

Sun Ultra[™] 40 M2 Workstation Installation Guide

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Preface

The *Sun Ultra 40 M2 Workstation Installation Guide* provides the information that you need to set up, power on, and configure the workstation hardware and software.

How This Book Is Organized

This guide is organized into the following chapters:

Chapter 1 contains instructions on unpacking, cabling, powering the workstation, set up of the preinstalled SolarisTM 10 Operating System, and additional development software.

Chapter 2 discusses troubleshooting system issues and obtaining support.

Shell Prompts

Shell	Prompt	
C shell	machine-name%	
C shell superuser	machine-name#	
Bourne shell and Korn shell	\$	
Bourne shell and Korn shell superuser	#	

Typographic Conventions

Typeface*	Meaning	Examples
AaBbCc123	The names of commands, files, and directories; onscreen computer output	Edit your.login file. Use ls -a to list all files. % You have mail.
AaBbCc123	What you type, when contrasted with onscreen computer output	% su Password:
AaBbCc123	Book titles, new words or terms, words to be emphasized. Replace command-line variables with real names or values.	Read Chapter 6 in the <i>User's Guide</i> . These are called <i>class</i> options. You <i>must</i> be superuser to do this. To delete a file, type rm <i>filename</i> .

^{*} The settings on your browser might differ from these settings.

Related Documentation

The document set for the Sun Ultra 40 M2 Workstation is described in the *Where To Find Sun Ultra 40 M2 Workstation Documentation*, 819-7576 that is included with your system. All documents are posted at the product's documentation site at:

http://docs.sun.com

Translated versions of some of these documents are available at the product's documentation site in Simplified Chinese, Traditional Chinese, French, German, Italian, Japanese, Korean, and Spanish.

English documentation is revised more frequently and might be more up-to-date than the translated documentation.

Documentation, Warranty, Support, and Training URLs

Sun Function	URL	Description
Hardware Documentation	http://docs.sun.com	Sun hardware documentation
Software Documentation	http://docs.sun.com	Solaris OS and other software documentation
Warranty	http://www.sun.com/service/support/warranty/index.html	View specific details regarding your warranty
Support	http://www.sun.com/support/	Obtain technical support, including patches
Training	http://www.sun.com/training/	Learn about Sun courses and educational offerings

Ordering Components

You can order additional components and replacement parts for the Sun Ultra 40 M2 Workstation. Contact your local Sun sales representative for more information. For the most up-to-date component information, see the Sun Ultra 40 M2 Workstation components list at:

http://sunsolve.sun.com/handbook_pub/

Third-Party Web Sites

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Please include the title and part number of your document with your feedback: *Sun Ultra 40 M2 Workstation Installation Guide*, 820-0121-12.

System Setup

This chapter includes information about the following topics:

- "Planning the Installation Process" on page 2
- "Powering On the Workstation" on page 10
- "Cabling the Workstation" on page 9
- "Powering Off the Workstation" on page 10
- "Setting Up the Operating System and Drivers" on page 11
- "Enabling the Secondary PCI-E Graphics Card" on page 18

Planning the Installation Process

Use the following flowchart as a process tool to assist you with installation of the Sun Ultra 40 M2 Workstation.

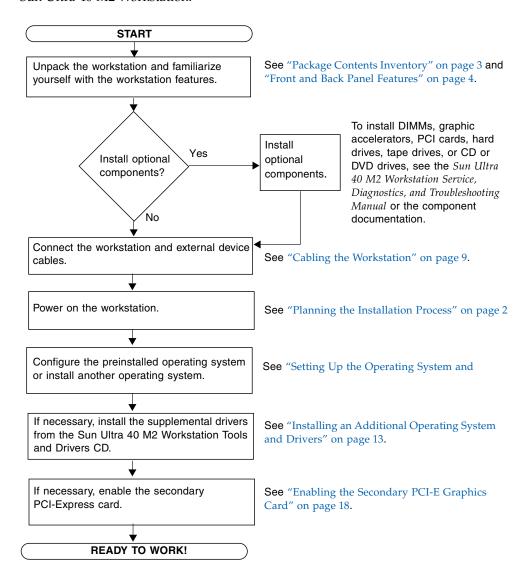


FIGURE 1-1 Process for Setting Up the Sun Ultra 40 M2 Workstation

Package Contents Inventory

Carefully unpack all Sun Ultra 40 M2 workstation components from the packing cartons. TABLE 1-1 lists the items that are packaged with the Sun Ultra 40 M2 Workstation:

TABLE 1-1 Package Contents

Item Type	Item	
Hardware	 Sun Ultra 40 M2 Workstation DVI video adapter DMS-59 cable (if an NVS285 graphics card is installed) SLI connector (if workstation has dual video cards with SLI support) Y splitter cables for three or more graphics cards (if XATO not installed at the factory) 	
Documentation	Sun Ultra 40 M2 Workstation Installation Guide	
CD/DVD media	 Sun Ultra 40 M2 Tools and Drivers CD DVD media kit containing the following software: Sun™ Studio 11, Sun Java™ Studio Creator Update 8, Sun Java™ Studio Enterprise Update 8 	
Additional hardware	Type 7 keyboard, mouse, and power cord	

If you ordered an optional country kit, the kit ships in a separate package and includes a power cable, keyboard, and mouse.

Note – The workstation is packaged with the stand in place, as shown in FIGURE 1-2. This stand must be positioned as shown when the system is upright.

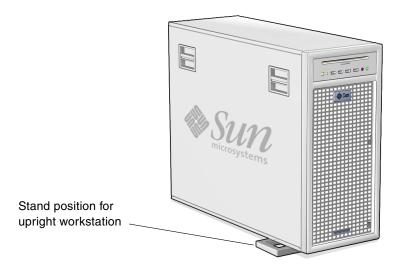


FIGURE 1-2 Workstation in Upright Position

Front and Back Panel Features

FIGURE 1-3 and TABLE 1-2 show the workstation front panel.

This section shows and describes the features of the front and back panel, and the side cover of the Sun Ultra 40 M2 Workstation.

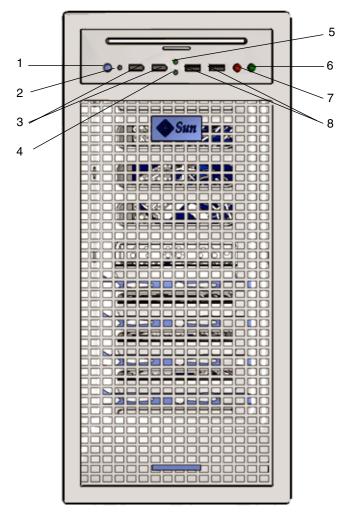


FIGURE 1-3 Workstation Front Panel

TABLE 1-2 Front Panel Features

Label	Button/LED/Port	Label	Button/LED/port
1	Power button	5	DVD activity indicator LED
2	Power LED	6	2 USB ports
3	1394 ports (2)	7	Microphone - in jack
4	HD activity indicator LED	8	Headphone - out jack

FIGURE 1-4 and TABLE 1-3 show the workstation back panel.

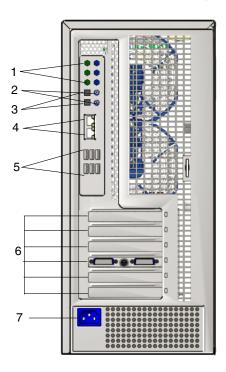


FIGURE 1-4 Workstation Back Panel)

TABLE 1-3 Back Panel Features

Label	Connector/Slot	Label	Connector/Slot
1	Audio connectors (6)	5	USB connectors (6)
2	SPDIF coaxial (out top in, bottom)	6	PCI slots (see TABLE 1-4 for descriptions)
3	SPDIF optical (out top in, bottom)	7	power connector
4	Ethernet connectors (2)		

PCI Card Slots and Connector Specifications (Top to Bottom) TABLE 1-4

PCI Card Slot	Supported Speeds	Power Connector
PCI-E3	x16 secondary graphics	From GFX2_PWR_OUT (6-pin Y-adapter)
PCI-E2 x4	x16 mechanical, x8 electrical	None
PCI-E1	x16 primary graphics	From GFX1_PWR_OUT (6-pin to 6-pin)
PCI-0	PCI 33 MHz/32 bit	None
PCI-E0 x8	x16 mechanical, x8 electrical	None

Side Cover Overview



Caution – Always power off the workstation before removing the side cover.

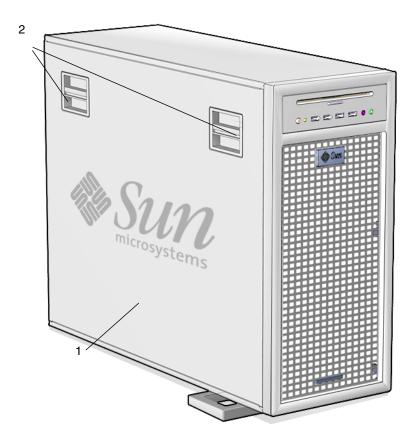


FIGURE 1-5 Side Cover

 TABLE 1-5
 Side Cover Component Overview

Item	Component Description
1	Side cover
2	Latch (2)

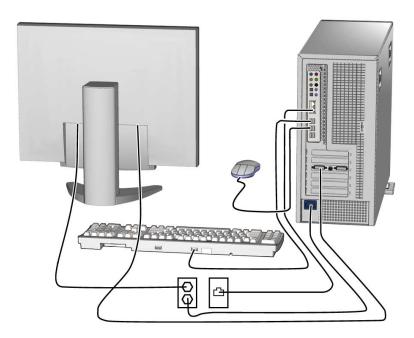


FIGURE 1-6 Cable Connections

Cabling the Workstation

- 1. Connect the workstation power cord to a grounded electrical outlet.
- 2. Connect the keyboard and mouse to the USB connectors on the back panel.
- 3. Connect the monitor cable to a graphics card video connector installed in a PCI-Express graphics slot.

Note – You might need to use the DVI adapter included with the workstation to connect the graphics card to the monitor. If your workstation has an NVS285 graphics card installed, a DMS-59 cable will be packaged with the workstation. If you are using a different graphics card, you will need to use the adapters for that specific card.

- 4. Connect an Ethernet cable to one of the Ethernet connectors on the Sun Ultra 40 M2 Workstation, and connect the other end of the cable to an Ethernet RJ-45 jack.
- 5. Connect any additional external devices to the workstation's other connectors.

Powering On the Workstation

This section describes how to power on the workstation.

Tip – If you are installing optional internal components, such as additional memory DIMMs, PCI cards, optical drives, or hard drives, install those components before you power on the workstation. If you are not installing optional components, you are ready to power on the workstation.

To power on the work station:

- 1. Turn on power to the monitor and to all external devices.
- 2. Press and release the workstation Power button on the front panel. See FIGURE 1-3 (1).
- 3. After several seconds, verify that the platform power LED next to the Power button lights.

The platform power LED lights after the workstation begins the internal booting process. See FIGURE 1-3 (2) for the location of the platform power LED.

4. If you are powering on the workstation for the first time, configure the preinstalled operating system or install another operating system after the workstation has finished booting. See "Setting Up the Operating System and Drivers" on page 11.

Powering Off the Workstation

This section describes how to power off the workstation.

To power off the workstation:

- 1. Save your data and close any open applications.
- 2. Read all of the following power-off options before powering off the workstation.
 - Power off the workstation by using the operating system shutdown command or menu option.

In most cases, either action powers down the operating system and then turns off the power to the workstation. ■ If the workstation power is not shut off through the operating system command or this command is not available, press and release the power button (see FIGURE 1-3 for the location).

This action initiates an orderly shutdown of the operating system and powers off the workstation.



Caution – To avoid data loss, use the preceding two options whenever possible.

If the workstation is not shut off after using the first two preferred methods, press and hold the Power button for approximately four seconds.

This action immediately shuts down the power to the workstation without operating system intervention. This method could result in data loss.

If the preceding options fail to power off the workstation, see the *Sun Ultra 40 Workstation Service Manual* (820-0123) for additional troubleshooting information.

Note – After powering off the workstation, wait at least four seconds before powering on the workstation again.

Setting Up the Operating System and Drivers

This section describes how to set up the operating system. You can set up the preinstalled Solaris 10 operating system or install an additional operating system and drivers.

For information on setting up the operating system and software:

- If you plan to use the installed operating system, see "Setting Up the Preinstalled Solaris 10 Operating System" on page 12.
- If you plan to install an additional operating system, see "Installing an Additional Operating System and Drivers" on page 13.
- See "Exploring Preinstalled Developer Software" on page 15 for additional information on preinstalled Sun Ultra 40 M2 Workstation software.

Setting Up the Preinstalled Solaris 10 Operating System

This section describes how to set up the preinstalled Solaris 10 Operating System.

Use TABLE 1-6 to collect the information that you need, and then follow the system prompts to configure the operating system. When you have successfully configured the Preinstalled Solaris 10 operating system, the desktop will display.

 TABLE 1-6
 Information for Preinstalled Solaris 10 Setup

Setup Window	Description	Your Information
Select Language and Locale	Native language and locale to use for the workstation.	
Host Name	A name for the workstation.	
Network Connectivity (IP Address)	Network or stand-alone workstation protocols. A system administrator might be required to complete this section. Note: Depending on how you answer and what information is provided by your network, you might also be prompted for the workstation's IP address.	
Security Settings	Security settings and protocols.	
Name Service	Name service to use: NIS+, NIS, DNS, LDAP, or None. Note: This window is not displayed if the workstation is not connected to a network.	
Domain Name	NIS or NIS+ domain for this workstation. Note: This window is not displayed if the workstation is not using the NIS or NIS+ service.	
Name Server/ Subnet/ Subnet Mask	Name server (specify the server or have the workstation find one on a local subnet). Note: This window is not displayed if the workstation is not connected to a network. Note: Depending on how you answer and what information is provided by your network, you might also be prompted for: • The subnet for the workstation • The subnet mask for the workstation	
Time Zone	Local time zone (select by geographic region, GMT offset, or a time zone file).	
Date and Time	Current date and time (accept the default or enter the current date and time).	
Root Password	Root (superuser) password for the workstation.	

Installing an Additional Operating System and Drivers

The Solaris 10 Operating System is preinstalled on your workstation. If you plan to install an additional operating system, install it at this time. You might need to remove the Solaris 10 Operating System in order to do this.

The following sources of information can help you with installing additional operating systems:

- Overview instructions for installing the drivers can be found in the following section: "How to Install Additional Operating Systems and Drivers" on page 13.
- Detailed information on removing the existing operating system, installing additional drivers, and installing another operating system is in the *Sun Ultra 40 M2 Operating System Installation Guide*, 819-7577, which is available at:

```
http://www.sun.com/products-n-solutions/hardware/docs/Workstation Products/Workstations/ultra 40/index.html
```

- Drivers for supported operating systems are available on the Sun Ultra 40 M2 Workstation Tools and Drivers CD included with your system.
- The most recent list of operating systems supported for Sun Ultra 40 M2 Workstation can be found on the product web site at:

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http://sun.com/ultra40
```

How to Install Additional Operating Systems and Drivers

For detailed instructions on installing drivers, see the Sun Ultra 40 M2 Operating System Installation Guide, 819-7577.

This section includes the basic instructions for installing an additional operating system and drivers.

Installing the Operating System

The section describes how to install the Linux, Windows, or Solaris operating system.

To install the operating system:

- 1. Power on the workstation.
- 2. Do one of the following:
 - If you are installing a Linux OS or reinstalling the Solaris 10 Operating System, and the BIOS installed O/S option has not been changed from the default, proceed to Step 3.
 - If you are installing Windows XP, make the following change to the BIOS settings:
 - a. Select the Advanced tab and change the Installed O/S option to Win2K/XP.
 - b. Press the F10 key to save your changes and exit the BIO Setup Utility.
- 3. Install the operating system, following the instructions that come with the software.

Note – If you need to install RAID drivers for Windows XP, you will need to create a new Windows CD before installing the Windows XP OS. See the *Sun Ultra 40 M2 Operating System Installation Guide*, 819-7577 for further information.

4. After installing the operating system, install the appropriate drivers from the Sun Ultra 40 M2 Workstation Tools and Drivers CD, using one of the following procedures.

Installing the Drivers for a Linux OS

To install the drivers from the Tools and Drivers CD for supported Red Hat and SUSE operating systems:

- 1. If you have installed Red Hat Enterprise Linux, run the up2date utility.
- 2. If the CD does not automount, manually mount the CD.
- 3. Change to the following directory: /mountpoint/drivers/linux/operating_system

Where *mountpoint* is the directory the CD is mounted to, and *operating_system* is the operating system installed (red_hat or suse).

4. Run ./install.sh.

Installing the Drivers for a Windows XP OS

To install the drivers from the Tools and Drivers CD for Windows XP 32-bit or 64-bit:

Change to the following directory: D:\drivers\windows\OS\chipset

Where OS is XP32 or XP64.

- 2. Double-click the executable file.
- 3. Follow the instructions in the installation software.
- 4. Repeat the above instructions for the video drivers in the following directory:

D:\drivers\windows\OS\video

Where OS is XP32 or XP64.

Installing the Drivers for the Solaris 10 OS

If you are using the preinstalled version of Solaris, the drivers are already installed. To install the drivers from the Tools and Drivers CD for the reinstalled Solaris 10 Operating System:

- 1. Change to the /cdrom/cdrom0/drivers/sx86 directory.
- 2. Run ./install.sh.

Exploring Preinstalled Developer Software

The following minimum versions of Sun's developer software are preinstalled or preloaded onto your Sun Ultra 40 M2 Workstation. An overview of each developer software package is presented in the following sections.

- Sun Studio 11 (see "Sun Studio Software" on page 16)
- Sun Java Studio Creator 2 (see "Sun Java Studio Creator" on page 17)
- Sun Java Studio Enterprise 8 (see "Sun Java Studio Enterprise" on page 17)
- NetBeans IDE 5.0 ("NetBeans IDE" on page 17)

Your system might have later versions of this software preinstalled.

In addition, two fully licensed RTUs for Sun's N1 Grid Engine are also included with the workstation. To purchase support, no additional licenses are required. These RTUs can only be used with the Ultra 40 M2 Workstation with which they came. The RTUs are non-transferable and cannot be used on other hardware.

You can download the Sun N1 Grid Engine by clicking the "Get the Software" button at the following URL:

```
http://www.sun.com/gridware
```

See the Sun Ultra 40 M2 Workstation Operating System Installation Guide, 819-7577, for more information on the preinstalled software and CD media. This, and other Sun Ultra 40 M2 Workstation documentation can be found at:

```
http://www.sun.com/products-n-solutions/hardware/docs/
Workstation Products/Workstations/ultra 40/index.html
```

Sun Studio Software

Sun Studio software provides a comprehensive, productive environment for developing reliable, scalable, high-performance applications using C, C++, and FORTRAN for the Solaris OS. The software package includes compilers, performance analysis tools, and a powerful debugger, as well as an integrated development environment (IDE).

The Sun Studio IDE provides modules for creating, editing, building, debugging, and analyzing the performance of C, C++, or FORTRAN applications. It includes a set of basic JavaTM language support modules that can be enabled if needed for Java Native Interface (JNI) development.

The Sun Studio software consists of two major components:

- The Sun Studio component, which includes the IDE, compilers, tools, and core platform
- The Java 2 Platform, Standard Edition (J2SE) technology on which the core platform runs

For more information regarding the Sun Studio software, see the product documentation at:

```
http://developers.sun.com/sunstudio
```

Sun Java Studio Creator

The Sun Java Studio Creator development environment (formerly "Project Rave") is the next-generation tool for Java application development. This product combines the power of 100% Java standards with simplified visual development techniques to give developers the most effective, most productive way to build applications in Java.

The Java Studio Creator environment was designed and tested to meet the needs of skilled developers whose primary concern is rapid turnaround of business-critical applications. Java Studio Creator enables these developers to leverage the power of the Java platform to solve business problems, without forcing them to give up the highly-productive, visual style to which they are accustomed.

For additional information about Sun Java Studio Creator, see the product documentation at:

http://developers.sun.com/jscreator

Sun Java Studio Enterprise

Sun Java Studio Enterprise is a complete, cost-effective, unified platform of tools, support, and services designed to fully integrate with the capabilities of the Sun Java Enterprise System. Java Studio Enterprise enables you to develop applications in an environment carefully designed to:

- Improve productivity
- Simplify the creation of sophisticated network applications that are ready to be deployed on the Java Enterprise System

For additional information about Sun Java Studio Enterprise, see the product documentation at:

http://developers.sun.com/jsenterprise

NetBeans IDE

The NetBeans IDE 5.0 includes Java 2 Platform, Enterprise Edition (J2EE) development capabilities. This new release enables developers to not only develop applications in the web tier, but also includes Enterprise JavaBeans (EJBs) and web service development capabilities.

The NetBeans IDE is a single platform with out-of-the-box development capabilities and support for enterprise (J2EE 1.4) applications and web services, mobile/wireless Java 2 Platform, Micro Edition (J2ME) applications and services, and desktop Java 2

Platform, Standard Edition (J2SE) applications. The robust open source Java IDE, has everything that Java software developers need to develop cross-platform desktop, web, and mobile applications straight out of the box.

For more information about the NetBeans IDE, go to the following website:

http://www.netbeans.org

Enabling the Secondary PCI-E Graphics Card

The lower PCI-Express x16 slot (PCI-E 1) is the primary graphics slot. The BIOS is set up for displaying video from a graphics card installed in this slot by default. This card is powered by the 6-pin to 6-pin GFX1_PWR_OUT supplemental power connector.

To use the secondary PCI-Express x16 graphics slot (the top-most PCI-E 3 slot), you must do the following to set it up:

- Connect the GFX2 supplemental power connector to the card (if required by the card).
 - See the Sun Ultra 40 M2 Workstation Service, Diagnostics, and Troubleshooting Manual for more information on connecting the power connector.
- Set up the BIOS as shown in the following procedure.

Note – Attempting to use the wrong supplemental power cable for the wrong graphics card could result in the machine not powering up.

To set up the secondary PCI-E x16 graphics card slot:

- 1. Boot the workstation with the video display connected to the primary graphics card slot.
- 2. When you see the Sun logo screen displayed, press F2 to enter the BIOS Setup Utility.
- 3. Select the Advanced menu.

The entry PCI-E X16 VGA CARD SELECT defines which slot is the primary graphics slot. POST and BOOT information will be displayed to this card only.

- 4. Select PCI Express Slot 3 (i.e. PCI-E 3) to enable the PCI-E 3 graphics slot.
- 5. Press the F10 key to save your changes and exit the BIOS.

Setup Troubleshooting and Documentation

This chapter describes how to help you troubleshoot minor workstation problems. It also includes information about getting technical assistance.

It includes the following sections:

- "Troubleshooting the Sun Ultra 40 M2 Workstation Setup" on page 20
- "Technical Assistance" on page 21
- "Sun Ultra 40 M2 Workstation Documentation" on page 24

Troubleshooting the Sun Ultra 40 M2 Workstation Setup

If you experience problems while setting up your workstation, refer to the troubleshooting information in TABLE 2-1. For additional troubleshooting information, see the *Sun Ultra 40 Workstation Service Manual* (820-0123).

 TABLE 2-1
 Troubleshooting Procedures

Problem	Possible solution	
Workstation powers on, but the monitor does not.	 Is the Power button for the monitor turned on? Is the monitor power cord connected to a wall outlet? Does the wall outlet have power? Test by plugging in another device. Is the monitor connected to the onboard video connector or PCI-Express video connector? 	
CD or DVD does not eject from the DVD slot when you press the Eject button.	might be in low-power mode.	
No video displays on the monitor screen.	 Is the monitor cable attached to the PCI-Express video connector? Does the monitor work when connected to another system? If you have another monitor, does it work when connected to the original system? Verify that the BIOS settings are correct. 	
Workstation does not power on when you press the front panel Power button.	 Keep notes on the following situations in case you need to call service: Is the Power button LED illuminated on the front of the system? (Ensure that the power cord is connected to the system and to a grounded power receptacle.) Does the wall outlet have power? Test by plugging in another device. Do you hear a beep when the system is powered on? (Ensure that the keyboard is plugged in.) Test with another keyboard that you know is functional. Do you hear a beep when you connect the keyboard and power on the system? Does the monitor sync within 5 minutes after power on? (The green LED on the monitor stops flashing and remains illuminated.) 	

TABLE 2-1 Troubleshooting Procedures (Continued)

Problem	Possible solution	
Keyboard or mouse does not respond to actions.	 Verify that the mouse and keyboard cables are connected to the on-board USB 2.0 connectors on the workstation. Verify that the workstation is powered on and the front platform power LED is illuminated. 	
Workstation appears to be in low-power mode, but the Power button LED does not blink.	The power-indicator LED blinks only when all workstation components are in low-power mode. A tape drive might be connected to your workstation. Because tape drives do not enter low-power mode, the power-indicator LED does not blink.	
Hung or frozen workstation: No response from mouse, keyboard, or any application.	Try to access your workstation from a another workstation on the network. 1. From a terminal window, type: ping hostname 2. If there is no response, remotely log in from another system using telnet or rlogin, and ping the system again. 3. Attempt to kill processes until the system responds. If the above procedures do not work: 1. Press the Power button to power off the system. 2. Wait 20 to 30 seconds and power on the system.	

Technical Assistance

If the troubleshooting procedures in this chapter fail to solve your problem, use TABLE 2-2 to collect information that you might need to communicate to the support personnel. TABLE 2-3 lists the Sun web sites and telephone numbers for additional technical support.

TABLE 2-2 System Information Required for Support

System Configuration Information Needed	Your information
Sun service contract number	
System model	
Operating system, including service pack number or update number	
System serial number	
Peripherals attached to the system	

 TABLE 2-2
 System Information Required for Support (Continued)

System Configuration Information Needed	Your information
Hardware configuration information, including the following:	
Graphics cards installed	
• PCI or PCI Express cards installed	
Amount of memory	
• Processor speed	
Optical disk type	
Email address and phone number for you and a secondary contact	
Street address where the system is located	
Superuser password	
Summary of the problem and the work being done when the problem occurred	
Output of diagnostics test, if applicable	
Other useful information	
IP address	
Workstation name (System host name)	
Network or internet domain name	
Proxy server configuration	

 TABLE 2-3
 Sun Web Sites and Telephone Numbers

Workstation Documents and Support Resources	URL or Telephone Number
HTML and PDF files for all the current Sun Ultra 40 M2 Workstation documentation.	http://www.sun.com/documentation/
Solaris TM and other software documents. This web site has full search capabilities.	http://docs.sun.com/documentation/
Discussion and troubleshooting forums.	http://supportforum.sun.com/
Support, diagnostic tools, and alerts for all Sun products.	http://www.sun.com/bigadmin/
Links to software patches some system specifications, troubleshooting and maintenance information, and other tools.	http://www.sunsolve.sun.com/handbook_pub/
Service support phone numbers.	1-800-872-4786 (1-800-USA-4Sun) Select Option 1

 TABLE 2-3
 Sun Web Sites and Telephone Numbers (Continued)

Workstation Documents and Support Resources	URL or Telephone Number
International telephone numbers for SunService Support.	http://www.sun.com/service/contacting/
Warranty and contract support contacts. Links to other service tools.	http://www.sun.com/service/warrantiescontracts/
Warranties for every Sun product.	http://www.sun.com/service/warranty

Sun Ultra 40 M2 Workstation Documentation

Refer to the documentation described in the following sections for further information on setting up the Sun Ultra 40 M2 Workstation.

Accessing the Documentation

Translated versions of some of these documents are available at the web sites described above in French, Simplified Chinese, Traditional Chinese, Korean, Japanese, and German.

Note that the English documentation is revised more frequently and might therefore be more up-to-date than the translated documentation.

Localization

If you want to read the contents of this document in one of the following languages: French, Spanish, German, Italian, Swedish, Japanese, Traditional Chinese, Simplified Chinese, Korean or Russian, please refer to the *Hardware Installation and Startup Guide for Compliance for Sun Ultra 40 M2 Workstation* at:

http://www.sun.com/products-n-solutions/hardware/docs/ Workstation Products/Workstations/ultra 40/index.html

The translated documents contain all of the information in this document as well as additional information on the Sun Ultra 40 M2 Workstation.