Color Controller E-80

Installation and Service Guide

A guide for service technicians

print to win.

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PREFACE

The *Installation and Service Guide* is intended for authorized service technicians installing or servicing the Color Controller E-80. If you are not an authorized service technician, do not attempt to install or service the Color Controller E-80. Electronics for Imaging, Inc. does not warrant the performance if installed or serviced by non-authorized personnel.

NOTE: The term "E-80" is used throughout this guide to refer to the Color Controller E-80.

E-80 media pack

The E-80 media pack contains the following:

- System Software DVD, for service use only
- User Software DVD
- User Documentation CD
- Printed *Welcome*
- Printed *Print Server Setup Roadmap*
- Printed *Paper Catalog Addendum*
- Printed *Secure Erase Administration Guide*
- Printed *Color Separation Guide* and Grayscale strip

In addition, a separate media pack contains the Adobe Acrobat 8.1 Standard Installer/ Enfocus PitStop Professional 7.2 DVD.

About the documentation

The documentation for the E-80 is described in the following sections.

Service documentation

The scope of the *Installation and Service Guide* is limited to describing how to install E-80 hardware and system software and how to service the E-80. The "Troubleshooting" chapter focuses on individual hardware components of the E-80 hardware, as well as the E-80 connection to the network and printer/copier.

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

For details on the content, terminology, and conventions of this guide, see the sections beginning on page 13.

Customer documentation

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

User documentation can be accessed in the following ways:

- Service technicians can access the documentation from the User Documentation CD.
- Client users can access documentation from the User Documentation CD. If the user documentation has been installed on the E-80 hard disk drive and shared, client users can also access documentation via a shared network folder.

The documents are provided as Adobe Acrobat PDF (Portable Document Format) files, which are indexed and cross-referenced. In addition, some E-80 utilities (such as Command WorkStation) offer built-in Help.

For a complete description of the E-80 user documentation, see *Welcome* on the User Documentation CD.

About this guide

The *Installation and Service Guide* is divided into the following chapters:

- Preface

  Gives general information about this guide and general information that you should know before you attempt to install or service the E-80.

- Introduction

  Provides general information about the E-80.

- Installation

  Provides detailed instructions for checking the customer site and unpacking, installing, and connecting the E-80.

- Using the E-80

  Provides an overview of the E-80 functions.

- Service Procedures

  Describes removal and replacement procedures for E-80 components.

- System Software

  Provides detailed instructions for installing system software on the E-80.

- Troubleshooting

  Identifies the source of common problems and suggests ways of correcting them.

- Specifications

  Summarizes the hardware and networking features of the E-80 controller.

- Servicing the System with Furniture

  Provides assembly and disassembly instructions for systems mounted on the optional furniture with the optional monitor attached.

NOTE: The E-80 *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-80.

About the illustrations in this guide

Illustrations reflect the current shipping version of the E-80 at the time of publication. Components shown in these illustrations are subject to change. To obtain information about any E-80 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 include the following:

- Unpacking, installing, and connecting the E-80
- Servicing the E-80 components

Network administrator

Based on pre-sale arrangements and the evaluation of the authorized analyst, the service technician may be required to configure some TCP/IP settings for Ethernet and the connection to the Command WorkStation application installed on the E-80. The term "network administrator," as used in this guide, refers to a specific person at the customer site, the service technician, or the authorized analyst.

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

- Verifying the customer site is network-ready
- Configuring E-80 Network Setup options
- Configuring the connection between the E-80 and the Command WorkStation application installed on the E-80
- Installing the user software shipped with the E-80 onto the networked Windows and Apple Mac OS computers that will print to it
- Configuring the connection between each remote computer and the E-80

E-80 components

The following terms are used throughout this guide when discussing E-80 components:

- The terms “replace” and “replacing” are typically used to mean reinstallation of existing components. Install new components only when necessary.
- The term “Control Panel” refers to the area at the top of the E-80, including the green/red/amber activity lights, 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-80 Control Panel.
- The term “DVD drive” refers to the E-80 DVD-RW drive.
- The term “system software” refers to the following software installed on the E-80 hard disk drives (HDDs):
  - Windows XPe OS Workstation and E-80 Server Software (System Software DVD1)
  - User Software (System Software DVD2)

For other terms used to identify components of the E-80, see the reference key in Figure 12 on page 57.

Connectors and components labeled “not used”

Connectors and components labeled “not used” are disabled or are not used in the standard E-80 configuration.

Manual conventions

References to E-80 user documentation, such as *Configuration and Setup,* are displayed in italics. The user documentation files are located on the User Documentation CD.

NOTE: The note indicator highlights important messages and additional information.

The warning format indicates a potentially hazardous situation which, if instructions are not followed, could result in death or serious injury.

The caution format indicates a potentially hazardous situation which, if instructions are not followed, may result in minor or moderate injury or damage to equipment.

E-80 Control Panel screen messages and commands referred to in the text of this manual appear in the Officina Sans typeface.

Precautions

Always observe the following general precautions when installing and servicing the E-80:

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

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

2. **Use a soft cloth moistened with Lens and Mirror Cleaner to clean the surface of the E-80 display window.**

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

3. **Handle the E-80 LCD window with care.**

   If the E-80 LCD window breaks and the liquid crystal inside leaks out, avoid contact with it. If you do come in contact with the liquid crystal, wash it off your skin with soap and water immediately.

4. **WARNING: Never lift the print server 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.

5. **Always disconnect power before removing or opening the E-80.**
6. **When connecting or disconnecting the power cable:**
   - *Only use* the power cable that shipped with the E-80 or an appropriate replacement power cable available from an authorized provider.
   - *Always* disconnect the power cable from the E-80 before opening the system and servicing internal components.
   - *Do not* pull on the power cable when unplugging the E-80. Pull the plug instead.
   - *Do not* place objects on the power cable. Place the power cable away from foot traffic.
   - *Do not* tamper with or disable the power cable 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-80 into a circuit with heating or refrigeration equipment (including water dispensers).
   - *Do not* plug the E-80 into a switchable power outlet. This can result in the E-80 being turned off accidentally.
7. **Follow standard ESD (electrostatic discharge) precautions while working on the internal components of the E-80.**

   Static is always a concern when servicing electronic devices. It is highly unlikely that the area around the printer/copier and the E-80 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-80 from the carton for the first time, touch a metal area of the printer/copier to discharge the static on your body.
- Before you remove any of the E-80 panels and handle internal components, touch a metal part of the E-80.
- Leave new electronic components inside the 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 into an antistatic bag immediately. Do not walk across a carpet or vinyl floor while carrying an unprotected board.

8. **Use care when handling parts of the E-80, as some edges on the unit may be sharp. For example, be careful when:**
   - Accessing the hard disk drives, DVD drive, power and reset buttons, and front USB ports
   - Plugging in cables at the back of the unit
9. **Handle printed circuit boards by their opposing edges only and avoid touching the contacts on the edge of the board.**
10. **Never set a cup of coffee—or any liquid—on or near the E-80 or printer/copier.**
11. **Avoid installing third-party applications onto the E-80. Third-party applications are not supported and can cause system problems. Although virus-protection software is permitted on the E-80, you should run virus scans only when the E-80 is in Idle mode (not spooling, processing, or printing any jobs).**
12. **Do not change the Windows XPe preference settings.**

    Depending on the changes made, the E-80 may become unstable or even unusable. If this occurs, we recommend that you reinstall the E-80 system software, which reliably restores the Windows XPe system to its factory defaults.
13. **Never alter an existing network without permission.**

    The E-80 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 the shop supervisor.

14. **Unless you are the network administrator, never assign an IP address in E-80 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-80 an incorrect IP address may cause unpredictable errors on any or all devices connected to the network.

Power Supply Cord Notice

CAUTION: 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 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 the manufacturer's instructions.

ATTENTION : Il y a danger d'explosion en cas de remplacement avec le mauvais type de batterie. Remplacer uniquement avec une batterie du même type recommandé par le constructeur. Les batteries usagées doivent être jetées conformément aux instructions du fabricant.

ATTENZIONE: Pericolo di esplosione se la batteria viene sostituita con un tipo non corretto. Usare esclusivamente batterie del tipo consigliato dal produttore. Lo smaltimento delle batterie deve essere effettuato in base alle istruzioni del produttore.

ACHTUNG: Es besteht Explosionsgefahr, wenn die Batterien durch einen falschen Batterientyp ersetzt werden. Ersetzen Sie sie deshalb nur durch denselben, vom Hersteller empfohlenen Typ. Entsorgen Sie leere Batterien entsprechend den Anweisungen des Herstellers.

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

CUIDADO: Há perigo de explosão se a bateria for substituída por outra de tipo incorreto. Substitua apenas por outra de mesmo tipo, recomendada pelo fabricante. Descarte as baterias usadas conforme as instruções do fabricante.

VOORZICHTIG: Het vervangen van de batterij door een verkeerd type kan ontploffing veroorzaken. Vervang de batterij uitsluitend door hetzelfde, door de fabrikant aanbevolen type. Het wegwerpen van batterijen dient volgens de voorschriften van de fabrikant te gebeuren.

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 cortocircuiti (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.

ADVERTENCIA: 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

In order to install or service the E-80, the following tools and parts are required:

- ESD wrist grounding strap and antistatic mat
- Flathead screwdriver
- #0, #1, and #2 Phillips head screwdrivers
- E-80 documentation, including the customer media pack and any related service bulletins

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

INTRODUCTION

The E-80 adds computer connectivity and highly efficient Adobe PostScript 3 color printing capability to the printer/copier. It is optimized for high-speed network communications, processing, rasterization, and printing of continuous-tone color and monochrome pages.

Features

The E-80, as an integral part of a color printing system, enables users to:

- Send images over AppleTalk and TCP/IP networks to print on E-80 supported devices.
- Spool print jobs and select a printing priority for each job. With remote user software running on networked Windows and Mac OS computers, users can control spooled print jobs sent to the E-80.
- Print color, grayscale, and black-and-white files.
- Use 136 resident fonts plus two 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-80 also supports e-mail printing and the Microsoft version of Internet Printing Protocol (IPP) for Windows 2000, Windows XP, Windows Server 2003, and Windows Vista.

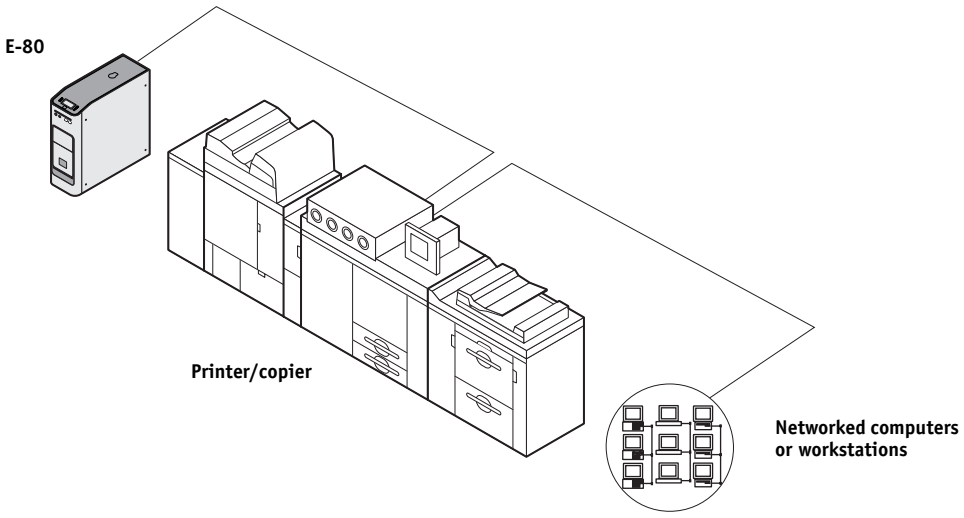


FIGURE 1: Printing system

The E-80 is one of several imaging products engineered and manufactured by Electronics for Imaging, Inc.

How the E-80 operates

The E-80 enables the customer to use the printer/copier as a high-performance networked PostScript color printer. Users at the customer site can print to the E-80 from networked Windows computers, Mac OS computers, and networked UNIX workstations running TCP/IP.

The E-80 custom-designed boards and system software are responsible for efficient image processing and printing controls. The main functions of E-80 components and software are described in the following paragraphs.

The E-80 uses a motherboard and a video board to process image data for printing images.

The motherboard includes two quad-core Intel Xeon 3.0GHz CPUs that control the image data transfer to and from the video board and run the interpreter. The interpreter rasterizes the page description file and compresses the image pattern into memory using compression technology.

The interpreter outputs the compressed data through the image frame buffer memory to the E-80 video board. The video board decompresses the image data and sends it through the crossover Ethernet cable to the printer/copier. The raster data is supplied to the printer/copier, which then renders the final image on paper.

High-speed DIMMs (dual in-line memory modules) on the motherboard hold the image data during printing. The E-80 is configured with 2GB of memory.

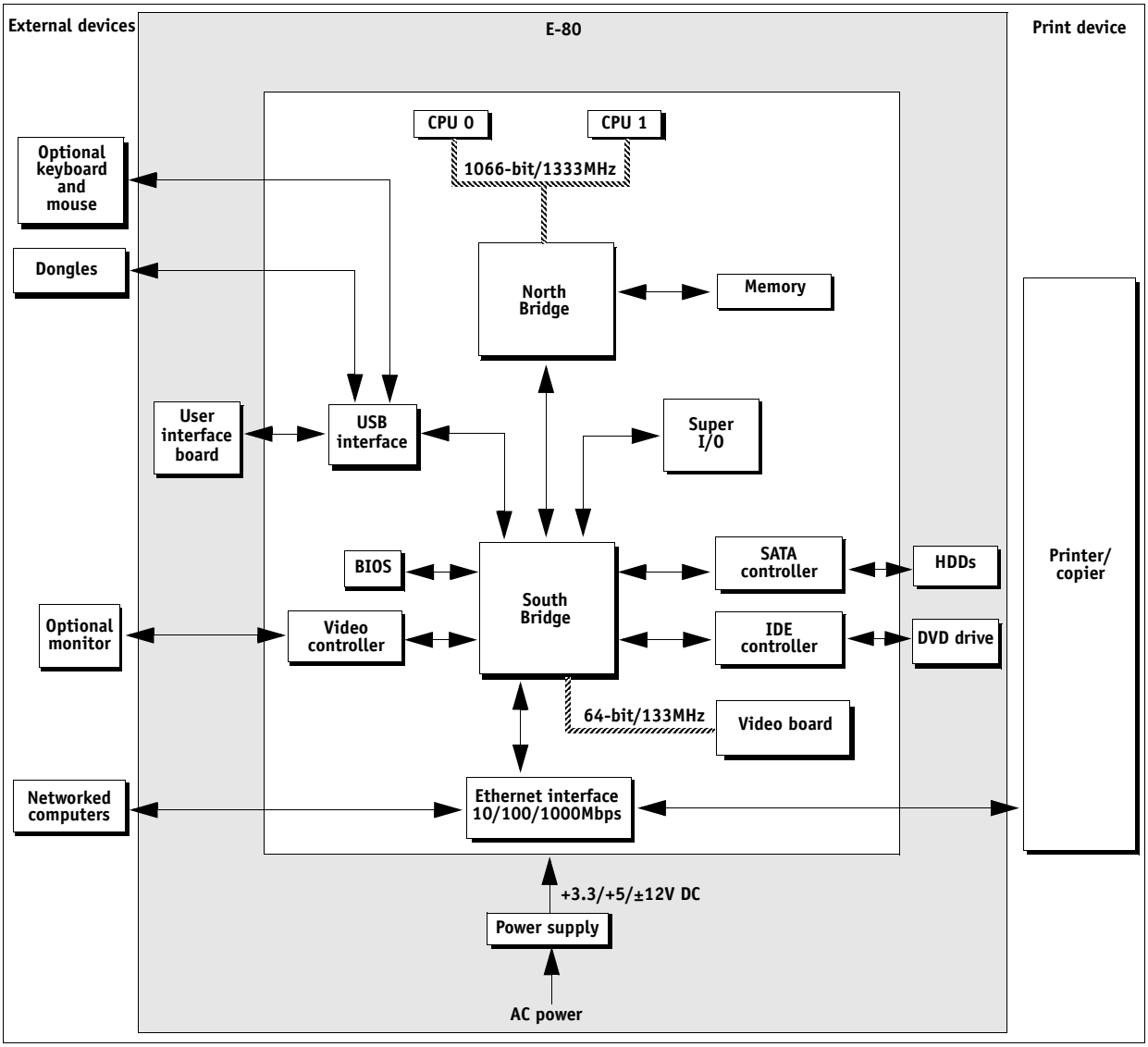


FIGURE 2: E-80 functional diagram

Print options

The E-80 allows users to use a variety of applications to create and print pages of text and/or images. The E-80 operates over a network.

Printing over a network allows E-80 users to print documents directly from the applications in which the documents were created. In addition, the E-80 offers an efficient way to print files that are saved in PostScript, Encapsulated PostScript (EPS), Portable Document Format (PDF), or Tagged Image File Format (TIFF). These files can be downloaded directly to the E-80 using Command WorkStation, one of the remote utilities for the E-80.

User software

A full set of user software for the E-80 is provided on the User Software DVD and the Adobe Acrobat 8.1 Standard Installer/Enfocus PitStop Professional 7.2 DVD.

NOTE: Unless otherwise noted, installers for all software in the following list are located on the User Software DVD, and in e:\efi\user_sw on the E-80.

PostScript Printer Drivers	Allow users to print to the E-80 from Windows and Mac OS computers; also supports special E-80 and PostScript 3 features.
PostScript Printer Description files (PPDs)	Files for use with the PostScript printer driver that allow the E-80 to appear in popular applications' Print and Page Setup dialog boxes. The E-80 PPD provides information about the E-80 and the printer/copier to the application and printer driver.
PostScript Fonts (Mac OS only)	PostScript screen and printer fonts for the 136 PostScript printer fonts installed on the E-80.
Job Monitor (Windows only)	Allows users to monitor the print status of jobs sent to the E-80 and track the status of consumable materials on the printer/copier.
Command WorkStation (Windows Edition)	Allows the operator to control E-80 functions from remote workstations or the E-80. Command WorkStation supports dongle-protected Impose (requires Adobe Acrobat, provided on the Acrobat/PitStop DVD). For more information, see *Utilities* on the User Documentation CD.
Command WorkStation (Macintosh Edition)	Allows the operator to control E-80 functions from remote Mac OS computers. For more information, see *Utilities* on the User Documentation CD.
Color management files	ColorSync and ICM color management files that allow users to maintain consistent color from original artwork to the colors displayed on the monitor to the printed output.
Color reference files	Reference pages that users can print to view the range of colors available on the E-80. For the most predictable color results, refer to these pages when defining colors in applications.
Calibration files	Includes measurement files and targets for use with ColorWise Pro Tools.

ColorWise Pro Tools	Allows users to use calibration and color management tools: also enables users to edit and download ICC profiles.
Adobe Acrobat Located on the Acrobat/PitStop DVD	Adobe Acrobat offers previewing and editing functions that are used with Command WorkStation's Impose and Compose features.
Enfocus PitStop Located on the Acrobat/PitStop DVD	The PitStop Acrobat plug-in is for use with Command WorkStation's Impose and Compose features. It offers enhanced PDF editing and preflighting functions.
VDP Resource Manager	Allows users to look for and delete global objects used in variable printing.
Printer Delete Utility (Windows only)	Finds E-80 printer drivers installed on the user's computer and allows users to delete them.
MRJ (Mac OS only)	Mac OS Runtime for Java (MRJ) installer and associated files. **NOTE:** MRJ is required by all Java-based Fiery utilities. When installing these utilities, if MRJ is not detected, the MRJ installer automatically starts.
Hot Folders	**NOTE:** Simplifies sending print jobs to the E-80.
Monitor profiles	ICM color management files that enable users to soft-proof (preview) colors more accurately on the monitor.

For more information about the user software, see *Utilities* and *Color Printing* (located on the User Documentation CD).

INSTALLATION

This chapter includes the following information:

- Checking the customer site
- Unpacking the E-80
- Installing the E-80
- Connecting the E-80 cables
- Completing the installation

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 27 outlines the recommended installation procedure for connecting the E-80 to the printer/copier.

Because the E-80 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.

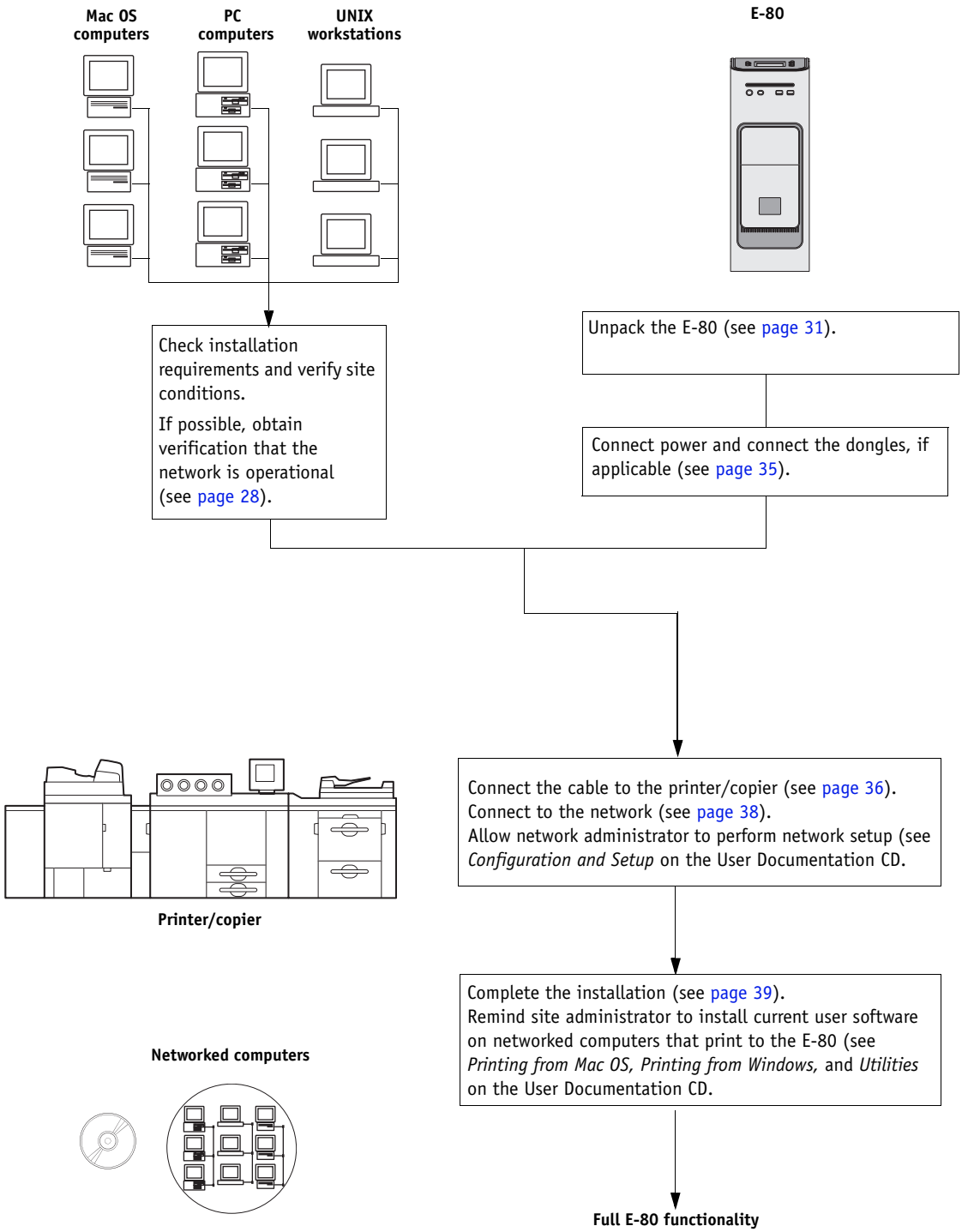


FIGURE 3: Summary of installation steps and references

Checking the customer site

Before you install the E-80, check site conditions and inform the customer of any installation requirements.

Printer/copier readiness

- ❑ **Is the printer/copier configured for use with the E-80? (For the proper settings, see the documentation that accompanies the printer/copier.)**
- ❑ **Is there space near the printer/copier for the E-80?**

  Make sure that there is space for the E-80. Allow enough space at the back panel for the cables to route easily and at the side panel so that the E-80 does not interfere with use of or service to the printer/copier (such as clearing a paper jam).

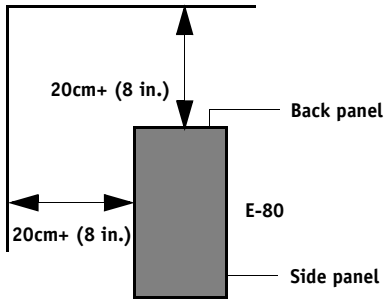


FIGURE 4: Space requirements

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

  Print the printer/copier color Test Page before you install the E-80.

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

Power

❑ **Verify that there is a dedicated 15Amp grounded electrical outlet near the printer/copier for the E-80.**

Do not run the E-80 and the printer/copier on the same circuit.

- *Do not* use a 3-prong adapter in a 2-hole ungrounded outlet.
- *Do not* plug the E-80 into a circuit with heating or refrigeration equipment (including water coolers).
- *Do not* plug the E-80 into a switchable wall outlet. This can result in the E-80 being turned off accidentally.

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-80.**

❑ **Make sure that the configuration requirements specified in *Configuration and Setup* (located on the User Documentation CD) have been met for the remote computers and the network.**

Setting customer expectations

When the site is ready, installation of the E-80 takes about one hour. Inform the customer of the following:

- The printer/copier 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-80 and confirms network functionality with the connector in place before the date scheduled for the E-80 installation.
- The network administrator must have a networked computer available during the installation. The appropriate software must be installed in advance. Documentation for the networked computer and the network operating software should be available.
- The network administrator must install the user software shipped with the onto networked Windows and Mac OS computers that will print to the E-80E-80 (user documentation is also included).

NOTE: This guide covers E-80 hardware installation and service. For additional Setup information, see *Configuration and Setup* on the User Documentation CD.

Unpacking the E-80

The E-80 is assembled and shipped from the factory with all necessary cables and documentation (see page 33).

WARNING: Never lift the print server 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-80

1. **Open the box that contains the E-80 and remove the packing material.**
2. **Remove the contents from the accessory kit inside the E-80 box and inspect the contents for visible damage. The accessory kit should include the following items:**
   - Bags containing the interface cable (12 meters in length, crossover Ethernet) and region-specific power cables
   - E-80 media pack (for a list of contents, see "E-80 media pack" on page 11)
   - Impose and Compose media packs (including the Acrobat/PitStop DVD, documentation, the Impose dongle, and the Compose dongle)

3. **Open the E-80 and the Impose and Compose media packs.**

   Let the customer or network administrator know that in order to take full advantage of the E-80, the user software must be installed on computers that will print to the E-80.

   NOTE: Ask the site administrator to make sure that all media shipped with the E-80 is stored in a safe and accessible place.

4. **Set aside the remaining components from the accessory kit.**

5. **Remove any packing materials and carefully lift the E-80 out of its box.**

   Set aside the packing material and note the orientation of the E-80 in the box, in case you need to repack it later.

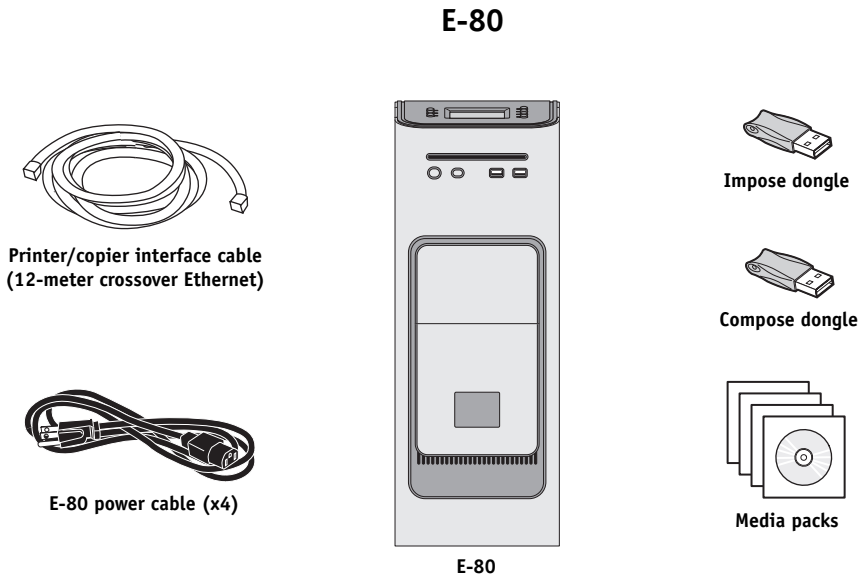


FIGURE 5: Contents of E-80 shipping box

Connecting the E-80

You are now ready to make the following connections:

- Dongles (if applicable)
- Power
- Printer/copier
- Network

Before you begin, see "Precautions" on page 16.

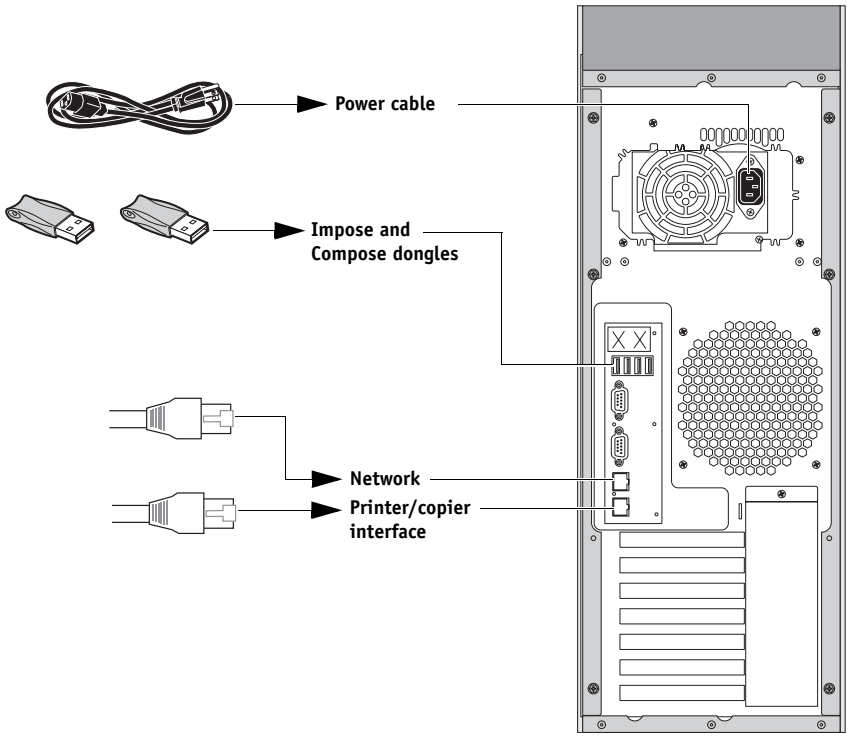


FIGURE 6: E-80 connections

Connecting the power and dongles

Use the following procedure to connect power and the dongles to the E-80.

TO CONNECT POWER AND THE DONGLES

1. **Connect the recessed end of the E-80 power cable to the power connector on the back of the E-80, as shown in Figure 6 on page 34.**

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

2. **Connect the other end of the E-80 power cable to a wall outlet.**

3. **To use the Impose feature of Command WorkStation on the E-80, install the Impose dongle directly on one of the E-80 USB ports (see Figure 6 on page 34).**

   The Impose dongle is attached to a keychain labeled "Impose." To use Impose on a client workstation instead of the E-80, install the dongle on the client workstation.

   NOTE: The dongle is required to use Impose in its fully licensed mode. If the dongle is not installed or is removed during a work session, Impose will be available in Demo mode only—that is, documents can be imposed and saved, but all printed output will contain the "DEMO" watermark. To remove the "DEMO" watermark, install the dongle, and then reopen and save the document in the licensed mode of Impose.

4. **To use the Compose feature of Command WorkStation on the E-80, install the Compose dongle directly on any available E-80 USB port (see Figure 6 on page 34).**

   The Compose dongle is attached to a keychain labeled "Compose." To use Compose on a client workstation instead of the E-80, install the dongle on the client workstation.

Connecting to the printer/copier

Use the following procedure to connect the E-80 to the printer/copier.

TO CONNECT TO THE PRINTER/COPIER

1. **Enter SP mode on the printer/copier and specify the correct SP5193-001 setting to enable communication between the printer/copier and the E-80:**
   - On the printer/copier display panel, press the Clear Modes button.
   - Type 107 and hold down the Clear (C) button until the SP mode menu appears.
   - Touch System Sp.
   - Use the buttons on the touch screen to navigate to the SP5193-001 setting (External Controller Info. Settings).
   - Do one of the following:
     - For the Pro C900, change the setting to "6." (The initial setting is "1.") To change the setting, type 6 and press the Enter (#) key.
     - For the Pro C900s, make sure that the setting is "1," the initial setting. To change the setting if needed, type 1 and press the Enter (#) key.
   - Touch Exit at the message reminding you to reboot the printer/copier.

     You will power off and power on the printer/copier during the process of connecting the E-80.
2. **Power off the printer/copier using the main power switch located behind the front cover.**
3. **If needed, shut down the E-80 (see page 47).**
4. **Locate the printer/copier interface cable (crossover Ethernet cable) that shipped with the E-80.**

5. **Connect one end of the cable to the printer/copier interface port on the E-80 and the other end of the cable to the correct Ethernet port on the printer/copier as shown in Figure 7.**

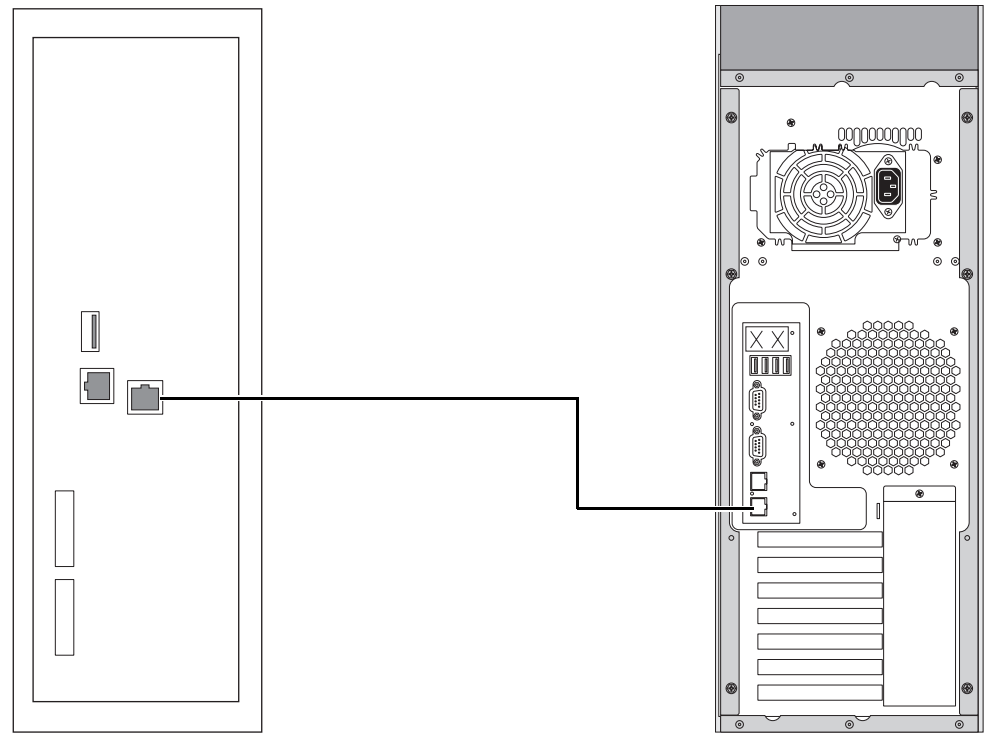


FIGURE 7: Printer/copier and E-80 cable connection

NOTE: To prevent risk of cross-talk, make sure the printer/copier interface cable does not touch the power cables for the system. Image quality problems or E-80 shutdowns could result.

6. **Power on the E-80 by pressing the power button on the front of the system. Wait approximately 2 minutes for the system to reach Idle.**

   The static Fiery logo and server name appear on the E-80 Control Panel when the system reaches Idle.

7. **After the E-80 reaches Idle, power on the printer/copier using its main power switch.**

Connecting to the network

Use the following procedure to connect the E-80 to the customer network.

TO CONNECT TO THE NETWORK

1. **Shut down the E-80 before connecting it to any network device (see page 47).**
2. **Obtain the appropriate straight-through Ethernet cable for the customer network connection:**
   - For 10BaseT link speed, use a cable that is Category 3 or higher
   - For 100BaseTX, use Category 5 or higher (4-pair/8-wire, short-length)
   - For 1000BaseT, use Category 5e or higher (4-pair/8-wire, short-length)

   NOTE: Be sure to use a *straight-through* Ethernet cable for the network connection. To verify the cable type, align the connectors on each end of the cable as shown in Figure 8. On a straight-through cable, the wire arrangements are identical on both ends; on a crossover cable (such as the printer/copier interface cable), the wire arrangements are different.

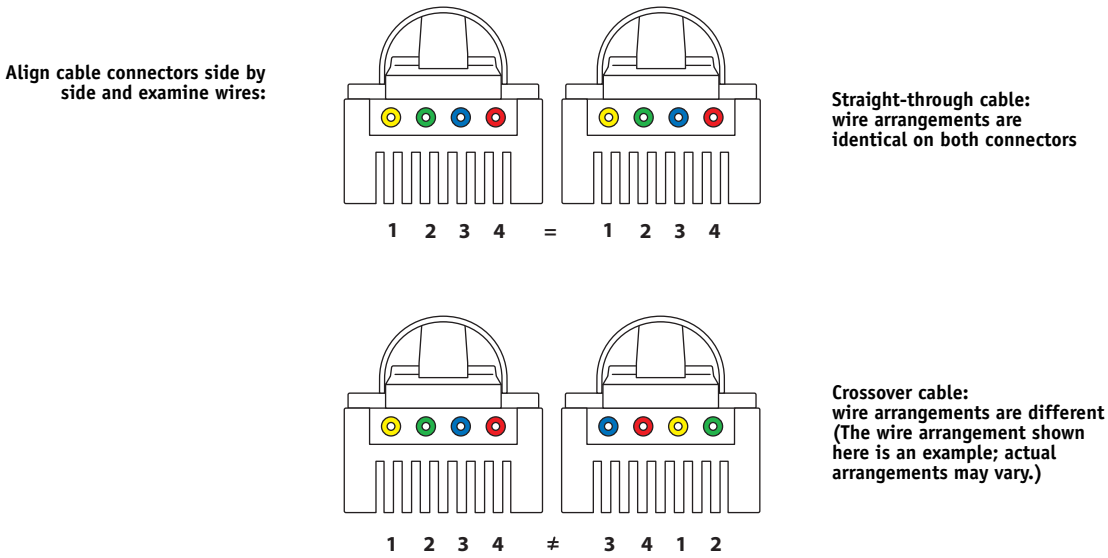


FIGURE 8: Straight-through and crossover Ethernet cables

3. **Connect one end of the network cable to the network connector on the back of the E-80 (see Figure 6 on page 34).**

   The motherboard in the E-80 has an external Ethernet network connector that supports 10/100/1000 Mbps link speed.
4. **Connect the other end of the cable to the customer network.**

Completing installation and starting up

To finish the installation of the E-80 at the customer site, do the following:

1. **Power on the E-80 using the power button on the front panel.**

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

2. **Wait for the system to power on and for the E-80 to reach Idle.**

   The E-80 takes approximately 2 minutes to power on and reach Idle.

3. **Print the Test Page and Configuration page (see "Printing E-80 pages" on page 45).**
4. **Ask the customer to verify the output.**
5. **Perform any required system upgrades. For instructions, see the documentation that accompanies the system upgrade.**
6. **Inform the network administrator that they should perform Setup and print some test documents over the network.**
7. **Notify the customer trainers that you are finished (by faxing the output, if necessary).**
8. **Store the output and the current Configuration page(s) near the printer/copier.**
9. **Inform the site administrator that E-80 user software must be installed on networked computers that print to the E-80.**
10. **Ask the site administrator to make sure that all media shipped with the E-80 is stored in a safe location, accessible to you.**
11. **For additional installation instructions, see any additional service documentation that accompanies the E-80.**

USING THE E-80

This chapter includes the following information:

- Using the E-80 Control Panel
- Accessing E-80 functions on the printer/copier display panel
- Printing E-80 pages
- Checking network status LEDs
- Shutting down and restarting the E-80
- Ejecting media from the E-80 DVD drive

Using the E-80 Control Panel

This section describes the Control Panel at the top of the E-80. The Control Panel is used for the following tasks:

- Ejecting media from the DVD drive
- Shutting down, restarting, or rebooting the E-80 (see page 47)
- Installing system software (see page 134)

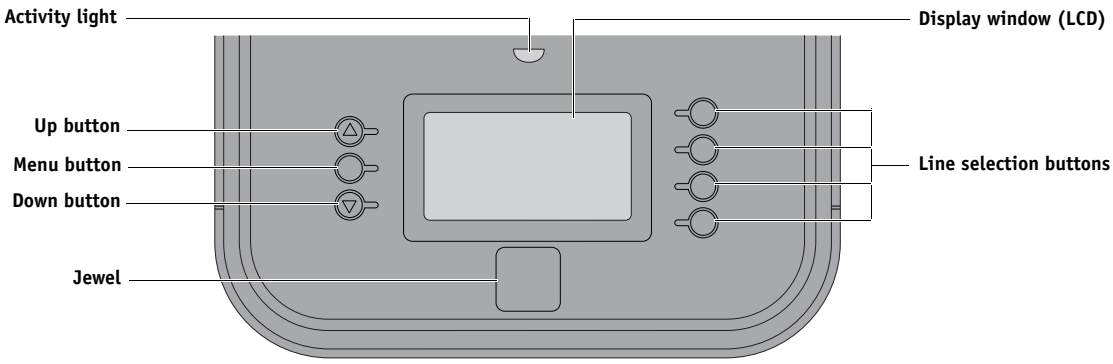


FIGURE 9: The E-80 Control Panel

Activity light

The activity light indicates current E-80 activity. If the light is:

Off, and the display window is not backlit	The E-80 is powered off and the power cable is not plugged into a power outlet.
Off	The E-80 is in Idle state.
Solid amber	The E-80 is powered off but the power cable is plugged into a power outlet. The Control Panel continues to draw power when the E-80 is in this state.
Solid green	The E-80 is in Idle state.
Flashing amber	An error has occurred, causing printing to be disabled.
Flashing green	The E-80 is receiving, processing, or printing a job.
Flashing or solid red	An error has occurred, causing printing to be disabled.

Buttons

Line selection buttons	There are four line selection buttons on the right side of the Control Panel. Use these buttons to select the command displayed on the corresponding line of the LCD. A special character (▶) appears on the LCD next to a button when it is available.
Up and Down buttons	Use these buttons to scroll to different screens in multi-screen lists.
Menu button	Press this button to display the Control Panel commands.

Commands

To display the Control Panel commands, press the Menu button.

Eject CD/DVD	Ejects media from the E-80 DVD drive.
IP Address	Displays the IP Address of the E-80.
Restart Server	Allows you to reset the E-80 server software or reboot the entire E-80 system.
Shut Down System	Shuts down all E-80 software properly and then powers off the system.

Using the printer/copier display panel

The printer/copier display panel provides access to status and function screens for the E-80.

TO ACCESS E-80 FUNCTIONS ON THE PRINTER/COPIER

- **On the printer/copier display panel, press the "fierydriven®" button.**

The main E-80 screen is displayed. The following sections describe the function screens that can be displayed by touching individual tabs.

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-80 and the printer/copier. Use this command to interrupt the current E-80 job, for example, to perform maintenance tasks. Jobs continue to process on the E-80. After you complete maintenance tasks, choose Resume Printing to continue printing jobs from the E-80.

Resume Printing — Resume print activity between the printer/copier and the E-80 after you have selected Suspend Printing.

Job List tab

The Job List tab provides access to jobs according to the print status of the job. The job 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, touch the tab corresponding to the desired list.

On each of these lists, you can scroll up or 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 provides access to the following commands.

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, see *Utilities* on the User Documentation CD.

Calibration — Calibrate the E-80 using ColorCal. For more information about calibration, see *Color Printing* on the User Documentation CD.

NOTE: This command is available only from the copier version of the E-80; it is not available from the printer version.

Scan tab

The Scan tab allows you to scan documents. For more information, see *Utilities* on the User Documentation CD.

NOTE: The Scan tab is available only from the copier version of the E-80; it is not available from the printer version.

Fiery tab

The Fiery tab contains administrative commands for the E-80.

Fiery Info — Display information about the current configuration of the E-80.

Printable Info — Print E-80 pages. For more information, see "Printing E-80 pages" on page 45.

Setup — Enter the Setup menu and change E-80 settings. For more information, see *Configuration and Setup* on the User Documentation CD.

Run Diagnostics — Enter the Run Diagnostics menu to troubleshoot problems with e-mail printing or the video board. For more information, see page 172.

Clear Server — Clear all jobs in all print queues, as well as all jobs archived on the E-80 hard disk, the index of archived jobs (in the Archive window), all FreeForm masters, and the index of FreeForm masters (in the FreeForm window).

Restart Fiery — Shut down all E-80 activity in the correct manner. You have the option to restart the E-80 after shutting down. For more information, see "Starting, shutting down, restarting, and rebooting" on page 47.

Printing E-80 pages

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

- Test Page—verifies that all components of the E-80-to-printer/copier interface work. The Test Page is a color file that resides on the E-80 hard disk drive. Information on the Test Page may include: Server Name, color settings, printer/copier model, and date and time the Test Page was printed.
- Configuration page—provides general information about the hardware and software configuration of the E-80, the customer's current settings for Setup, the current calibration, and the IP address of the E-80.

  Printing the Configuration page can be helpful during installation, Setup, and service. After installing the E-80 (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.

TO PRINT E-80 PAGES

1. **On the printer/copier display panel, press the "fierydriven®" button.**
2. **Touch the Fiery tab.**
3. **Touch Printable Info.**
4. **Touch the name of the page you want to print.**
5. **Touch OK to confirm your selection.**

   The E-80 sends the selected page to the printer/copier.
6. **If you printed the E-80 Test Page, examine the quality of the Test Page from the printer/copier.**

   If the Test Page prints, you know the E-80 is functional and the connection between the E-80 and the printer/copier is working. If the Test Page fails to print, look up printing problems in Table 5 on page 148.

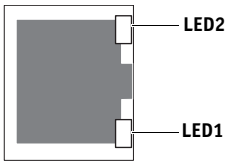
   When you examine the Test Page, keep in mind the following:

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

   Poor image or color quality may indicate a need to calibrate the system or service the printer/copier. Information on the Test Page includes the date and time of the last calibration so the Test Page can be kept for future reference. For more information, look up printing problems in Table 5 on page 148, or see *Color Printing* on the User Documentation CD.

Network status LEDs

Two LEDs next to the network connector indicate the network speed. For additional network information, see *Configuration and Setup* on the User Documentation CD.



Ethernet network port (upper RJ-45)

TABLE 1: Network speed indicators

Network link speed	LED1	LED2
10 Megabits/second	Off	Green
100 Megabits/second	Green	Green
1000 Megabits/second	Amber	Green

When a data transfer occurs between the E-80 and the network, LED2 blinks to indicate network activity.

NOTE: The upper RJ-45 port on the E-80 back panel is reserved for the network connection with a straight-through Ethernet cable. The lower RJ-45 port is reserved for the interface connection to the printer/copier with a crossover Ethernet cable. Be sure to connect the proper cable to each port. For more information, see page 34 and page 37.

Starting, shutting down, restarting, and rebooting

The customer will generally leave the E-80 on all the time. Remember that when the E-80 is powered off, network access to the printer/copier is interrupted. Power off the E-80 when you need to service the E-80 and before you remove or attach any cables to the E-80.

If necessary, you can also restart or reboot the E-80. Restarting the E-80 resets the E-80 system software without restarting the system entirely. Rebooting the E-80 restarts the system entirely.

Always use the following procedures when starting, shutting down, restarting, or rebooting the E-80. Use the reset button on the front of the E-80 only if the system is frozen and unresponsive to keyboard or mouse actions.

TO START THE E-80

1. **Make sure that the printer/copier is powered off. If needed, shut down the printer/copier using the main power switch behind the front cover.**
2. **Press the power button on the front of the E-80.**
3. **Wait for the system to power on and reach Idle.**

   The E-80 takes approximately 2 minutes to power on and reach Idle.

   The static Fiery logo and server name appear on the E-80 Control Panel when the system reaches Idle.

4. **If the optional monitor, keyboard, and mouse is installed, enter logon information in the Log On to Windows dialog box that appears on the monitor.**

   Type Administrator in the user name field, type Fiery.1 in the password field, and then press Enter. Wait for FieryBar to appear on the monitor and reach Idle.

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

   If it is not the first time the E-80 has been started after installing system software, the network administrator may have set a different user name and password. The network administrator at the customer site will need to provide you with the correct user name and password to enable your logon to the system (the password is case-sensitive and must be entered exactly).

5. **After the E-80 reaches Idle, power on the printer/copier using its main power switch.**

TO SHUT DOWN THE E-80 FROM THE PRINTER/COPIER

NOTE: Unless instructed otherwise by a service or troubleshooting procedure, always shut down the E-80 from the Control Panel or the printer/copier. Do not use the power button on the front of the E-80 to shut down the system. Shutting down the E-80 from the printer/copier also causes the printer/copier to shut down.

1. **On the printer/copier display panel, press the "fierydriven®" button.**
2. **Ensure that the E-80 is not receiving, processing, or printing any files.**

   If necessary, wait until the Main tab on the printer/copier display panel indicates that the E-80 is Idle.
3. **On the printer/copier display panel, touch the Fiery tab.**
4. **Touch Restart Fiery.**
5. **Touch Shut Down, and then touch OK to shut down the system.**

   Allow the E-80 to shut down completely and the printer/copier display panel to go blank.
6. **After the printer/copier display panel goes blank, power off the printer/copier using the main power switch behind the front cover.**
7. **If you are shutting down in order to service the E-80, wait 10 seconds, and then remove all external cables from the back of the E-80.**

TO SHUT DOWN THE E-80 FROM THE CONTROL PANEL

NOTE: Unless instructed otherwise by a service or troubleshooting procedure, always shut down the E-80 from the Control Panel or the printer/copier. Do not use the power button on the front of the E-80 to shut down the system.

1. **Ensure that the E-80 is not receiving, processing, or printing any files.**

   If necessary, wait until the Main tab on the printer/copier display panel indicates that the E-80 is Idle (see page 43).

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

   NOTE: Notify the network administrator before you remove the E-80 from the network.
2. **Press the Menu button on the E-80 Control Panel.**
3. **Press the line selection button for Shut Down System.**

   Allow the system to shut down and power off.
4. **If you are shutting down in order to service the E-80, power off the printer/copier using the main power switch behind the front cover. Wait 10 seconds, and then remove all external cables from the back of the E-80.**

TO RESTART THE E-80 SOFTWARE FROM THE PRINTER/COPIER

NOTE: Unless instructed otherwise by a service or troubleshooting procedure, always restart the E-80 from the Control Panel or the printer/copier. Do not use the reset button on the front of the E-80 to restart the software.

1. **On the printer/copier display panel, press the "fierydriven®" button.**
2. **Ensure that the E-80 is not receiving, processing, or printing any files.**

   If necessary, wait until the Main tab on the printer/copier display panel indicates that the E-80 is Idle.
3. **Touch the Fiery tab.**
4. **Touch Restart Fiery.**
5. **Touch Restart Fiery Service, and then touch OK to restart the E-80.**
6. **Wait for the E-80 server software to close down and restart.**

   You may need to wait 1 minute or longer for the server software to restart.

TO RESTART THE E-80 SOFTWARE FROM THE CONTROL PANEL

NOTE: Unless instructed otherwise by a service or troubleshooting procedure, always restart the E-80 from the Control Panel or the printer/copier. Do not use the reset button on the front of the E-80 to restart the software.

1. **Ensure that the E-80 is not receiving, processing, or printing any files.**

   If necessary, wait until the Main tab on the printer/copier display panel indicates that the E-80 is Idle (see page 43).

2. **Press the Menu button on the E-80 Control Panel.**
3. **Press the line selection button for Restart Server.**
4. **At the submenu that appears, press the line selection button for Restart Server.**
5. **Wait for the E-80 server software to close down and restart.**

   You may need to wait 1 minute or longer for the server software to restart.

TO REBOOT THE E-80 FROM THE PRINTER/COPIER

NOTE: Unless instructed otherwise by a service or troubleshooting procedure, always reboot the E-80 from the Control Panel or the printer/copier. Do not use the reset button on the front of the E-80 to restart the software.

1. **On the printer/copier display panel, press the "fierydriven®" button.**
2. **Ensure that the E-80 is not receiving, processing, or printing any files.**

   If necessary, wait until the Main tab on the printer/copier display panel indicates that the E-80 is Idle.
3. **Touch the Fiery tab.**
4. **Touch Restart Fiery.**
5. **Touch Restart System, and then touch OK to reboot the E-80.**
6. **Wait for the E-80 system to shut down and then reboot.**
7. **If the optional monitor, keyboard, and mouse is installed, enter logon information in the Log On to Windows dialog box that appears on the monitor.**

   Type Administrator in the user name field, type Fiery.1 in the password field, and then press Enter. Wait for the FieryBar to appear on the monitor and reach Idle.

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

   If it is not the first time the E-80 has been started after installing system software, the network administrator may have set a different user name and password. The network administrator at the customer site will need to provide you with the correct user name and password to enable your logon to the system (the password is case-sensitive and must be entered exactly).

TO REBOOT THE E-80 FROM THE CONTROL PANEL

NOTE: Unless instructed otherwise by a service or troubleshooting procedure, always reboot the E-80 from the Control Panel or the printer/copier. Do not use the reset button on the front of the E-80 to reboot the system.

1. **Ensure that the E-80 is not receiving, processing, or printing any files.**

   If necessary, wait until the Main tab on the printer/copier display panel indicates that the E-80 is Idle (see page 43).

2. **Press the Menu button on the E-80 Control Panel.**
3. **Press the line selection button for Restart Server.**
4. **At the submenu that appears, press the line selection button for Reboot System.**
5. **Wait for the system to reboot. Do not push any buttons during this time.**

   The E-80 takes approximately 2 minutes to power on and reach Idle.

Ejecting media from the DVD drive

This section describes how to eject media from the E-80 DVD drive.

NOTE: If media is stuck in the drive and you are unable to eject it, see the Troubleshooting chapter.

TO EJECT MEDIA USING THE E-80 CONTROL PANEL

1. **Press the Menu button.**
2. **Select Eject CD/DVD.**

SERVICE PROCEDURES

Generally, the E-80 requires no regular service or maintenance. Use the procedures in this chapter to inspect, remove, reseat, and replace major hardware components.

Overview

This chapter includes information on servicing the following components:

- Boards and cables
- Motherboard components (DIMMs, CPUs, battery)
- Fans
- Power supply
- HDDs (hard disk drives)
- DVD drive
- Switch bank assembly

Replacement parts are available from your authorized service representative. 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 you have removed is not faulty, reinstall it.

When performing the service procedures described in this chapter, follow the precautions listed on page 16.

The tools required to service the system are listed on page 20.

E-80 overview diagrams

The following figures provide an overview of the E-80 components.

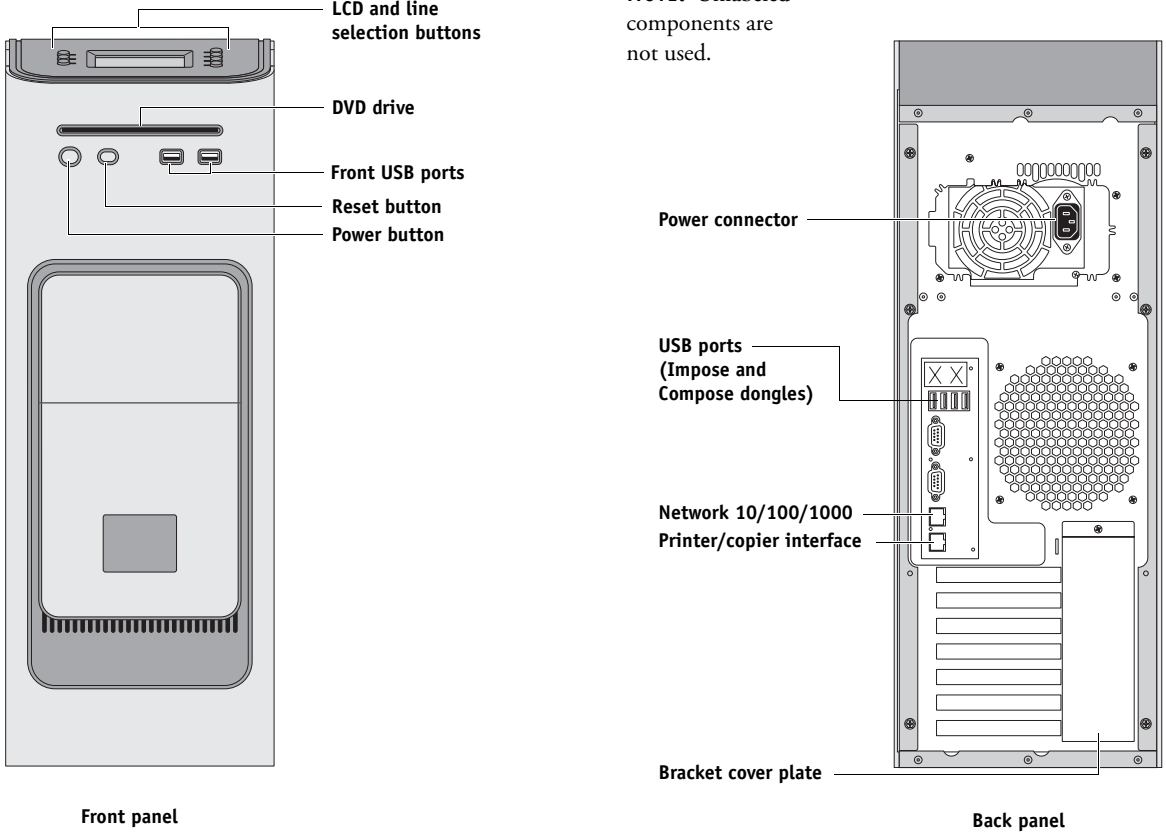
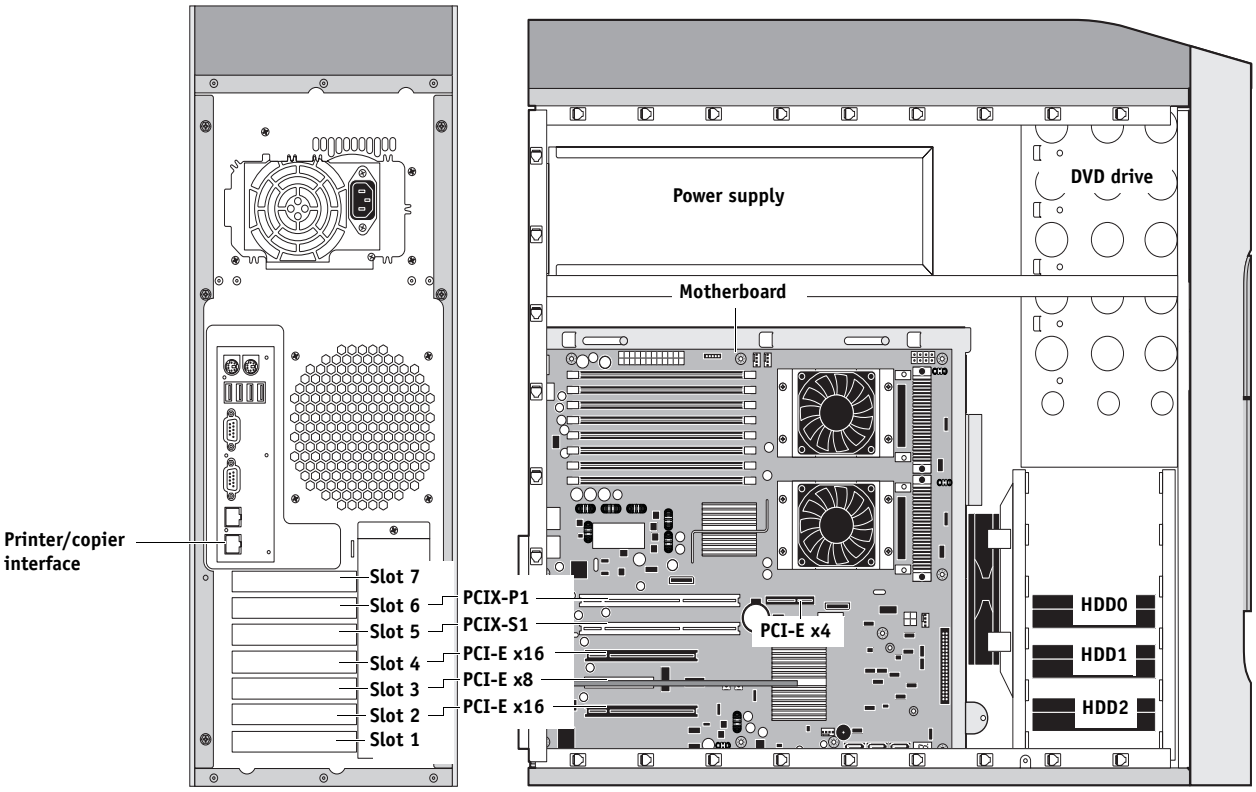


FIGURE 10: Front and back panels



Motherboard connectors:

PCIX-P1—Empty

PCIX-S1—Empty

PCI-E x4—Empty

PCI-E x16—Empty

PCI-E x8—Video board

PCI-E x16—Empty

FIGURE 11: E-80 back and side views

Key

1. Plug for top panel
2. Top panel
3. UIB (user interface board)
4. Power supply and power cables
5. Pole mount (for monitor option)
6. Chassis
7. DVD drive data cable
8. DVD drive
9. Switch bank assembly
10. Component sled
11. Option sled
12. Front panel
13. Upper faceplate
14. HDDs (hard disk drives)
15. Front fan assembly
16. Back fan
17. Motherboard tray
18. Motherboard
19. Video board
20. DIMMs
21. CPUs and cooling assemblies
22. UIB cable
23. HDD data cables

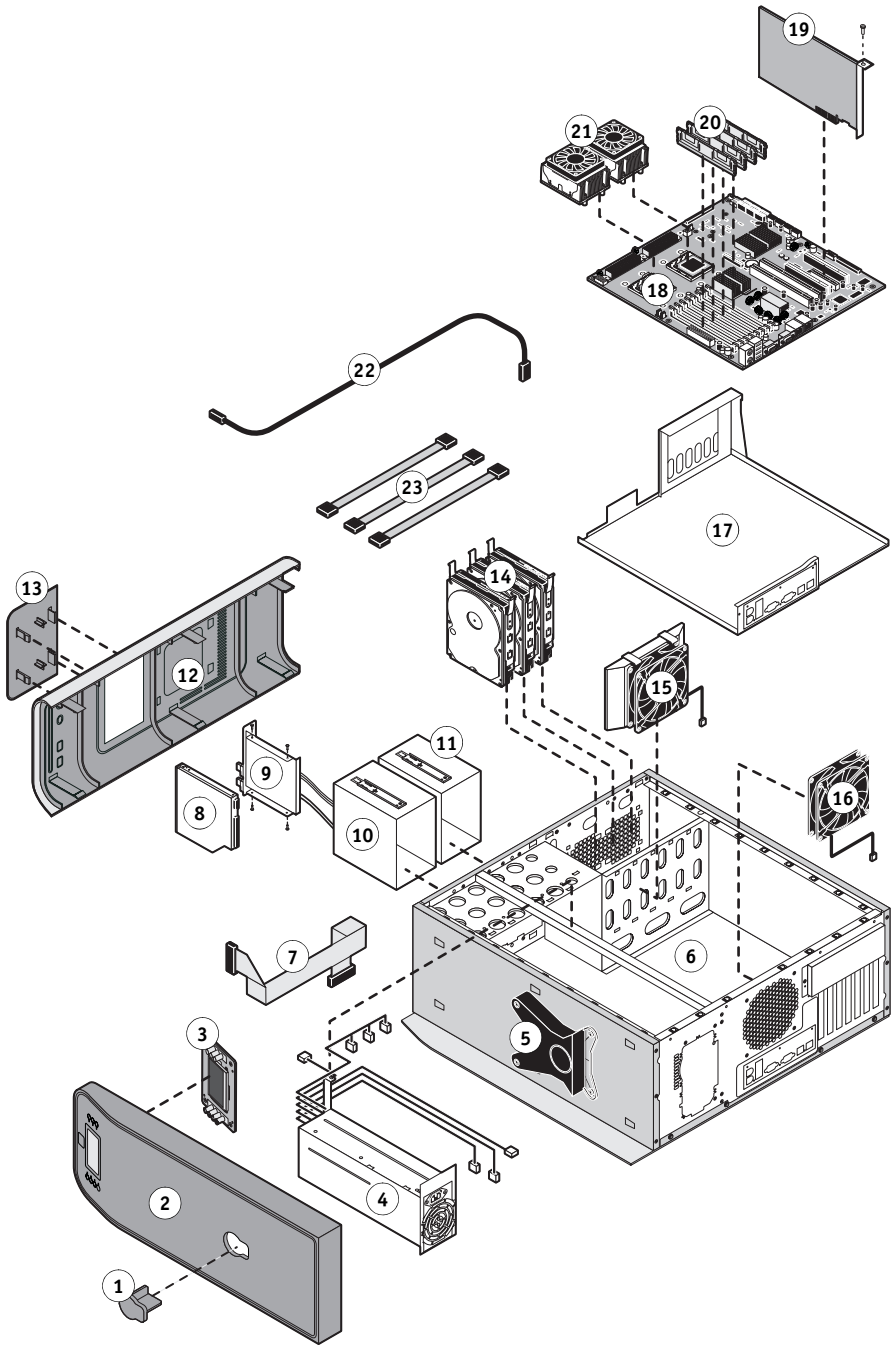
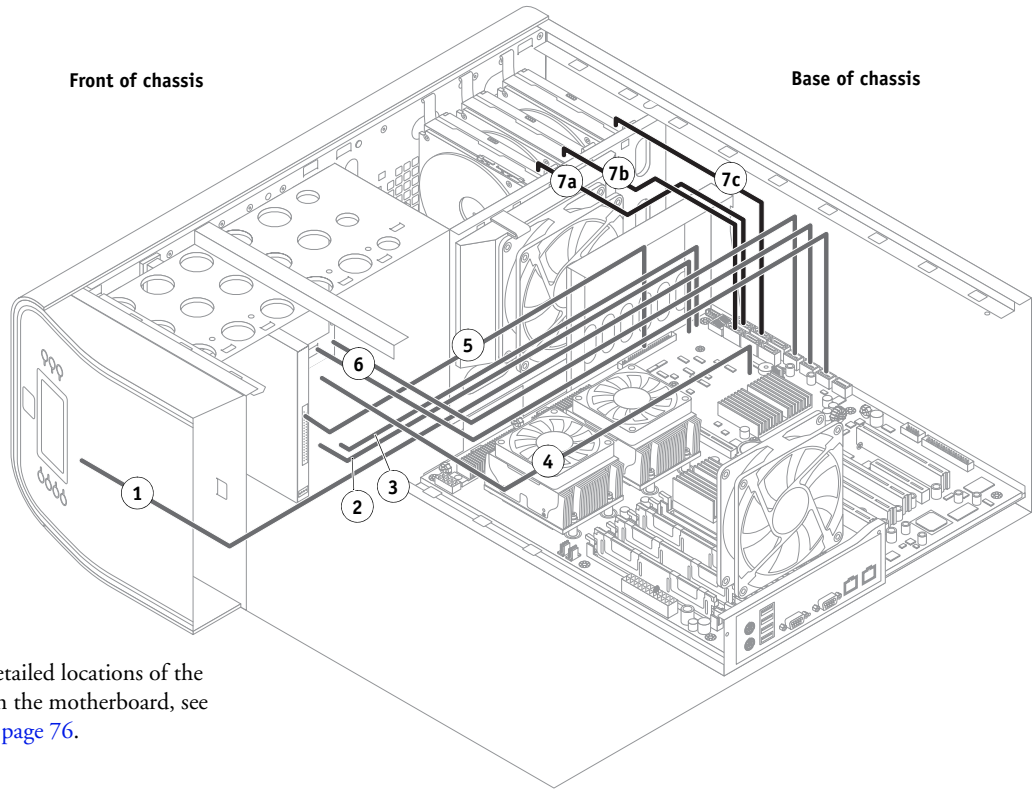


FIGURE 12: Exploded view of E-80 components



NOTE: For detailed locations of the connectors on the motherboard, see Figure 23 on page 76.

Cable key	From	To
1. UIB cable	User interface board	UIB connector on motherboard
2. Power button cable	Power button in switch bank assembly	Motherboard (J77, pins 6 and 8); align the triangle on the cable connector as shown.
3. Reset button cable	Reset button in switch bank assembly	Motherboard (J77, pins 5 and 7); align the triangle on the cable connector as shown.
4. Speaker/Buzzer cable	Speaker in switch bank assembly	Motherboard (J81) Align the triangle on the cable connector as shown.
5. DVD drive data cable	DVD drive	IDE1 connector on motherboard (J76)
6. Front USB cables	Front USB ports in switch bank assembly	Middle USB connectors on motherboard Either connector may be used for each cable.
7. HDD data cables	a. HDD0 data connector b. HDD1 data connector c. HDD2 data connector	a. SATA0 connector on motherboard b. SATA1 connector on motherboard c. SATA2 connector on motherboard

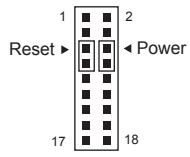
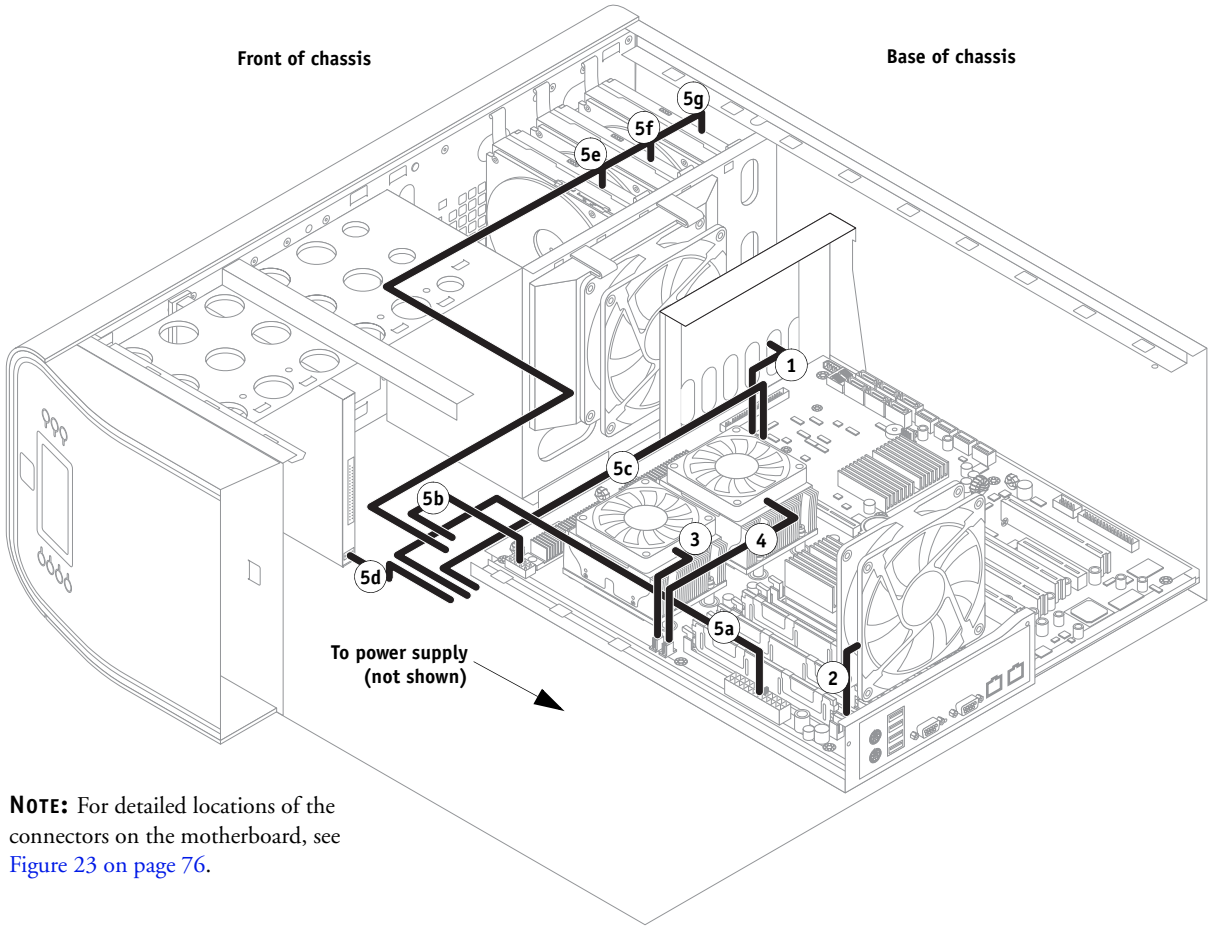


FIGURE 13: Data cable connections in the E-80



NOTE: For detailed locations of the connectors on the motherboard, see Figure 23 on page 76.

Cable key	From	To
1. Front fan cable	Front fan	Motherboard fan connector (FAN2, top three pins)
2. Back fan cable	Back fan	Motherboard fan connector (FAN1, bottom three pins)
3. CPU0 fan cable	CPU0 fan	Motherboard fan connector (CPUFAN0)
4. CPU1 fan cable	CPU1 fan	Motherboard fan connector (CPUFAN1)
5. Power supply cables	Power supply (not shown)	a. 24-pin connector—Motherboard (PW1) b. 8-pin connector—Motherboard (PW2) c. 4-pin (2x2) connector—Motherboard (PW3) d. 4-pin (1x4) connector—DVD drive e. SATA power connector—HDD0 f. SATA power connector—HDD1 g. SATA power connector—HDD2

FIGURE 14: Power cable connections in the E-80

Accessing internal components

This section describes how to shut down and open the E-80. Always use the following procedures when opening the E-80 for inspection or service.

Shutting down the system

If the E-80 is powered on, you must shut down the system before you access the internal components.

NOTE: When the E-80 is powered off, network access to the printer/copier is interrupted. Always obtain permission from the network administrator before you take the E-80 off the network.

TO SHUT DOWN THE E-80

1. **Verify that the E-80 is not receiving, processing, or printing any files.**

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

2. **On the printer/copier display panel, press the "fierydriven®" button.**
3. **Ensure that the E-80 is not receiving, processing, or printing any files.**

   If necessary, wait until the Main tab on the printer/copier display panel indicates that the E-80 is Idle.

4. **On the printer/copier display panel, touch the Fiery tab.**
5. **Touch Restart Fiery.**
6. **Touch Shut Down, and then touch OK to shut down the system.**

   Allow the E-80 to shut down completely and the printer/copier display panel to go blank.

7. **After the printer/copier display panel goes blank, power off the printer/copier using the main power switch behind the front cover.**
8. **After powering off, wait at least 10 seconds before you begin servicing the E-80.**

Opening the E-80

To service internal components, open the E-80 as described in the following procedure.

WARNING: Never lift the print server by grasping the top panel. The top panel does not support the weight of the system.

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

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

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

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

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

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

TO OPEN THE E-80

1. **Shut down the E-80 (see page 60).**
2. **Wait 10 seconds after the E-80 powers off, and then remove all external cables from the back of the system.**
3. **If the E-80 is mounted on the optional furniture, and the optional monitor is attached, see the disassembly instructions in the Servicing the System with Furniture chapter.**
4. **Remove all external panels necessary to access the component that you need to service.**

   At the minimum, you must remove the left panel to service the component. You may also need to remove other panels, depending on the component you want to access. For guidelines on which panels to remove, see the service procedure for the given component.

   NOTE: When removing multiple panels from the E-80, use the following order:

   - Left panel (see page 63)
   - Right panel (see page 63)
   - Front panel (see page 64)
   - Top panel (see page 66)

   NOTE: Reverse the listed order when replacing panels.

5. **Place the E-80 on a flat surface. Attach an ESD wrist strap before handling internal parts (see "Precautions" on page 16).**

   All internal components that you remove must be placed on a grounded, antistatic surface (see page 17).

6. **Carefully position the E-80 so that it is resting on its side and the internal components are facing up.**

TO REMOVE AND REPLACE THE LEFT OR RIGHT PANEL

1. **Remove the three screws that secure the panel to the back of the chassis (see Figure 15).**

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

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

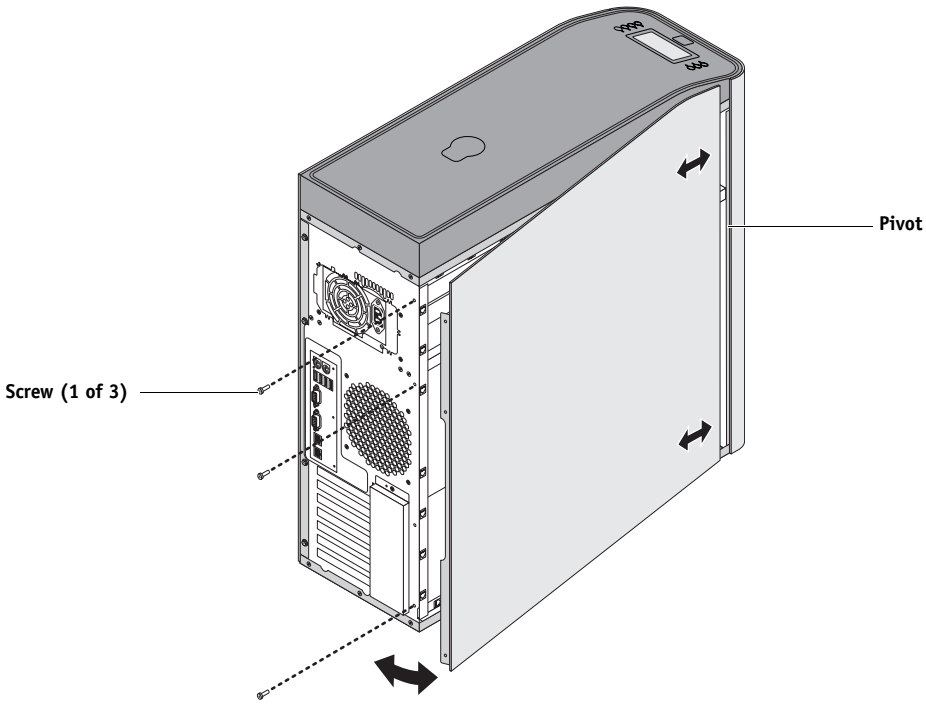


FIGURE 15: Removing/replacing the left or right panel

3. **To replace the panel, fit the front edge of the panel around the pivot in the chassis (see Figure 15).**

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

   Be careful not to damage any cables when replacing the panel. Fold all cables inside the chassis before swinging the panel closed.

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 panel (see Figure 16).**

   Pull the bottom edge of the faceplate away from the front panel, and carefully remove the faceplate from the front panel.

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

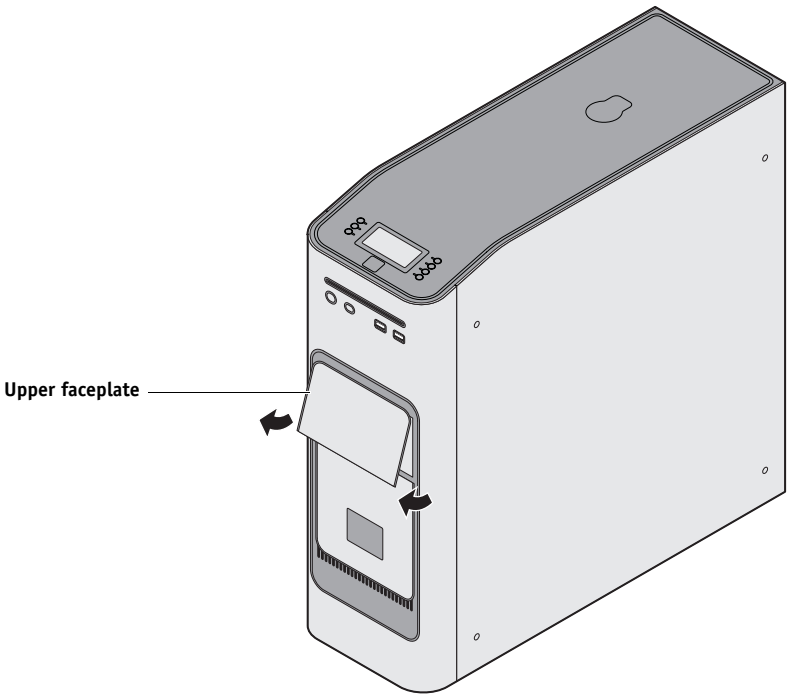


FIGURE 16: Removing the upper faceplate

2. **Pull outward to release the six tabs that secure the front panel to the chassis, and lift the panel off the chassis (see Figure 17).**

   First release the two top tabs, then the two middle tabs, and then the two bottom tabs. Use a screwdriver to release the tabs that are hard to reach.

   Make sure that the cutouts in the panel clear the power and reset buttons and the front USB ports.

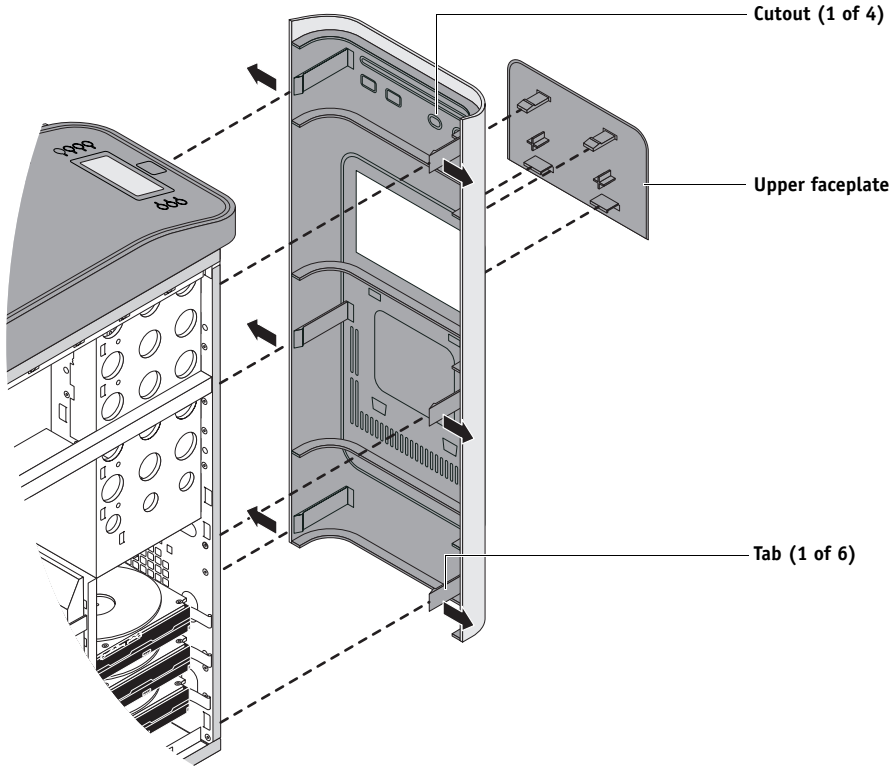


FIGURE 17: Removing/replacing the front panel

3. **To replace the front panel, align the four cutouts in the panel with the power and reset buttons and front USB ports (see Figure 17 on page 65).**

4. **Press the panel against the chassis to lock the panel into place.**

   Lock the panel tabs in pairs (first the top tabs, then the middle tabs, then the bottom tabs).

5. **Replace the upper faceplate.**

   Orient the faceplate as shown in Figure 17 on page 65. Insert the top tabs of the faceplate into the chassis (see Figure 16 on page 64). Then carefully press the faceplate against the chassis, making sure that all four tabs of the faceplate are securely locked in 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.**

   Use a small flathead screwdriver to lift the edge of the plug out of the top panel, and remove the plug.

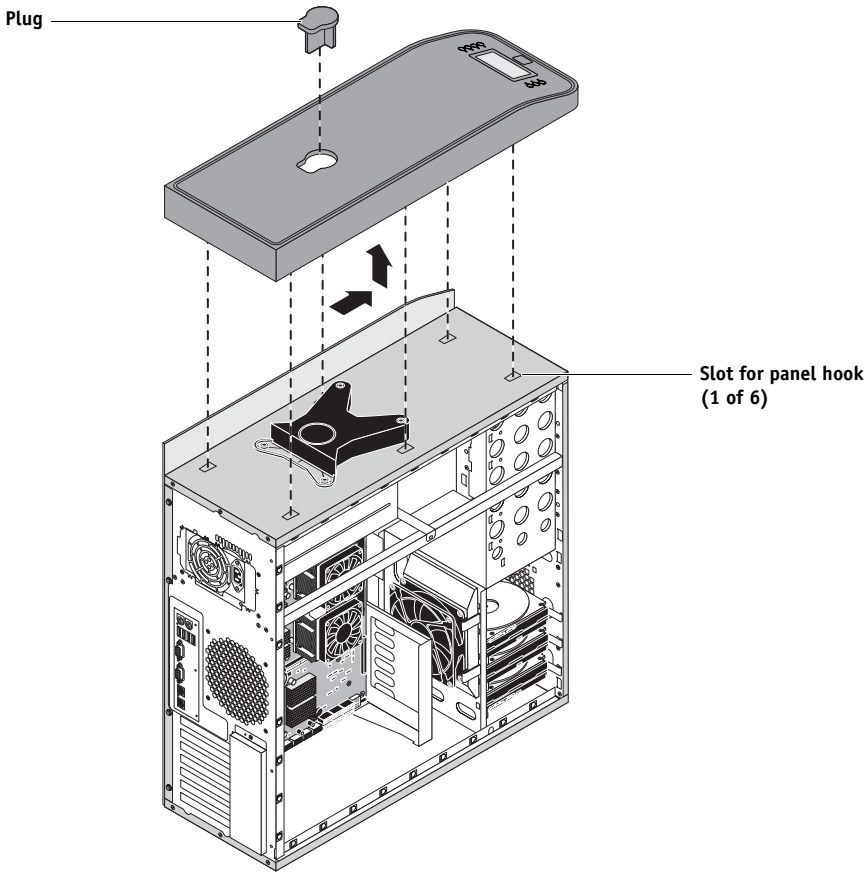


FIGURE 18: Removing/replacing the top panel

2. **Loosen the panel (see Figure 18 on page 66).**

   Slide the top panel toward the front of the chassis to disengage the hooks in the panel from the six 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 its connector on the motherboard.**

   For the connector location, see Figure 13 on page 58.

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

   Carefully guide the UIB cable out of the chassis as you remove the panel.

5. **To replace the top panel, first route the UIB cable through the chassis and connect it to the motherboard.**

   For the connector location on the motherboard, see Figure 13 on page 58 and Figure 23 on page 76.

6. **Position the top panel on top of the chassis (see Figure 18 on page 66).**

   Place the six 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 to the top panel.**

   Correctly align the plug and insert it into the cutout on 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-80 is shipped from the factory with a standard board configuration, as shown in Figure 11 on page 56. If an optional component has been installed, see the documentation that accompanies the option kit.

Video board

The E-80 video board processes print jobs into raster image data and transfers the data to the IDIC boards installed in the digital press.

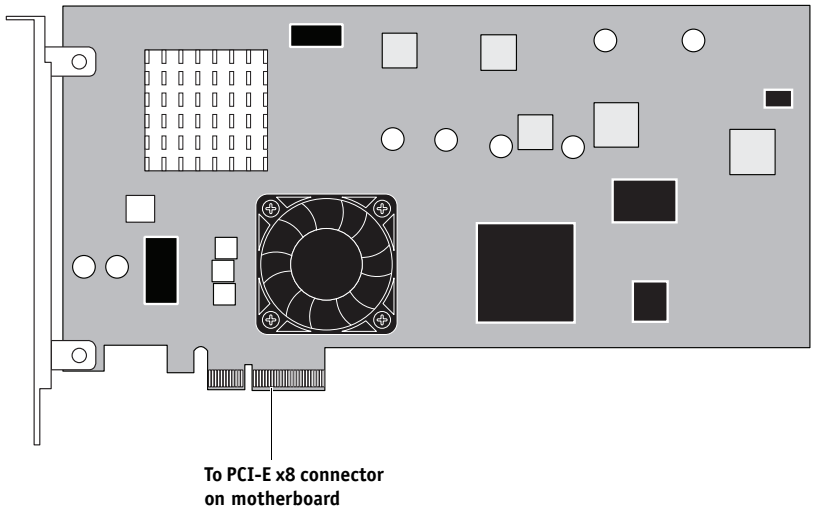


FIGURE 19: Diagram of video board (component side)

TO REMOVE THE VIDEO BOARD

1. **Shut down the E-80, remove all cables from the back, and then open the system (see page 60).**

   In order to access the video board, you must remove the left panel.

2. **Remove the bracket cover plate from the back panel (see Figure 10 on page 55).**

   You must remove the bracket cover plate in order to access the bracket screw for the video board.

3. **Remove and set aside the bracket screw that attaches the board mounting bracket to the back panel.**

4. **Remove the video board from its motherboard PCI connector.**

   Grasp the board at the front and back edge and gently pull the board straight out of its connector on the motherboard. Remove the board from the chassis.

   When removing the board, be careful not to damage or disconnect any motherboard cables that are installed nearby.

   Place the removed board in an antistatic bag.

TO REPLACE THE VIDEO BOARD

1. **Install the video board in connector PCI-E x8 on the motherboard.**

   The video board connector is keyed to fit only one way.

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

2. **Replace the bracket screw to the mounting bracket in the back panel slot.**

3. **Replace the bracket cover plate to the back panel (see Figure 10 on page 55).**

4. **Reassemble the E-80 and verify its functionality (see page 129).**

User interface board

The user interface board (UIB) provides the interface between the E-80 and the user. The front of the UIB contains circuitry for the following:

- Activity light LEDs
- Display window (LCD)
- Four line selection buttons
- Up and down buttons
- Menu button

The UIB cable routes from the connector on the back of the user interface board to the designated USB connector on the motherboard (see Figure 13 on page 58 and Figure 23 on page 76).

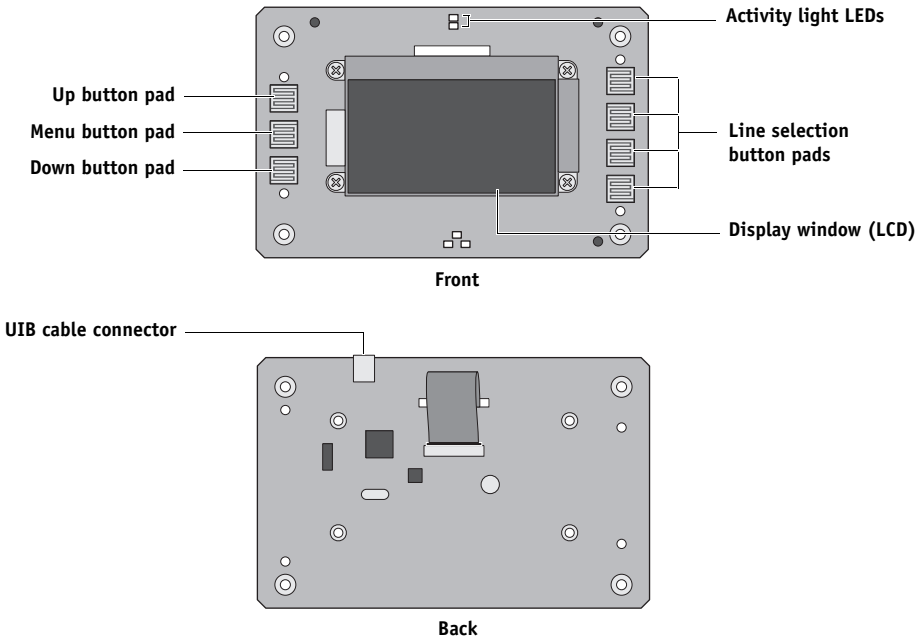


FIGURE 20: Diagram of the user interface board (front and back)

TO REMOVE THE USER INTERFACE BOARD

1. **Shut down and open the E-80 (see page 60).**

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

   NOTE: Be sure to detach the UIB cable from its connector on the motherboard, and pull the cable out of the chassis when removing 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 itself.

4. **Remove the four screws that secure the UIB to the underside of the top panel (see Figure 21).**

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

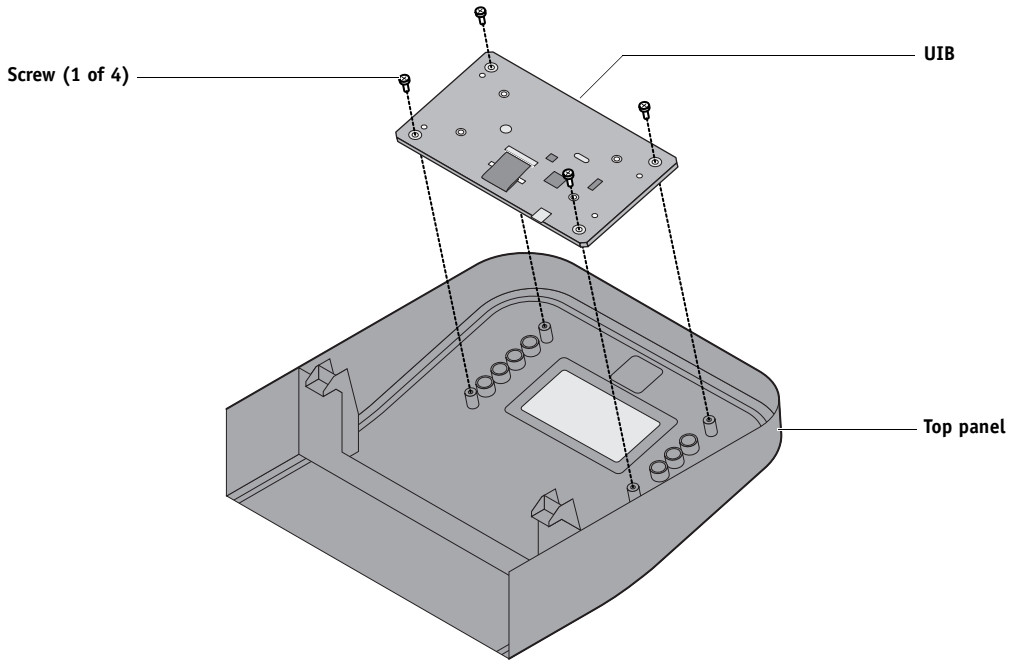


FIGURE 21: Removing/replacing the user interface board

6. **If you are removing the UIB to replace it with a new board, remove the buttons from the old UIB.**

   Carefully pull the buttons out of the anchoring holes on the UIB (see Figure 22 on page 73). Take care not to damage the pointed tabs on the back of each button set.

7. **Place the board 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 board (see Figure 22).**

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

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

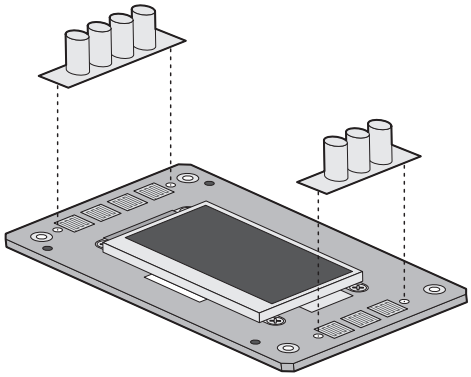


FIGURE 22: Removing/replacing the UIB buttons

2. **Turn the top panel over to expose its underside and place it on a padded surface.**
3. **Position the plastic lens around the display window of the UIB.**

4. **Secure the UIB to the underside of the top panel (see Figure 21 on page 72).**

   Hold the plastic lens in place as you position the UIB in the mounting area of the top panel. Carefully fit the UIB buttons through the cutouts in the top panel.

   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.

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

   Cut the tie wrap securing the old cable to the underside of the top panel and remove the old cable.

   NOTE: The tie wrap is used to secure the cable during shipment and does not need to be replaced when you replace the cable.

6. **Attach the UIB cable to the connector on the back of the UIB.**

7. **Replace the top panel (see page 66).**

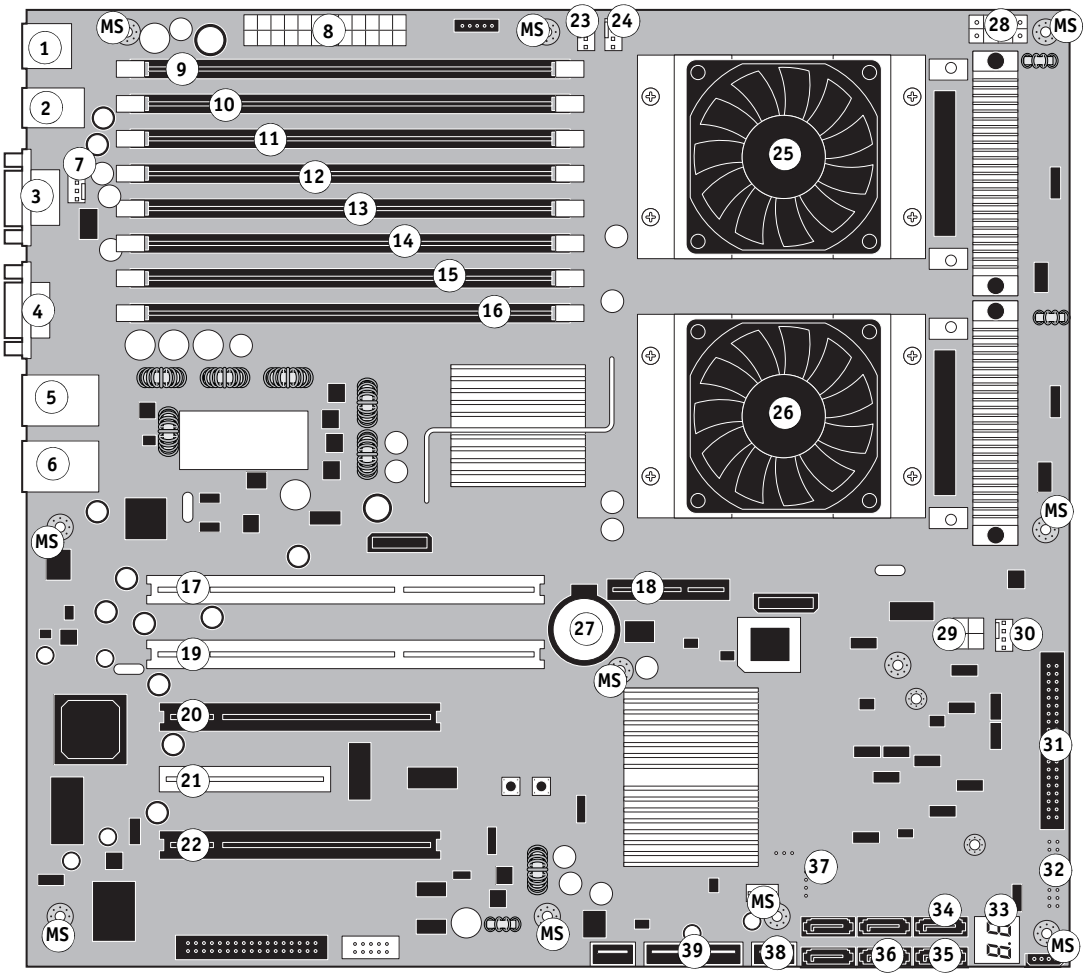
   NOTE: When replacing the top panel, be sure to route the UIB cable through the chassis and connect it to the UIB connector on the motherboard. For the location of the motherboard connector, see Figure 13 on page 58 and Figure 23 on page 76.

8. **Reassemble the E-80 and verify its functionality (see page 129).**

Motherboard

The motherboard has two quad-core Intel Xeon 3.0GHz CPUs. The CPUs control the image data transferred to and from the video board. The motherboard controls HDD functions and the communication between the E-80 and external devices. DIMM sockets on the E-80 contain four 512MB DIMMs (see page 98). The motherboard also includes:

- Two 64-bit PCI-X (Peripheral Component Interconnect Extended) connectors
- One PCI-E (PCI Express) x4 connector
- Two PCI-E x16 connectors
- One PCI-E x8 connector



Key

1. PS/2 connectors (not used)
2. USB ports (Impose and Compose dongles)
3. Serial port (not used)
4. VGA port (monitor option)
5. 10/100/1000Mbps network connector
6. Printer/copier ethernet connector
7. Back fan connector (FAN1)
8. 24-pin power connector (PW1)
9. Empty DIMM connector(J24)
10. DIMM (J23)
11. Empty DIMM connector(J22)
12. DIMM (J21)
13. Empty DIMM connector(J20)
14. DIMM (J19)
15. Empty DIMM connector (J18)
16. DIMM (J17)
17. Empty 64-bit PCI-X connector (PCIX-P1 J16)
18. Empty PCI-E x4 connector (J43)
19. Empty 64-bit PCI-X connector (PCIX-S1 J15)
20. Empty PCI-E x16 connector (J13)
21. Video board (PCI-E x8 J10)
22. Empty PCI-E x16 connector (J12)
23. CPU1 fan connector (CPUFAN1)
24. CPU0 fan connector (CPUFAN0)
25. CPU0 and cooling assembly
26. CPU1 and cooling assembly
27. Battery (BT1)
28. 8-pin power connector (PW2)
29. 4-pin power connector (PW3)
30. Front fan connector (FAN2)
31. DVD drive IDE connector (IDE1)
32. Power and reset button pins (J77)
33. BIOS post code LEDs
34. HDD1 (middle) connector (SATA1)
35. HDD0 (top) connector (SATA0)
36. HDD2 (bottom) connector (SATA2)
37. Speaker/Buzzer pins (J81)
38. UIB cable connector
39. Front USB port cable connectors

MS—Mounting screws

NOTE: Any connectors not listed above are not used.

FIGURE 23: Diagram of the E-80 motherboard

Motherboard jumpers

This section describes the factory default jumper configurations. Do not move or change any of the default jumper configurations.

TABLE 2: Jumper pins on the motherboard

Location on motherboard	Default jumper configuration (when the motherboard is oriented as shown in Figure 23 on page 76)
JP47 (near the SATA connectors)	Right two pins:
JP60 (near the lower PCI-E x16 connector)	Right two pins:
JP61 (near the PCI-E x8 connector)	Right two pins:
JP62 (near the PCI-E x8 connector)	Right two pins:
JP63 (near the PCI-E x8 connector)	Right two pins:

Removing the motherboard

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

- All boards installed on the motherboard
- All cables connecting the motherboard to other components (including the three motherboard power cables, front and back fan cables, DVD data cable, HDD data cables, UIB cable, front USB cables, power button cable, reset button cable, and speaker cable)

This section also includes information on the following:

- Replacing DIMMs
- Replacing a CPU
- Replacing the battery
- Configuring jumpers

Follow standard ESD precautions when handling components.

TO REMOVE MOTHERBOARD COMPONENTS FROM THE MOTHERBOARD

1. **Shut down the E-80, remove all cables from the back, and open the system (see page 60).**

   In order to access the motherboard, you must remove the left panel.

2. **Remove the video board from the motherboard (see page 69).**

   In order to access the mounting screw for the board bracket, you must first remove the bracket cover plate from the back panel.

   Remove the mounting screw that secures the board bracket to the back panel. Grasp the board at the front and back edge and gently pull it straight out of its connector on the motherboard. Place the board on an antistatic surface.

3. **Remove the following cables attached to the motherboard (for the location of each connector on the motherboard, see Figure 13 on page 58 and Figure 14 on page 59):**

   - Front fan cable
   - Back fan cable
   - HDD data cables
   - DVD drive data cable
   - UIB cable
   - Front USB cables

     To remove the motherboard tray, you may first need to cut the tie wrap that secures the front USB cables to the chassis.

   - 4-pin motherboard power cable
   - 8-pin motherboard power cable
   - 24-pin motherboard power cable
   - Power button cable
   - Reset button cable
   - Speaker/buzzer cable

TO REMOVE THE MOTHERBOARD TRAY

NOTE: This procedure assumes that you have removed the video board and cables from the motherboard, as described in "To remove motherboard components from the motherboard" on page 78.

1. **Remove the front fan (see page 106).**
2. **Remove the back fan (see page 109).**

   NOTE: If you do not remove the back fan, you may damage the back fan cable when removing the motherboard.

3. Remove the two screws that secure the connector plate to the back panel of the E-80 (see Figure 24).
4. Remove the two thumb screws that secure the motherboard tray to the chassis.

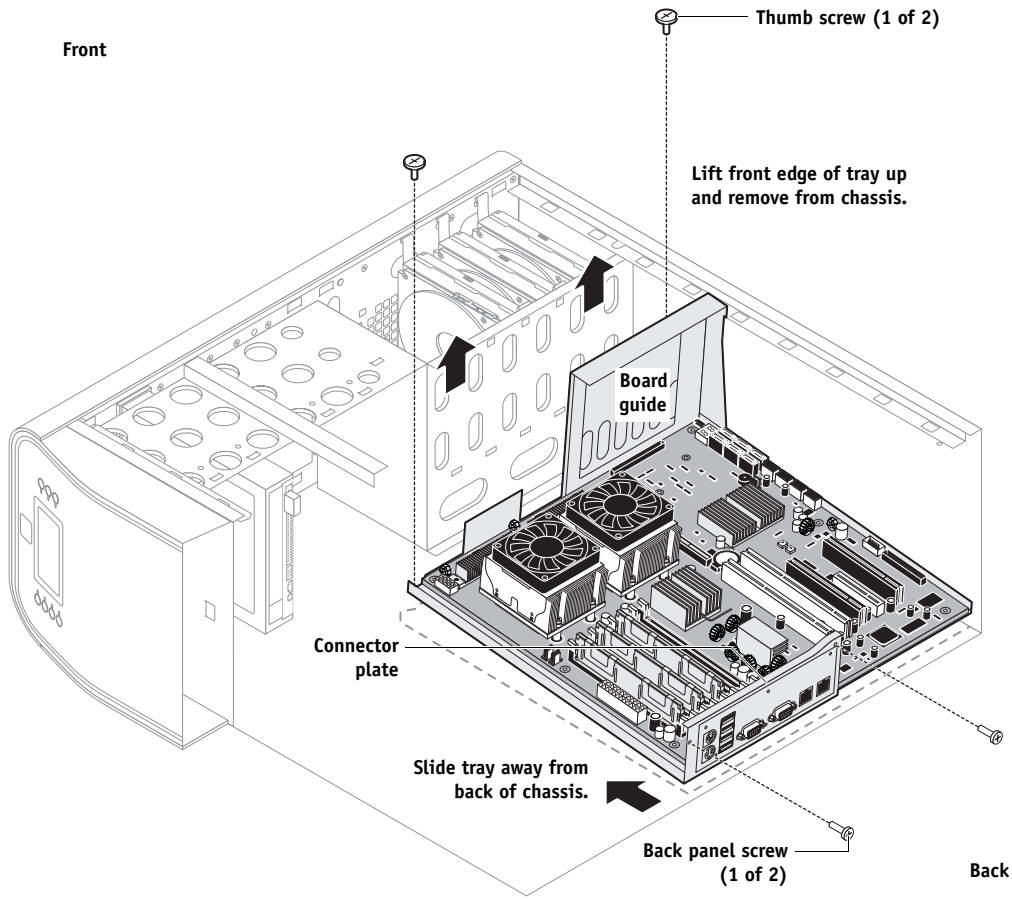


FIGURE 24: Removing the motherboard tray

5. Slide the motherboard tray away from the back of the chassis until the connector plate detaches from the back panel (see Figure 24).
6. Grasping the board guide, lift the front edge of the motherboard tray and carefully remove the tray from the chassis.

TO REMOVE THE MOTHERBOARD FROM THE MOTHERBOARD TRAY

Follow ESD and other safety precautions when handling the motherboard. Do not touch the contacts and avoid using excessive force. Place the motherboard on a grounded, anti-static surface.

1. **Remove the 10 mounting screws that secure the motherboard to the motherboard tray (see Figure 25).**
2. **Remove both CPU cooling assemblies from the motherboard (see page 100).**

   Each CPU cooling assembly is secured by four screws that attach to posts in the motherboard tray.

   To avoid flexing and possibly damaging the motherboard during removal of the cooling assemblies, always remove the 10 motherboard screws first. Doing so minimizes tension on the motherboard as the cooling assemblies are removed.

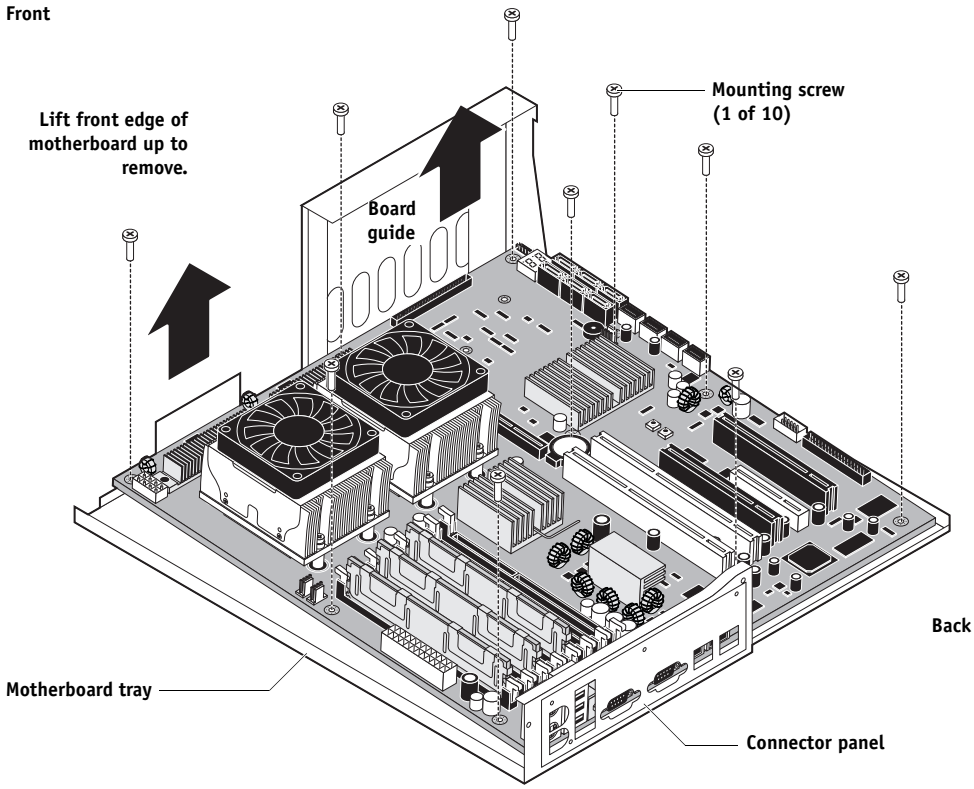


FIGURE 25: Removing the motherboard from the tray

3. **Lift the front edge of the motherboard to detach the back connectors from the connector panel.**
4. **Carefully remove the motherboard from the motherboard tray.**

   As you remove the motherboard, make sure that it clears both the connector panel and the board guide. Avoid handling contacts and using excessive force.
5. **If you are replacing the motherboard with a new motherboard, remove the following from the old motherboard:**
   - DIMMs (see page 98)
   - CPUs (see page 100)

Replacing the motherboard

Follow the procedures in this section to replace the motherboard. Failure to follow these procedures can cause a corrupted system (not easily repaired in the field) or an incomplete installation (see "Error messages" on page 94).

If you are installing a new motherboard:

- Follow ESD and other safety precautions when handling the motherboard. If you must remove the motherboard during service, place it on a grounded, anti-static surface.
- Transfer the DIMMs and CPUs from the old motherboard. Spare motherboards ship with replacement thermal compound for use when transferring the CPUs.
- Make sure that the new motherboard solves the problem that you are troubleshooting *before you transfer options to the new motherboard*. Transferring options permanently customizes the new motherboard so that it cannot be returned to inventory and cannot be installed in another E-80. If the new motherboard does not solve the problem, do not transfer options. Return the new motherboard and unused single-use dongle to inventory.
- Do not reinstall system software. Reinstalling system software is not necessary when installing a new motherboard and can result in an error if done before transferring options.

- BIOS chips are not interchangeable. Do not transfer the BIOS chip from the old motherboard onto the new motherboard. Doing so can damage the E-80.
- Do not install a new HDD at the same time that you install a new motherboard.

  It is unlikely that both the HDD and the motherboard are defective, therefore, avoid replacing both to solve one problem. If troubleshooting strategies (checking cables and connections, etc.) do not resolve the problem and you suspect either the HDD or the motherboard is at fault, use the following order: replace the HDD; install system software; verify the problem still exists; then move on to other procedures, such as replacing the motherboard. Otherwise, you may need to return the E-80.
- Transfer options to the new motherboard using the single-use dongle and the Fiery Options Utility CD (for details, see page 89).

TO INSTALL THE MOTHERBOARD IN THE MOTHERBOARD TRAY

1. **If protective covers are present on the CPU sockets on the new motherboard, remove them. Then install the covers on the CPU sockets on the old motherboard to protect the circuitry.**
2. **If you are installing a new motherboard, install the DIMMs and CPUs from the old motherboard onto the new motherboard. For DIMMs, see page 98; for CPUs, see page 100.**

   Follow these guidelines:

   - Make sure to use the fresh thermal compound that came with the new motherboard when transferring CPUs onto the new motherboard (see page 104 for details).
   - Make sure that the motherboard is placed on an antistatic surface with some padding.
   - Do not transfer the BIOS chip from the old motherboard onto the new motherboard. Doing so can cause the system to shut down due to incompatibility issues.
3. **Angle the motherboard so the back panel connectors on the motherboard fit into the cutouts in the connector panel of the motherboard tray (see Figure 25 on page 80).**
4. **Align the mounting holes in the motherboard with the mounting posts on the motherboard tray.**
5. **Install the CPU cooling assemblies that you removed earlier.**

   For detailed installation instructions, see page 100.
6. **Insert the 10 motherboard mounting screws that attach the motherboard to the motherboard tray (see Figure 25 on page 80).**

   Always install the CPU cooling assemblies before installing the 10 motherboard mounting screws. You may flex and damage the motherboard if you perform the installations in the wrong order.

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

TO REPLACE THE MOTHERBOARD TRAY

NOTE: This procedure assumes that you have installed the motherboard in the motherboard tray, as described on page 83.

1. **Carefully insert the motherboard tray into the chassis.**

   Move all cables aside as you insert the motherboard tray; make sure that the tray is not pinching or covering any cables in the chassis.

2. **Place the tray flat in the chassis, fitting the cutouts at the top of the tray over the two standoffs in the chassis (see Figure 26). Slide the tray toward the back of the chassis until the connector plate engages the back panel.**

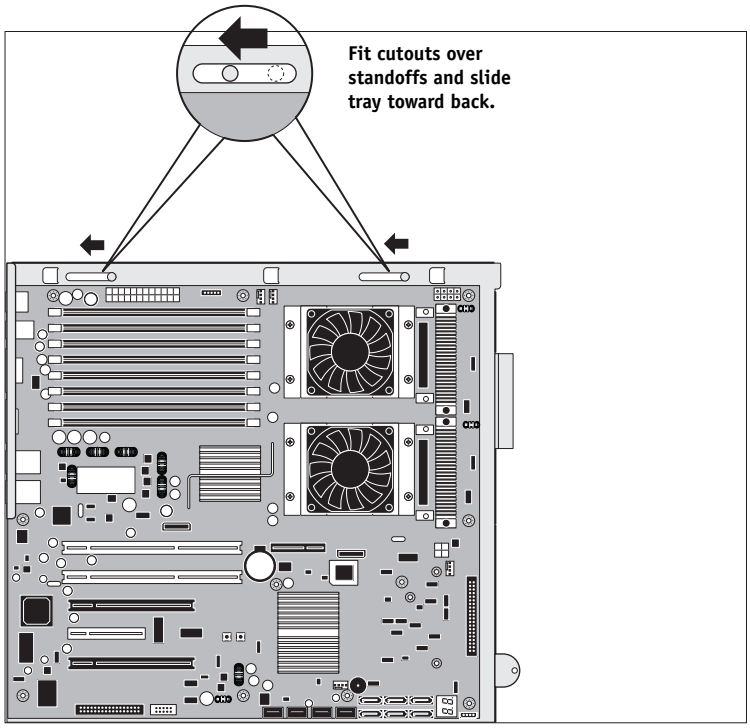


FIGURE 26: Installing the motherboard tray

3. **Replace the two thumb screws that secure the tray to the chassis (see Figure 24 on page 79).**
4. **Replace the two screws that secure the connector plate to the back panel of the chassis (see Figure 24 on page 79).**
5. **Replace the front fan (see page 106).**
6. **Replace the back fan (see page 109).**

   You are now ready to replace motherboard components to complete motherboard hardware installation.

TO REPLACE MOTHERBOARD COMPONENTS

1. **Replace the following cables attached to the motherboard (for the location of each connector on the motherboard, see Figure 23 on page 76):**

   - Speaker cable (J81 pins)

     Make sure that the triangle on the cable connector is aligned with the correct pin, as shown in Figure 13 on page 58.

   - Reset button cable (J77 pins 5 and 7)

     Make sure the triangle on the cable connector aligns with pin 5, as shown in Figure 13 on page 58.

   - Power button cable (J77 pins 6 and 8)

     Make sure the triangle on the cable connector aligns with pin 6, as shown in Figure 13 on page 58.

   - 24-pin motherboard power cable (PW1)
   - 8-pin motherboard power cable (PW2)
   - 4-pin motherboard power cable (PW3)
   - Front USB cables (middle two USB connectors to the left of the SATA connectors)

     You may connect each cable to either USB connector.

   - UIB cable (USB connector directly to the left of the SATA connectors)
   - DVD drive data cable (IDE1-J76)
   - HDD data cables

     Connect the HDD data cables as follows:

     – Top HDD (HDD0)—SATA0

     – Middle HDD (HDD1)—SATA1

     – Bottom HDD (HDD2)—SATA2

   - Back fan cable (FAN1, bottom three pins)
   - Front fan cable (FAN2, top three pins)

2. **Replace the video board to connector PCI-E x8 (J10) on the motherboard (see page 69).**

   When installing the board, verify the following:

   - The board connector is properly aligned with the PCI connector.
   - The bracket screw is installed on the back panel slot. Press down firmly on the top of the board as you insert the screw.
   - Unused slots have slot covers installed on the back panel. Uncovered slots reduce the air flow and could cause the E-80 to overheat.

3. **Replace the bracket cover plate to the back panel (see Figure 10 on page 55).**
4. **Reassemble the E-80 but do not power on the system.**

Verifying the functionality of a new motherboard installation

After you install a new motherboard and reassemble the system, you first need to verify all functionality by using the single-use dongle to enter Service Mode. Be sure to verify the motherboard functionality *before transferring options to the new motherboard* (described on page 89); do not transfer options prematurely.

Entering Service Mode allows you to make sure that the new motherboard solves the problem that you are troubleshooting. Service Mode is a temporary state that allows you to test the motherboard. Service Mode is exited automatically when you expend the single-use dongle to transfer options (see page 89).

Service Mode is not indicated on the E-80 Control Panel but is entered once you power up with a new motherboard installed and the single-use dongle installed on the USB port.

TO ENTER SERVICE MODE AND VERIFY THE SYSTEM

NOTE: This procedure assumes that you have installed a new motherboard and reassembled the E-80.

1. **Remove all dongles (such as Impose and Compose) and USB devices that may be currently installed on the front and back of the E-80.**
2. **Unpack the single-use dongle included with the new motherboard and connect it to any available USB port on the E-80 (see Figure 27).**

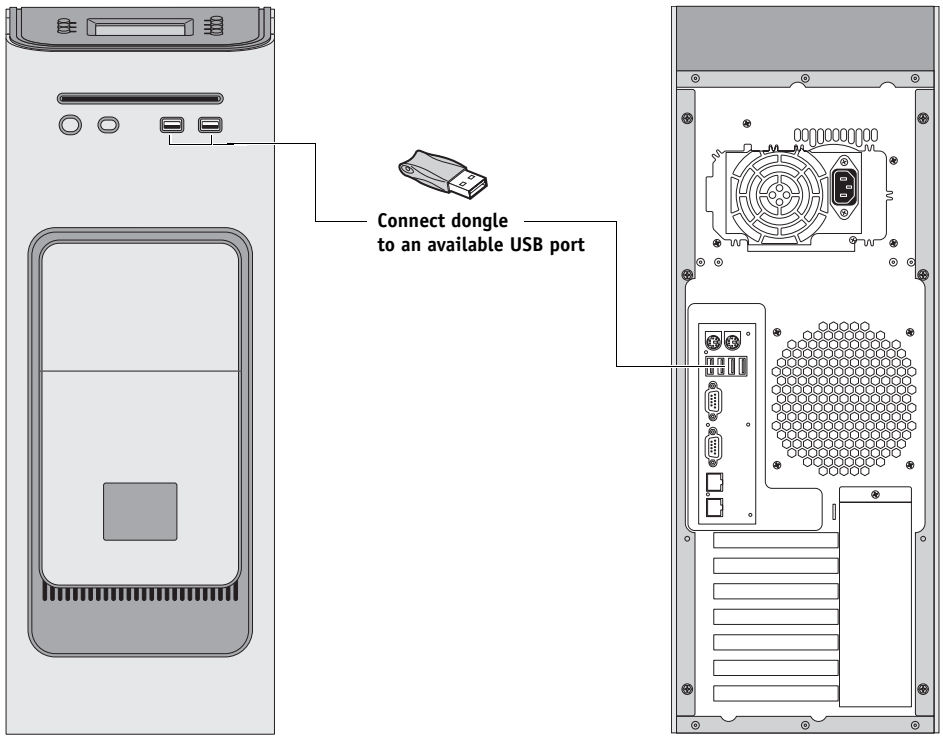


FIGURE 27: Connecting the single-use dongle

3. **Power on the E-80 using the power button on the front panel. Allow startup to proceed until the E-80 reaches Idle.**

   At this point the E-80 is in Service Mode, so you can make sure that the new motherboard solves the problem you are trying to troubleshoot. Service Mode is not indicated on the Control Panel.

4. **Make sure that the E-80 is connected to the printer/copier (see page 36) and print the E-80 Test Page (see page 45).**

5. **Ask the network administrator to connect the E-80 to the network (see page 38) 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 and 5 above while in Service Mode, the new motherboard has not solved the problem that you are troubleshooting. If this is the case, *do not transfer options to the motherboard* (described on page 89), and *do not attempt any other troubleshooting procedures yet* (such as reinstalling system software or replacing the HDD). Reinstall the old motherboard and return the new motherboard with the unused single-use dongle to inventory. You may then perform additional service and troubleshooting procedures.

If the E-80 is able to print a Test Page and a print job sent over the network, you may conclude that the new motherboard solves the problem that you are troubleshooting. You may now transfer options to the new motherboard (see page 89).

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 CD and the one-time use dongle to transfer options to the new motherboard.

Once the options are transferred, the new motherboard is customized and cannot be used in another system.

> **IMPORTANT:** If your new motherboard kit contains a CD other than the Fiery Options Utility CD, such as the Feature Update CD, *do not use the procedure described in this section*. Instead, use the procedure described in the documentation that accompanies the motherboard kit to update the system.

TO TRANSFER OPTIONS TO THE NEW MOTHERBOARD

NOTE: This procedure assumes that the E-80 is fully assembled, verified in Service Mode (see page 86), and powered off.

1. **Make sure that the one-time use dongle is firmly attached to a USB port on the E-80 and that no other dongles or USB storage devices (for example, a flash or thumb drive) are attached to the E-80.**

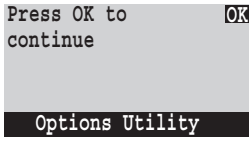
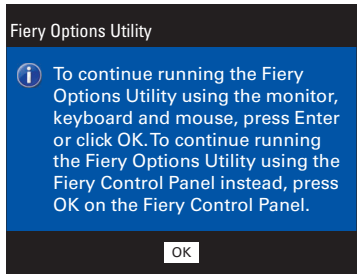
The options transfer process may fail if other dongles and/or USB storage devices are connected to the E-80 during the process. Reconnect other dongles and devices after you complete the option transfer process.

2. **Power on the E-80.**
3. **Immediately insert the Fiery Options Utility CD into the DVD drive.**

NOTE: The Fiery Options Utility CD must be in the DVD drive in time for the E-80 to boot from it. If the E-80 does not boot from the Fiery Options Utility CD, allow the E-80 to start up, eject the CD, turn off the E-80, and then repeat steps 2 and 3.

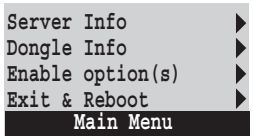
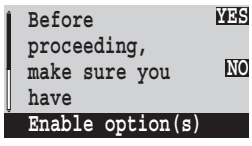
4. **To continue, choose the Control Panel or monitor (if installed) as the interface to use throughout the option transfer process.**

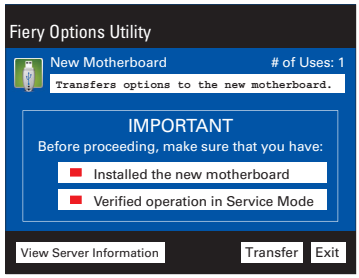
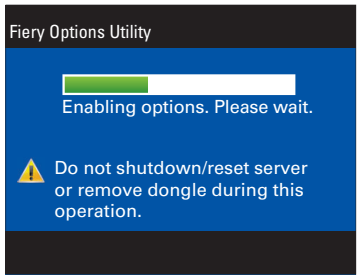
   The first screen that displays when you start the Fiery Options Utility allows you to choose the interface that you will use throughout the procedure. Choose an interface by selecting OK on the Control Panel or monitor. The interface not chosen is then disabled during the option transfer process.

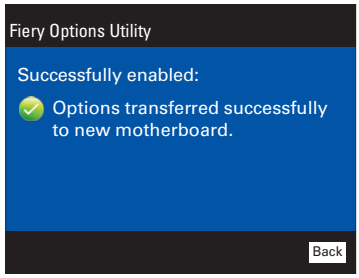
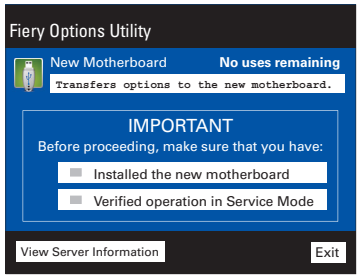
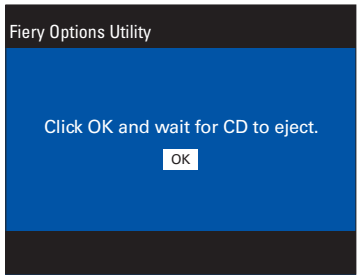
Control Panel	Monitor
	

5. **Follow the prompts that appear on the chosen interface.**

   NOTE: If an error message displays during the transfer process, see page 94.

Control Panel	Action
	Select **Enable option(s)**
	• Selecting **Server Info** displays no useful information until options are transferred to the new motherboard. • **Dongle Info** displays the dongle type and uses remaining. For more about viewing **Server Info** and **Dongle Info**, see page 92.
	Select **YES** to confirm items and transfer options, **or** select **NO** to return to the Main Menu.
	

Monitor	Action
	Click each item to confirm, and then select **Transfer** to transfer options.
	• The **Transfer** button is unavailable until you confirm both items. • Selecting **View Server Information** displays no useful information until options are transferred to the new motherboard. (For details, see page 92.)
	Allow the transfer process to continue without interruption (approximately two minutes).

Control Panel	Action	Monitor	Action
Enabling options. Please wait.. Do not shut down or reset server or remove dongle.	Allow the transfer process to continue without interruption (approximately two minutes).		Select **Back** to continue.
Options transferred successfully. OK Enable Option(s)	Select **OK** to continue.		Select **Exit** to continue. Select **View Server Information** to verify the transferred option(s). For more about viewing **Server Information**, see page 92.
Server Info Dongle Info Enable option(s) Exit & Reboot Main Menu Select **Server Info** to verify the transferred option(s). For more about viewing **Server Info**, see page 92.	Select **Exit & Reboot** to continue.		Select **OK** to eject the CD and reboot the system.
Select OK and wait for CD to eject. OK	Select **OK** to eject the CD and reboot the system.		

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

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

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

7. **Wait for the E-80 to reach Idle on the Control Panel.**

8. **Shut down the E-80 and reattach any dongle(s) (for example, for Compose or Impose) or USB device that you may have removed previously.**

Viewing dongle and server information

This section describes how to view information about the dongle and the server.

NOTE: This section is only applicable if your new motherboard kit contains the Fiery Options Utility CD.

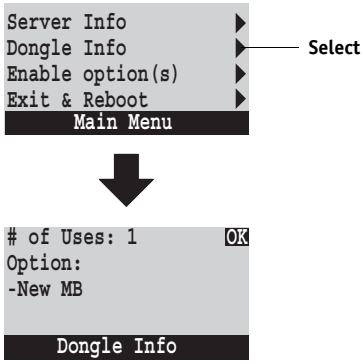
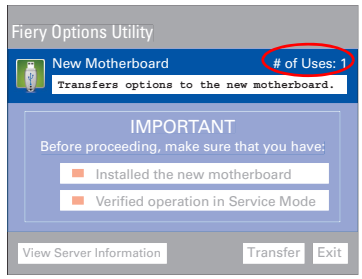
- Selecting **Dongle Info** (or **View Dongle Information** on the monitor) before transferring options allows you to determine the number of uses remaining on the dongle and the option or function that the dongle enables.
- Selecting **Server Info** (or **View Server Information** on the monitor) after transferring options allows you to determine the E-80 BIOS version, motherboard MAC address, and options currently enabled on the system. This information is useful when you want to verify the state of the system before and after you expend the dongle.

TO VIEW DONGLE OR SERVER INFORMATION

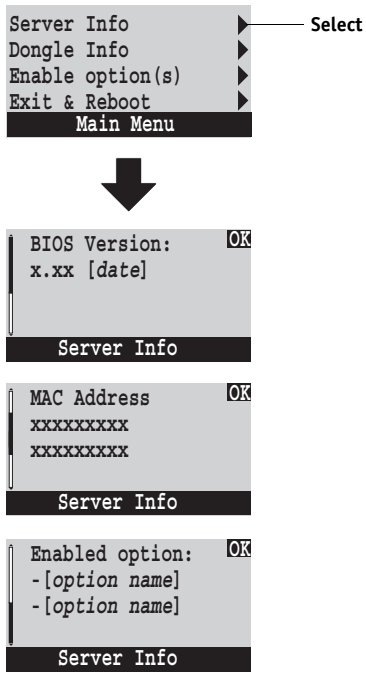
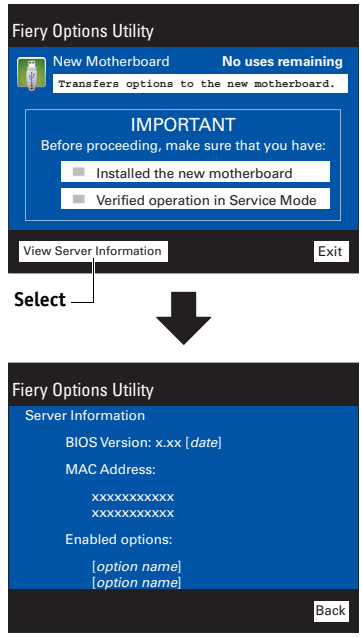
1. **Make sure that the E-80 is off, and then attach the one-time use dongle to a USB port on the E-80.**
2. **Power on the E-80 and immediately insert the Fiery Options Utility CD into the DVD drive in time for the E-80 to boot from it.**
3. **When the first screen displays, select OK on the Control Panel or the monitor.**
   (For more information about choosing an interface when the first screen displays, see step 4 on page 90).

4. **Follow the onscreen prompts:**

- Viewing Dongle Information before transferring options:

Control Panel	Monitor
	

- Viewing Server Information after transferring options:

Control Panel	Monitor
	

Error messages

One of the following error messages may display on the E-80 Control Panel or the optional monitor when you attempt to transfer options to the new motherboard.

No dongle found! Please connect a dongle to the server—The dongle is missing or improperly attached. Attach the dongle securely to the E-80.

Invalid dongle found! Please remove dongle and connect the correct one—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.

This is a base bios. No upgrade can be done—The options transfer process has not been done. Complete the options transfer process using the Fiery Options Utility CD and dongle included in the motherboard spare kit.

Fatal error! Unable to mount hard disk! Update failed—The system was not shut down properly, or there is a faulty HDD connection. Reboot the system and try the options transfer process again. If the error persists, shut down the system properly (see page 47), check and reseat the HDD cable connections, and then try the options transfer process again.

For additional troubleshooting information, see Table 5 on page 148. If an error condition cannot be corrected, restore the previous configuration, if possible, and contact your authorized service/support center.

Replacing parts on the motherboard

This section describes how to remove and replace the battery, DIMMs, and CPUs on the motherboard. It also discusses how and when to clear the motherboard CMOS.

Before performing any of these procedures, shut down and open the E-80 (see page 60).

Motherboard battery

The battery is located at BT1 on the motherboard.

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

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

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

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

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

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

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

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

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

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

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

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

TO REPLACE THE MOTHERBOARD BATTERY

1. **Shut down the E-80, remove all cables from the back, and open the system (see page 60).**

   In order to access the battery, you must remove the left panel.

2. **Locate the battery on the motherboard (see Figure 23 on page 76).**

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

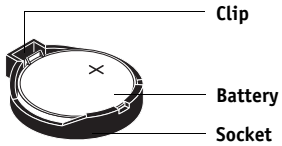


FIGURE 28: Motherboard battery

4. **Slide the battery out of its socket.**

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

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

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

7. **Reassemble the E-80 and verify its functionality (see page 129).**

8. **Configure the time and date in Setup.**

Clearing the CMOS

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

TO CLEAR THE CMOS

1. **Access and open the E-80, as described on page 60.**

   NOTE: Be sure to remove the power cable from the E-80 before opening the system and clearing the CMOS.

2. **Remove the battery (see page 96).**
3. **Wait two minutes to allow the motherboard electrical components to fully discharge.**
4. **Reinstall the battery (see page 96).**
5. **Reassemble the E-80 and verify functionality (see page 129).**
6. **Configure the time and date in Setup.**

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

DIMMs

The motherboard has eight DIMM sockets organized as four channels: Channel 0, Channel 1, Channel 2, and Channel 3, as shown in Figure 29.

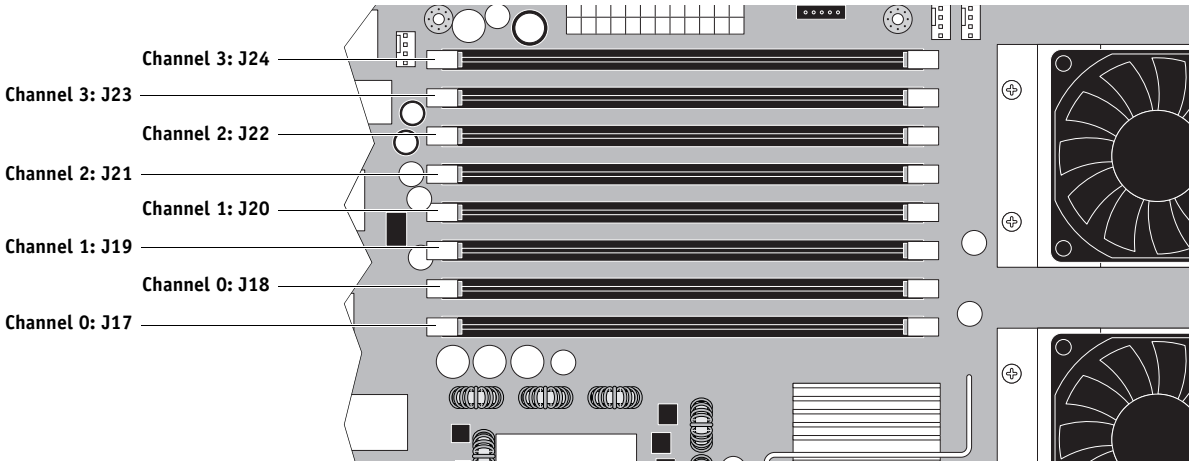


FIGURE 29: Motherboard DIMM sockets

The E-80 standard configuration provides four 512MB DIMMs for a total of 2GB of memory (the lower sockets of each channel are occupied).

NOTE: DIMMs must be correctly installed in order for the E-80 to function properly. To ensure proper operation, replace DIMMs only with approved replacement 512MB DIMMs from EFI.

NOTE: When installing DIMMs, note the following:

- DIMMs must be installed in even-numbered configurations. For example, a four-DIMM configuration is allowed, but a three-DIMM configuration is not supported.
- DIMMs must first be installed in the lower sockets of each channel, beginning from Channel 0 and proceeding upward. Once the lower sockets of each channel are occupied, you may install additional DIMMs in the upper sockets, beginning from Channel 0 and proceeding upward. For example:
- In a two-DIMM configuration, use sockets J17 and J19.
- In a four-DIMM configuration, use sockets J17, J19, J21, and J23.
- In a six-DIMM configuration, use sockets J17, J19, J21, J23, J18, and J20.
- In an eight-DIMM configuration, use sockets J17, J19, J21, J23, J18, J20, J22, and J24.

TO REPLACE A DIMM

1. **Shut down the E-80, remove all cables from the back, and open the system (see page 60).**

   In order 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.**

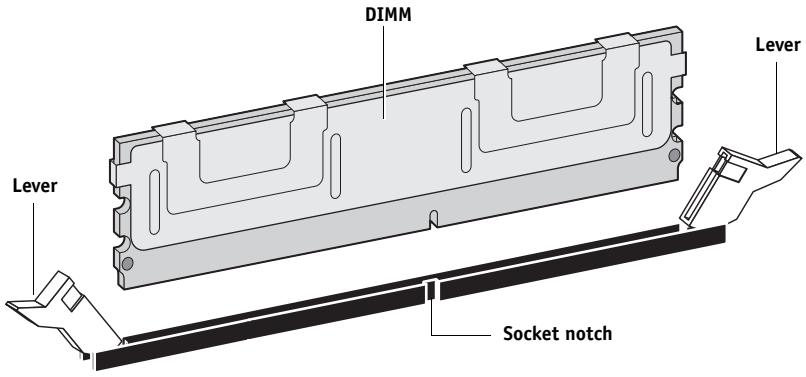


FIGURE 30: Releasing a DIMM

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

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

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

5. **If you installed a new or additional DIMM, clear the CMOS (see page 97).**

   You should clear the CMOS after installing a new or additional DIMM to ensure compatibility between the new component and previous settings stored in the BIOS.

   NOTE: Be sure to remove the power cable from the E-80 before clearing the CMOS.

   - Remove the battery (see page 96).
   - Wait two minutes to allow the motherboard electrical components to fully discharge.
   - Reinstall the battery (see page 96).

6. **Reassemble the E-80 and verify its functionality (see page 129).**
7. **If you installed a new DIMM and cleared the CMOS, configure the time and date in Setup.**

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

Motherboard CPUs

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

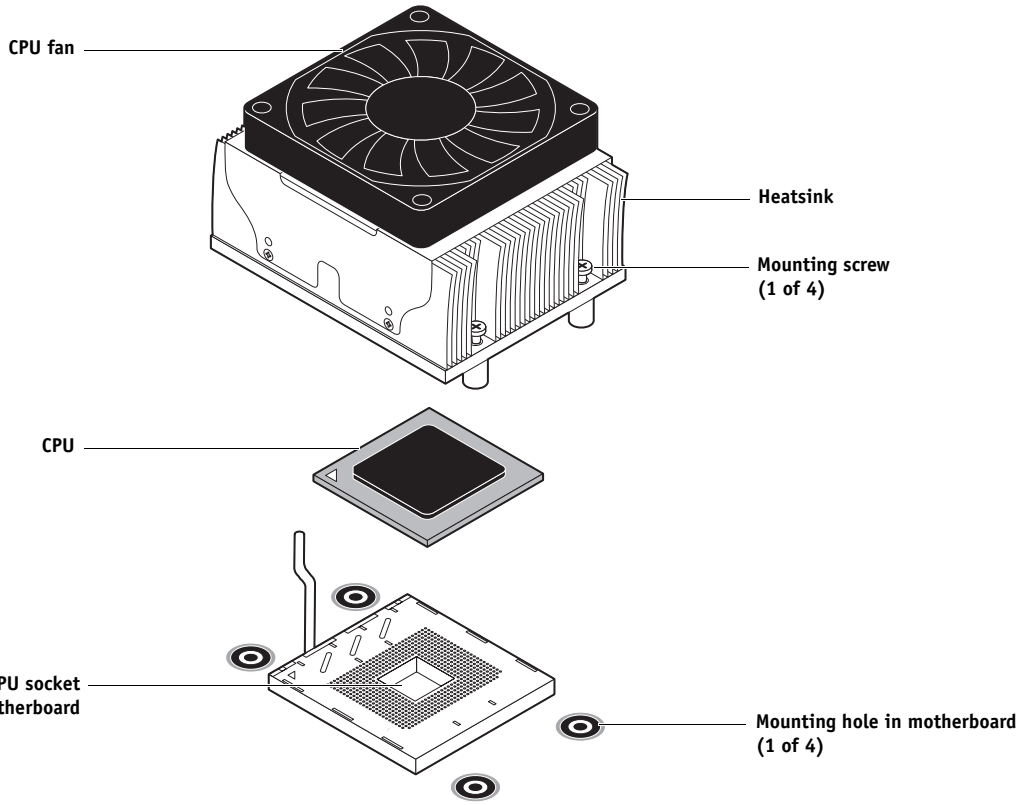


FIGURE 31: CPU, socket, and cooling assembly

Follow standard ESD precautions when handling the motherboard and all components (see page 16).

TO REMOVE A CPU COOLING ASSEMBLY

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

An exception is allowed if you are removing the CPU cooling assemblies to service the motherboard. In this case, first remove the motherboard tray (see page 78), remove the 10 motherboard mounting screws to relieve tension on the motherboard, and then remove both cooling assemblies from the motherboard as described in the following steps.

1. **Shut down the E-80, remove all cables from the back, and then open the system (see page 60).**

   In order to access the CPU cooling assembly, you must remove the left panel.

2. **Remove the CPU fan cable from its connector on the motherboard (see Figure 14 on page 59).**

3. **Loosen the four mounting screws that secure the CPU cooling assembly to the motherboard and motherboard tray (see Figure 32).**

   Partially loosen each screw before loosening any one screw entirely.

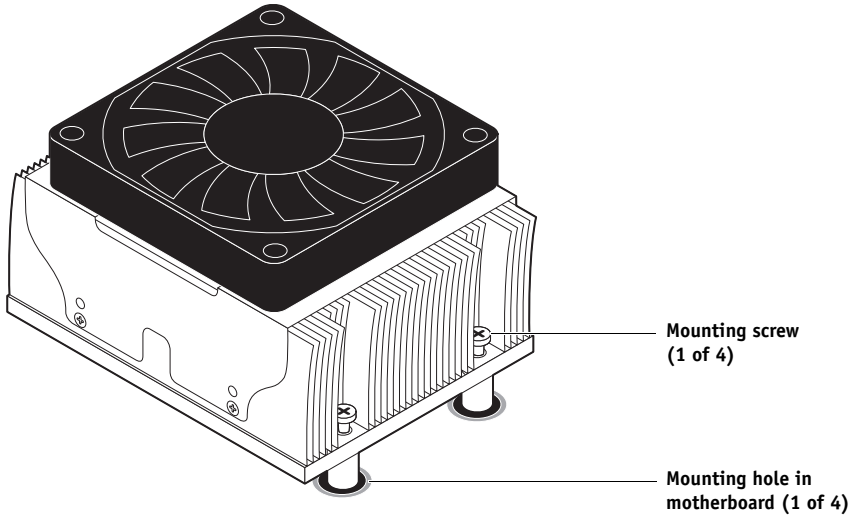


FIGURE 32: Removing/replacing the CPU cooling assembly

4. **Lift the CPU cooling assembly off the CPU.**

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

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

TO REMOVE A CPU

NOTE: This procedure assumes that you have removed the CPU cooling assembly, as described on page 101.

1. **Lift the CPU socket lever to release the CPU from the socket (see Figure 33).**
2. **Grasp the CPU by its edges, gently lift it from the socket and place it on an antistatic surface.**

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

TO REPLACE A CPU

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

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

2. **Insert the CPU into the socket. Make sure that you align the arrow indicating pin 1 on the CPU with the arrow on the CPU socket.**
3. **Lower the socket lever to secure the CPU.**

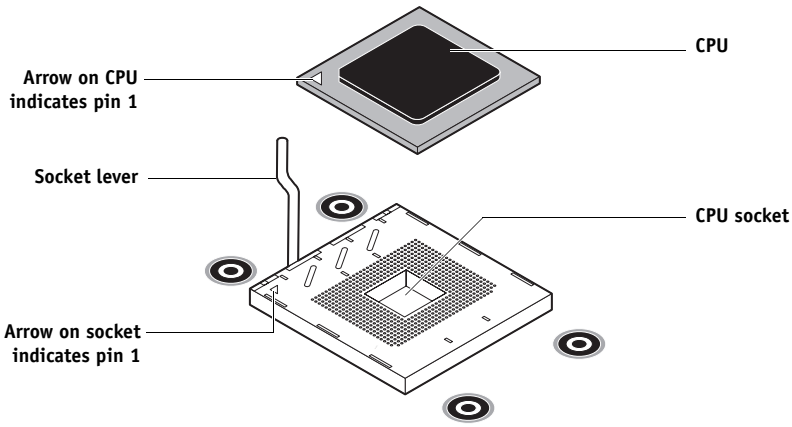


FIGURE 33: Replacing a CPU

TO REPLACE A CPU COOLING ASSEMBLY

NOTE: This procedure assumes that you have installed the CPU in the motherboard CPU socket, as described in page 103.

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

   - If you removed the original CPU cooling assembly from the motherboard in order to install it on a new motherboard, first remove all thermal compound residue from the surface of each CPU and the base of each heatsink. (Use the flat edge of a non-conductive tool to scrape off the residue, and a lint-free cloth moistened with alcohol to clean the base of the heatsink.) Then apply fresh thermal compound to the surface of each CPU using the applicator provided with the new motherboard.
   - If you are installing a new CPU cooling assembly, make sure that fresh thermal compound is present on the base of the new heatsink. New cooling assemblies ship with thermal compound preapplied to the base of the heatsink.

2. **Place the cooling assembly on the CPU (see Figure 32 on page 102).**

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

3. **Tighten the four screws to secure the cooling assembly to the motherboard and motherboard tray.**

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

4. **Connect the CPU fan cable to its designated connector on the motherboard (see page 76).**

5. **If you installed a new CPU, clear the CMOS (see page 97).**

   You should clear the CMOS after installing a new CPU to ensure compatibility between the new component and previous settings stored in the BIOS.

   NOTE: Be sure to remove the power cable from the E-80 before clearing the CMOS.

   - Remove the battery (see page 96).
   - Wait two minutes to allow the motherboard electrical components to fully discharge.
   - Reinstall the battery (see page 96).

6. **Reassemble the E-80 and verify its functionality (see page 129).**

7. **If you installed a new CPU and cleared the CMOS, configure the time and date in Setup.**

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

Fans

Inside the E-80, one front fan and one back fan run continuously when the system is on. The fans circulate air inside the E-80 in order to cool integrated circuits within the system. You should hear the fans start as soon as you power on the E-80. If you do not hear the fans, the most likely problem is a faulty cable connection (see Figure 14 on page 59).

Front fan

The following procedures describe how to remove and replace the front fan. The front fan is secured to the chassis by a plastic mounting bracket.

TO REMOVE THE FRONT FAN

1. **Shut down the E-80, remove all cables from the back, and the open the system (see Figure on page 60).**

   In order to access the fan, you must remove the left panel.

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

3. **Remove the fan assembly from the chassis (see Figure 34).**

   Press to unlock the latches on the fan mounting bracket, and lift the assembly out of the chassis. When removing the fan assembly, be careful not to disturb or disconnect any cables that are installed nearby.

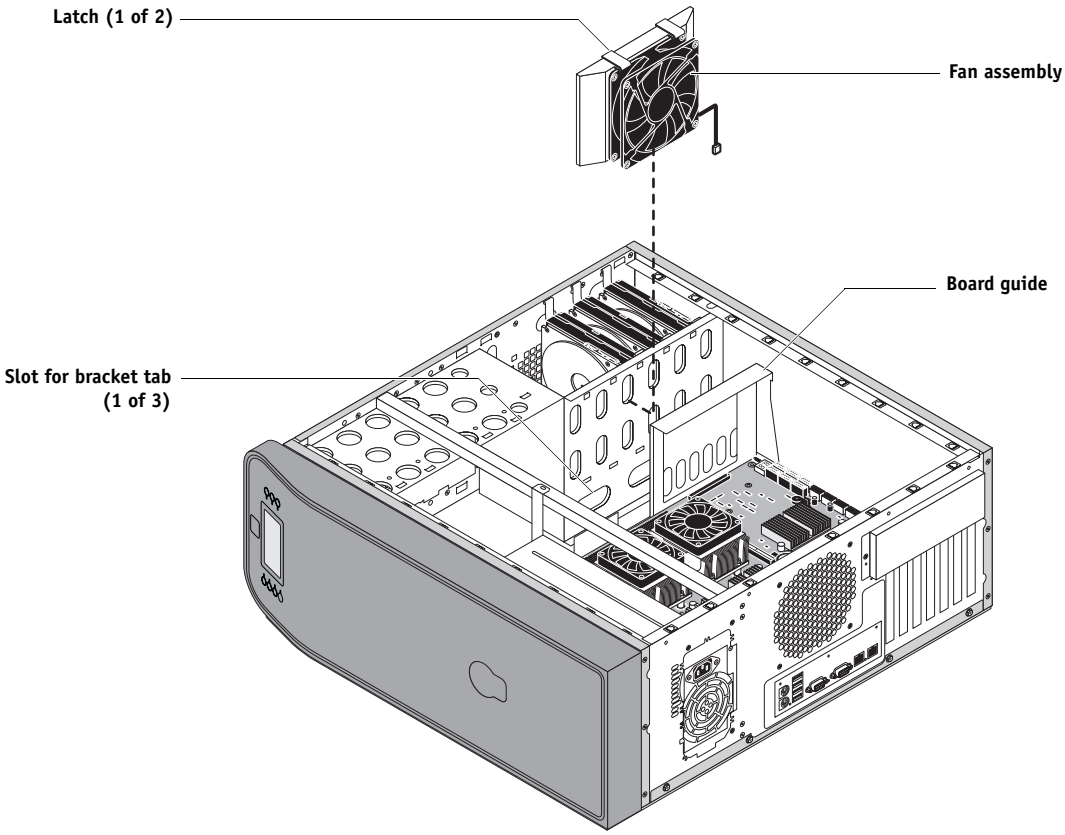


FIGURE 34: Removing/replacing the front fan assembly

4. **If you are replacing the old fan with a new fan, remove the four plastic rivets that attach the old fan to the mounting bracket, and remove the fan from the bracket (see Figure 35).**

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

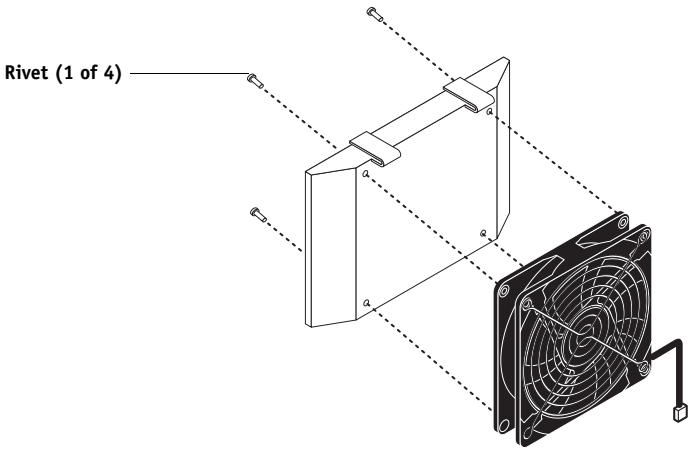


FIGURE 35: Removing/replacing the front fan from the bracket

TO REPLACE THE FRONT FAN

1. **Position the fan on the mounting bracket.**

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

2. **Replace the four plastic rivets that secure the fan to the mounting bracket (see Figure 35 on page 107).**

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

   NOTE: If you are replacing the old fan with a new one and you damaged the original rivets while removing the old fan, use the rivets provided in the bag labeled "FRONT FAN." This bag of rivets accompanies the spare fan kit.

3. **Insert the fan assembly into the space between the board guide and the chassis (see Figure 34 on page 106).**

4. **Secure the fan assembly to the chassis.**

   Fit the three tabs at the bottom of the mounting bracket into the three slots in the chassis (see Figure 34 on page 106). Press the assembly flat against the chassis until the latches on the mounting bracket lock into place.

5. **Connect the 3-pin fan connector to the top three pins of connector FAN2 on the motherboard (see Figure 14 on page 59 and Figure 23 on page 76).**

6. **Reassemble the E-80 and verify its functionality (see page 129).**

Back fan

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

TO REMOVE THE BACK FAN

1. **Shut down the E-80, remove all cables from the back, and then open the system (see page 60).**

   In order to access the fan, you must remove the left panel.

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

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

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

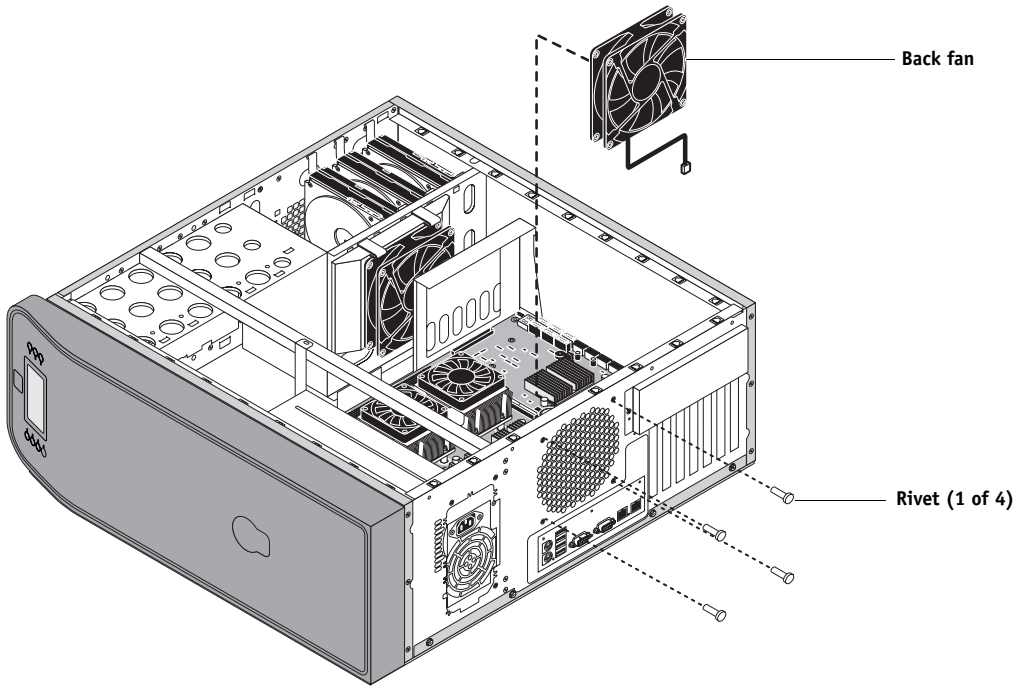


FIGURE 36: Removing/replacing the back fan

TO REPLACE THE BACK FAN

1. **If you are replacing the old back fan with a new back fan, remove the metal grille from the face of the new fan and reattach it to the opposite face of the new fan (see Figure 37).**

   To remove the plastic rivets that secure the metal grille to the fan, use a flathead screwdriver to pry loose the rivet head while squeezing and pushing the locking end of the rivet with your fingers or a screwdriver.

   To reattach the grille, position the grille against the opposite face of the fan, and push each rivet all the way through the mounting hole until the rivet snaps into locked position. When the grille is correctly attached, the airflow arrow on the fan should point away from the grille.

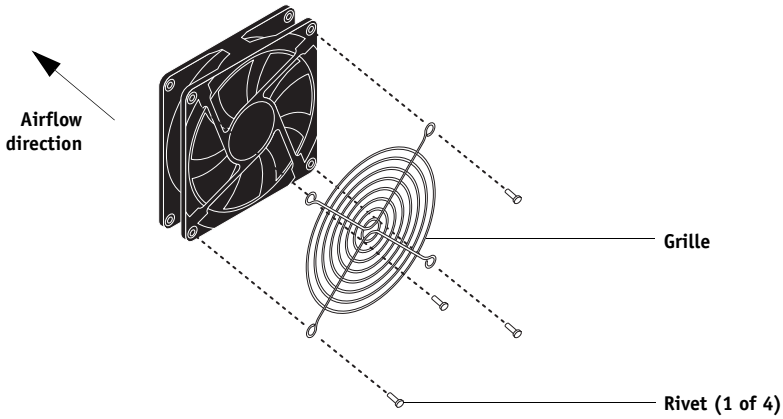


FIGURE 37: Installing the fan grille

NOTE: If you damage the original rivets while removing the grille, use the rivets provided in the bag labeled "FRONT FAN." This bag accompanies the spare fan kit and contains rivets that are identical to the original rivets used to secure the grille to the fan.

2. **Position the fan against the chassis.**

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

3. **Align the four holes on the fan with the four holes in the chassis, and replace the four rivets that secure the fan to the chassis (see Figure 36 on page 109).**

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

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

4. **Connect the 3-pin fan connector to the bottom three pins of connector FAN1 on the motherboard (see Figure 14 on page 59 and Figure 23 on page 76).**

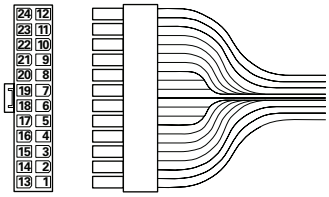
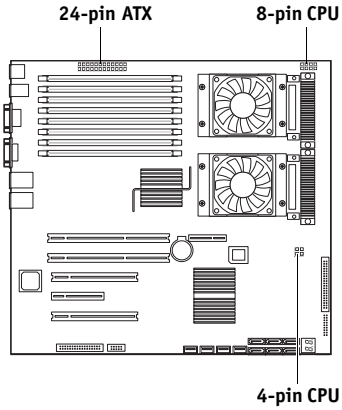
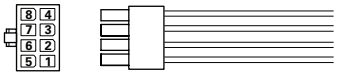
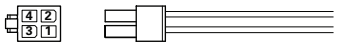
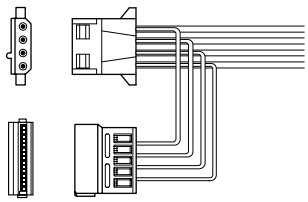
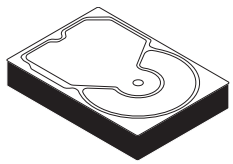
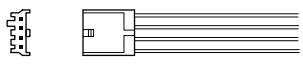
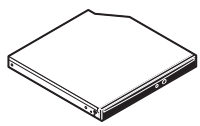
5. **Reassemble the E-80 and verify its functionality (see page 129).**

Power supply

This section describes how to remove and replace the power supply. For more information about the power supply, see "Physical specifications" on page 185.

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

TABLE 3: Power supply cable details

Cable connector	Pin(s)	Wire color	Voltage	Connection
NOTE: All voltages listed in this table are direct current voltages (VDC).				
 24-pin ATX connector to motherboard	1, 2, 12	Orange	+3.3V	
	3, 5, 7, 15, 17, 18, 19, 24	Black	COM	
	4, 6, 21, 22, 23	Red	+5V	
	8	Gray	PW-OK	
	9	Purple	+5Vsb	
	10, 11	Yellow&Blue	+12V	
	13	Orange	+3.3V	
		Brown	+3.3V sense	
	14	Blue	-12V	
	16	Green	PS-ON	
	20	White	-5V	
 8-pin CPU connector to motherboard	1, 2, 3, 4	Black	COM	
	5, 6	Yellow&Black	+12V	
	7, 8	Yellow	+12V	
 4-pin CPU connector to motherboard	1	Black	COM	
	2	Black	COM	
	3	Yellow&Black	+12V	
	4	Yellow&Black	+12V	
 4-pin connector (not used) SATA (5-pin) connector to HDD	1	Yellow	+12V	
	2	Black	COM	
	3	Black	COM	
	4	Red	+5V	
	1	Yellow	+12V	 HDD
	2	Black	COM	
	3	Red	+5V	
	4	Black	COM	
	5	—	not connected	
 4-pin connector to DVD drive	1	Yellow	+12V	 DVD drive
	2	Black	COM	
	3	Black	COM	
	4	Red	+5V	

TO REMOVE THE POWER SUPPLY

1. **Shut down the E-80, remove all cables from the back, and then open the system (see page 60).**

   In order to remove the power supply, you must remove the left and right panels.

2. **Remove the 24-pin power cable from its connector on the motherboard.**
3. **Remove the 8-pin power cable from its motherboard connector.**
4. **Remove the 4-pin power cable from its motherboard connector.**
5. **Remove the SATA power cables from the HDDs.**
6. **Remove the ferrite that is installed around the HDD power cables.**

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

7. **Remove the 4-pin power cable from the DVD drive.**
8. **Remove any tie wraps securing the power cables to the chassis.**
9. **Place the E-80 in the upright position.**

10. **Remove the four back panel screws that attach the power supply to the back of the chassis (see Figure 38).**
11. **Remove the left and right screws that secure the power supply's support beam to the two chassis bars (see Figure 38).**
12. **Gently lift the power supply with its support beam out of the chassis.**
13. **If you are replacing the old power supply with a new power supply, remove the screw that attaches the power supply to the support beam. Set aside the support beam.**

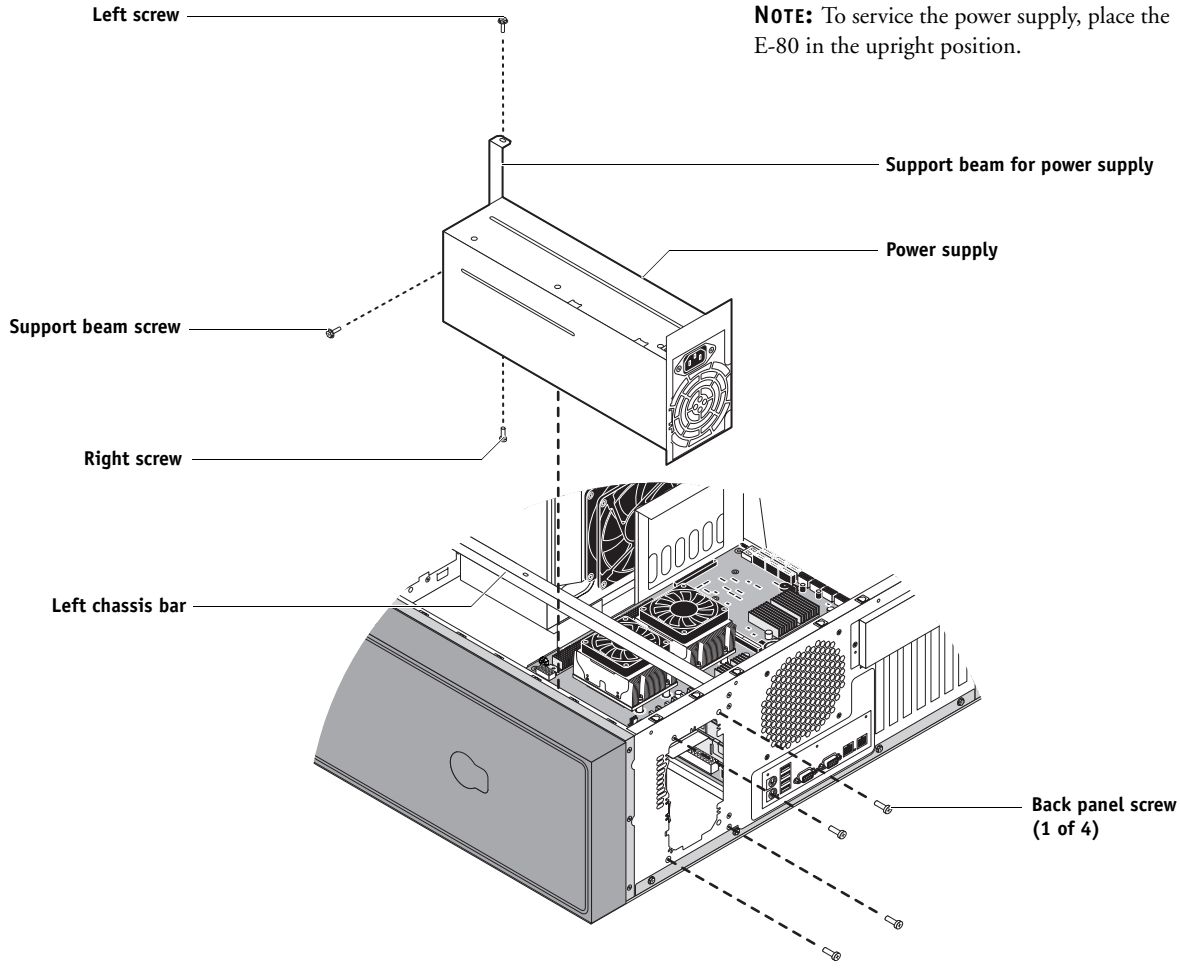


FIGURE 38: Removing/replacing the power supply

TO REPLACE THE POWER SUPPLY

1. **If you are installing a new power supply, attach the support beam to the new power supply (see Figure 39).**

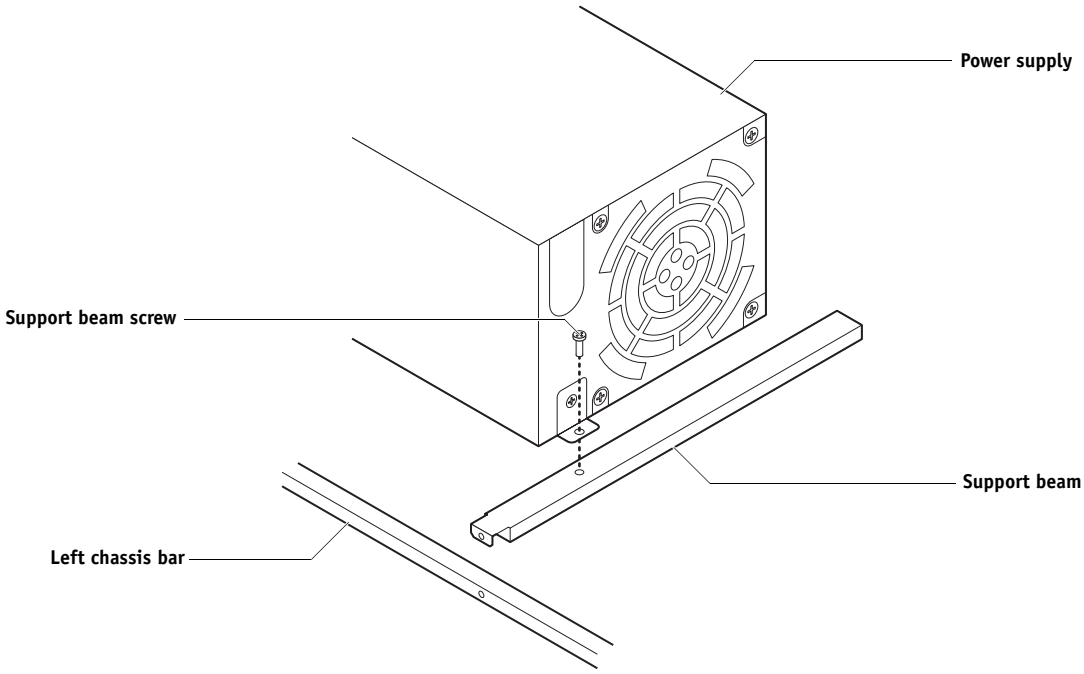


FIGURE 39: Replacing the support beam to the power supply

Align the mounting hole for the power supply on top of the mounting hole for the support beam. Secure the power supply to the support beam with the screw that you removed earlier.

2. **Make sure that the E-80 is in the upright position.**
3. **Position the power supply inside the chassis (see Figure 38 on page 114).**

   Place the power supply on top of the left and right chassis bars. Fit the ends of the support beam over the chassis bars, and position the power supply so that it is flush against the back panel.

4. **Secure the support beam to the left and right chassis bars with the two screws you removed earlier (see Figure 38 on page 114).**
5. **Install the four screws that secure the power supply to the back panel of the chassis.**

6. **Connect the 4-pin power cable to the power connector on the DVD drive.**
7. **Connect the three SATA power cables to the SATA power connectors on the three HDDs.**

   NOTE: Some HDDs may have both PATA and SATA power connectors. Always connect power to the SATA power connector on the HDD. Do not use the PATA power connector.
8. **Install the ferrite around the three SATA power cables that connect to the HDDs.**

   Use the ferrite that you removed earlier. Place the ferrite around all three cables, and snap the edges of the ferrite closed.
9. **Connect the 4-pin power cable to connector PW3 on the motherboard (see Figure 14 on page 59 and Figure 23 on page 76).**
10. **Connect the 8-pin power cable to connector PW2 on the motherboard (see Figure 14 on page 59 and Figure 23 on page 76).**
11. **Connect the 24-pin power cable to connector PW1 on the motherboard (see Figure 14 on page 59 and Figure 23 on page 76).**
12. **Replace the tie wraps that you removed earlier.**
13. **Reassemble the E-80 and verify its functionality (see page 129).**

Hard disk drives

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

If you replace a HDD with a new one, you must reinstall system software and user software on the system. (Replacement HDDs are not shipped with pre-installed software.) The E-80 remains enabled for features such as Impose, Compose, and the Fiery Graphic Arts Package, once the software is reinstalled.

Proper handling

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

- Use proper ESD practices when grounding yourself and the E-80.
- Keep magnets and magnetic-sensitive objects away from the HDDs.
- Do not remove the screws on top of the HDDs. Loosening these screws voids the warranty.
- Never drop, jar, bump, or put pressure on the HDDs.
- Handle the HDDs by the sides and avoid touching the printed circuit boards.
- Allow the HDDs to reach room temperature before installation.

HDD problems may be caused by the following:

- Loose or faulty connection
- Faulty hard disk drive

If you are replacing a HDD with a new one, you must have the following:

- The appropriate system software and documentation for the E-80 you are servicing.
- A compatible version of the user software for the networked computers that will be printing to the E-80.

Servicing HDDs inside the E-80

The section describes how to remove and replace HDDs installed inside the E-80.

NOTE: The HDDs are identified as follows:

- HDD0 is the 80GB HDD installed in the top slot of the chassis. HDD0 is partitioned into drive letters c:\ and d:\.
- HDD1 is the 250GB HDD installed in the middle slot of the chassis.
- HDD2 is the 250GB HDD installed in the bottom slot of the chassis. HDD1 and HDD2 are configured together as a single RAID drive, represented by drive letter e:\.

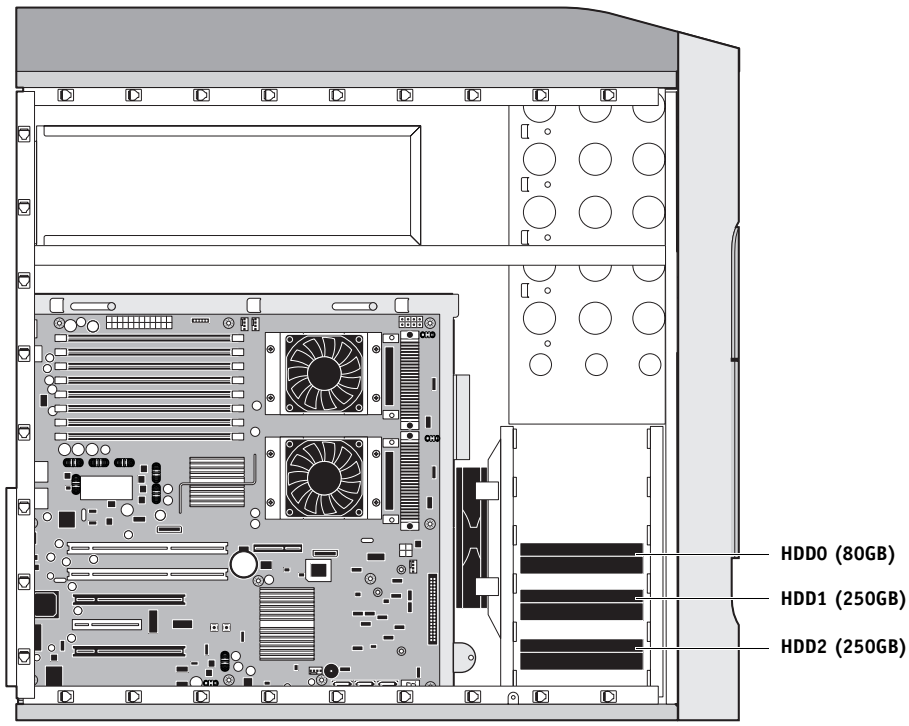


FIGURE 40: E-80 hard disk drives (HDDs)

TO REMOVE A HDD

1. **If you have not done so already, allow the network administrator the opportunity to print the Job Log and save any custom simulation and output profiles. Also, print the following, if possible:**
   - Configuration page—lists any installed options and records the customer's current Setup configuration (for more information, see page 45).
   - Font List—lists the fonts currently on the HDDs. Along with the fonts provided, the customer may have installed additional fonts (for more information, see page 45).
2. **Shut down the E-80, remove all cables from the back, and then open the system (see page 60).**

   In order to access the HDDs, you must remove the left panel.
3. **Remove the power cables from all three HDDs.**
4. **Remove the SATA data cables from all three HDDs.**
5. **Press the latches on the sides of the HDD and slide the HDD assembly out from the chassis (see Figure 41).**

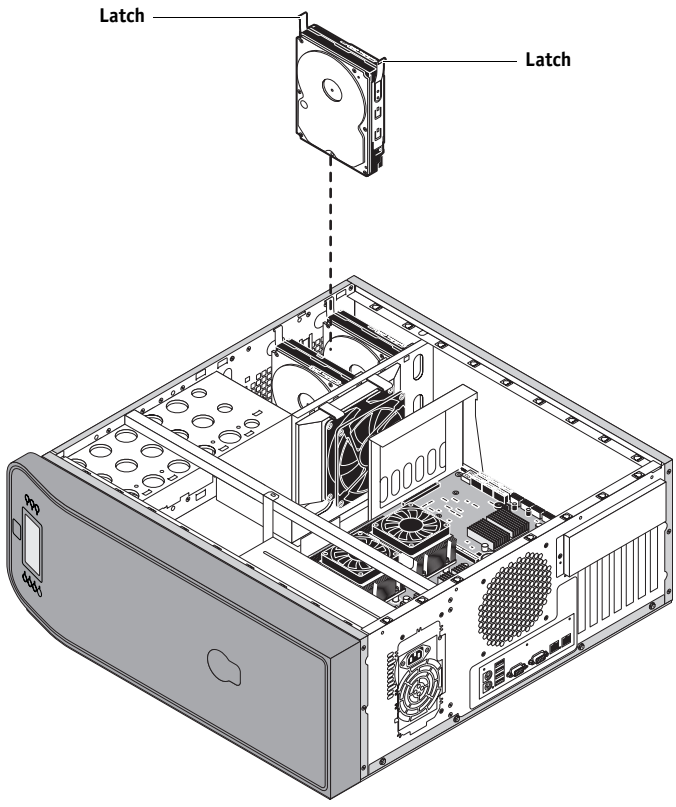


FIGURE 41: Removing/replacing the HDD

6. **If you are replacing the old HDD with a new HDD, remove the four screws that attach the old HDD to its bracket, and remove the HDD (see Figure 42).**

   Set the screws aside so you can replace them later.

   Make sure to support the HDD as you remove the screws. Do not loosen or remove the screws on the HDD covers. Loosening or removing these screws will break the seal and void the HDD warranty.

   Do not touch the drives 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 HDDs.

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

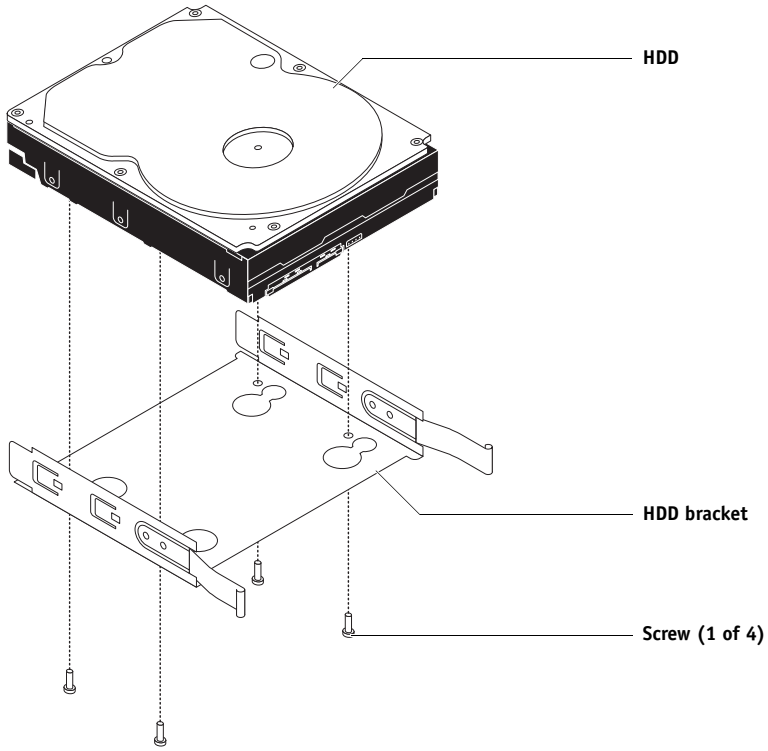


FIGURE 42: Removing/replacing the HDD bracket

Replacement HDDs are not shipped with pre-installed system software. After installing a HDD, you must install the appropriate system software.

TO REPLACE A HDD

NOTE: Do not replace the HDD and the motherboard at the same time. Doing so may result in system corruption.

It is unlikely that both the HDD and the motherboard are defective; therefore, avoid replacing both to solve one problem. If troubleshooting strategies (checking cables and connections, see page 140 and page 141) do not solve the problem and you suspect the HDD or the motherboard are at fault, use the following order to troubleshoot: replace the HDD, install system software, and then check to see if the problem persists. If so, perform other procedures, such as replacing the motherboard (see page 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 mounting holes with the four holes in the bracket.**

   Position the HDD as shown in Figure 42 on page 120.

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

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

4. **Slide the HDD assembly into its slot in the chassis (see Figure 41 on page 119).**

   Make sure that the latches on the HDD bracket are securely locked in the slot.

5. **Connect the data cables between the HDDs and their corresponding SATA connectors on the motherboard:**

   - Connect HDD0 (the HDD in the top slot) to SATA0 on the motherboard.
   - Connect HDD1 (the HDD in the middle slot) to SATA1 on the motherboard.
   - Connect HDD2 (the HDD in the bottom slot) to SATA2 on the motherboard.

   For the locations of the SATA connectors on the motherboard see Figure 23 on page 76.

6. **Connect the SATA power cable connectors to all three HDDs.**

   NOTE: Always connect power to the SATA power connectors on the HDDs. Do not use the PATA power connectors, if they are present on the HDDs.

7. **Reassemble the E-80 (see page 129).**
8. **Connect the cables that you removed from the back of the E-80.**
9. **If you replaced a HDD with a new HDD, install system software and user software (see page 131).**

   If a startup error appears on the monitor when you power on the E-80, check the connections.

10. **Verify E-80 functionality (see page 130).**

Servicing HDDs inside the security Enclosure

This section describes how to replace HDDs installed inside the Enclosure that ships with the HDD Security Option.

TO INSTALL A REPLACEMENT HDD INSIDE THE SECURITY ENCLOSURE

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

1. **Remove the old HDD from the Enclosure, and install the replacement HDD inside the Enclosure.**

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

2. **Install the Removable HDD Firmware Update using the External RHDD Firmware Update CD and the documentation that accompanies the HDD Security Option.**
3. **Power off the Enclosure using the Enclosure's main power button.**
4. **Wait one minute.**
5. **Power on the Enclosure using the Enclosure's main power button.**
6. **Install system software (see page 131).**

   If a startup error appears on the monitor when you power on the E-80, check the connections.

7. **Verify E-80 functionality (see page 130).**

Switch bank assembly

The switch bank assembly attaches to the component sled in the front of the chassis. The switch bank assembly includes the following components:

- DVD drive
- Power button and power button cable
- Reset button and reset button cable
- Speaker and speaker cable
- Front USB ports and front USB cables

NOTE: For information about servicing the DVD drive, see page 127.

TO REMOVE THE SWITCH BANK ASSEMBLY

1. **Shut down the E-80, remove all cables from the back, and then open the system (see page 60).**

   In order to remove the switch bank assembly, you must remove the left, right, and front panels.

2. **Detach the following cables:**

   - DVD ribbon cable from the back of the DVD drive
   - 4-pin power cable from the back of the DVD drive
   - Power and reset button cables from the motherboard
   - Speaker cable from the motherboard
   - Front USB port cables from the motherboard

3. **Remove the ferrite that is installed around the front 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 aside the ferrite so that you can replace it later.

4. **Remove the component sled from the chassis (see Figure 43).**

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

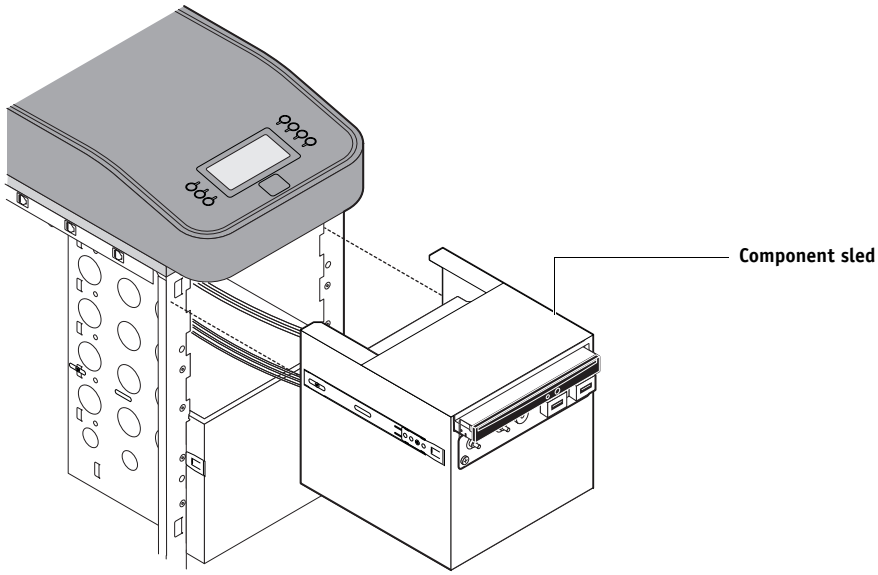


FIGURE 43: Removing/replacing the component sled

5. **Remove the switch bank assembly from the component sled (see Figure 44).**

   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.

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

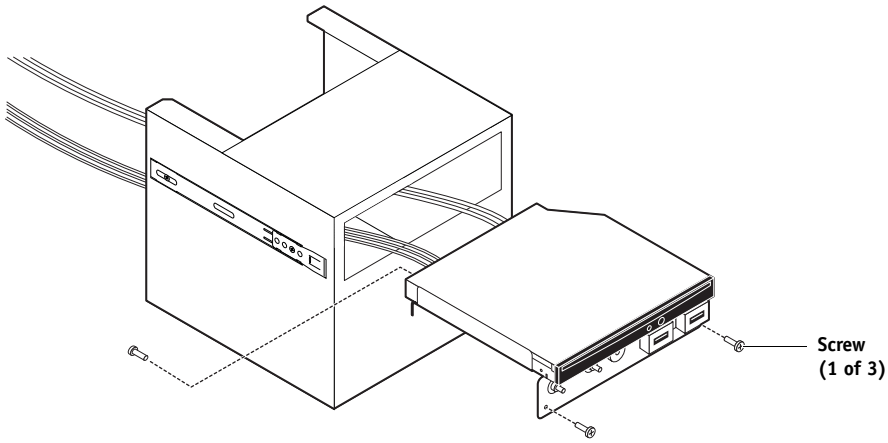


FIGURE 44: Removing/replacing the switch bank assembly

6. **If you are removing the switch bank assembly to replace it with a new assembly, remove the DVD drive (see page 127).**

TO REPLACE THE SWITCH BANK ASSEMBLY

1. **If you are installing a replacement switch bank assembly, attach the extension cables for the power and reset button cables.**

   Locate the two extension cables included in the replacement switch bank assembly kit. Attach each extension cable to its corresponding base cable in the switch bank assembly, aligning the arrow on the extension cable connector with the arrow on the base cable connector.

2. **If it is not already attached, secure the DVD drive to the switch bank assembly (see page 128).**

3. **Install the switch bank assembly in the component sled (see Figure 44 on page 125).**

   - Starting with the cables, insert the switch bank assembly through the slot in the front of the component sled. Be sure to fold the EMI gasket under and in through the slot when inserting the assembly.
   - Replace the three screws that secure the switch bank assembly to the component sled.

4. **Install the component sled in the chassis (see Figure 43 on page 124).**

   - 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 component sled into the front of the chassis until the latches click into the place.

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

5. **Connect the following cables (see Figure 23 on page 76 for the location of each connector on the motherboard):**

   - DVD power and ribbon cables to the back of the DVD drive
   - DVD ribbon cable to motherboard connector IDE1
   - Power button cable to motherboard connector J77, pins 6 and 8

     Make sure that the triangle on the cable connector aligns with pin 6, as shown in Figure 14 on page 59.
   - Reset button cable to motherboard connector J77, pins 5 and 7

     Make sure that the triangle on the cable connector aligns with pin 7, as shown in Figure 14 on page 59.
   - Speaker cable to motherboard connector J81

     Make sure that the triangle on the cable connector aligns with the correct pin, as shown in Figure 14 on page 59.
   - Front USB port cables to the two middle USB connectors on the motherboard

     You may connect each cable to either of the two middle USB connectors on the motherboard.

6. **Install the ferrite around the 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.

7. **Reassemble the E-80 and verify its functionality (see page 129).**

DVD drive

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

TO REMOVE THE DVD DRIVE

1. **Shut down the E-80, remove all cables from the back, and then open the system (see page 60).**

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

2. **Remove the DVD drive ribbon cable connected to the back of the drive.**

   If you are removing the ribbon cable to replace it with a new cable, detach the cable from its connector on the motherboard.

3. **Remove the 4-pin power cable from the back of the DVD drive.**

4. **Remove the component sled from the chassis, and then remove the switch bank assembly from the component sled (see page 123).**

5. **Remove the four screws that secure the DVD drive to the switch bank assembly (see Figure 45).**

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

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

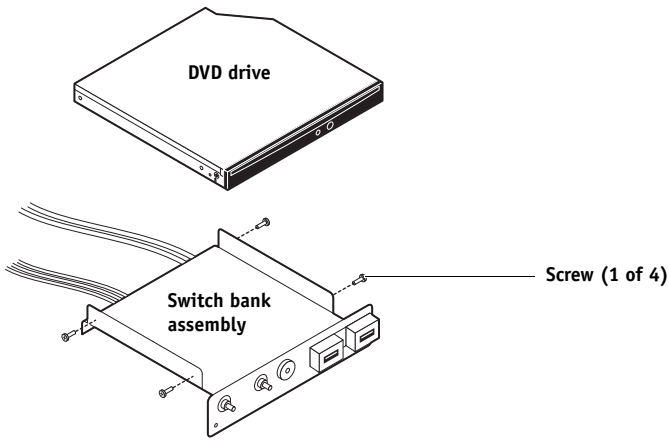


FIGURE 45: Removing/replacing the DVD drive

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

TO REPLACE THE DVD DRIVE

1. **Install the DVD drive in the switch bank assembly.**

NOTE: To make sure the DVD drive does not touch the front panel in the reassembled system, you must:

- Push the DVD drive as far back as possible within the switch bank assembly and then tighten the screws to secure the drive in place.

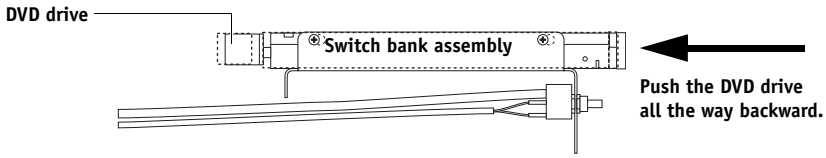


FIGURE 46: Installing the DVD drive in the switch bank assembly

- Loosen the screws securing the guide latches to the component sled, push the guide latches as far forward as possible, and then retighten the screws.

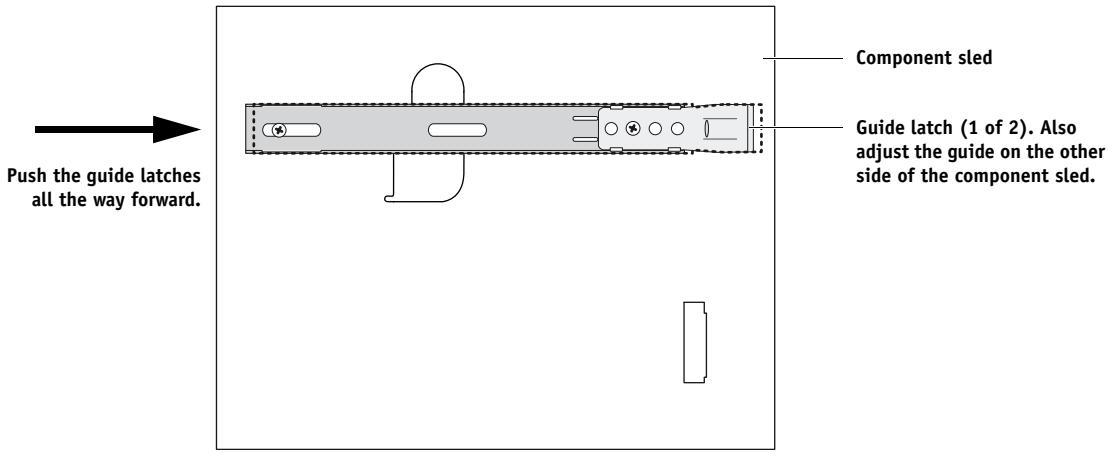


FIGURE 47: Adjusting guide latches on the component sled

2. **Install the switch bank assembly in the component sled, and then install the component sled in the chassis (see page 125).**
3. **Connect the 4-pin power cable and DVD drive ribbon cable to the back of the DVD drive.**

   Make sure that the other end of the ribbon cable is connected to IDE1 on the motherboard.
4. **Reassemble the E-80 and verify its functionality (see page 129).**

Restoring and verifying functionality after service

Complete your inspection and service by reassembling and verifying the E-80.

NOTE: Do not lift the E-80 without assistance. Follow standard ESD precautions when handling internal components (see page 16).

TO REASSEMBLE AND VERIFY THE E-80

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

   When routing cables in the E-80 make sure that:

   - Covers are securely installed after routing cables
   - Cables are not looped around internal circuit boards, or components (such as capacitors and resistors)
   - Cable routing does not interfere with the operation of internal components
   - Cables do not lie on or against any internal heating element
   - Cables do not interfere with removing or replacing components
   - Cables do not interfere with opening or closing E-80 panels
   - Cables are not tangled
   - Cable slack is secured with tie wraps

2. **Restore the system to the upright position.**
3. **Replace any panels that you removed earlier, as described in "Opening the E-80" on page 61.**

   NOTE: If the E-80 is to be mounted on the optional furniture with the optional monitor attached, do not replace the left panel yet. You will replace the left panel after the monitor is attached.

4. **If the E-80 is to be mounted on the optional furniture with the optional monitor attached, see the reassembly instructions in the Servicing the System with Furniture chapter.**
5. **If you installed a new HDD, install system software (see page 131).**

   Replacement HDDs are not shipped with pre-installed system software.

6. **If you replaced the motherboard with a new motherboard, make sure that the new motherboard solves the problem that you are troubleshooting (see page 86), and then transfer options to the new motherboard (see page 89).**
7. **Make sure to configure the date and time in Setup (see *Configuration and Setup* on the User Documentation CD).**
8. **Before you leave the customer site, verify the E-80 operation (see Figure 48).**

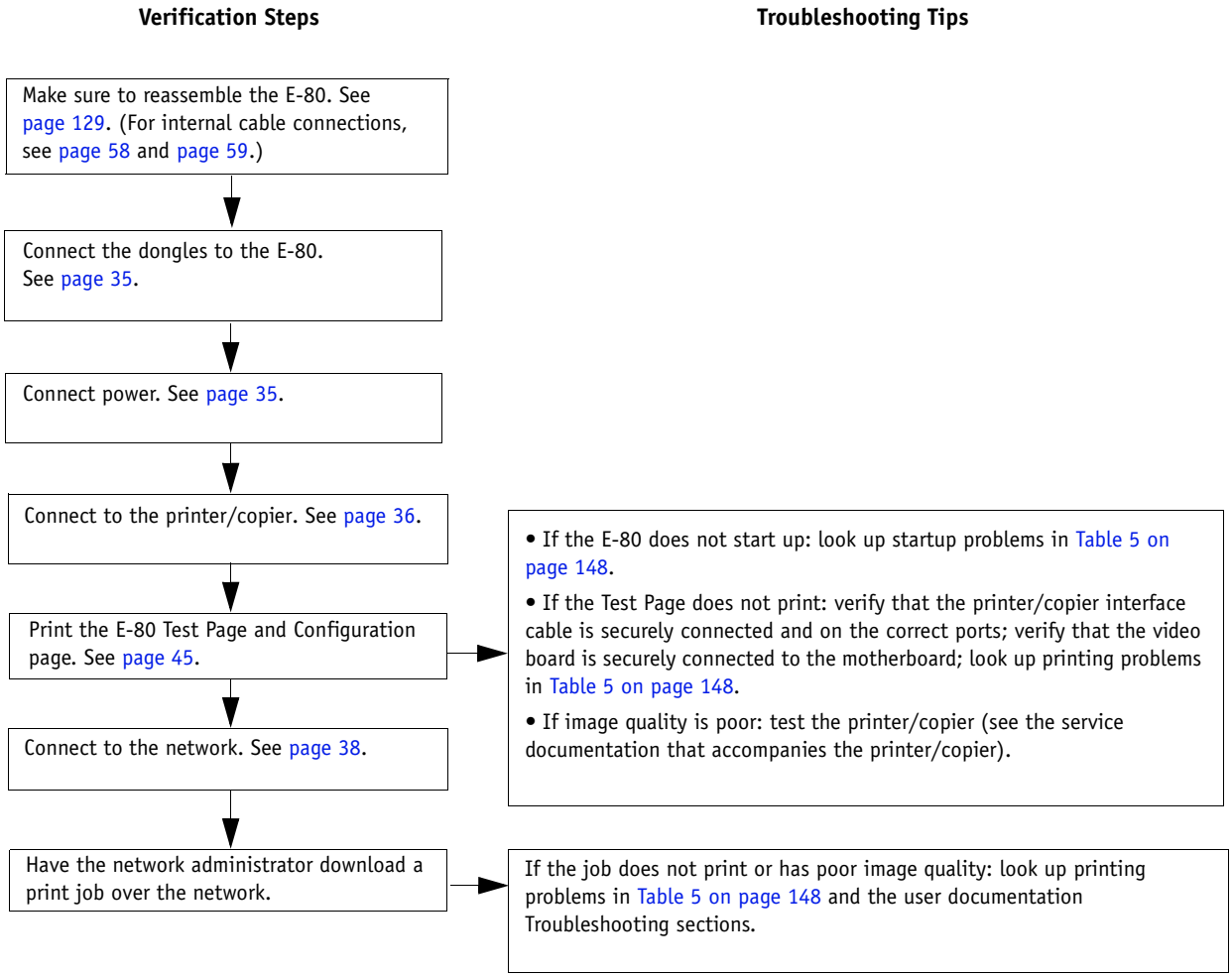


FIGURE 48: E-80 verification steps

SYSTEM SOFTWARE

This chapter describes how to install system software from the system software media.

Overview

The E-80 ships with system software pre-installed on the HDDs (hard disk drives). If you need to reinstall system software in the future, use the System Software DVD and User Software DVD included with the E-80.

Keep in mind the following when installing system software:

- **Jobs**—All jobs in all print queues and all jobs archived locally on the E-80 hard disk are deleted when you install system software. To save jobs, ask the network administrator to archive them to removable media or a network location, so that the jobs can be imported back into the E-80 queue after system software installation. For more information, see Command WorkStation Help.
- **Job Log**—The list of jobs in the Job Log and any jobs in the queues are deleted when you install system software. The network administrator can use Command WorkStation to save a current list of jobs (not the actual jobs) from the Job Log.
- **Fonts**—All fonts on the HDDs are deleted when you install system software. Resident fonts are reinstalled when you reinstall system software. Any customer-supplied fonts must be reinstalled by the network administrator (see Command WorkStation Help).

  To determine which additional fonts were downloaded to the E-80, print the Font List before you install the system software and again after you complete the system software installation. Any fonts *not listed* after installation will need to be reinstalled. For more information about managing fonts, see Command WorkStation Help.
- **User Software**—The E-80 ships with user software pre-installed on the HDDs. During system software reinstallation, you are prompted to reinstall user software using the User Software DVD.
- **Configuration page**—When upgrading the system software, make sure to print a Configuration page before installing any software (for instructions, see page 45). The Configuration page provides a record of the customer's current Setup configurations.

- **Save/Restore Configuration**—All Setup configurations, as well as all custom files and templates stored on the HDDs, are deleted when you install system software. Always save the current E-80 configuration (see page 134) before you install system software. After the installation is completed, be sure to restore the configuration that you saved earlier (see page 136).

  The saved configuration file contains the following: Setup configurations (except for Server Name and Date/Time); custom simulation and custom output profiles saved on the HDDs; Impose templates saved on the default directory on the HDDs; Preflight setup; virtual printer setup; and custom spot colors.

- **Compatibility**—When upgrading the system software, make sure the latest user software is installed onto all computers that print to the E-80. Using incompatible versions of the system and user software may result in system problems.

Installing system software

System software is provided on the following media:

- System Software DVD—includes the Windows XPe OS and server software for the E-80
- User Software DVD—includes the E-80 user software installers

Install system and user software in the following cases:

- A HDD is replaced
- The E-80 needs to be upgraded to a more recent version of the system software
- The language used by the system needs to be changed

NOTE: Complete software installation takes approximately 90 minutes.

TO INSTALL SYSTEM SOFTWARE

1. **If you have not done so already, allow the network administrator the opportunity to print the Job Log and to save any custom simulation and output profiles. Also, print the following (if possible):**

   - Configuration page—lists any installed options and records the customer's current Setup configuration (for more information, see page 45). The Setup configuration is reset to the default configuration when system software is installed.
   - Font List—lists the fonts currently on the HDDs. Along with the resident fonts provided, the customer may have installed additional fonts (for more information, see page 45).

2. **Ask the network administrator to save the current E-80 settings (if possible):**

   - Open a Web browser window on a client computer that is on the same network as the E-80.
   - In the URL field of the browser, type the IP address of the E-80, and press Enter.

     The IP address is listed under the Network Setup section of the Configuration page.
   - On the WebTools home page, click the Configure tab.
   - Click the Launch Configure button. Type the Administrator password for the E-80 and click OK.

     The default Administrator password is Fiery.1. However, the network administrator may have configured a new password for the E-80.
   - Expand the Server item in the left pane, and then click Backup/Restore.
   - Click Backup Fiery Settings. Enter a file name and network location for the settings file, and then click Save.
   - Close the browser window.

   NOTE: If it is not possible to save the current E-80 settings, ask the network administrator to archive any custom color profiles to a network location. For more information, see *Color Printing* on the User Documentation CD.

3. **Insert the System Software DVD in the DVD drive.**
4. **Reboot the E-80 (see page 52).**

   Wait while the system boots from the DVD. The message "Installation in progress...please wait" is displayed.

5. **At the message "All data will be deleted," select Yes.**
6. **At the language selection screen, specify the language of the E-80 system.**

   Wait while the software files are installed on the system. Progress messages are displayed as the system proceeds through the first step of the installation.

   NOTE: This installation segment takes approximately 10 minutes.

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

   Allow the E-80 to reboot several times automatically. Progress messages are then displayed as the system proceeds through the steps to continue system software installation. The system reboots automatically after each step.

   Do not interact with the E-80 during this time; if you interact with the E-80, you will need to repeat the installation process.

   NOTE: This installation segment takes approximately 30 minutes.

8. **At the message "Please insert User Software to continue installation," insert the User Software DVD in the DVD drive. If prompted, select OK.**

   Wait while the system displays progress messages indicating that installation is under way. During this segment, the entire contents of the User Software DVD are copied to the E-80 HDDs. The message "Copying User Software to Fiery shared folder. Please wait" is displayed during this segment.

   NOTE: This installation segment takes approximately 30 minutes.

9. **At the message stating that the setup or installation is finished, perform the appropriate action for your installation interface:**

   - If you are installing software using the E-80 Control Panel, remove the User Software DVD and select OK.
   - If you are installing software using the optional monitor, keyboard, and mouse, remove the User Software DVD, select "Yes, I want to restart my computer now," and then click Finish.

10. **Allow the system to reboot and reach Idle.**

    - If you do not have the optional monitor, keyboard, and mouse, a static logo screen appears in the center of the Control Panel when the system reaches Idle. In addition, the activity light turns off.
    - If you are using the optional monitor, keyboard, and mouse, the Log On to Windows dialog box appears on the monitor. Type Administrator in the user name field if needed and type Fiery.1 in the password field. Then press Enter. Wait for FieryBar to reach Idle.

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

    NOTE: If the Control Panel activity light flashes red, or FieryBar on the optional monitor flashes red and displays the message "Unable to detect video boards: Make sure video boards are installed," reboot the system (see page 52). If the error persists, reboot the system again.

11. **If it was possible to save the E-80 settings earlier, ask the network administrator to restore the settings to the system:**

    - Open a Web browser window on a client computer that is on the same network as the E-80. Type the IP address of the E-80 in the URL field, and press Enter.
    - On the WebTools home page, click the Configure tab, and then click the Launch Configure button. Type Fiery.1 for the password, and then click OK
    - Expand the Server item in the left pane, and then click Backup/Restore.
    - Click Restore Fiery Settings. At the reboot warning, click OK. Locate and select the configuration file that you saved earlier and then click Open.
    - Allow the E-80 to reboot.

    For a list of the settings that are restored, see page 132.

    NOTE: If you were unable to save the E-80 settings, you must configure Setup using the Configuration pages that you printed earlier. For information about performing Setup, see *Configuration and Setup* on the User Documentation CD. Bypass any settings if it is more appropriate for the network administrator to set them. After you exit Setup and allow the system to reboot, ask the network administrator to restore the custom color profiles that were saved earlier.

12. **If user documentation was stored on the E-80, advise the site administrator to reinstall the documentation files from the User Documentation CD.**

13. **Reinstall any required software patches:**

    - If you reinstalled the same version of system software, be sure to reinstall all software patches that were previously installed on the Print Server. For a list of previously installed patches, see the Configuration page that you printed earlier.

    - If you installed an upgraded version of system software (for example, version 1.0 to version 2.0), contact your authorized service/support center for a list of valid software patches. Some or all of the patches listed on the Configuration page that you printed earlier may no longer be valid. Before installing a patch, be sure to verify with your authorized service/support center that it is valid for your system version. Installing an invalid patch may result in system corruption.

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

    - System Updates—Using the keyboard (if present), choose Start > All Programs > Fiery > System Updates, and then click Check Now.
    - Check for Product Updates—In a Web browser, connect to the IP address of the Print Server, click the Configure tab, and then click Check for Product Updates.

14. **Ask the system administrator to reinstall any customer-installed fonts.**

    Remind the system administrator that all customer-installed fonts were deleted when you installed system software.

System updates

Advise the network administrator at the customer site that the System Updates feature (available through the Start menu on systems equipped with a monitor) allows customers to schedule and accept installation of certain E-80 software updates from a secure site on the Internet. By default, the feature is configured to display a notification on the monitor (if equipped) that software updates are available for the E-80. You can also check for system updates via the monitor by choosing Start > All Programs > Fiery > System Updates, and then click Check Now. Depending on how it is configured, System Updates operates manually or automatically. For more information about how to schedule System Updates, see *Configuration and Setup* on the User Documentation CD.

TROUBLESHOOTING

This chapter identifies the source of common problems that may occur with the E-80 and suggests ways of correcting them. Suggested actions may include reading user documentation, located on the User Documentation CD.

Troubleshooting process

The E-80 is a server for the printer/copier and is generally part of a configuration like the one shown in Figure 49. Problems may occur in one of the following areas:

- Inside the E-80
- In the interface between the E-80 and the printer/copier
- In the interface between the E-80 and the workstations or computers to which it is connected

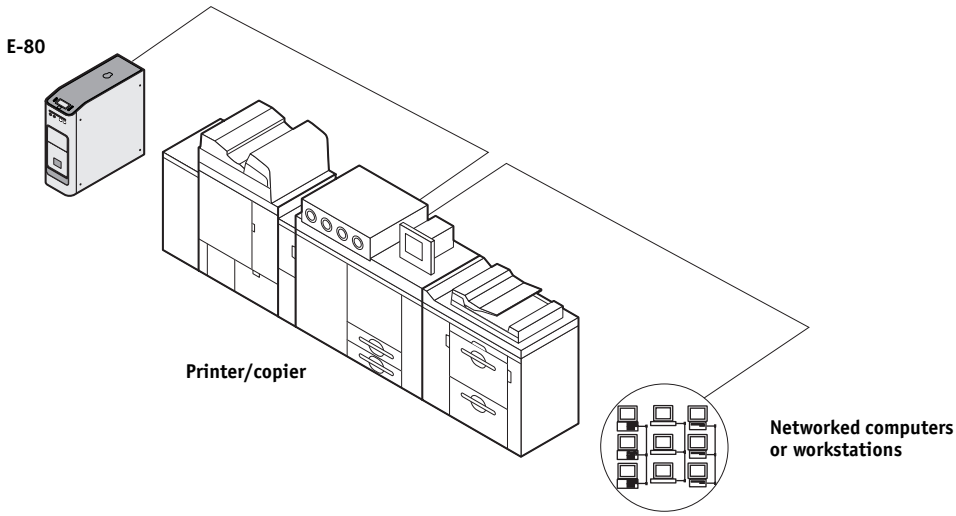


FIGURE 49: Troubleshooting the system

Troubleshooting the printer/copier, network, remote computers, software applications, and Windows XPe are beyond the scope of this chapter.

When performing the service procedures described in this chapter, follow the precautions listed on page 16.

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

Preliminary on-site checkout

Your goal in the preliminary onsite checkout is to solve problems quickly with a minimum of troubleshooting. Start by verifying that the network is functioning, no unauthorized software or hardware is installed on the E-80, and the problem is not with a particular print job or application. To help verify these issues, contact the on-site administrator.

Most problems with the E-80 are caused by loose board or cable connections; therefore, this section begins by describing the quick checks you can do to locate and fix these more obvious problems. Check the external connections to the back of the E-80 before you check internal board and cable connections or replace any components.

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

This section includes the following:

- "Checking interface cables" on page 140

  This section describes the quick checks that you can do to make sure that the problem is not caused by a loose connection at the back of the E-80.

- "Checking internal components" on page 141

  This section describes the quick checks that you can do to make sure that the problem is not caused by a loose board or cable connection inside the E-80.

- "Inspecting the system" on page 142

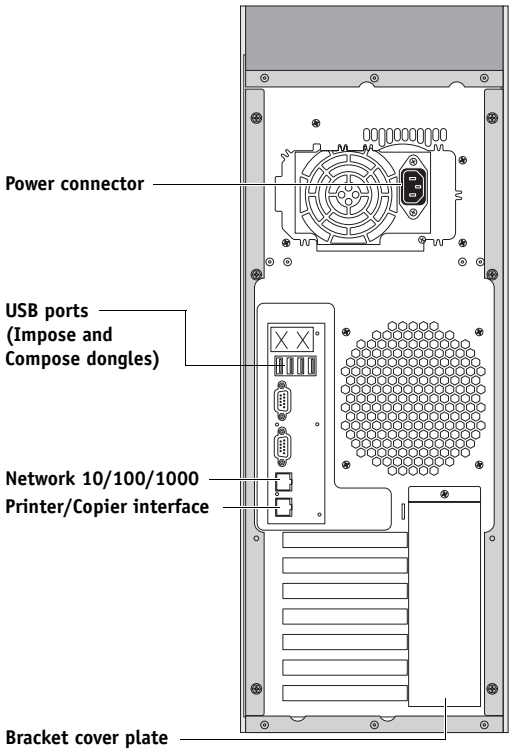
  This section provides a more comprehensive checklist that you can use to check the E-80 internally and externally. If your initial checks fail, you may want to go through this checklist before concluding that you need to replace a cable or component.

To troubleshoot specific symptoms, see Table 5 on page 148.

Checking interface cables

Before removing the left panel of the E-80 to check internal components, eliminate the most obvious sources of problems. Verify the following:

- All interface cables to the system are plugged into the proper connectors on the back panel of the E-80 (see Figure 50).
- The power cable is plugged into the wall supply.
- The E-80 is powered on.
- The upper LED next to the 10/100/1000 Mbps network port is blinking to indicate network activity (see page 46).



NOTE: Unlabeled ports are not used.

FIGURE 50: Back panel of E-80

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

Checking internal components

To check the internal components, you must remove the left panel of the E-80.

Before you remove E-80 panels to inspect and handle internal components, see "Precautions" on page 16. Use standard ESD precautions when handling printed circuit boards and other electronic components.

Use the guidelines and procedures in Service Procedures when disassembling, checking, and reassembling the E-80.

TO CHECK INTERNAL COMPONENTS

1. **Shut down, remove all cables from the back, and then open the E-80 (see page 60).**

   In order to access the motherboard, you must remove the left panel.

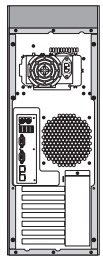
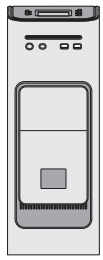
2. **Before you touch any components inside the E-80, attach a grounding strap to your wrist and discharge any static electricity on your body by touching a metal part of the E-80.**
3. **Inspect the inside of the E-80.**
   - Make sure that no foreign materials have been dropped into the chassis.
   - Look for loose boards and reseat each board securely in its connector on the motherboard.
   - Look for loose cables. Reseat each connector firmly.
   - Make sure that each connector is properly aligned with its mating connector. If the pins are offset from each other, the board affected will not function properly.
4. **Reassemble the E-80 and verify its functionality (see page 129).**

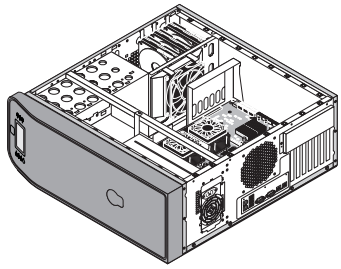
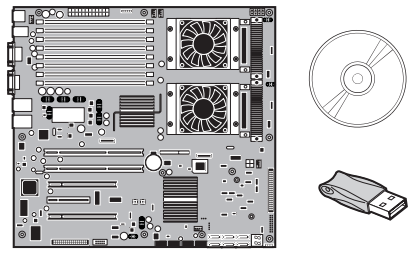
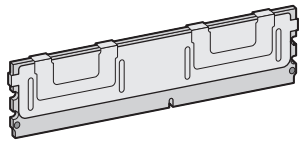
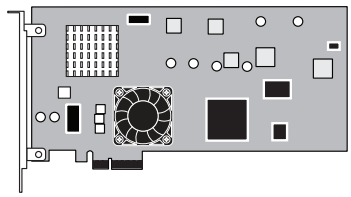
Inspecting the system

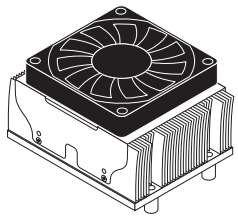
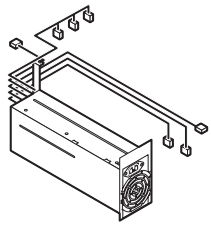
If checking cable and board connections does not fix the problem, consider inspecting the system component by component (see Table 4) and verifying that each hardware component is properly installed and configured before you decide to replace costly components.

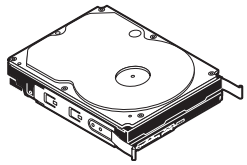
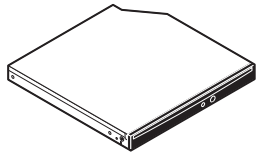
If a component in the system you are servicing does not meet a condition listed in Table 4 and it is not clear how to fix the problem (for example, if the system hangs before reaching Idle), locate the behavior in Table 5 on page 148 to see the suggested action(s) for solving the problem.

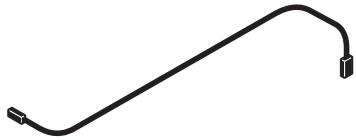
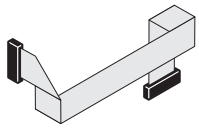
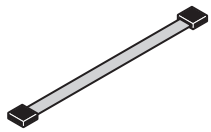
TABLE 4: Verifying the system

Conditions to verify	Part and additional page references
When the problem occurs, verify the following: • Power cable is connected properly to the E-80 and to the power outlet. • The E-80 is powered on. • Chassis fans are operating. • At least one LED on the network connector is lit. • All external cables required are present, in correct connectors, well-seated. • Cables, cable connectors, and mating connectors appear undamaged.	Back panel external connectors, chassis fans, and power connector, page 140 
If the problem occurs at power up or reboot, verify the following: • Control Panel LCD lights up and logo displays. • DVD drive is present and no media is in the drive. • DVD drive accepts inserted media. • No error messages or system hangs occur on the Control Panel before Idle.	DVD drive, page 127 

Conditions to verify	Part and additional page references
• All replaceable parts are: – Present – Properly aligned – Installed securely – Installed on the appropriate site – The correct part for the system – Not visibly damaged • Chassis and contents have not been tampered with (no unauthorized additions or changes have been made). • Chassis does not contain any foreign objects.	Chassis, page 61 
• Motherboard, including components and traces, appears undamaged and no foreign objects are evident. • Each CPU is present, installed in the correct connector, well-seated, and appears undamaged. • Each CPU cooling unit is well-aligned and firmly attached. • Each fan (including fan cable) is well-positioned, installed in the correct connector, and appears undamaged. • Boards required on the motherboard are present, well-seated, and in the correct. slots • Battery is installed.	Motherboard (with Fiery Options Utility CD and single-use dongle), page 75 
• Each DIMM is well-seated and installed in the correct slot. • DIMM connectors are not oxidized (reseating removes oxidation).	DIMM for E-80, page 98 
Board required is: • Present • Installed in the correct slot • Well-seated • Not visibly damaged	Video board, page 69 

Conditions to verify	Part and additional page references
Each CPU is: • Present • Installed in the correct socket • The correct speed (CPU speeds must match) • Well-seated • Not visibly damaged The CPU cooling unit is: • Ready for efficient thermal transfer • Well-aligned	CPU and CPU cooling assembly, page 100 
Each fan is: • Properly positioned (not backwards) • Installed in the correct connector • Not visibly damaged (fan, fan cable, cable connector, and motherboard connector)	Fans, page 105 
The power supply is: • Present • Correctly installed • Not visibly damaged Cable connectors are: • Firmly connected • Not visibly damaged • Installed in the correct devices	Power supply, page 111 

Conditions to verify	Part and additional page references
The HDDs are: • Present • Correctly installed • Not visibly damaged HDD data cables are: • Present • Firmly connected to the correct SATA connectors on the motherboard (see page 121) • Not visibly damaged HDD power cables are: • Present • Firmly connected to the SATA power connectors on the HDDs. Do not use the PATA power connectors, if they are present on the HDDs. • Not visibly damaged	HDD (3), page 117 
The DVD drive is: • Present • Correctly installed • Not visibly damaged Also verify that the DVD drive cable is connected to IDE1 on the motherboard.	DVD drive, page 127 

Conditions to verify	Part and additional page references
Each cable required is: • Present • Installed in the correct connector • Well-seated • Not visibly damaged (cable or connector)	UIB cable, page 71  Printer/copier interface cable, page 36  Cable (to DVD drive), page 127  Cable (to each HDD), page 117  Power cable, page 35 
USB dongle is present when using Impose on the E-80. (Using Impose on the E-80 requires a mouse, monitor, keyboard, and the software associated with Impose.)	Dongle for Impose, page 35 
USB dongle is present when using Compose on the E-80. (Using Compose on the E-80 requires a mouse, monitor, keyboard, and the software associated with Compose.)	Dongle for Compose, page 35 

Normal startup sequence

When you power on or reboot the E-80, the system runs the following startup routine on the Control Panel. It takes approximately two minutes for the E-80 to complete the startup routine and reach Idle.

NOTE: The following figure is approximate. The screens, times, and sequences you observe may be slightly different.

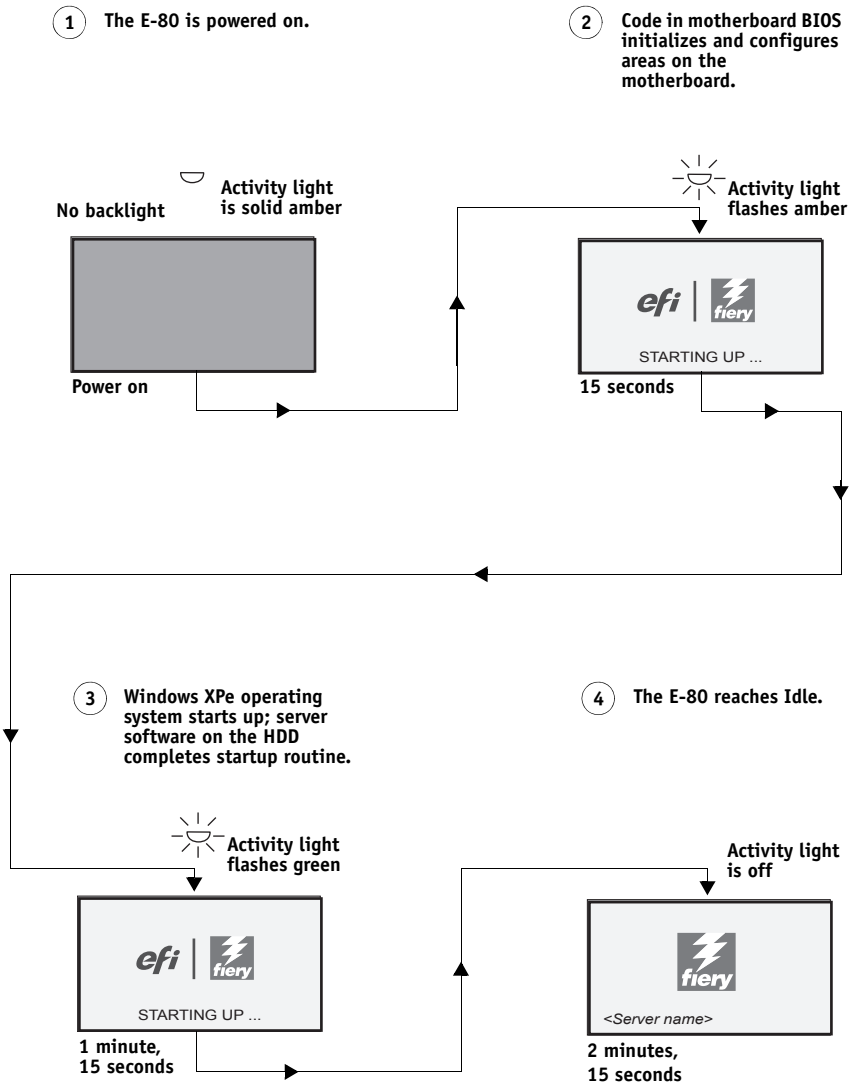


FIGURE 51: Normal startup sequence

Error messages and conditions

To learn possible causes and solutions for a specific error message or condition, find the symptom in Table 5 and perform the appropriate suggested actions.

For errors or conditions that are described as occurring in a specific stage of the boot up process, see "Normal startup sequence" on page 147 for what normally occurs at each stage.

NOTE: Do not install a new HDD and a new motherboard in the E-80 at the same time. If you suspect that the E-80 needs a new HDD and a new motherboard, first install the new HDD and install system software. Then install a new motherboard and perform the system update procedure (see "Replacing the motherboard" on page 82).

If replacing a specified component does not correct the problem, make sure that you install the old component back in the E-80.

TABLE 5: E-80 error messages and conditions

Symptom	Possible cause	Suggested action
Beep codes during startup		
4 beeps, followed by 3 beeps, followed by 1 beep, followed by 2 beeps	Missing, unmatched, incorrect, or faulty DIMMs	**1. Check for missing DIMMs and reseat the DIMMs to remove any oxidation on the connectors (see page 98).** **2. If the problem persists, test the DIMMs by removing all DIMMs except for the one installed in J17, and reboot the system.** – If the system boots to Idle, install a second DIMM in J19 and reboot the system. Continue to install additional DIMMs in the correct socket order and reboot the system until the system fails to reach Idle. Be sure to follow the correct socket order: J17, J19, J21, J23, J18, J20, J22, J24. – If the system fails to boot to Idle, the last DIMM that you added may be faulty. To verify this, install a different DIMM in the socket and reboot. If the system still fails to reach Idle, the DIMM socket may be faulty and you may need to replace the motherboard. However, if the system boots to Idle, the suspected DIMM is faulty and should be replaced.

Symptom	Possible cause	Suggested action
Startup		
E-80 does not start up.	The E-80 is powered off.	**Press the power button on the front panel.**
	One of the following: • CMOS jumper is missing or incorrectly installed • Faulty power supply (power supply may not be supplying power to the motherboard) • Faulty motherboard (motherboard power plane may not be supplying power to components)	**1. Check all cables and connections again.** **2. Make sure that the CMOS jumper is correctly installed on pins 1 and 2 of JP47 on the motherboard (see page 77).** **3. Listen for the power supply fan and feel for air at the back of the unit where the power supply is located.** If you do not feel air from the power supply fan, you may have a faulty power supply, which you will need to replace (see page 111). **4. Feel for air at the back of the unit where the back fan is located to make sure that air is coming out the fan vent.** If air is not coming out the back and the drive is not receiving power, clear the CMOS setting (see page 171). If the problem persists, you may need to replace the motherboard (see page 75).
Control Panel LCD does not light up.	One of the following: • Faulty user interface board (UIB) cable or connections • Faulty UIB	**Recheck the UIB cable connection. If the problem persists, replace the UIB (see page 71).**

Symptom	Possible cause	Suggested action
Startup (continued)		
Control Panel LCD lights but is discolored and/or no logo appears on the LCD.	One of the following: • Faulty user interface board (UIB) cable or connections • Faulty UIB • Loose CPU connection(s) • Faulty CPU(s) • Faulty motherboard	**1. Recheck the user UIB cable connection. If the problem persists, replace the UIB (see page 71).** **2. If the problem persists, verify the CPU and CPU fan connections, and verify that the CPU heatsinks are securely installed (see page 100).** Test the CPUs by removing the CPU installed in socket CPU1 and rebooting. – If the system fails to boot up properly, the CPU in socket CPU0 is faulty and should be replaced. – If the system boots up properly, the CPU in socket CPU0 is good and the CPU that you removed from socket CPU1 may be faulty. To test this, remove the CPU from socket CPU0, install the other CPU in socket CPU0, and reboot. If the system fails to boot up properly, the CPU currently installed in socket CPU0 is faulty and should be replaced. **3. Clear the CMOS setting (see page 171).** If the problem persists, you may need to replace the motherboard (see page 75).

Symptom	Possible cause	Suggested action
Startup (continued)		
System does not reach Idle within 5 minutes of powering up.	One of the following: • System was powered off and then powered on before waiting 10 seconds • Missing, unmatched, incorrect, or faulty DIMMs • Faulty or overheated CPU • Faulty motherboard	**1. Power off, wait 10 seconds, and then power on again.** **2. If problem persists, check all cables and connections again and reboot.** **3. Check the DIMMs and reseat them to remove any oxidation on the connectors (see page 98).** **4. If the problem persists, test the DIMMs by removing all DIMMs except for the one installed in J17, and reboot the system.** – If the system boots to Idle, install a second DIMM in J19 and reboot the system. Continue to install additional DIMMs in the correct socket order and reboot the system until the system fails to reach Idle. Be sure to follow the correct socket order: J17, J19, J21, J23, J18, J20, J22, J24. – If the system fails to boot to Idle, the last DIMM you added may be faulty. To verify this, install a different DIMM in the socket and reboot. If the system still fails to reach Idle, the DIMM socket may be faulty and you may need to replace the motherboard. However, if the system boots to Idle, the suspected DIMM is faulty and should be replaced. **5. If the problem persists, verify the CPU and CPU fan connections, and verify that the CPU heatsinks are securely installed (see page 100).** Test the CPUs by removing the CPU installed in socket CPU1 and rebooting. – If the system fails to boot up properly, the CPU in socket CPU0 is faulty and should be replaced. – If the system boots up properly, the CPU in socket CPU0 is good and the CPU that you removed from socket CPU1 may be faulty. To test this, remove the CPU from socket CPU0, install the other CPU in socket CPU0, and reboot. If the system fails to boot up properly, the CPU currently installed in socket CPU0 is faulty and should be replaced. **6. Clear the CMOS setting (see page 171).** **7. If the problem persists, you may need to replace the motherboard (see page 75).**

Symptom	Possible cause	Suggested action
Startup (continued)		
System hangs during motherboard BIOS control of startup.	One of the following: • Missing, unmatched, incorrect, or faulty DIMMs • Faulty or overheated CPU(s)	**1. Check all cables and connections again and reboot.** **2. Check the DIMMs and reseat them to remove any oxidation on the connectors (see page 98).** **3. If the problem persists, test the DIMMs by removing all DIMMs except for the one installed in J17, and reboot the system.** – If the system boots to Idle, install a second DIMM in J19 and reboot the system. Continue to install additional DIMMs in the correct socket order and reboot the system until the system fails to reach Idle. Be sure to follow the correct socket order: J17, J19, J21, J23, J18, J20, J22, J24. – If the system fails to boot to Idle, the last DIMM you added may be faulty. To verify this, install a different DIMM in the socket and reboot. If the system still fails to reach Idle, the DIMM socket may be faulty and you may need to replace the motherboard. However, if the system boots to Idle, the suspected DIMM is faulty and should be replaced. **4. If the problem persists, verify the CPU and CPU fan connections, and verify that the CPU heatsinks are securely installed (see page 100).** Test the CPUs by removing the CPU installed in socket CPU1 and rebooting. – If the system fails to boot up properly, the CPU in socket CPU0 is faulty and should be replaced. – If the system boots up properly, the CPU in socket CPU0 is good and the CPU that you removed from socket CPU1 may be faulty. To test this, remove the CPU from socket CPU0, install the other CPU in socket CPU0, and reboot. If the system fails to boot up properly, the CPU currently installed in socket CPU0 is faulty and should be replaced.

Symptom	Possible cause	Suggested action
Startup (continued)		
System hangs during Windows control of startup.	One of the following: • Media in DVD drive during startup • Corrupt system software • Missing or faulty DIMMs • Faulty HDD • Faulty or overheated CPU(s) • Faulty motherboard	**1. Make sure that no media is in the DVD drive during startup, and then reboot the system.** **2. Recheck all cables and connections.** **3. If the problem persists, reinstall the system software (see page 131).** Corrupt system software may cause the system to hang at this screen. **4. If the problem persists, test the DIMMs by removing all DIMMs except for the one installed in J17, and reboot the system.** – If the system boots to Idle, install a second DIMM in J19 and reboot the system. Continue to install additional DIMMs in the correct socket order and reboot the system until the system fails to reach Idle. Be sure to follow the correct socket order: J17, J19, J21, J23, J18, J20, J22, J24. – If the system fails to boot to Idle, the last DIMM you added may be faulty. To verify this, install a different DIMM in the socket and reboot. If the system still fails to reach Idle, the DIMM socket may be faulty and you may need to replace the motherboard. However, if the system boots to Idle, the suspected DIMM is faulty and should be replaced. (Suggested actions continued on next page.)

Symptom	Possible cause	Suggested action
Startup (continued)		
System hangs during Windows control of startup.	See previous page.	(Continued from previous page.) **5. If the problem persists, check for a faulty HDD.** **NOTE:** To troubleshoot the HDDs, connect a monitor, keyboard, and mouse to the E-80. Reboot the system. At the Serial ATA AHCI BIOS screen on the monitor, wait for the Port-XX displays to appear and press the Pause/Break key. If a HDD description appears next to all three Port-XX entries, all three HDDs are good. If "No device detected" appears next to: – Port-00, the 80GB HDD in the top slot of the chassis may be faulty. – Port-01, the 250GB HDD in the middle slot may be faulty. – Port-02, the 250GB HDD in the bottom slot may be faulty. Replace the SATA data cable to the suspected faulty drive. If the problem persists, replace the faulty drive. **6. If the problem persists, verify the CPU and CPU fan connections, and verify that the CPU heatsinks are securely installed (see page 100).** Test the CPUs by removing the CPU installed in socket CPU1 and rebooting. – If the system fails to boot up properly, the CPU in socket CPU0 is faulty and should be replaced. – If the system boots up properly, the CPU in socket CPU0 is good and the CPU that you removed from socket CPU1 may be faulty. To test this, remove the CPU from socket CPU0, install the other CPU in socket CPU0, and reboot. If the system fails to boot up properly, the CPU currently installed in socket CPU0 is faulty and should be replaced. **7. Clear the CMOS setting (see page 171).** **8. If the problem persists, you may need to replace the motherboard (see page 75).** If replacing the motherboard does not correct the problem, make sure you reinstall the old board in the E-80.

Symptom	Possible cause	Suggested action
Startup (continued)		
The system takes a long time to start up.	Possibly one of the following: • The system may be taking longer to boot up in order to finalize installation of a patch or update. • The HDD may have fallen to the bottom of the boot order in the BIOS. This can happen if the system is powered on when the HDD is missing, faulty, or not connected. • System software may be corrupted.	**1. If the slow startup happens following installation of a software patch or update, shut down, and then restart to see if the problem persists.** **2. If the problem persists, make sure that the HDD is present and properly connected, and then clear CMOS (see page 171). When you reboot the E-80, the HDD will be moved to the top of the boot order in the BIOS.** **3. If the problem persists, reinstall the system software (see page 131).**

Symptom	Possible cause	Suggested action
Shutdown		
Control Panel LCD remains lit even after the system has shut down.	The system has been powered off manually using the power button on the front panel.	**1. Power on the E-80 by pressing the power button on the front panel.** **2. When the system reaches Idle, choose Shut Down from the Windows Start menu. Select Shut Down and click OK.** Always use this procedure to shut down the E-80. If you use the power button to shut down, the LCD will fail to shut down properly.
System problems		
DVD drive is not responding or cannot be located; or media cannot be ejected from the drive.	One of the following: • A CD or DVD is stuck in the drive • Loose cable connections to the DVD drive or faulty cable • Faulty DVD drive • Faulty motherboard	**1. Shut down the E-80 (see page 47).** Shutting down the system should force the DVD drive to eject its media. **2. If the media still does not eject, remove the front panel, power on the E-80, and press the button on the front of the DVD drive to eject the media.** **3. Check the cable connections to the DVD drive (see page 58 and page 59).** **4. Check the DVD cable connection to the motherboard.** **5. If the problem persists, you may need to replace the DVD drive (see page 127).** **6. If the problem persists, you may need to replace the motherboard (see page 75).**
Clock is slow.	Missing or dead battery on the motherboard	**Replace the battery on the motherboard and then update the system date and time.**

Symptom	Possible cause	Suggested action
System problems (continued)		
System performs slowly or hangs periodically.	One of the following: • Missing or faulty DIMMs, or faulty DIMM connections • Faulty HDD • Overheated or faulty CPU(s) • Faulty motherboard	**1. Check for missing DIMMs and reseat the DIMMs to remove any oxidation on the connectors (see page 98).** Make sure that an even number of DIMMs is installed. Odd-numbered configurations are not supported. **2. If the problem persists, test the DIMMs by removing all DIMMs except for the one installed in J17, and reboot the system.** – If the system boots to Idle, install a second DIMM in J19 and reboot the system. Continue to install additional DIMMs in the correct socket order and reboot the system until the system fails to reach Idle. Be sure to follow the correct socket order: J17, J19, J21, J23, J18, J20, J22, J24. – If the system fails to boot to Idle, the last DIMM you added may be faulty. To verify this, install a different DIMM in the socket and reboot. If the system still fails to reach Idle, the DIMM socket may be faulty and you may need to replace the motherboard. However, if the system boots to Idle, the suspected DIMM is faulty and should be replaced. **3. If the problem persists, check for a faulty HDD.** **NOTE:** To troubleshoot the HDDs, connect a monitor, keyboard, and mouse to the E-80. Reboot the system. At the Serial ATA AHCI BIOS screen on the monitor, wait for the Port-XX displays to appear and press the Pause/Break key. If a HDD description appears next to all three Port-XX entries, all three HDDs are good. If "No device detected" appears next to: – Port-00, the 80GB HDD in the top slot of the chassis may be faulty. – Port-01, the 250GB HDD in the middle slot may be faulty. – Port-02, the 250GB HDD in the bottom slot may be faulty. Replace the SATA data cable to the suspected faulty drive. If the problem persists, replace the faulty drive. (Suggested actions continue on the next page.)

Symptom	Possible cause	Suggested action
System problems (continued)		
System performs slowly or hangs periodically.	See previous page.	(Continued from previous page.) **4. If the problem persists, verify the CPU and CPU fan connections, and verify that the CPU heatsinks are securely installed (see page 100).** Test the CPUs by removing the CPU installed in socket CPU1 and rebooting. – If the system fails to boot up properly, the CPU in socket CPU0 is faulty and should be replaced. – If the system boots up properly, the CPU in socket CPU0 is good and the CPU that you removed from socket CPU1 may be faulty. To test this, remove the CPU from socket CPU0, install the other CPU in socket CPU0, and reboot. If the system fails to boot up properly, the CPU currently installed in socket CPU0 is faulty and should be replaced. **5. If the problem persists, you may need to replace the motherboard (see page 75).**
Error messages		
Check power & cable	One of the following: • The printer/copier is not ready to print • Problem with the connection between the E-80 and the printer/copier	**1. Make sure the printer/copier is powered on and ready to print.** **2. Check again that the printer/copier interface cable is present and connected to the correct ports on the E-80 and the printer/copier (see page 36). Make sure that the printer/copier interface cable and network cable have not been switched.** Make sure that you are using a straight-through Ethernet cable for the network connection, and a crossover Ethernet cable for the printer/copier interface connection. **3. If the problem persists, power off/on the E-80 and the printer/copier, waiting 1 minute after the E-80 reaches Idle before you power on the printer/copier.** **4. Check again that the video board is present and properly connected to the motherboard (see page 69).** **5. Replace the printer/copier interface cable (see page 36).** **6. Replace the video board (see page 69).** **7. If the problem persists, you may need to service the printer/copier.**

Symptom	Possible cause	Suggested action
Service messages		
1 file(s) copied hangs during system software installation after removing first DVD and recycling power.	One of the following: • Normal behavior • Corrupted installation • Lost communication with HDDs due to one of the following: – Faulty HDD cable – Faulty HDD – Faulty motherboard	**1. Wait 5–10 more minutes to make sure the system is really hanging. If so, power off, wait 10 seconds, then power on again.** **2. If the problem persists, reinstall system software (see page 131).** **3. If the problem persists, check cables and connections again.** **4. If the problem persists, check for a faulty HDD.** **NOTE:** To troubleshoot the HDDs, connect a monitor, keyboard, and mouse to the E-80. Reboot the system. At the Serial ATA AHCI BIOS screen on the monitor, wait for the Port-XX display to appear and press the Pause/Break key. If a HDD description appears next to all three Port-XX entries, all three HDDs are good. If "No device detected" appears next to: – Port-00, the 80GB HDD in the top slot of the chassis may be faulty. – Port-01, the 250GB HDD in the middle slot may be faulty. – Port-02, the 250GB HDD in the bottom slot may be faulty. Replace the SATA data cable to the suspected faulty drive. If the problem persists, replace the faulty drive. **5. If the problem persists, replace the motherboard (see page 75)**

Symptom	Possible cause	Suggested action
Service messages (continued)		
One of the disks is bad. Cannot continue with installation.	System software installer has detected that one of the HDDs is faulty.	**If the problem persists, check for a faulty HDD.** **NOTE:** To troubleshoot the HDDs, connect a monitor, keyboard, and mouse to the E-80. Reboot the system. At the Serial ATA AHCI BIOS screen on the monitor, wait for the Port-XX display to appear and press the Pause/Break key. If a HDD description appears next to all three Port-XX entries, all three HDDs are good. If "No device detected" appears next to: – Port-00, the 80GB HDD in the top slot of the chassis may be faulty. – Port-01, the 250GB HDD in the middle slot may be faulty. – Port-02, the 250GB HDD in the bottom slot may be faulty. Replace the SATA data cable to the suspected faulty drive. If the problem persists, replace the faulty drive.
Wrong/Missing Dongle	One of the following: • The wrong dongle or no dongle is installed on the E-80 USB port during the options transfer procedure • Motherboard USB port is faulty	**1. Install the correct dongle on the E-80 USB port and repeat the options transfer procedure (see "Transferring options to the new motherboard" on page 89).** **2. If the problem persists, install the dongle on another available USB port and repeat the options transfer procedure.** **3. If the problem persists and you are sure you have the proper dongle, you may need to replace the motherboard (see page 82).**
Used Dongle	The dongle has already been used to transfer options and cannot be reused.	**Obtain an unused dongle and try again.**
Unknown Platform	The options transfer procedure is required but has not been done.	**Perform the options transfer procedure using the single-use dongle and the Fiery Options Utility CD (see page 89).**
License verification failed	Operator selected Impose in Command WorkStation with no dongle present.	**Install the Impose dongle.**

Symptom	Possible cause	Suggested action
Network		
If you suspect a network problem, consider the following: • If the E-80 does not appear in the list of printers on the network, there may be another device on the network with the same Ethernet hardware address. • There may be conflicting network settings in Setup and on the customer's workstation. • Inappropriate Setup options may cause printing problems. • Missing or incorrectly placed printer description files may cause application-specific printing errors. For additional information, see *Configuration and Setup* on the User Documentation CD.		
Unable to connect to the network, or neither LED on the 10/100/1000Mbps network connector is lit.	One of the following: • Cable is connected to the wrong Ethernet port. Cable should be connected to the upper Ethernet port. • Faulty network cable or connection • Faulty network • Faulty Ethernet interface on the E-80 motherboard	**1. Make sure the network cable is the correct type and connected to the designated network port on the back of the E-80 (see page 140).** Check that the printer/copier interface cable and network cable have not been switched. Make sure that you are using a straight-through Ethernet cable for the network connection, and a crossover Ethernet cable for the printer/copier interface connection. **2. Check the cable connection to the network.** **3. Replace the cable with a new or tested cable.** **4. If the problem persists, request that the network administrator check Network Setup.** **5. If the problem persists, request that the network administrator check other devices on the network.** If other devices are not functioning, there could be a problem with the network. **6. If the rest of the network is functioning properly and the problem persists, replace the motherboard (see page 75).**

Symptom	Possible cause	Suggested action
Network (continued)		
System starts up slowly (seems to hang) and then displays one or more DHCP error messages on the monitor.	One of the following: • Normal behavior System is searching for a nonexistent DHCP server. DHCP is enabled by default on the E-80 but the customer's network is not using DHCP. • If the customer's network is using DHCP: – Network cable or connection is faulty. – Network is faulty. – Ethernet interface on the E-80 motherboard is faulty.	**1. If the problem persists, request that the network administrator change the default in E-80 Network Setup.** **2. If neither LED on the 10/100/1000Mbps network connector is lit on the E-80 back panel, check the cable connection to the back panel and the network. Make sure the cable is the correct type.** **3. If the network cable is the correct type and is properly connected to the back of the E-80, connect a new network cable to the back of the E-80.** **4. If the problem persists, request that the network administrator check other devices on the network.** If other devices are not functioning, it could be a problem with the network. **5. If the rest of the network is functioning properly and the problem persists, replace the motherboard (see page 75).**

Symptom	Possible cause	Suggested action
Printing		
NOTE: Intermittent print quality problems are difficult to trace. Before you try to troubleshoot print quality problems, print a Test Page to make sure that the printer/copier itself does not need servicing or adjusting.		
Test Page fails to print.	Printer/copier is not ready to print.	**Make sure the printer/copier is powered on and ready to print.**
	There is a problem with the connection between the E-80 and the printer/copier.	**1. Make sure the printer/copier is powered on and ready to print.** **2. Check again that the printer/copier interface cable is present and connected to the correct ports on the E-80 and the printer/copier (see page 36). Make sure that the printer/copier interface cable and network cable have not been switched.** Make sure that you are using a straight-through Ethernet cable for the network connection, and a crossover Ethernet cable for the printer/copier interface connection. **3. If the problem persists, power off/on the E-80 and the printer/copier, waiting 1 minute after the E-80 reaches Idle before you power on the printer/copier.** **4. Check again that the video board is present and properly connected to the motherboard (see page 69).** **5. Replace the printer/copier interface cable (see page 36).** **6. Replace the video board (see page 69).** **7. If the problem persists, you may need to service the printer/copier.**
	Corrupted system software (Possible causes continue on next page.)	**Reinstall the system software.**

Symptom	Possible cause	Suggested action
Printing (continued)		
Test Page fails to print.	(continued from previous page)	**Check for a faulty HDD.**
	Faulty HDD	**NOTE:** To troubleshoot the HDDs, connect a monitor, keyboard, and mouse to the E-80. Reboot the system. At the Serial ATA AHCI BIOS screen on the monitor, wait for the Port-XX display to appear and press the Pause/Break key. If a HDD description appears next to all three Port-XX entries, all three HDDs are good. If "No device detected" appears next to: – Port-00, the 80GB HDD in the top slot of the chassis may be faulty. – Port-01, the 250GB HDD in the middle slot may be faulty. – Port-02, the 250GB HDD in the bottom slot may be faulty. Replace the SATA data cable to the suspected faulty drive. If the problem persists, replace the faulty drive.
E-80 appears on the list of printers on the customer's workstation, but certain jobs do not print.	PostScript error	**Make sure Print to PostScript Error in Setup is set to Yes. Check for error messages on the E-80 output.**
	Application problem	**1. Print a job from a different application to determine if the problem is associated with a particular application.** **2. Make sure that the connection between the E-80 and the workstation is working by downloading a Test Page from the workstation or printing a simple file, such as a text file.** **3. Resend the problem file.**

Symptom	Possible cause	Suggested action
Printing (continued)		
Configuration page is completely or mostly blank.	One of the following: • Missing, unmatched, incorrect, or faulty DIMMs • Corrupt system software	**1. Check for missing DIMMs and reseat the DIMMs to remove any oxidation on the connectors (see page 98).** **2. If the problem persists, test the DIMMs by removing all DIMMs except for the one installed in J17, and reboot the system.** – If the system boots to Idle, install a second DIMM in J19 and reboot the system. Continue to install additional DIMMs in the correct socket order and reboot the system until the system fails to reach Idle. Be sure to follow the correct socket order: J17, J19, J21, J23, J18, J20, J22, J24. – If the system fails to boot to Idle, the last DIMM you added may be faulty. To verify this, install a different DIMM in the socket and reboot. If the system still fails to reach Idle, the DIMM socket may be faulty and you may need to replace the motherboard. However, if the system boots to Idle, the suspected DIMM is faulty and should be replaced. **3. If the problem persists, reinstall the system software.**

Symptom	Possible cause	Suggested action
Printing (continued)		
A print job stalls or stops after one or a few pages.	PostScript or application error	**1. Cancel the E-80 print job.** **2. If this fails to clear the problem, reboot the E-80.** **3. If the problem persists, run the Clear Server command.** On the printer/copier display panel, press the "fierydriven®" button. Touch the Fiery tab, and then touch Clear Server.
	Missing, incorrect, or faulty DIMMs or faulty DIMM connections	**1. Power off the E-80; check for missing DIMMs and reseat the DIMMs to remove any oxidation on the connectors (see page 98).** Make sure that an even number of DIMMs is installed. Odd-numbered configurations are not supported. **2. Verify the memory amount on the Configuration page.** **3. If the problem persists, test the DIMMs by removing all DIMMs except for the one installed in J17, and reboot the system.** – If the system boots to Idle, install a second DIMM in J19 and reboot the system. Continue to install additional DIMMs in the correct socket order and reboot the system until the system fails to reach Idle. Be sure to follow the correct socket order: J17, J19, J21, J23, J18, J20, J22, J24. – If the system fails to boot to Idle, the last DIMM you added may be faulty. To verify this, install a different DIMM in the socket and reboot. If the system still fails to reach Idle, the DIMM socket may be faulty and you may need to replace the motherboard. However, if the system boots to Idle, the suspected DIMM is faulty and should be replaced. **4. If the problem persists after replacing the DIMMs, you may need to replace the motherboard (see page 75).**

Symptom	Possible cause	Suggested action
Printing (continued)		
Color quality is not consistent.	Problem with the printer/copier	**Test the printer/copier and service, if necessary (see printer/copier service documentation).**
	File or application problem	**1. Print the E-80 Test Page (see page 45).** **2. If the quality of the Test Page is good, there may be a file or an application problem.**
	Out of calibration or calibration information/curves on the active partition are corrupted.	**1. Start ColorWise Pro Tools, click the Calibrator icon, and then click Restore Device in the Calibrator window.** Restore Device restores the E-80 calibration information to factory defaults. If restoring default calibration does not solve the problem, you may need to service the printer/copier. **2. If restoring default calibration fixes the color quality, the custom calibration may have been the cause of the problem. Request that the site administrator recalibrate the E-80 (for details, see *Color Printing* on the User Documentation CD).** **3. If the problem persists after recalibration, the calibration information on the HDD may be corrupt. Reinstall the system software.** **4. If the problem persists, check for a faulty HDD.** **NOTE:** To troubleshoot the HDDs, connect a monitor, keyboard, and mouse to the E-80. Reboot the system. At the Serial ATA screen on the monitor, wait for the Port-XX display to appear and press the Pause/Break key. If a HDD description appears next to all three Port-XX entries, all three HDDs are good. If "No device detected" appears next to: – Port-00, the 80GB HDD in the top slot of the chassis may be faulty. – Port-01, the 250GB HDD in the middle slot may be faulty. – Port-02, the 250GB HDD in the bottom slot may be faulty. Replace the SATA data cable to the suspected faulty drive. If the problem persists, replace the faulty drive.

Symptom	Possible cause	Suggested action
Printing (continued)		
Print quality is poor.	Missing or outdated printer description file	**Make sure that he appropriate printer description file is installed.** For information on printer files, see *Printing from Windows* or *Printing from Mac OS* on the User Documentation CD.
	Application cannot find the appropriate printer description file	
	Problem with the printer/copier (Possible causes continue on the next page.)	**Test the printer/copier and service, if necessary (see printer/copier service documentation).**

Symptom	Possible cause	Suggested action
Printing (continued)		
Print quality is poor.	(continued from previous page) Out of calibration or calibration information/curves on the active partition are corrupted	**1. Start ColorWise Pro Tools, click the Calibrator icon, and then click Restore Device in the Calibrator window.** Restore Device restores the E-80 calibration information to factory defaults. If restoring default calibration does not solve the problem, you may need to service the printer/copier. **2. If restoring default calibration fixes the color quality, the custom calibration may have been the cause of the problem. Request that the site administrator recalibrate the E-80 (for details, see *Color Printing* on the User Documentation CD).** **3. If the problem persists after recalibration, the calibration information on the HDD may be corrupt. Reinstall the system software.** **4. If the problem persists, check for a faulty HDD.** **NOTE:** To troubleshoot the HDDs, connect a monitor, keyboard, and mouse to the E-80. Reboot the system. At the Serial ATA screen on the monitor, wait for the Port-XX display to appear and press the Pause/Break key. If a HDD description appears next to all three Port-XX entries, all three HDDs are good. If "No device detected" appears next to: – Port-00, the 80GB HDD in the top slot of the chassis may be faulty. – Port-01, the 250GB HDD in the middle slot may be faulty. – Port-02, the 250GB HDD in the bottom slot may be faulty. Replace the SATA data cable to the suspected faulty drive. If the problem persists, replace the faulty drive.

Symptom	Possible cause	Suggested action
Printing (continued)		
Pages come out blank or tinted with a color.	Loose cable connection between the E-80 and the printer/copier	**1. Check again the printer/copier interface cable and its connections at the back of E-80 and the printer/copier (see page 36).** **2. Reboot the E-80.**
	Problem with the printer/copier	**Test the printer/copier and service, if necessary (see printer/copier service documentation).**

If the user can print the E-80 Test Page but cannot print a job from a computer on the network, request that the network administrator do the following:

- Check all components of the network, including cables, connectors, terminators, network adapter boards, and network drivers.
- Activate the network and use it to communicate with other printers.
- Check the corrective actions listed in the user documentation on the User Documentation CD.
- Confirm that the applicable network settings in Setup (such as AppleTalk zone, IP address, Subnet mask, and Gateway address) match the settings used in the network.

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

Clearing the CMOS

Use the following procedure to clear the CMOS for the E-80, when suggested as a troubleshooting action.

TO CLEAR THE CMOS

1. **Make sure the E-80 is powered off, and remove the power cable from the system.**
2. **Access and open the E-80 (see page 60).**
3. **Remove the battery from the motherboard (see page 95).**

   Set aside the battery so that you can replace it later.
4. **Wait two full minutes.**
5. **Reinstall the battery (see page 95).**
6. **Reassemble the E-80 (see page 129).**
7. **Reconnect the power cable to the E-80.**
8. **Power on the E-80, and configure the date and time in Setup.**

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

Diagnostic tools

Additional diagnostic tools are available from the printer/copier display panel. These tools include Check Email System and Check Video Board.

Check Email System

Check Email System allows you to perform a quick diagnostic of E-80 e-mail printing without actually having to e-mail a scanned document over the network. The diagnostic prompts the system to send an e-mail to itself. You review the results of the diagnostic by printing the E-mail Log.

TO CHECK THE E-MAIL PRINTING FEATURE

1. **On the printer/copier display panel, press the "fierydriven®" button.**
2. **Touch the Fiery tab.**
3. **Touch Run Diagnostics, and then touch Check Email System.**

   The display panel shows the message "Sending Test E-mail. Please print the E-mail Log for the diagnostic result."
4. **Touch OK to return to the Fiery tab.**
5. **Touch Printable Info, and then touch E-mail Log.**

   The E-80 sends the E-mail Log to the printer/copier.
6. **On the E-mail Log, locate the results of the test in the Status column.**

   A successful transmission indicates that the E-80 is capable of sending an e-mail over the network. A failed transmission indicates a problem with the E-80 setup options. Have the network administrator confirm setup options (see *Configuration and Setup* on the User Documentation CD).

Check Video Board

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

TO CHECK THE VIDEO BOARD

1. **On the printer/copier display panel, press the "fierydriven®" button.**
2. **Touch the Fiery tab.**
3. **Touch Run Diagnostics, and then touch Check Video Board.**
4. **Touch OK to continue with the diagnostic.**

   If the display panel shows the message "Video diags passed," the video board is installed properly.
5. **If the display panel shows the message "Video diags failed," then:**
   - Power off the E-80 and open the system (see page 60).
   - Reseat the video board and reassemble the system (see page 69).
   - Power on the E-80 and run the diagnostic again. If the diagnostic still fails, you may need to replace the video board.

SERVICING THE SYSTEM WITH FURNITURE

This chapter describes how to remove the E-80 from the furniture in order to access internal components for service.

Procedures

If the E-80 is installed in the optional furniture, you need to remove it from the furniture before performing most service procedures.

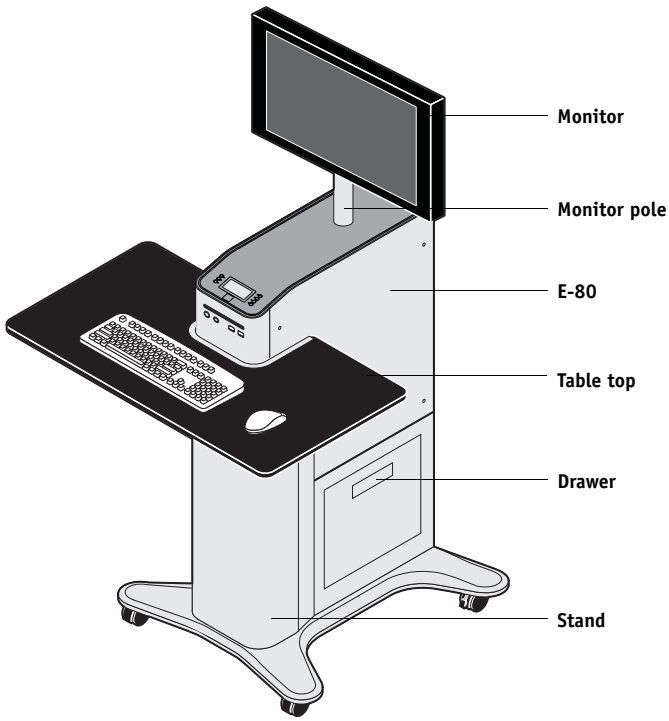


FIGURE 1: E-80 installed on the furniture

REMOVING THE E-80 FROM THE FURNITURE

1. **Make sure the E-80 is powered off and all the cables are removed from the back of the E-80.**
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-80

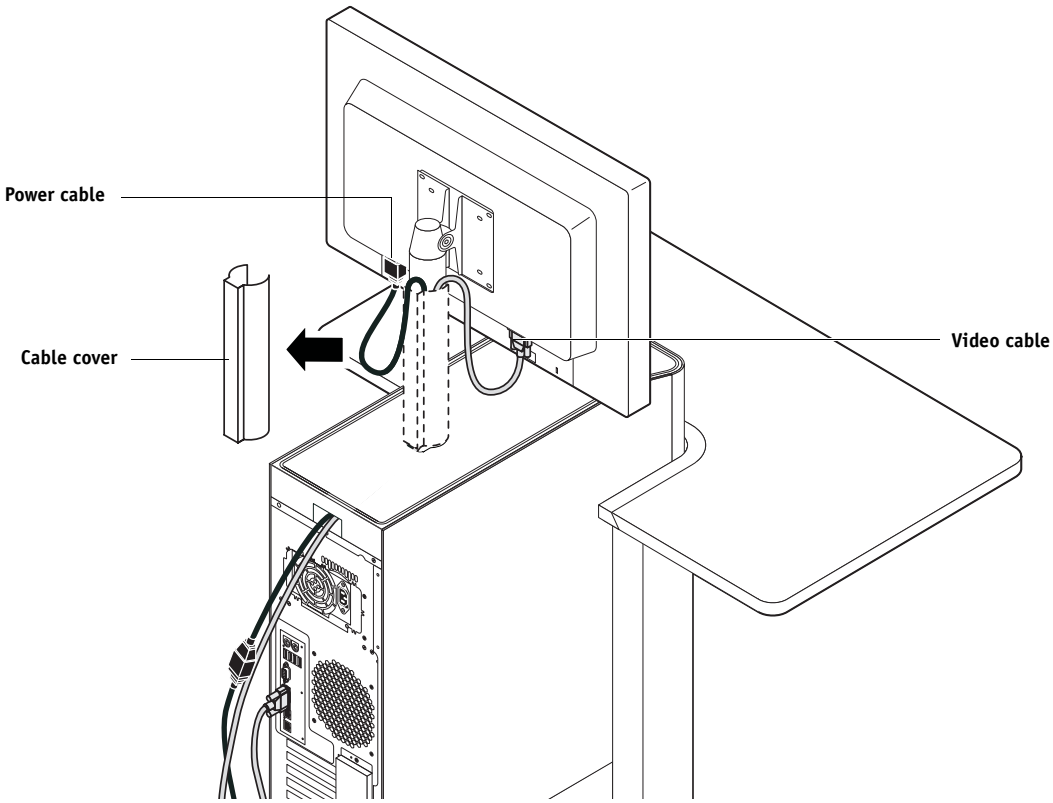


FIGURE 2: Removing the cable cover and monitor cables

3. **Remove the thumbscrews that attach the E-80 stability bracket to the stand.**

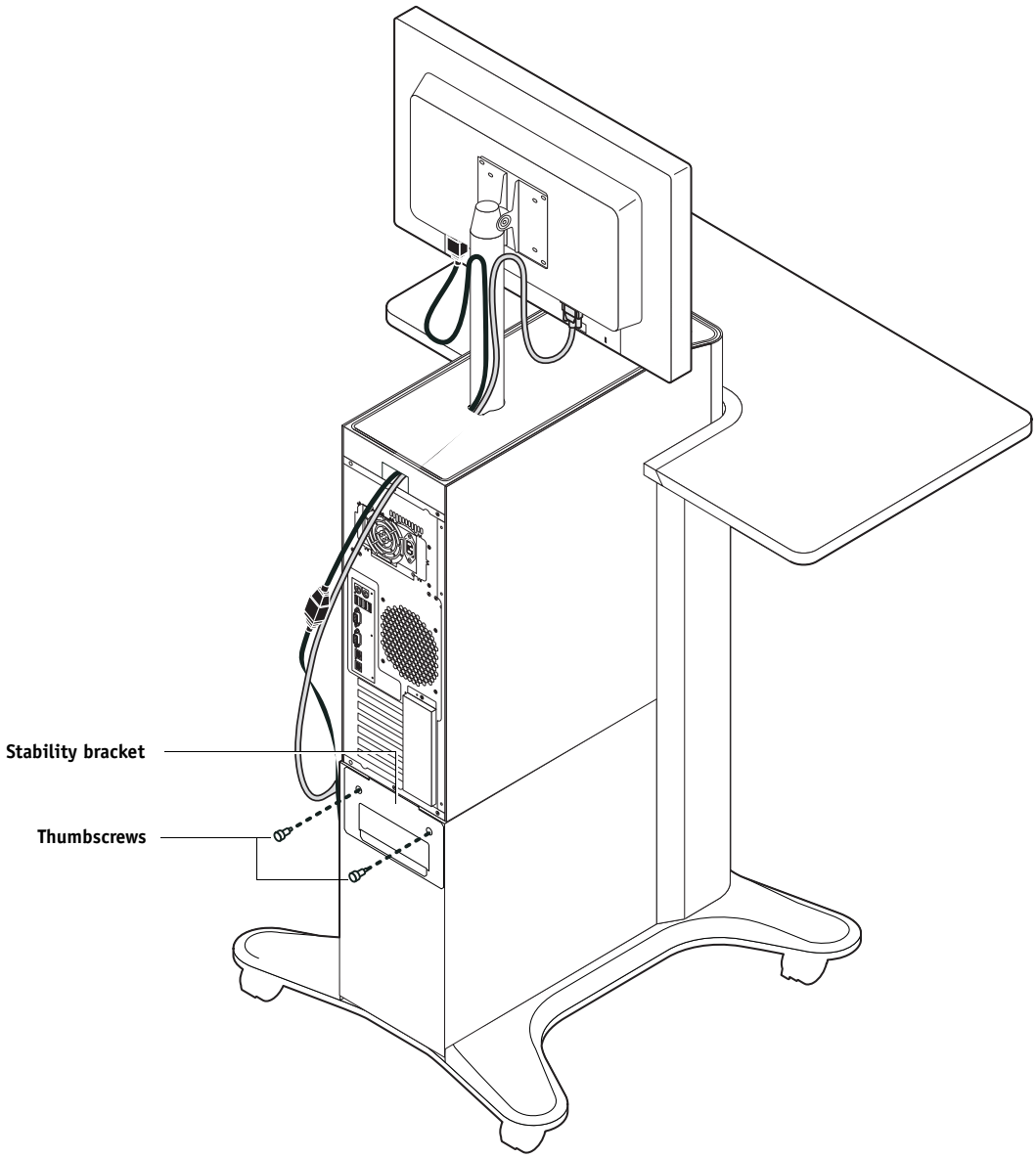


FIGURE 3: Loosening the stability bracket

4. **Lift the bracket and gently pull the Fiery away from the table top.**

   Make sure to pull the E-80 out just enough so that the front panel of the E-80 is aligned with the back edge of the table top.

5. **Remove the E-80 left panel (three screws) so that you can access the monitor pole tightening mechanism.**

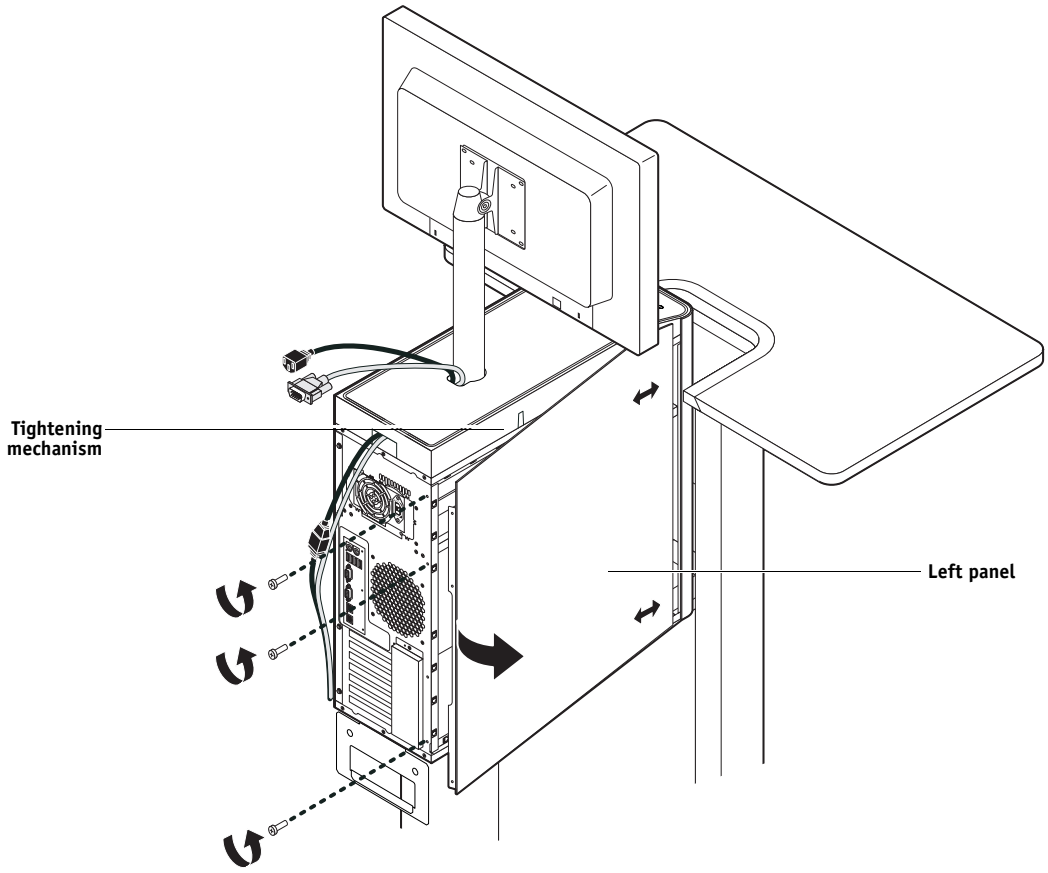


FIGURE 4: Removing the left panel

6. **Use the 5mm allen key to loosen the screw that secures the monitor pole to the E-80.**

   The 5mm allen key should be stored in the side drawer of the furniture.

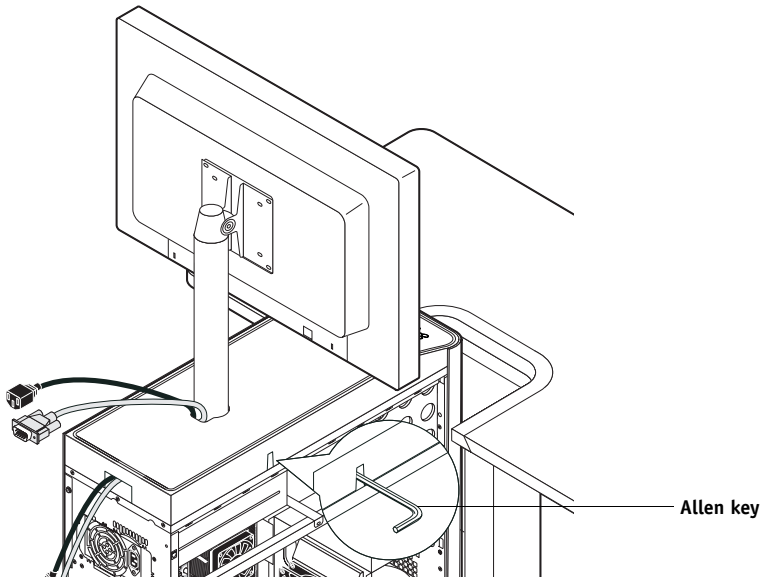


FIGURE 5: Loosening the monitor pole

7. **Holding the monitor pole, gently lift the monitor pole assembly up and out of the E-80 monitor mount.**

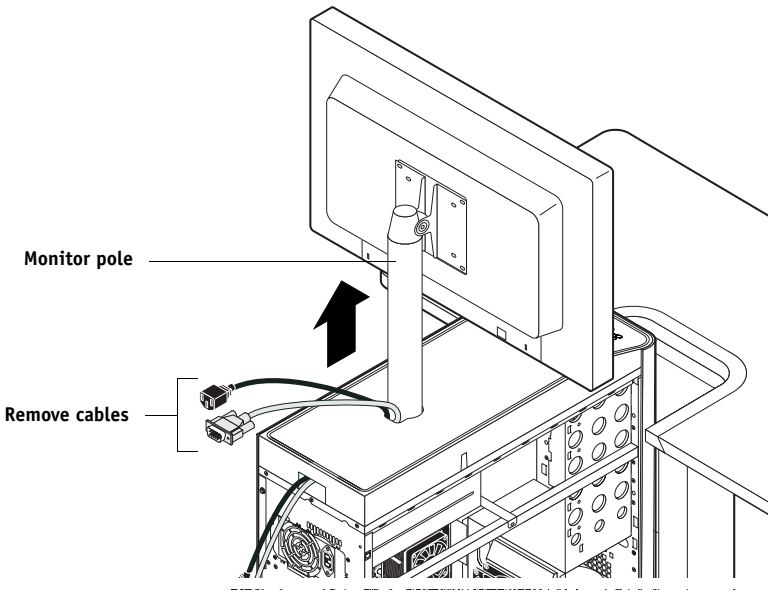


FIGURE 6: Removing the monitor pole assembly

8. **Remove the monitor cables from the E-80 and continue with the instructions in "To open the E-80" on page 62.**

REPLACING THE E-80 IN THE FURNITURE

1. **Make sure that the left side panel is removed from the E-80.**
2. **Place the E-80 upright on the furniture stand. Slide the E-80 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-80 and slide it forward.
3. **Feed the monitor cables (power and video) into the access cutout in the back of the E-80. Pull each cable out of the top of the E-80.**

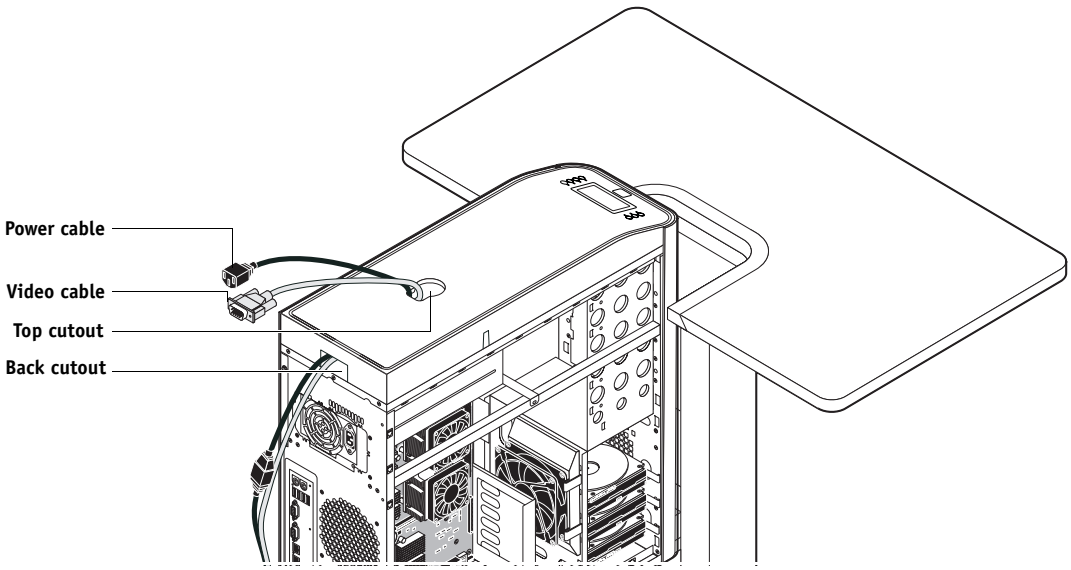


FIGURE 7: Routing the cables through the access cutout

4. **Lift up the pole assembly and insert the pole into the top of the E-80 so that it is inside the monitor mount. Tighten the assembly into place using the 5mm allen key.**

   Store the 5mm allen key in the side drawer of the furniture.

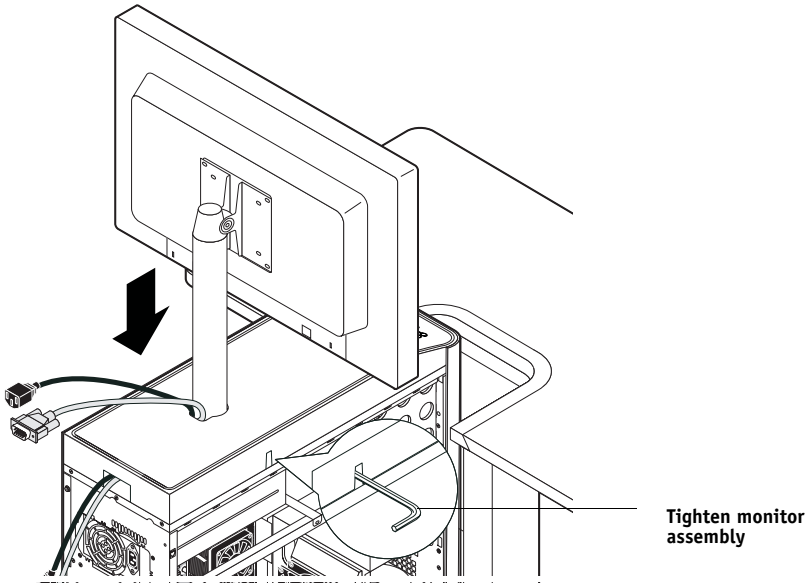


FIGURE 8: Tightening the monitor pole assembly

5. **Reinstall the left panel on the E-80 with the screws you removed earlier.**

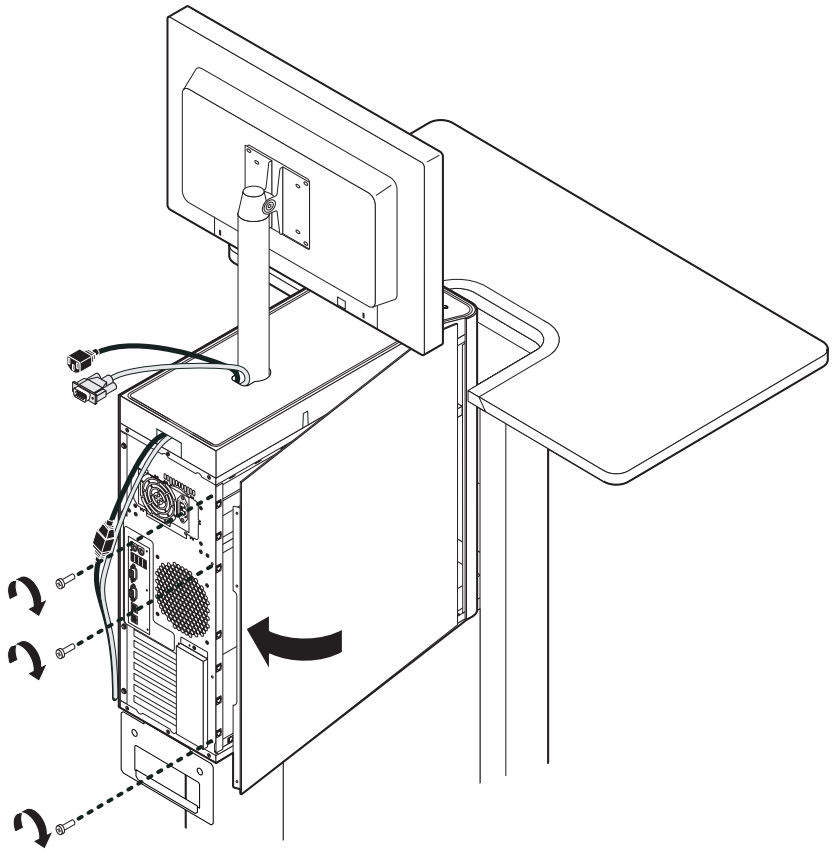


FIGURE 9: Installing the left panel

6. **Use the handle on the stability bracket to lift the rear of the E-80. Slide the E-80 all the way forward into the stand. Lock the E-80 into place with the two thumbscrews you removed earlier.**

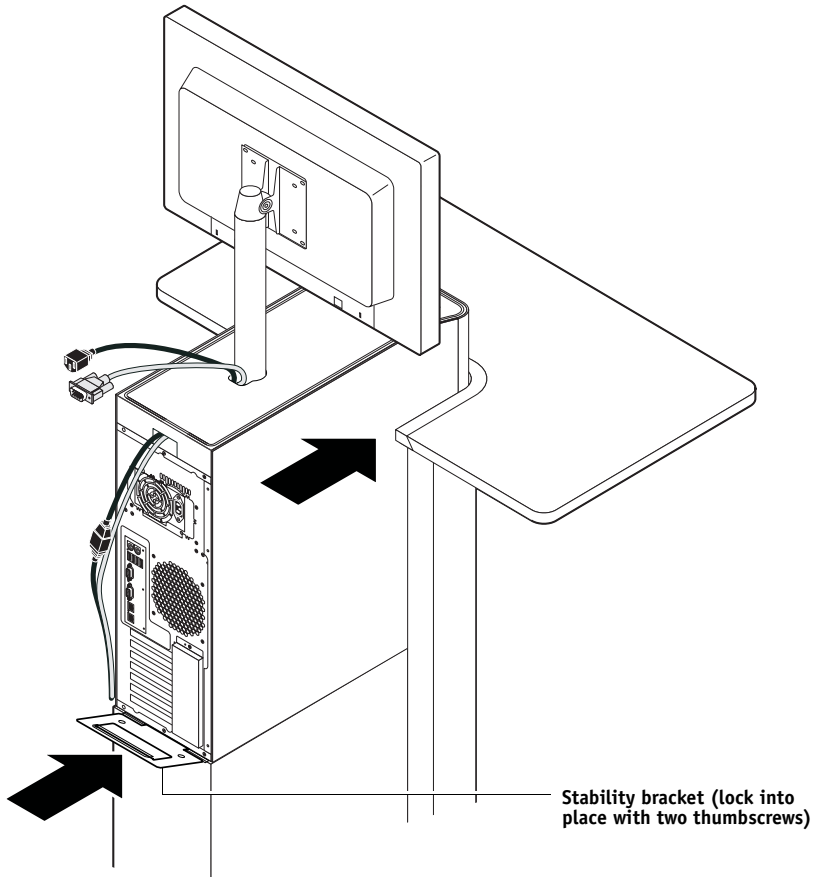


FIGURE 10: Locking the stability bracket

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-80

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

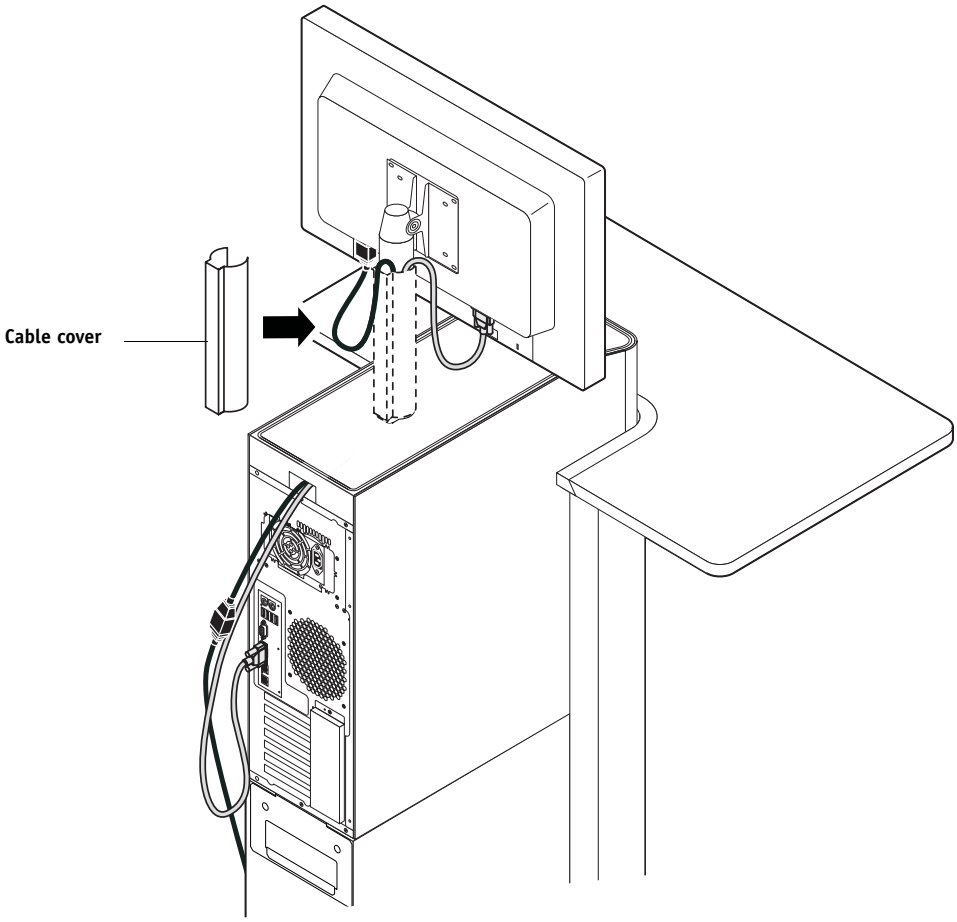


FIGURE 11: Installing the cable cover

9. **Replace the allen key in the furniture drawer and continue with the instructions for reassembling the E-80 on** page 129**.**

SPECIFICATIONS

This chapter provides an overview of E-80 features.

Hardware features

- Two quad-core Intel Xeon 3.0GHz CPUs
- Memory—2GB
- RJ-45 connector for 10Mbps, 100Mbps, or 1000Mbps connectivity over twisted pair cable
- One 80GB and two 250GB hard disk drives
- Built-in DVD-RW drive

Physical specifications

- Operating Environment:
  Temperature: +5°C to +40°C
  Relative Humidity: 10%-85% (non-condensing)
- Power Supply Rating: 100-240V, 50-60Hz, 5A
- Rated Power Consumption: 360W
- Dimensions (Depth x Width x Height):
  58.8 cm (23.17 in.) x 21.2 cm (8.36 in.) x 57.6 cm (22.7 in.)
- Weight: 30.35 kg (66.90 lbs.)

Networking and connectivity

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

User software

Installers for the E-80 user software are located on the User Software DVD and on the E-80 hard disk in e:\efi\user_sw. A complete description of the software is provided in *Welcome* (located on the User Documentation CD). For optimal E-80 performance, current versions of the user software should be maintained on every network computer that might print to the E-80.

Safety and emissions compliance

The E-80 has been certified to meet the Restriction of Hazardous Substances Directive (RoHS). In addition, it meets or surpass the following government standards:

Safety approvals

- UL 60950-1: 2003 (UL)
- CAN/CSA 22.2 No. 60950-1-03
- EN 60950-1 (TUV/GS mark)
- CB scheme IEC 60950-1: 2001

EMI approvals

- FCC Class A
- EN55022 Class A
- EN55024
- AS/NZS CISPR 22: Class A

NOTE: The Fiery Q Server, model number QXxxx-xx is identical to the OEM product "Color Controller E-80" for marketing purposes.

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