, wait for the system to boot completely and the following logo screen to display on the E-41A Control Panel, then access the Functions menu on the E-41A Control Panel and select Eject CD/DVD to remove the User Software DVD.

This logo screen indicates that the E-41A is Idle.

NOTE: This installation segment takes approximately 5 minutes.

11. **If user documentation was previously resident on the E-41A, remind the site administrator that user documentation files may be reinstalled to the E-41A shared folder from the User Documentation CD as follows:**

    - If the E-41A is equipped with FACI:
      - Insert the User Documentation CD in the E-41A DVD drive.
      - Browse to the desired language folder on the CD.
      - Select and copy the files you want to place in the shared folder on the E-41A.
      - Browse to the shared file location: e:\efi\user_software\Documentation and paste the documentation files.
    - From a client computer on the same network as the E-41A (assumes that the E-41A is powered on, has an IP address, and is accessible on the customer's network):
      - Insert the User Documentation CD in the CD drive of the client computer.
      - Browse to the desired language folder on the CD.
      - Open a web browser and type two back-slashes followed by the E-41A IP address.

        For example: **\\xx.xx.xx.x**, where **xx.xx.xx.x** is the IP address of the E-41A.
      - Open the User-Docs folder.
      - Copy and paste the documentation files into the folder.

12. **Use the System Updates feature to install required software updates that may be available for the E-41A that would have been deleted when you installed system software (see "Updating E-41A system and user software" on page 113).**

13. **Reconnect any USB storage devices or dongles that you may have removed earlier.**

14. **Input the settings from the Configuration page that you printed earlier, or restore settings if they were backed up prior to system software installation.**

    If a backup file of the configuration settings exists, restore it after the network configuration is completed (see "Backing up and restoring the E-41A Setup Configuration" on page 112).

    Bypass any settings that are not included on the Configuration page if it is more appropriate for the network administrator to set them. For more information, see *Configuration and Setup* on the User Documentation CD.

15. **Reinstall fonts or custom simulations that may have been deleted when you installed software.**

Backing up and restoring the E-41A Setup Configuration

The current E-41A Setup configuration settings can be backed-up before system software installation and restored afterward using WebTools.

The following configuration settings can be backed up:

- Settings made using the Configure WebTool (except Server Name)
- Custom editing curves
- Custom spot colors
- Impose templates saved in the default directory for these files on the Print Server
- Preflight setup
- Address books
- Paper Catalog

NOTE: The configuration file is saved on the computer from which you access the Configure WebTool. Make sure that you do not save the configuration file to the E-41A itself. Otherwise, when you reinstall system software, the configuration file residing on the E-41A is deleted.

TO BACK UP OR RESTORE E-41A SETTINGS

1. **From a client computer, start an Internet browser and type the IP address or DNS name of the E-41A.**

   The E-41A home page appears.

2. **Click Launch Configure.**
3. **At the Login prompt, select Administrator in the user name field (if needed), type Fiery.1 in the password field, and then select OK.**

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

4. **Choose Server > Backup/Restore, and then choose one of the following options:**

To backup settings	To restore settings
• Click **Backup Fiery Settings.**	• Click **Restore Fiery Settings.**
• In the dialog box that appears, accept the default file name or type a new name for the backup file.	• In the dialog box that appears, type the name of the configuration settings file or select it from the list.
• Click **Save.**	• Click **Open.**

Updating E-41A system and user software

Using the tools **System Updates** and **Check for Product Updates (Software Downloads Site)**, you can obtain updates to E-41A System Software and User Software from a secure site on the Internet (referred to throughout this documentation as the Update Server).

Before updating the E-41A

Keep in the mind the following before updating the E-41A using System Updates or Check for Product Updates:

IMPORTANT

- If you reinstall system software onto the E-41A HDD from DVDs, all patches and updates previously downloaded and installed are deleted and must be reinstalled. You should obtain the most recent patches from the Update Server immediately after system software is reinstalled.
- The term **FACI** refers to the optional Fiery Advanced Controller Interface Kit which includes a monitor, keyboard, mouse, and enablement mechanism.
- If the E-41A is behind a firewall and unable to access the Internet, the site administrator can configure a proxy server at the customer's organization to allow the E-41A to receive updates (see page 117).
- While updates are being installed, you cannot print to the E-41A. Schedule the automatic updates when no one plans to print. While updates are being installed, the E-41A may need to reboot several times.
- To view updates that have already been installed, print the Configuration page or access **Check Now** and select the History tab (see "Using Check Now" on page 117). Check Now is available when you access System Updates directly from a FACI-equipped E-41A or a client computer using Remote Desktop (see page 118).
- The list that displays when you access Check for Product Updates (Software Downloads Site) may include:
  - Updates that are unavailable through System Updates and/or are not approved for all users.
  - Updates that may already be installed on some E-41A print servers. To help you choose the updates to download, compare the list displayed with the E-41A print server's Configuration Page > Updates log.

NOTE: Check Now is not available when you access System Updates from Command WorkStation or WebTools.

System Updates

System Updates allows you to schedule regular inquiries to an Update Server on the Internet for available E-41A updates. The E-41A checks automatically for updates by contacting the Update Server periodically.

System Updates also allows users to obtain updated versions of E-41A user software (utilities) and install them onto client computers that connect to the E-41A. The updated applications are first downloaded from the Update Server to a partition on the E-41A HDD. Users access the E-41A over the Internet and download the updated applications onto client computers and then manually install them.

You can also view and download updates at any time using the **Check Now** feature (requires FACI or a Remote Desktop connection; see page 117). Use Check Now to view and manually download updates that are available for installation (Patches tab) and/or view a list of updates that have already been installed (History tab).

You can also launch Check Now by clicking on an update notification in the task bar on the E-41A monitor.

System Updates can be accessed in the following ways:

- Directly from a FACI-equipped E-41A.
- From a client computer through a Remote Desktop connection (must be enabled in Setup and on the client computer; see "Enabling Remote Desktop" on page 118).
- From a client computer through WebTools > Configure > Launch Configure.
- From a client computer through Command WorkStation > Server > Setup > Server > System Update.

For a detailed procedure, see "To schedule System Updates" on page 115.

Make sure to review "Before updating the E-41A" on page 113 before scheduling System Updates.

TO SCHEDULE SYSTEM UPDATES

1. **Access System Update.**

   You can access System Updates directly from a FACI-equipped E-41A, a Remote Desktop connection from a client computer (see page 118), or a client computer using WebTools or Command WorkStation.

   If you access System Updates directly from a FACI-equipped E-41A or through Remote Desktop, an additional feature, Check Now, is available (see page 117). Check Now lists the updates that are currently available (Patches tab) and the updates that have already been installed (History tab).

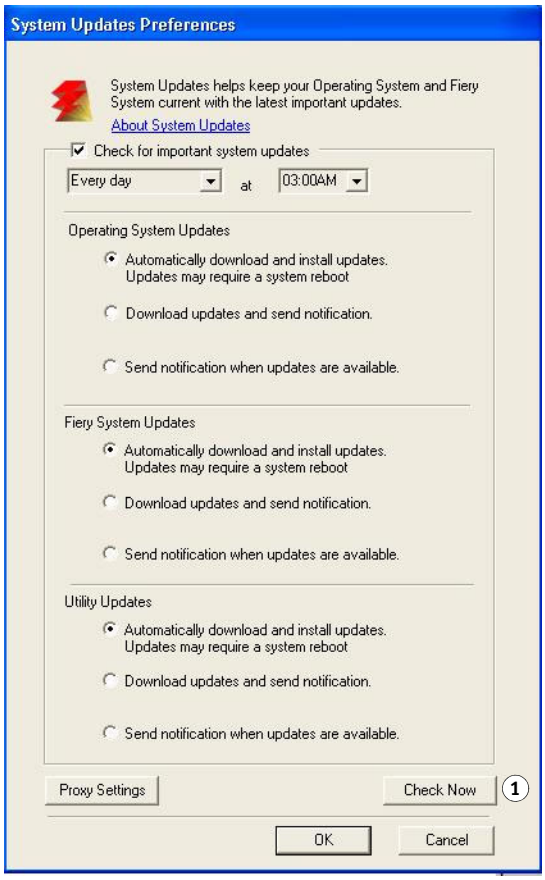
   NOTE: Check Now is not available when you access System Updates from Command WorkStation or WebTools.

From the E-41A (requires FACI or Remote Desktop)	From a Client using Command WorkStation	From a client using WebTools
• Click Start > All Programs > Fiery > System Updates. **NOTE:** If the E-41A is not equipped with FACI, you can access System Updates on the E-41A from a client computer using Remote Desktop (see page 118).	• Start Command WorkStation. • Log on with Administrator privileges. • Choose Server > Setup. • Choose Server > System Update.	• Open your web browser, type the IP address or DNS name of the E-41A, and then press Enter. • Click the Configure tab, and then click Launch Configure. • Log on with Administrator privileges. • Choose Configure > Server > System Update. • Choose Server > System Update.

   NOTE: While updates are being installed, you cannot print to the E-41A. Schedule the automatic updates when no one plans to print. The E-41A may also need to reboot several times during the update process.

2. **Select "Check for important system updates" (or "Enable System Updates" in Command WorkStation or WebTools).**

1. Not available when accessed from WebTools or Command WorkStation



3. **Specify how often the E-41A contacts the Update Server.**

   This feature sets a schedule for installing, downloading, and/or notification of updates.

4. **Choose a method for updating the E-41A operating software, system software, and utility software:**

   - **Automatically download and install updates (preferred method)**—Automatically downloads updates to the E-41A and installs them. Your intervention is not required.
   - **Download updates and send notification**—Automatically downloads updates to the E-41A but does not install them; sends a notification that updates have been downloaded. After the updates are downloaded, you can install the updates manually.
   - **Send notification when updates are available**—A notification displays in the E-41A task bar when new updates are available for download from the Update Server. To manually download the updates to the E-41A, access Check Now by clicking the notification in the task bar. (Requires FACI or a Remote Desktop connection; see "Using Check Now" on page 117.)

5. **If you use a proxy server to connect through a firewall to the Update Server, click Proxy Settings, select Enable Proxy, and type the appropriate information in the following fields:**
   - Address—proxy server IP address
   - Port—port used by the proxy server
   - User Name—user name for accessing the proxy server
   - Password—password for accessing the proxy server
6. **Click Save in the Proxy Settings window.**
7. **Click Apply.**

Using Check Now

Check Now is available when you access System Updates directly from a FACI-equipped E-41A (see definition on page 113) or by using a Remote Desktop connection from a client computer (see page 118).

Use Check Now to view updates that are available for installation (Patches tab) and updates that have already been installed (History tab).

NOTE: Check Now is not available when you access System Updates from Command WorkStation or WebTools.

Enabling Remote Desktop

Remote Desktop is a Microsoft application that allows client computers to manage and control the Windows desktop features of the E-41A. You can enable Remote Desktop to access the Check Now feature (page 117) of System Updates on E-41As that are not equipped with FACI.

Remote Desktop must be enabled in both E-41A Setup and on the client computer, as described in the following procedure.

TO ENABLE REMOTE DESKTOP

1. **Enable Remote Desktop on the E-41A.**
   - Open your web browser, type the IP address or DNS name of the E-41A, and then press Enter.
   - Click the Configure tab, and then click Launch Configure.
   - Log on with Administrator privileges.
   - Choose Configure > Server > General.
   - Select Enable Remote Desktop.
   - Click Apply.
   - Click Reboot.
2. **Enable Remote Desktop on the client computer.**
   - Click Start and choose All Programs > Accessories > Communications > Remote Desktop Connection.
   - Make sure that the E-41A is Idle, type the IP address or DNS name of the E-41A, and then click Connect.
   - Type the Administrator password, if prompted.

Check for Product Updates (Software Downloads Site)

The Check for Product Updates URL (also known as the Software Downloads Site) allows you to access the Update Server to view and manually download all available updates for E-41A System and User Software. You can access Check for Product Updates by copying and pasting a unique URL into a web browser from a client computer. (For details, see page 120.)

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

- Updates that are unavailable through System Updates and/or are not approved for all users.
- Updates that may already be installed on some E-41A print servers. To help you choose the updates to download, compare the list displayed with the E-41A print server's Configuration Page > Updates log.

Check for Product Updates is especially useful if your E-41A cannot access the Internet, is behind a firewall, or is otherwise unable or not configured to seek and accept automatic updates from the Update Server (for instance, if you do not want—or the E-41A is unable—to take advantage of the auto-download/auto-installation/auto-notification features available through System Updates).

For a detailed procedure, see "To install updates using Check For Product Updates" on page 120.

Make sure to review "Before updating the E-41A" on page 113 before using Check for Product Updates.

TO INSTALL UPDATES USING CHECK FOR PRODUCT UPDATES

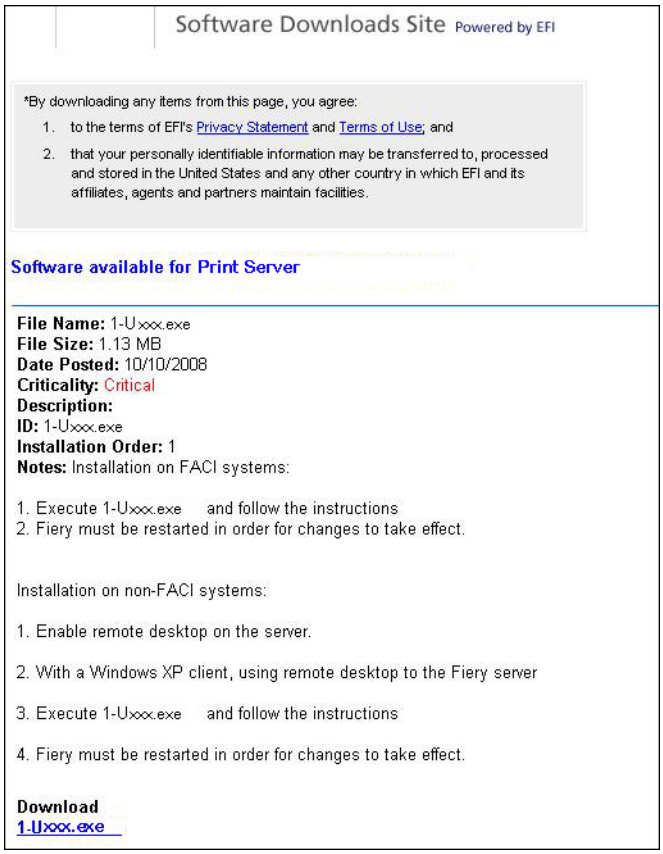
1. **From a client computer, open a web browser, copy-and-paste or type the following URL, and then press Enter.**

https://liveupdate.efi.com/webupdater/default.aspx?sid=1c9c230ecb31df3a6bff2b3797cfbb3cEF015105.PPD

For Japanese products, use the following URL instead.

https://liveupdate.efi.com/webupdater/default.aspx?sid=f86ac7726deb30b073691561341c9f26EF030453.PPD

A window appears, listing available updates.



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

- Updates that are unavailable through System Updates and/or are not approved for all users.
- Updates that may already be installed on some E-41A print servers. To help you choose which updates to download, compare the list displayed with the E-41A print server's Configuration Page > Updates log.

2. For each update that you want to download, click the file name under Download and then select Save to download the update file to a location on the client computer.
3. When the updates files have been downloaded, browse to the location of the update file on the client computer and handle it according to the file type, circumstances, and site conditions.

TROUBLESHOOTING

This chapter identifies the source of common problems that may occur with the E-41A and suggests ways of correcting the problems.

Troubleshooting process

The E-41A is a server for copier/printers, and is generally part of a configuration like the one shown in the following figure. Problems may occur in one of three areas:

- Inside the E-41A
- In the interface between the E-41A and the copier/printer
- In the interface between the E-41A and the workstations or computers to which it is connected

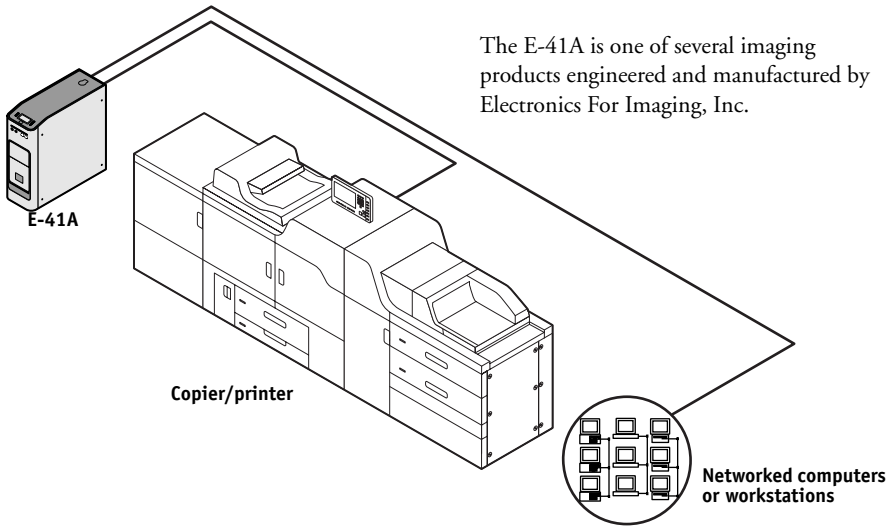


FIGURE 39: Troubleshooting the system

This chapter does not attempt to provide troubleshooting information for attached computers such as PCs or Mac OS computers, copier/printers, or extensive networks. Refer problems in these areas to the appropriate service departments and network administrators.

IMPORTANT

When performing the service procedures described in this chapter, follow the precautions listed in "Precautions" on page 14.

The terms "replace" and "replacing" are typically used throughout this guide to mean reinstallation of existing components. Install new components only when necessary. If you determine that a component that you have removed is not faulty, reinstall it. Replacement parts and specifications are subject to change. When ordering replacement parts, refer to the current parts list maintained by your authorized service/support center. Install the correct parts as directed by your service/support center.

Preliminary on-site checkout

Most problems with the E-41A are caused by loose board or cable connections. This section describes the quick checks that you can do to locate and fix obvious problems. It describes how to eliminate any problems with external connections to the back of the E-41A, and then addresses checking internal board and cable connections. Check external and internal connections before replacing any components.

NOTE: Verify that the network is functioning, no unauthorized software or hardware is installed on the E-41A, and no problems have occurred with a particular print job or application. The on-site administrator can help you verify these issues.

For problems that persist after you check the external and internal connections, this section provides a comprehensive list of internal and external checks that may help you fix the problem.

This section includes the following:

- "Checking external connections" on page 124

  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-41A.

- "Checking internal components" on page 125

  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-41A.

- "Inspecting the system" on page 126

  Provides a more comprehensive checklist that you can use to check the E-41A internally and externally. If your initial checks fail, complete this checklist before concluding that you need to replace a cable or component.

To troubleshoot problems that present specific symptoms, see "Table 3: E-41A error messages and conditions" on page 133. Locate symptoms listed in the table to help you determine possible causes and steps to remedy them.

Checking external connections

Before removing the side and front panels of the E-41A to check internal components, eliminate the most obvious sources of problems. Make sure that:

- All interface cables to the system are plugged into the proper connectors (see Figure 40).
- The power cable is plugged into the wall power outlet.
- The LED on the network port is blinking to indicate network activity.

IMPORTANT

Make sure that the cables are connected to the correct RJ-45 port (see Figure 6 on page 29). The network and copier/printer interface cables look similar but are not interchangeable. The network cable at the customer site is a *straight-through* Ethernet cable that connects to the **upper** RJ-45 port on the E-41A back panel. The copier/printer interface cable included with the E-41A is a 39.3 ft. Ethernet *crossover* cable that connects to the **lower** RJ-45 port on the E-41A back panel.

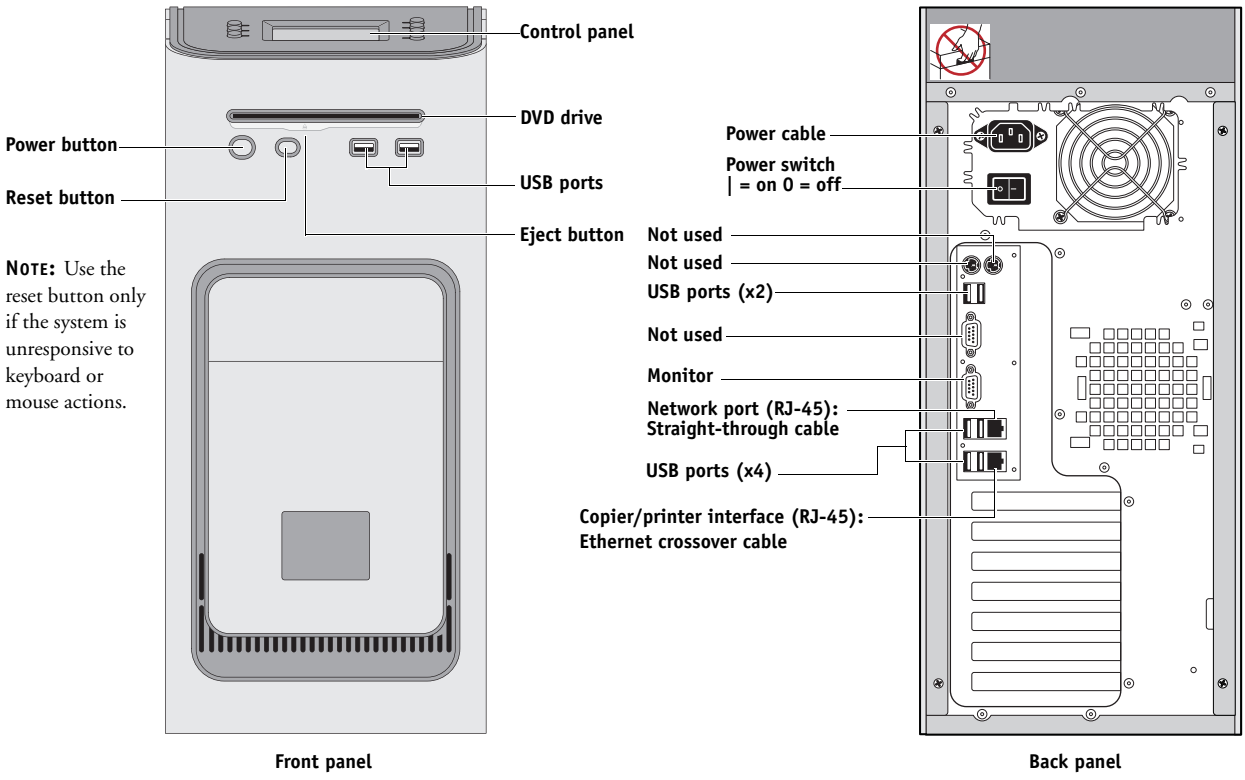


FIGURE 40: E-41A external cable connections

Checking internal components

To check the internal components, you must remove the side and front panels of the E-41A.

IMPORTANT

Before you remove the E-41A panels, be aware of the safety precautions that you should take when handling the E-41A. Use standard ESD precautions when handling printed circuit boards and electronic components. To review the safety precautions, see "Precautions" on page 14.

See the disassembly procedures on page 53 and the reassembly procedures on page 106.

TO CHECK INTERNAL COMPONENTS

1. **Shut down, and then open the E-41A (see pages 51 and 53).**

IMPORTANT

2. **Before you touch any components inside the E-41A, attach a grounding strap to your wrist and discharge any static electricity on your body by touching a metal part of the E-41A.**
3. **Inspect the inside of the E-41A (see Figure 12 on page 50).**

   Make sure that no foreign materials have been dropped into the chassis.

   - Make sure that the DVD and HDD data cables are connected to the correct SATA connectors on the motherboard (see Figure 12 on page 50):
     - DVD drive power/data combination cable to motherboard connector SATA 1
     - HDD data cable to motherboard connector SATA 2
   - Look for obviously loose boards and reseat each board securely in its connector on the motherboard.
   - Look for obviously loose cables and reseat each cable connector firmly.
   - Make sure that each connector is properly aligned with its mating connector. If the pins are offset from each other, the affected board will not function properly.
4. **Reassemble the E-41A and verify its functionality (see page 106).**

Inspecting the system

IMPORTANT

If your initial checks of the cable and board connections do not fix the problem, you may need to inspect the system on a component-by-component basis, as described in "Table 2: Verifying the system." A comprehensive inspection allows you to verify that each hardware component is properly installed and configured, and helps you avoid replacing expensive components unnecessarily.

If the system you are servicing does not meet a condition listed in Table 2 and it is not obvious what action(s) you should take to fix the problem (for example, if the system hangs before reaching Idle), locate the symptom in "Table 3: E-41A error messages and conditions" on page 133 and perform the suggested action(s) for the condition.

TABLE 2: Verifying the system

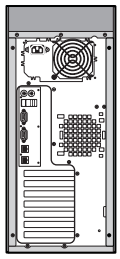
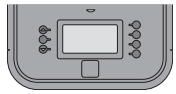
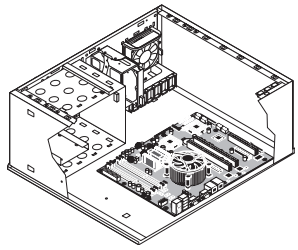
Conditions to verify	Part and additional page references
When the problem occurs, verify that: • Power cable is connected properly into the power outlet. • Chassis fans are operating. • Network link activity LED on RJ-45 connector is blinking. • All external cables required are present, in correct connectors, and well-seated. • Cables, cable connectors, and mating connectors appear undamaged.	Back panel external connectors, chassis fans, and power button, page 124 and page 125 
If the problem occurs at power up or reboot, verify that: • Activity light on the Control Panel illuminates. • Display window lights up. • The system does not hang, and no error messages occur before the systems reaches Idle. • After the system reaches Idle, the Control Panel buttons function.	Control Panel, page 33 
• All replaceable parts are: – Present – Properly aligned – Installed securely – Installed on the appropriate site – The correct part for the system – Properly configured, if configurable (such as HDD jumper) – Not visibly damaged • Chassis and contents have not been tampered with. • Chassis does not contain any foreign objects.	Chassis 

TABLE 2: Verifying the system

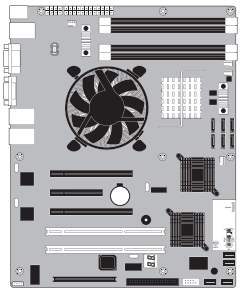
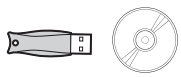
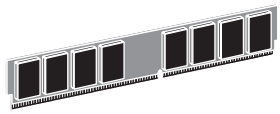
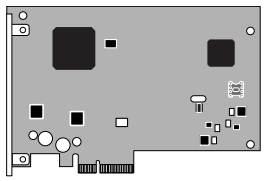
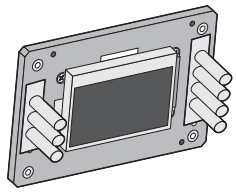
Conditions to verify	Part and additional page references
• Motherboard, including components and traces, appears undamaged, and no foreign objects are evident. • CPU is present, well-seated, and appears undamaged. • CPU cooling assembly is well-aligned and firmly attached. • Each fan required (including fan cable) is well-positioned (not upside down), installed in the correct connector, and appears undamaged. • Boards required on the motherboard are present, well-seated, and in the correct slots. • Each DIMM is well-seated. • Battery is installed. • BIOS is well seated.	Motherboard (with the Fiery Options Utility DVD and one-time use dongle), page 63.  **IMPORTANT:** When replacing the motherboard, carefully review the cautions on page 67. 
• Each DIMM is well-seated. • DIMM edge connectors are not oxidized.	DIMMs for E-41A, page 79 
Each board required is: • Present • Installed in the correct slot • Well-seated • Appears undamaged Required cables (if applicable) are: • Present • Firmly connected in the correct connectors • Not visibly damaged	Video board, page 58 
User Interface Board (UIB) is: • Present • Correctly attached to its bracket • Appears undamaged UIB cable is: • Present • Firmly connected in the correct connector on the motherboard and the back of the UIB • Not visibly damaged	User Interface Board page 60 

TABLE 2: Verifying the system

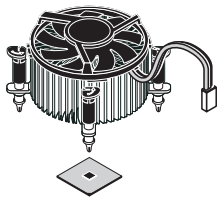
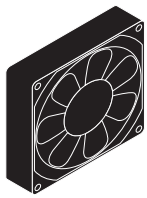
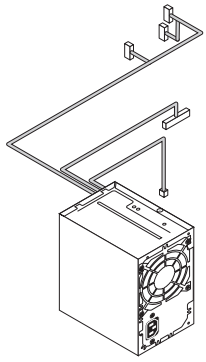
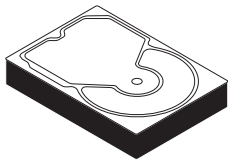
Conditions to verify	Part and additional page references
CPU is: • Present • Well-seated • Not visibly damaged The CPU cooling assembly is: • Well-aligned • Firmly attached	CPU with cooling assembly, page 81 
Fan is: • Properly positioned (not backwards) • Installed in the correct connector The fan, fan cable, cable connector, and mating connector are not visibly damaged.	Front panel fan, page 88 
The power supply required is: • Present • Correctly installed • Not visibly damaged Cable connectors are: • Firmly connected • Not visibly damaged • Installed in the correct devices	Power supply, page 89 
The HDD required is: • Present • Correctly installed • Not visibly damaged • Jumpered as the master (primary) according to label HDD data cable is: • Present • Firmly connected to motherboard connector SATA 2 • Not visibly damaged	Hard disk drive (HDD), page 93 

TABLE 2: Verifying the system

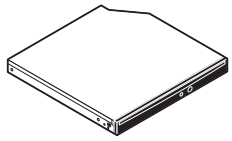
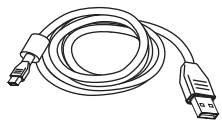
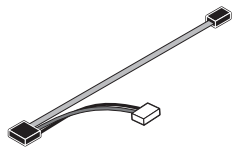
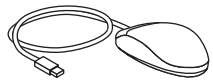
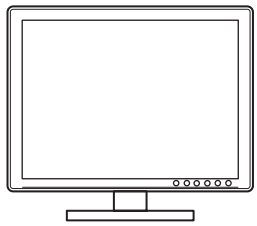
Conditions to verify	Part and additional page references
The drive required is: • Present • Correctly installed • Not visibly damaged • Jumpered as the master (secondary) according to label • Activity LED lights on power up DVD drive SATA cable is: • Firmly connected to motherboard SATA 1 • Not visibly damaged	DVD drive, page 103 
Each cable required is: • Present • The correct type • Installed in the correct connector • Well-seated • Not visibly damaged (including connectors)	UIB cable, page 50  HDD data cable, page 50  Copier/printer interface cable, page 124  DVD drive power and data combination cable, page 50  Power cable(s), page 124 

TABLE 2: Verifying the system

Conditions to verify	Part and additional page references
If included in the system, the required mouse, monitor, and keyboard are present and appear undamaged. The mouse and keyboard are connected to the correct ports on the E-41A back panel. The cables required are: • Present • Installed in the correct connector • Well-seated • Not visibly damaged (including connectors)	For the following items, see the document that accompanies the FACI kit, if applicable. • Mouse (if applicable)  • Monitor (if applicable)  • Keyboard (if applicable)  • Monitor power cord (not pictured)

Normal startup sequence

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

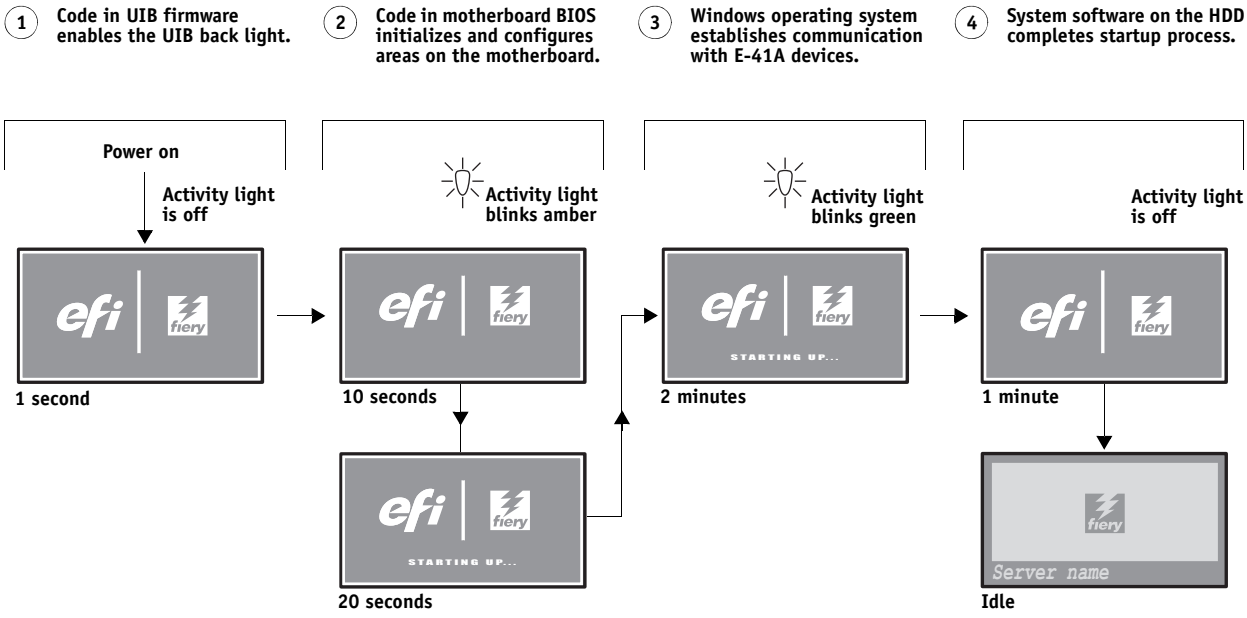


FIGURE 41: Normal startup sequence

Error messages and conditions

To address specific error messages or conditions, see "Table 3: E-41A error messages and conditions" on page 133. Use the table to locate the problem or symptom that you want to fix, read about the possible causes, and then perform the suggested actions to solve the problem.

IMPORTANT

Do not replace the HDD and the motherboard at the same time. Doing so in the wrong order, without updating the system, will cause the system to malfunction.

If troubleshooting strategies (checking cables and connections, reinstalling system software, and so forth) do not solve the problem and you suspect that the HDD or motherboard is faulty, note that it is highly unlikely that the HDD and the motherboard are both defective; therefore, avoid replacing both to solve one problem. Always troubleshoot in the following order.

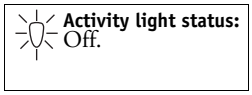
- First, replace the HDD and install system software.

  Always replace a faulty HDD with a new HDD. Transferring a HDD from one E-41A to another is incorrect and strongly discouraged.

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

If replacing a component does not correct the problem, make sure that you reinstall the old component back in the E-41A.

TABLE 3: E-41A error messages and conditions

Symptom	Possible cause	Suggested action
Beep codes during Startup		
1 beep	No error—the E-41A is starting up normally.	**None**
1 beep, followed by 3 beeps, followed by 3 beeps, followed by 1 beep	Missing, unmatched, incorrect, or faulty DIMMs	**Check for missing, unmatched, incorrect or faulty DIMMs and reseat the DIMMs to remove any oxidation on the connector (see page 79).**
Startup		
E-41A does not start and the Control Panel is black.  **Activity light status:** Off. **NOTE:** If the Activity light is solid yellow while the Control Panel is black, the E-41A is in Sleep Mode.	Possibly one of the following: • The E-41A is powered off • Power cable is not plugged into the power connector on the E-41A back panel, or into the wall power outlet • The back panel power switch is in the OFF position • UIB cable is not connected to the motherboard, the user interface board, or both • Faulty power cable • Faulty power supply (power supply may not be supplying power to the motherboard) • The CMOS jumper is not in the default position • Faulty motherboard (motherboard power plane may not be supplying power to components)	**1. Recheck all cables and connections.** **2. Make sure the back panel power switch is in the ON position (see page 42).** **3. Listen for the power supply fan and feel for air at the back of the unit where the power supply is located.** If air is not coming from the power supply fan, isolate a possible faulty power cable as follows: • Power on using a different power cable. • Install a new or "known good" power supply. **4. Check the back panel fan vent and feel for air coming out of the back of the system.** If air is coming out of the power supply fan vent but is not coming out of the back panel fan vent, the motherboard may be faulty. You may need to replace the motherboard (see page 67). **5. Review the jumper section on page 87 and ensure that the jumper is in the default position, then clear the CMOS (see page 87).**

Symptom	Possible cause	Suggested action
Startup (cont.)		
E-41A is getting power, but the Control Panel is black. **Activity light status:** Off.	• UIB cable is not connected to the motherboard, the User Interface Board, or both • Faulty UIB cable • Faulty User Interface Board	**1. Recheck all cables and connections.** **2. Use a different UIB cable.** **3. If the problem persists and you have verified that the power supply and motherboard are functioning properly as described earlier, replace the User Interface Board (see page 60).**
Following installation of a new User Interface Board, the Control Panel remains blank, yet backlit, for more than 5 minutes. **Activity light status:** N/A.	System software requires an additional reboot to synchronize with the firmware on the new User Interface Board.	**Wait 5 minutes, power off using the power button, wait 10 seconds, and then press the power button to power on again.**
NOT following installation of a new User Interface Board, system stops responding at this screen:  **Activity light status:** Off.	Possibly one of the following: • Faulty BIOS • Faulty motherboard	**1. Recheck all cables and connections.** **2. Reboot the E-41A.** **3. If the problem persists, replace the motherboard (see page 67).**
System stops responding at this screen:  **Activity light status:** Blinking green.	Problem with the Fiery application.	**1. Recheck all cables and connections.** **2. Reboot the E-41A.** **3. If the problem persists, reinstall system software (see page 107).**

Symptom	Possible cause	Suggested action
Startup (cont.)		
Control Panel screen and Activity light appear as follows:  **Activity light status:** Off, then solid red.	Possibly one of the following: • Wrong, missing, incorrectly connected, or faulty DIMM(s) • Faulty motherboard	**1. Recheck all cables and connections.** **2. Reboot the E-41A.** **3. If the problem persists, verify that the DIMMs are installed as described in the DIMM section on page 79. DIMMs must be installed in matching pairs in alternating sockets. Check for incorrect type, wrong capacity, missing, or faulty DIMM(s). Reseat the DIMM(s) to remove any oxidation on the connector (see page 79).** **4. If the problem persists, you may need to replace the motherboard (see page 67).**
Control Panel screen and Activity light appear as follows:  **Activity light status:** Blinking amber, then solid red.	Possibly one of the following: • Faulty disk in the DVD drive • Faulty motherboard	**1. Reboot the E-41A.** **2. If the problem occurs when you are installing software from bootable media (DVD or CD), the media may be damaged. Try another DVD or CD.** **3. If the problem persists, replace the motherboard (see page 67).**
Control Panel screen and Activity light appear as follows:  **Activity light status:** Blinking amber.	Possibly one of the following: • Faulty or incorrectly connected HDD data cable • HDD power cable disconnected • Faulty HDD • Faulty motherboard	**1. Recheck all cables and connections. Make sure that the HDD data cable is connected to the correct SATA port (SATA 2) on the motherboard (see Figure 12 on page 50).** **2. Reboot the E-41A.** **3. If the problem persists, replace the HDD SATA cable (see Figure 12 on page 50).** **4. If the problem persists, replace the HDD (see page 93).** If replacing the HDD does not correct the problem, reinstall the old HDD in the system. **5. If the problem persists, replace the motherboard (see page 67).**

Symptom	Possible cause	Suggested action
Startup (cont.)		
Control Panel screen and Activity light appear as follows:  **Activity light status:** Blinking green, then solid red.	Problem with the Windows operating system.	**1. Recheck all cables and connections.** **2. Reboot the E-41A.** **3. If the problem persists, reinstall system software (see page 107).**
Activity light status progresses from solid green to solid red. **Activity light status:** Solid green, then solid red.	Possibly one of the following: • Problem with system software • Print job is corrupt or too large • Faulty UIB cable • CPU overheated • Faulty motherboard	**1. If you suspect that the problem may be caused by a print job, try printing a different job.** **2. Recheck all cables and connections.** **3. Reboot the E-41A and check whether the CPU cooling assembly fan is operating. If the fan is properly connected to the motherboard but does not operate, replace the cooling assembly.** **4. If the problem persists, reinstall system software (see page 107).** **5. If the problem persists, try connecting another UIB cable (see Figure 12 on page 50).** **6. If the problem persists, replace the motherboard (see page 67).**
FieryBar messages		
Check copier/printer power & cable connections appears on the optional monitor, if present.	Possibly one of the following: • Problem with the connection between the E-41A and the copier/printer • The copier/printer is not powered on • The copier/printer is on but is not ready to print	**1. Make sure that the copier/printer is powered on and ready to print.** **2. Make sure that the copier/printer interface cable is the correct type and is correctly connected to both the copier/printer and the E-41A.** **3. If the problem persists:** • Recycle power on the copier/printer. • Recycle power on the E-41A by shutting down through the E-41A Control Panel, waiting 10 seconds, and then powering the E-41A back on (see page 42). **4. If the problem persists, replace the copier/printer interface cable (see page 124).** **5. If the problem persists, replace the video board (see page 59).** **6. If the problem persists, you may need to service the copier/printer.**

Symptom	Possible cause	Suggested action
Control Panel messages		
Could not mount the dos/ boot partition.	When transferring options following installation of a new motherboard (page 75), you used the Feature Update CD. The E-41A does not support the Feature Update CD.	**Obtain the Fiery Options Utility DVD and try the procedure again.**
Invalid dongle found! Please remove dongle and connect the correct dongle.	The attached dongle is not supported by the Fiery Options Utility. The dongle may have been attached by mistake.	**Obtain a valid dongle and try again.**
More than one dongle found. Remove all dongles except the correct dongle.	The Fiery Options Utility will not work when more than one dongle is attached to the system.	**Remove all dongles except the correct dongle.**
No uses remaining.	The dongle has already been used and cannot be reused.	**Obtain an unused dongle and try again.**
Control Panel functions		
E-41A is getting power, the Control Panel is not black, but the buttons on the Control Panel do not function.	Possibly one of the following: • Problem with the Fiery application • Faulty User Interface Board	**1. Recheck all cables and connections.** **2. Reboot the E-41A.** **3. If the problem persists, reinstall system software (see page 107).** **4. If the problem persists, replace the User Interface Board (see page 60).**
DVD drive		
DVD drive is not responding, cannot be located, or the disk will not eject.	Possibly one of the following: • A disk is stuck in the DVD drive • Cable connections to the DVD drive are loose or data cable is faulty • DVD drive is faulty • Motherboard is faulty	**1. If the problem persists, check the cable connections to the DVD drive (see Figure 12 on page 50).** **2. If a disk in the DVD drive will not eject, remove the front panel (see page 53) to access the eject button on the DVD drive itself. Power on the E-41A and press the eject button to eject the disk.** **3. Check the DVD drive data cable connection to the motherboard.** **4. If the problem persists, you may need to replace the DVD drive (see page 103).** **5. If the problem persists, you may need to replace the motherboard (see page 67).**

Symptom	Possible cause	Suggested action
System performance		
System performs slowly and/or hangs periodically.	Possibly one of the following: • Board or cable connections are loose or faulty • System software is corrupted • Missing or faulty DIMM(s) • CPU is overheated or faulty • CMOS settings need to be reset or are corrupted • Motherboard is faulty	**1. Recheck all cables and connections.** **2. Make sure that the CPU is firmly seated in its socket and that the fan cable is connected to the motherboard.** **3. If the problem persists, reinstall the system software (see page 107).** **4. Check for missing or faulty DIMM and reseat the DIMM to remove any oxidation on the connector (see page 79).** **5. Clear the CMOS (see page 87).** **6. If the problem persists, you may need to replace the motherboard (see page 67).**
Clock is slow.	• CMOS settings need to be reset or are corrupted • Missing or dead battery on the motherboard	**1. Clear the CMOS (see page 87).** **2. Replace the battery on the motherboard and update the time in the Windows Control Panel (if a monitor is connected), Command WorkStation, or WebTools.**
The E-41A hangs during the user software installation segment.	Possibly one of the following: • The time and date need to be configured in the E-41A BIOS. (If the battery was removed from the E-41A motherboard during service and the time and date were not configured in Setup afterward, the E-41A will hang during the user software installation segment.) • User Software DVD is corrupted. • The DVD drive is faulty. • The HDD is faulty.	**1. Set the time and date in the BIOS:** • Power off the E-41A and remove the User Software DVD when it ejects. • If not already connected, connect a keyboard and a monitor to the E-41A. • Power on the E-41A and immediately press F2 repeatedly to launch the BIOS setup utility. • Configure the time and date. (To navigate, use the tab key and the -/+ keys). • Save changes and exit (F10). • When the E-41A reaches Idle, power off and then begin a full software installation again starting with the System Software DVD (see page 107). **2. If the problem persists, obtain another User Software DVD and begin software installation again starting with the System Software DVD (see page 107).** **3. If the problem persists, you may need to replace the DVD drive (see page 103).** If replacing the DVD drive does not correct the problem, reinstall the old DVD drive in the system. **4. If the problem persists, replace the HDD (see page 93).** If replacing the HDD does not correct the problem, reinstall the old HDD in the system.

Symptom	Possible cause	Suggested action

Network

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

- If the E-41A does not appear in the list of printers on the network, another device on the network may have been assigned the same Ethernet hardware address.
- Conflicting network settings may have been configured in Setup and on the customer's workstation.
- Printing problems may be caused by inappropriate Setup options.
- Application-specific printing errors may be caused by missing or incorrectly placed printer description files.
- System software may be corrupted.

For additional information, see *Configuration and Setup* on the User Documentation CD.

Unable to connect to the network, or the green LED on the RJ-45 network port is not lit.	Possibly one of the following: • Network cable is connected to the wrong RJ-45 port • No cable/wrong type of cable is connected to the network port • Network cable or connection is fault • Network is faulty • System software is corrupted • Network interface on the E-41A motherboard is faulty	**1. Make sure that the correct cables are connected to the correct ports on the E-41A back panel. The lower RJ-45 port is the copier/printer interface; the upper RJ-45 port is the network interface.** **2. If the green LED on the (upper) RJ-45 network port is not lit, check the cable connection of the upper RJ-45 network port and the network. Make sure that the cable is a straight-through cable, not a crossover cable (see page 124).** **3. If the network cable is a straight-through cable and not a crossover cable and is properly connected to the (upper) RJ-45 network port, connect a new network cable to the (upper) RJ-45 network port.** **4. If the problem persists, have the network administrator check Network Setup.** **5. If the problem persists, make sure that the network administrator has checked other devices on the network.** If other devices are not functioning, the problem may be with the network. **6. If the problem persists, reinstall the system software (see page 107).** Corrupt system software may cause the system to hang. **7. If the rest of the network is functioning properly and the problem persists, replace the motherboard (see page 67).**

Symptom	Possible cause	Suggested action
Network (cont.)		
System starts up slowly then displays one or more DHCP error messages on the Control Panel.	Possibly one of the following: • Network cable is connected to the wrong RJ-45 port • No cable/wrong type of cable is connected to the network port • Network cable or connection is faulty • Network is faulty • System searches for a nonexistent DHCP server because DHCP is enabled by default on the E-41A, but the customer's network is not using DHCP • Ethernet interface on the E-41A motherboard is faulty • System software is corrupted	**1. Make sure that the correct cables are connected to the correct ports on the E-41A back panel. The lower RJ-45 port is the copier/printer interface; the upper RJ-45 port is the network interface.** **2. If the green LED on the (upper) RJ-45 network port is not lit, check the cable connection of the upper RJ-45 network port and the network. Make sure that the cable is a straight-through cable, not a crossover cable (see page 124).** **3. If the network cable is a straight-through cable and not a crossover cable and is properly connected to the (upper) RJ-45 network port, connect a new network cable to the (upper) RJ-45 network port.** **4. If the problem persists, ask the network administrator to check Network Setup.** **5. If the problem persists, ask the network administrator to check other devices on the network.** If other devices are not functioning, the problem may be with the network. **6. If the problem persists, reinstall system software (see page 107).** Corrupt system software may cause the system to hang. **7. If the rest of the network is functioning properly and the problem persists, replace the motherboard (see page 67).**

Symptom	Possible cause	Suggested action
Printing		
NOTE: Intermittent print quality and color quality problems are difficult to trace. Before you try to troubleshoot print quality problems, print a color Test Page to make sure that the copier/printer does not need servicing or adjusting.		
Test Page fails to print.	The copier/printer is not ready to print.	**Make sure that the copier/printer is turned on and ready to print.**
	A problem exists with the connection between the E-41A and the copier/printer.	**1. Recheck that the copier/printer interface cable is present and properly connected to the E-41A and the copier/printer (see page 124).** **2. If the problem persists:** • Recycle power on the copier/printer. • Recycle power on the E-41A by shutting down through the Functions menu, waiting 10 seconds, and then powering the E-41A back on (see page 42). **3. If the problem persists, replace the copier/printer interface cable (see page 124).** **4. If the problem persists, replace the video board (see page 58).** **5. If the problem persists, you may need to service the copier/printer.**
The E-41A appears in the list of printers on the customer's workstation, but certain jobs do not print.	A PostScript error	**Make sure that Print to PostScript Error in Setup is set to Yes. Check for error messages on the E-41A output.**
	An application problem	**1. Print a job from a different application to determine if the problem is associated with a particular application.** **2. Make sure that the connection between the E-41A and the workstation is working by downloading a Test Page from the workstation, or by printing a simple file such as a text file.** **3. Resend the problem file.**

Symptom	Possible cause	Suggested action
Printing (cont.)		
A print job stalls or stops after one or a few pages.	Possibly one of the following: • A PostScript or application error • System software is corrupted	**1. Cancel the E-41A print job.** **2. If this fails to clear the problem, reboot the E-41A (see page 42).** **3. If the problem persists, select Clear Server from Command WorkStation.** **4. Set Print Cover Page to Yes and resend the problem job. The Cover Page will indicate "PS Error."** For more information about the PostScript error, double-click the problem job in the Command WorkStation window. **5. If the problem persists, reinstall system software (see page 107).** Corrupt system software may cause the system to hang at this screen.
	Incorrect or faulty DIMM or faulty DIMM connection	**1. Reseat the DIMMs to remove any oxidation on the connectors (see page 79).** **2. Verify memory amount on the Configuration page.** **3. If the problem persists after replacing the DIMM, replace the motherboard (see page 67).**
Color quality is inconsistent.	A copier/printer problem	**Test the copier/printer and perform service, if necessary. See the service documentation that accompanies the copier/printer.**

Symptom	Possible cause	Suggested action
Printing (cont.)		
Print quality is poor.	Possibly one of the following: • A file or application problem • A missing or outdated printer description file • The application cannot find the appropriate printer description file	**1. Print a E-41A Test Page (see page 40).** **2. If the quality of the E-41A Test Page is good, the error condition may be a file or application problem.** **3. Make sure that the appropriate printer description file is installed. (For details, see *Printing* on the User Documentation CD.)**
	The system is out of calibration.	**Calibrate the system.**

If the user can print the E-41A Test Page, but cannot print a job from a computer on the network, make sure that the network administrator has:

- Checked all components of the network, including cables, connectors, terminators, network adapter boards, and network drivers.
- Activated the network and used it to communicate with other printers.
- Confirmed that the applicable network settings in Setup (such as AppleTalk zone, IP address, Subnet mask, and Gateway address) match the settings used in the network.

NOTE: EPS file generation is not completely standardized among applications. Some users may encounter problems while printing certain EPS files.

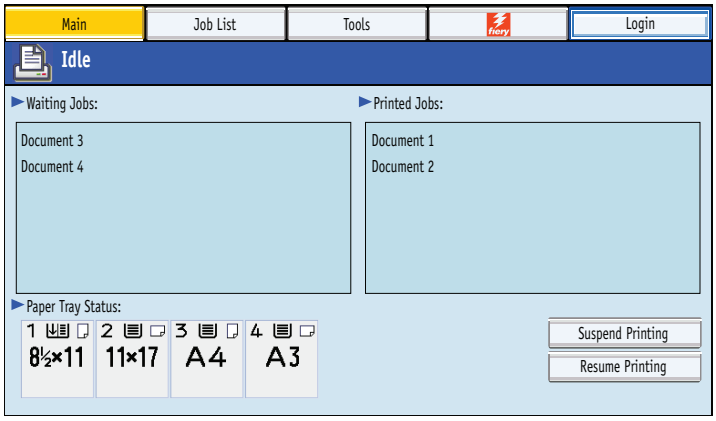
Diagnostic tools

E-41A diagnostic tools include video board diagnostics and E-mail diagnostics.

Video board diagnostics

If you suspect that there may be a problem with the video board (for example, the quality of print output is poor), run the Check Video Board diagnostics from the copier/printer Control Panel to make sure that the video board is installed properly.

1. **Access the Fiery Main menu by pressing the "fierydriven®" button on the copier/printer Control Panel.**



2. **Make sure that Idle appears on the Fiery Main menu.**

   If Busy or Printing appears, the E-41A is processing and you must wait until Idle appears.

   If the system has just finished processing, wait at least five seconds after the system reaches Idle before beginning the video board diagnostics.

3. **Touch the Fiery tab.**
4. **Touch Run Diagnostics.**
5. **Touch Check Video Board, and then touch OK.**
6. **If the message "Video diags failed" appears, do the following:**
   - Power off the E-41A and open the system.
   - Reseat the video board.
   - Inspect the copier/printer interface cable.
   - Power on the E-41A and run the test again. If the test fails again, you may need to replace the video board.
7. **When the message "Video diags passed" appears, touch OK.**

Test E-mail

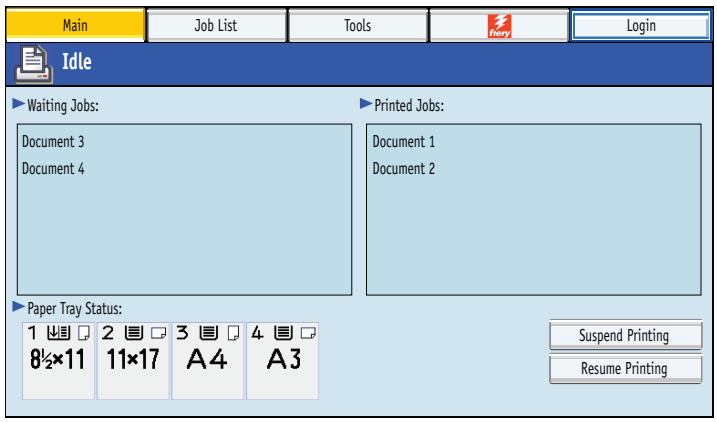
This diagnostic tool allows you to perform a quick test of the E-41A E-mail feature without actually having to submit a print job as an e-mail attachment. You review the results of the test by printing an E-mail log through the copier/printer Control Panel > "fierydriven®" button > Fiery Tab > Printable Info.

NOTE: E-mail services must be enabled in Setup for Test E-mail to be available. Test E-mail can also be run through the copier/printer Control Panel, Fiery tab (see page 38).

For more information, see *Configuration and Setup* on the User Documentation CD.

TO RUN E-MAIL DIAGNOSTICS

1. **Access the Fiery Main menu by pressing the "fierydriven®" button on the copier/printer Control Panel.**



2. **Make sure that Idle appears on the Fiery Main menu.**

   If Busy or Printing appears, the E-41A is processing and you must wait until Idle appears.

   If the system has just finished processing, wait at least five seconds after the system reaches Idle before beginning the video board diagnostics.

3. **Touch the Fiery tab.**
4. **Touch Run Diagnostics.**
5. **Touch Check Mail System, and then touch OK.**
6. **If the message "Mail service is not enabled" appears, touch OK to exit Mail diagnostics. The network administrator must enable E-mail printing in Setup.**
7. **If E-mail printing is enabled and the message "Sending Test E-mail. Please print the E-mail log for the diagnostic result" appears, do the following:**
   - Touch OK.
   - Touch Printable Info.
   - At the message "Confirm Print Page: E-mail Log," touch OK.

   A successful transmission indicates that the E-41A is able to send an e-mail over the network. If the transmission fails, advise the network administrator at the customer site to check the E-41A Setup options and the customer's e-mail server.

SPECIFICATIONS

This section provides an overview of E-41A features, specifications, and safety certifications.

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

Hardware features

- Single Intel Core 2 Duo E8400 3.0GHz CPU
- Memory—2GB (2 x 1GB)
- An RJ-45 connector for 10BaseT/100BaseTX/1000BaseT Mbs connectivity over twisted pair cable (upper port)
- 160GB HDD standard
- Built-in DVD drive

Physical specifications

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

  48.5 cm (19.1 in.) x 48.3 cm (19.0 in.) x 21.5 cm (8.5 in.)
- Weight: approximately 20 kg (44 lbs)

Networking and connectivity

- Supports AppleTalk and TCP/IP protocols simultaneously.
- Supports EtherTalk Phase 2 (allows users to print from a Mac OS computer to the E-41A using the AppleTalk network protocol over an Ethernet network).
- RJ-45 connector (lower port) that provides the print and scan interface between the E-41A and the copier/printer.
- RJ-45 connector (upper port) that supports 10BaseT/100BaseTX/1000BaseT twisted pair network connectivity.

The copier/printer interface cable included with the E-41A is a 39.3 ft./12m Ethernet *crossover* cable that connects to the **lower** RJ-45 port on the E-41A back panel. The network cable at the customer site is a *straight-through* Ethernet cable that connects to the **upper** RJ-45 port on the E-41A back panel. The cables look similar but are not interchangeable. Make sure that you connect the cables to the correct ports (see Figure 6 on page 29 and Figure 7 on page 30).

User software

A complete description of user software is provided in *Welcome* on the User Documentation CD. For optimal performance, maintain current versions of the user software on every network computer used to print to the E-41A. User software may be installed directly on client computers equipped with a DVD drive, or over a network via the Fiery User Software Installer that resides on the E-41A.

Safety and emissions compliance

The E-41A has been certified to meet or surpass the following government standards:

Safety approvals	EMI/EMC approvals
• UL 60950-1, 2nd edition, 2007-03-27 (UL-listed mark)	• FCC Class A
• CAN/CSA C22.2 No.60950-1-07-2nd edition, 2007-03	• ICES-003 Class A
• EN 60950-1: 2006+A11,(TUV/GS mark)	• EN55022: 2006 plus A1:2007, Class A
• CB scheme IEC 60950-1: 2005(2nd Edition)	• EN55024
	• EN61000-3-2: 2006
	• EN61000-3-3: 2008
	• AS/NZS CISPR22: 2006 Class A
	• VCCI, Class A

SERVICING THE E-41A WITH FURNITURE

This chapter describes how to remove the E-41A from the furniture, in order to access internal components for service.

Procedures

If the E-41A is installed in the optional furniture, you must remove it from the furniture before performing most service procedures.

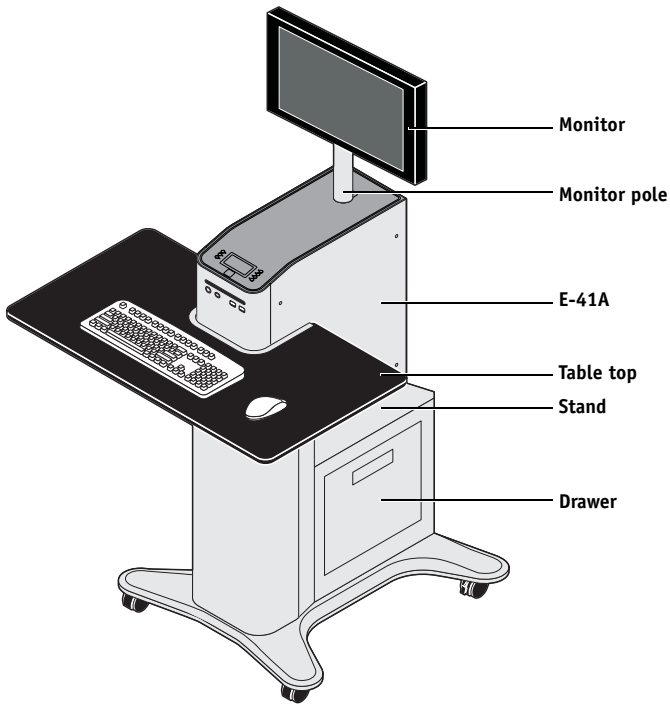


FIGURE 42: E-41A installed on the furniture

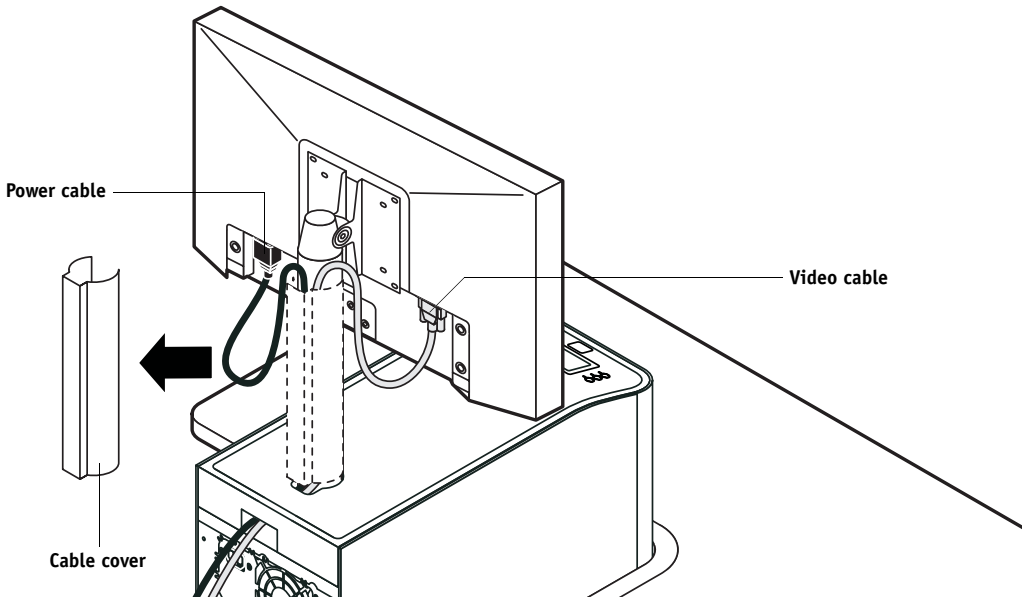
REMOVING THE E-41A FROM THE FURNITURE

NOTE: The E-41A weighs approximately 20 kg (44 lb). Use caution when you move the E-41A.

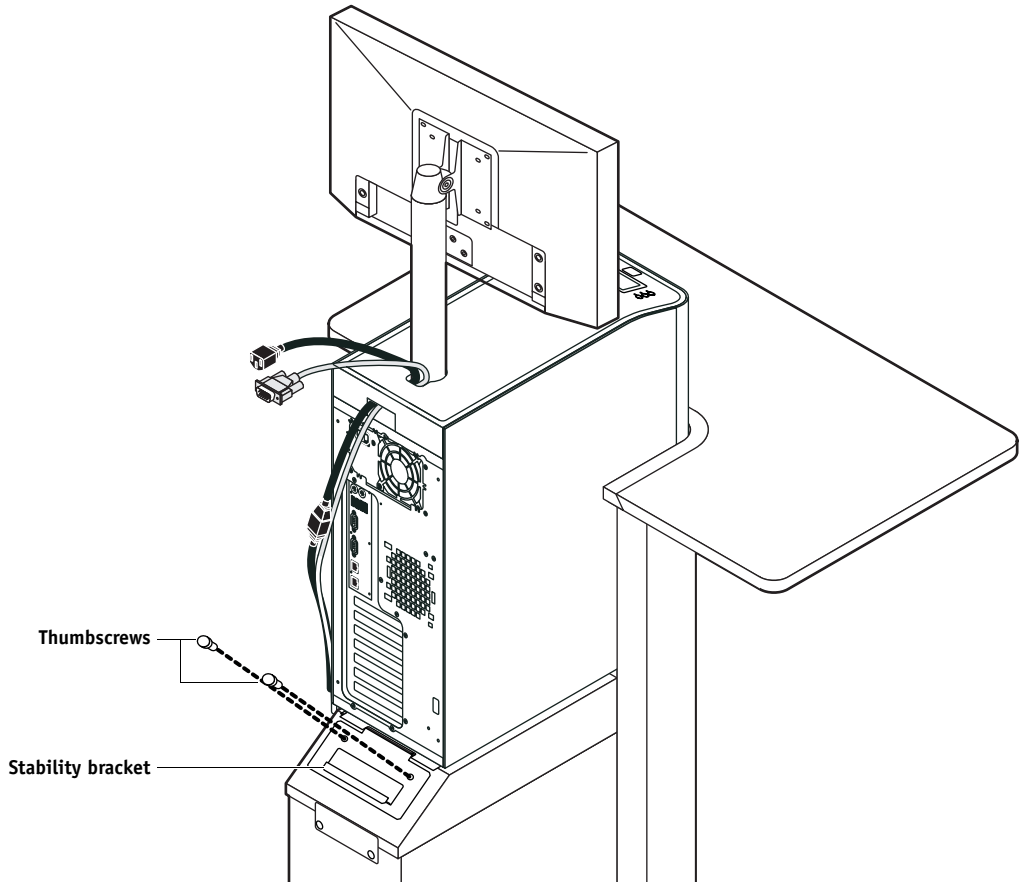
WARNING

WARNING: Never lift the E-41A by grasping the top panel. The top panel does not support the weight of the system.

1. **Make sure that the E-41A is shut down and that all the cables are removed from the back of the E-41A.**
2. **Remove the cable cover and disconnect the two monitor cables (power and video):**
   - Power—from the back of the monitor and from the wall outlet
   - Video—from the back of the monitor and from the back of the E-41A



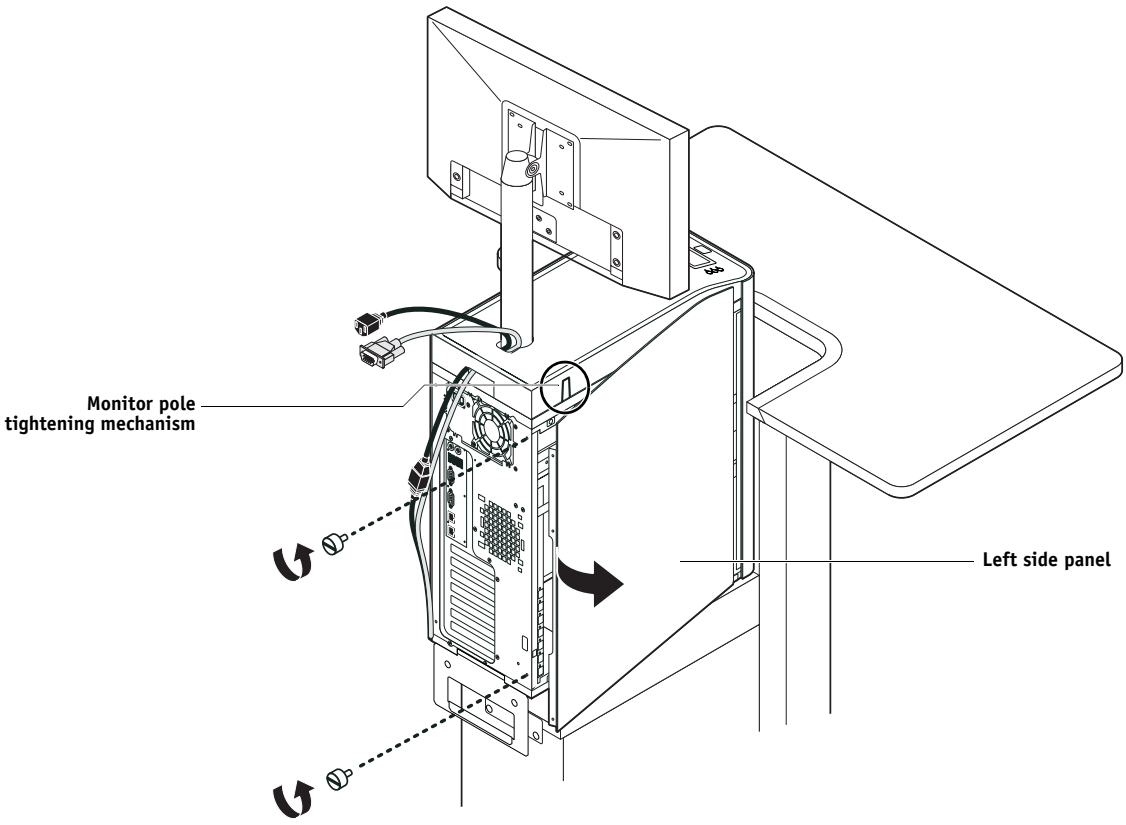
3. **Remove the thumbscrews that attach the E-41A stability bracket to the stand.**



4. **Lift the bracket and gently pull the E-41A away from the table top.**

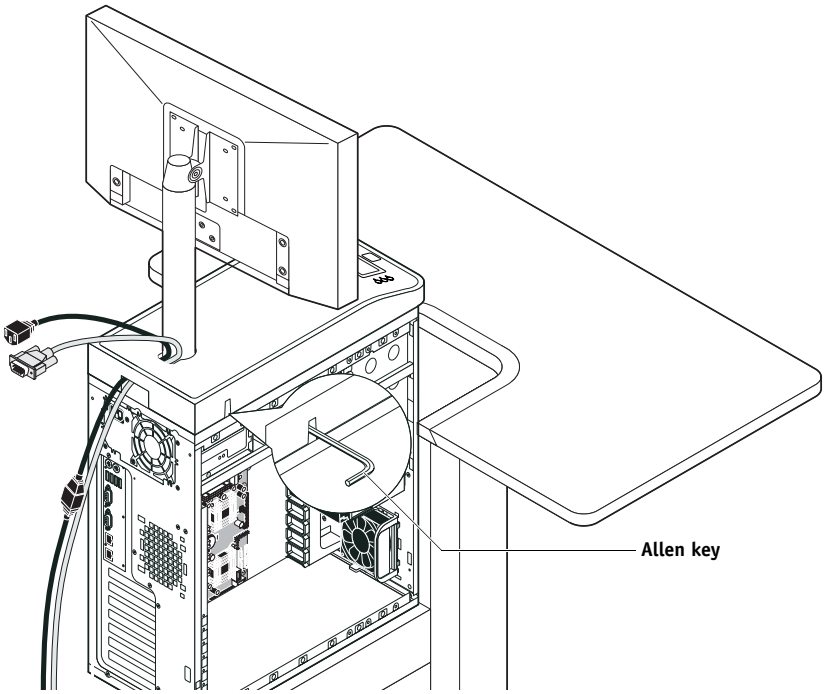
   Make sure to pull the E-41A out just enough so that the front panel of the E-41A is aligned with the back edge of the table top.

5. **Remove the E-41A left side panel (two screws) so that you can access the monitor pole tightening mechanism.**

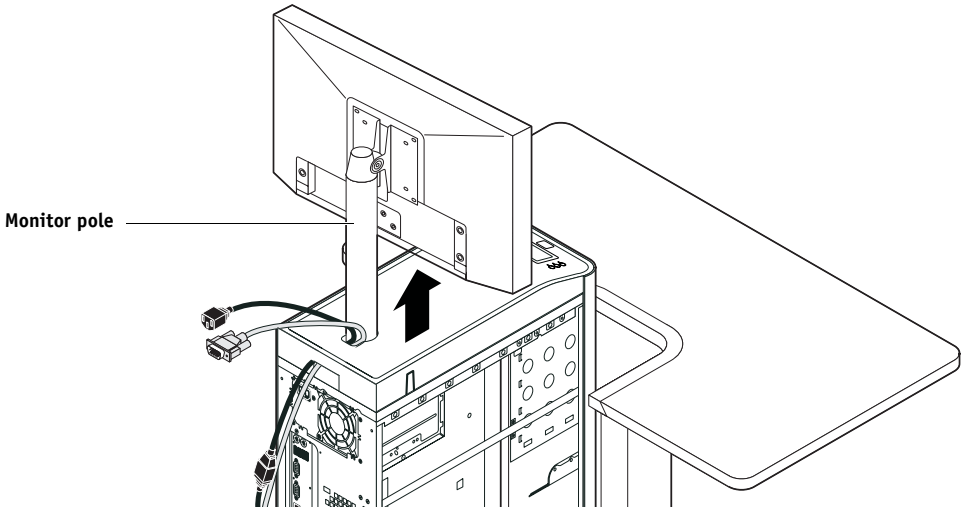


6. **Use the allen key to loosen the screw that secures the monitor pole to the E-41A.**

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



7. **Holding the monitor pole, gently lift the monitor pole assembly up and out of the E-41A monitor mount.**

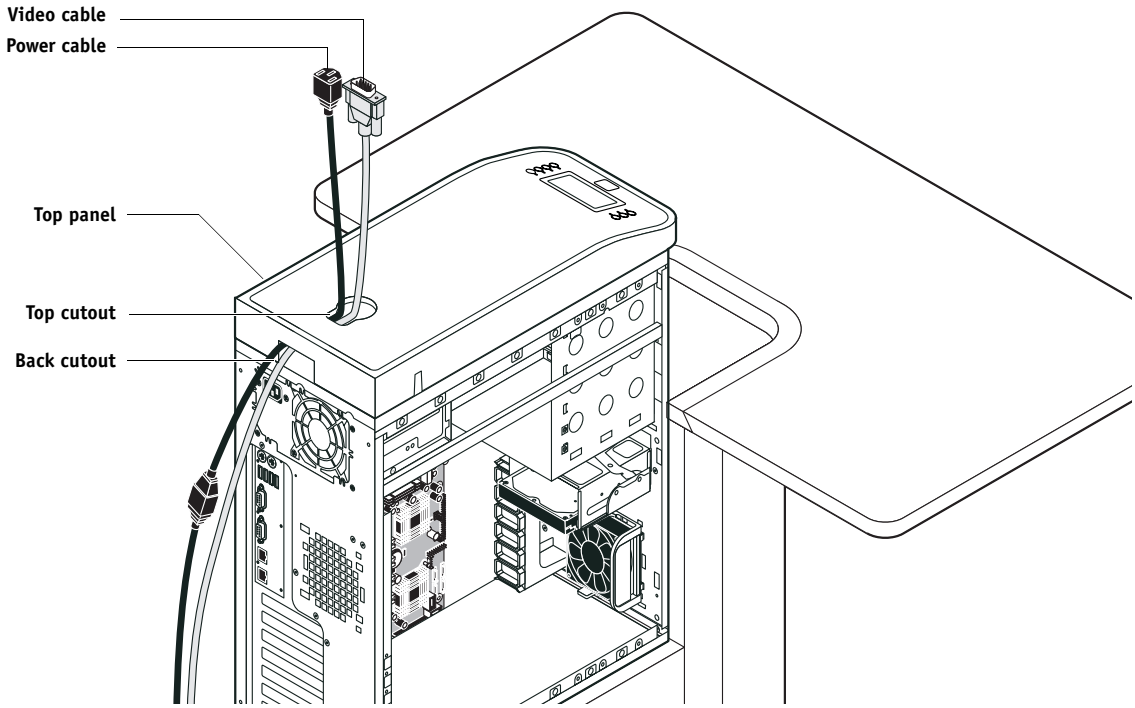


8. **Continue with the procedure "To open the E-41A" on page 53.**

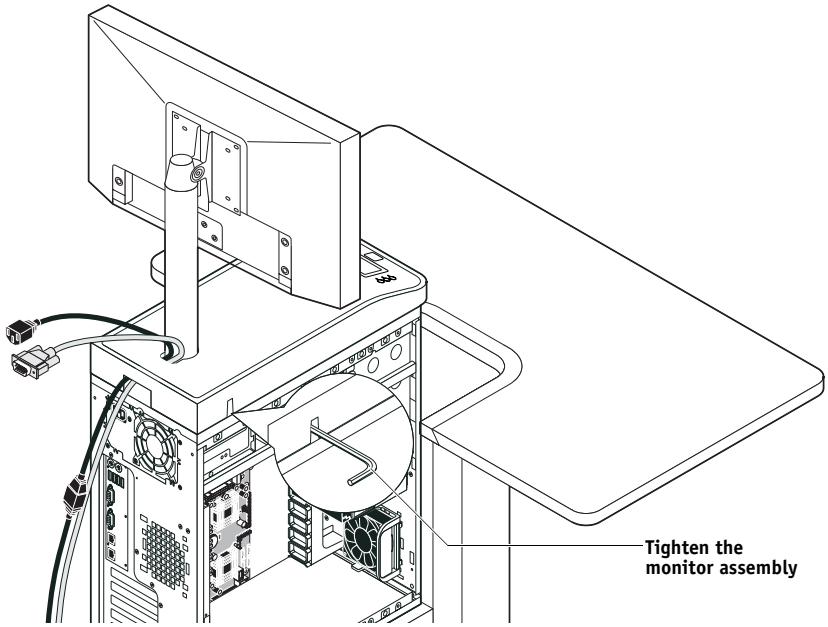
REPLACING THE E-41A IN THE FURNITURE

1. **Make sure that the left side panel is removed from the E-41A.**
2. **Place the E-41A upright on the furniture stand. Slide the E-41A forward just until its front panel is aligned with the back edge of the table top.**

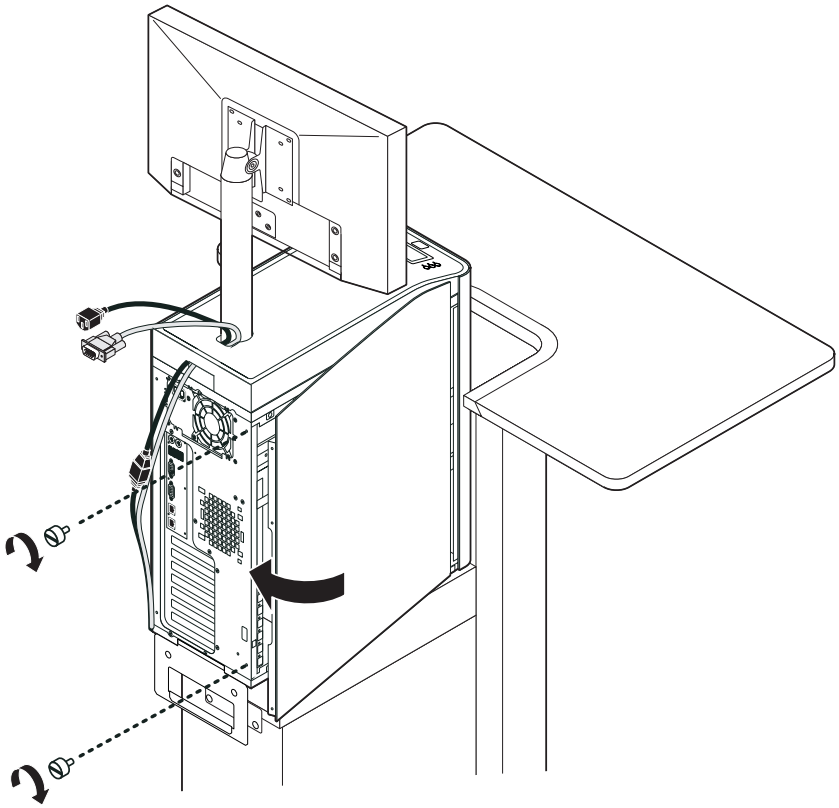
   Use the handle on the stability bracket to lift the rear of the E-41A and slide it forward.
3. **Route the monitor cables (power and video) into the cutout in the back of the top panel. Pull each cable out of the cutout in the top panel.**



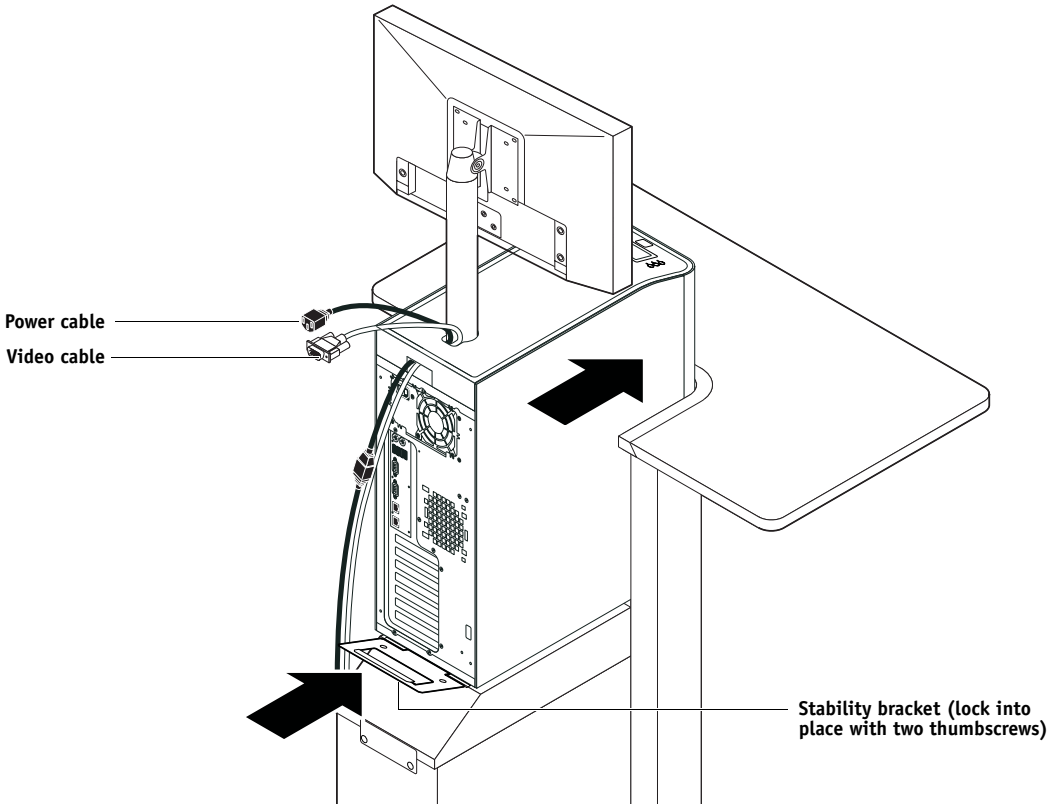
4. **Lift up the pole assembly and insert the pole into the top of the E-41A so that it is inside the monitor mount. Tighten the assembly into place using the allen key.**



5. **Replace the left side panel on the E-41A with the screws that you removed earlier.**

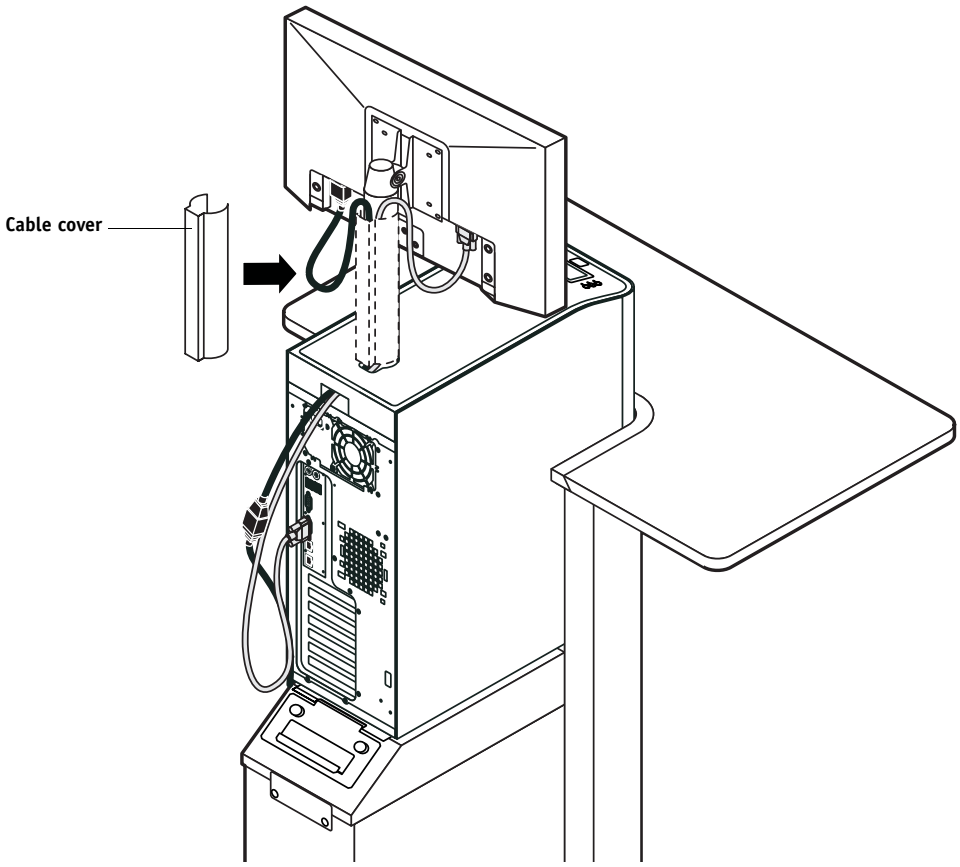


6. **Use the handle on the stability bracket to lift the rear of the E-41A. Slide the E-41A all the way forward into the stand. Lock the E-41A into place with the two thumbscrews that you removed earlier.**



7. **Connect the two monitor cables (power and video):**
   - Power—to the back of the monitor and to the wall outlet
   - Video—to the back of the monitor and to the back of the E-41A

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



9. Replace the allen key in the furniture drawer and continue with the procedure "To reassemble the E-41A and verify functionality" on page 106.

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