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Using This Guide

The *PowerMate P Series User's Guide* provides a quick reference to information about your computer.

The guide contains the following information:

- Chapter 1, *Taking a Look at Your System*, provides a look at system components. See this chapter to familiarize yourself with your system.
- Chapter 2, *Getting Started*, gives you information about using a mouse, using online documentation, and what you should do after your system is up and running.

The chapter includes a quick-reference chart for finding information about a variety of topics.

- Chapter 3, *24-Hour Information Services*, lists the services available to you for information and help and describes how to access the services.
- Chapter 4, *If You Have a Problem*, contains troubleshooting tips for solving simple problems and provides where you can find help when you cannot solve a problem yourself.

WARNING

Prolonged or improper use of a computer workstation may pose a risk of serious injury. To reduce your risk of injury, set up and use your computer in the manner described in Appendix A, *Setting Up a Healthy Work Environment*.

-
- Appendix A, Setting Up a Healthy Work Environment, contains guidelines to help you use your computer productively and safely. This appendix also instructs you on how to set up and use your computer to reduce your risk of developing nerve, muscle, or tendon disorders.

TEXT CONVENTIONS

This guide uses the following text conventions.

- Warnings, cautions, and notes have the following meanings:

**WARNING**

Warnings alert you to situations that could result in serious personal injury or loss of life.

**CAUTION**

Cautions indicate situations that can damage the hardware or software.



Notes give important information about the material being described.

-
- Names of keyboard keys are printed as they appear on the keyboard, for example, **Ctrl**, **Alt**, or **Enter**.
 - Text or keystrokes that you enter appear in boldface type. For example, type **return** and press **Enter**.
 - File names are printed in uppercase letters.

RELATED DOCUMENTS

In addition to this guide, the following printed documentation ships with your PowerMate® P Series system.

- *NEC PowerMate P Series Quick Setup/
Quick-Reference Roadmap*

Quick Setup contains information for quickly getting your system up and running. Read this information to set up the system for the first time.

The Quick-Reference Roadmap gives you a look at the documentation, NEC tools, software applications, and services available to you.

- *How Does Your Workplace Measure Up?*

This brochure provides information for setting up and using your computer productively and safely. Information includes guidelines to reduce the risk of injury associated with using a computer.

- *TabWorks User's Guide*

This guide describes how to use TabWorks™ for organizing your work and launching your applications from a notebook-like location.

- *TranXit Quick Reference Guide*

This guide describes wireless data transfers between your computer and a laptop using the TranXit™ software.

- *Windows 95 User's Guide*

This is a quick reference guide that comes with Windows 95 systems.

Your system comes with the following online documentation on the hard disk:

- *PowerMate P Series System Documentation*

This online documentation is your comprehensive source of information about your system. It contains a System Tour, User's Guide, Hardware Reference Guide, Option Installation Guide, and Support Guide.

- *Ergonomics*

This is an online version of the "How Does Your Workplace Measure Up?" brochure.

- *MS-DOS Quick-Start Guide*

Comes with MS-DOS[®]/Windows[®] for WorkGroups systems. Provides information for using MS-DOS.

- *Windows Quick-Start Guide*

Comes with MS-DOS[®]/Windows[®] for WorkGroups systems. Provides information for using Windows for WorkGroups[™].

- *Using Windows 95*

Comes with Windows 95 systems. Contains information for using Windows 95.

Most of your application programs provide extensive online help. Some programs provide separate online user's guides for specific applications.

Windows 95 provides extensive online help and "wizards" to guide you through procedures.

In addition to the documentation that ships with the system, the following documentation is available from NEC:

- *PowerMate P Series Service and Reference Manual* provides information for maintaining, troubleshooting, and repairing the PowerMate P Series system. This guide also includes hardware and interface information for programmers, engineers, and others who need to know how the system is designed.

To purchase the service and reference manual, call NEC at 1-800-632-4525 and select spare part sales at the prompt.

- NEC FastFacts™
NEC FastFacts is an automated service that sends the latest information about NEC and its products directly to a fax machine. The service is available 24 hours a day, 7 days a week.

With FastFacts, you can obtain product literature and technical information bulletins. By using FastFacts, you can be kept up-to-date on the latest technical information for your system.

See “NEC’s FastFacts Service” in Chapter 3 for information about using FastFacts.

1 Taking a Look at Your Computer

 **WARNING**

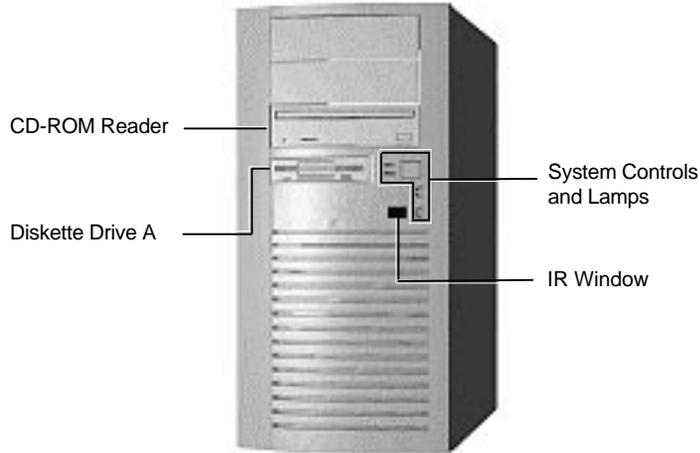
Prolonged or improper use of a computer workstation may pose a risk of serious injury. To reduce your risk of injury, set up and use your computer in the manner described in Appendix A, Setting Up a Healthy Work Environment.

After unpacking your computer, familiarize yourself with your system. The following information provides a brief look at features on the front and rear of your system.

For a comprehensive source of information about your computer, see the online *NEC PowerMate P Series System Documentation* in the Windows[®] NEC Information group.

ON THE FRONT

The following figure show the features on the front of the systems. A brief description of the features follows the figure.



Front features

CD-ROM Reader

A quad-speed CD-ROM reader is a standard feature in multimedia models. The CD-ROM reader is assigned as drive E.

Use the CD-ROM reader to load and start programs from a compact disc (CD). You can also use the CD-ROM reader to play your audio CDs. The CD-ROM reader is fully compatible with Kodak Multisession Photo CDs™ and standard audio CDs.

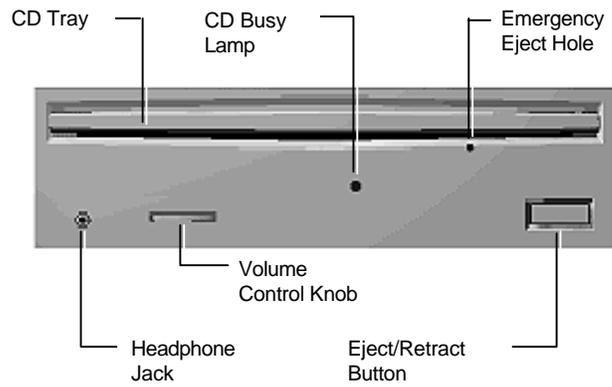
The CD-ROM reader operates at different speeds depending on whether the CD you are using contains data or music. This allows you to get your data faster and to see smoother animation and video.

The CD-ROM reader has the following features (see the following figure):

- **Headphone jack**
Allows the connection of an optional set of headphones with a stereo mini-jack plug.
- **Volume control knob**
Lets you adjust the volume of an optional set of headphones.
- **CD busy lamp**
Lights when the reader is retrieving data, music, or graphics/audio from a CD. Do not eject the CD or turn off the system unit when the lamp is on.
- **Eject/retract button**
Ejects or retracts the reader's loading tray. Press this button when the computer power is on to insert or remove a CD into or out of the reader.
- **CD tray**
Provides a surface for loading a CD into the reader. Press the eject/retract button to eject or retract the CD tray.
- **Emergency eject hole**
Allows the manual ejection of a CD if the eject function is disabled by software or if a power failure occurs.



The CD-ROM reader in your system might look different from the one shown here.



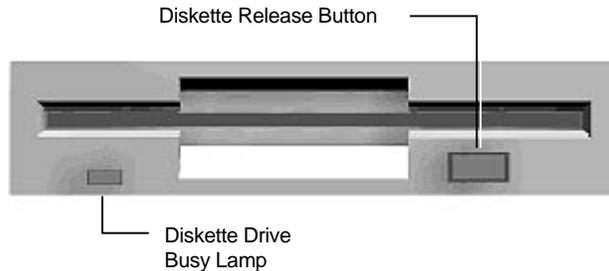
CD-ROM reader features

Diskette Drive A

Diskette drive A loads and starts programs from a diskette. Diskette drive A is your primary “bootable” drive. Your diskette drive has the following features (see the following figure):

- Diskette drive busy lamp
Lights when your diskette drive is reading to or writing from a diskette.

-
- **Diskette release button**
Press this button to release a diskette from the diskette drive.



Diskette drive A features

IR Window

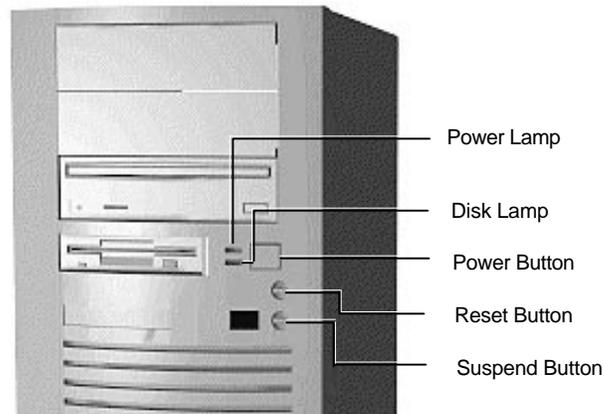
The IR (infrared) window is the system's IR port. The IR port supports two-way wireless communications. The interface uses infrared as the transmission medium instead of a traditional cable.

The IR port lets you transfer files to or from portable devices such as laptops and personal digital assistance (PDA) products using application software supporting IrDA data transfer. Your system comes with Puma TranXit™ software for wireless data transfer.

With IrDA software, you can transfer data at speeds of up to 115 kilobytes per second and at distances up to 3 feet from the IR window.

System Controls and Lamps

System controls let you select specific system operations. Lamps let you know the status of system operation. Your computer has the following controls and lamps:



System controls and lamps

- **Power lamp**

The power lamp indicates whether system power is on or off. It also lets you know if the system is operating in a power-saving mode.

A steady green lamp indicates that the power is on to all system components. A blinking green lamp indicates that the system is in Suspend mode with full power reduction.

- **Disk lamp**

Indicates if your hard disk is doing anything. A green lamp tells you that the hard disk is reading or writing data.



CAUTION

Do not turn off the system, unless absolutely necessary, while the disk lamp is lit. To do so can damage your hard disk or data.

- **Power button**
Press this button to turn on system power. Press it again to turn off the power.
- **Reset button**
The reset button lets you manually restart your system when it does not respond to keyboard commands.



CAUTION

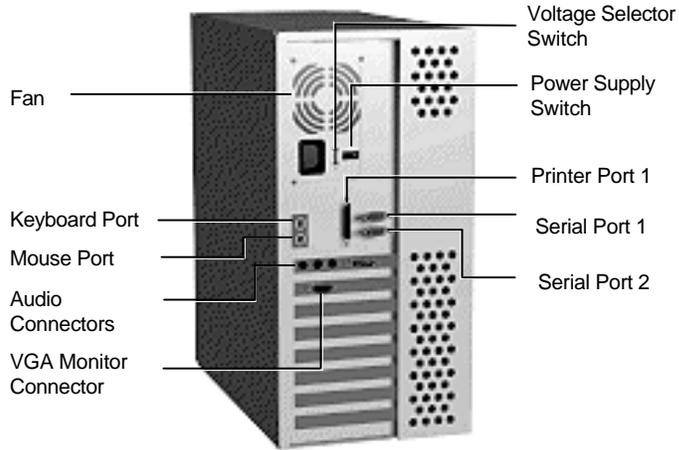
Resetting your system can result in the loss of data. Press the reset button only when all other methods of restarting your computer fails.

- **Suspend button**
Lets you initiate a power-saving mode of operating your computer. Press this button to suspend system operation when you plan to be away from your computer for a short time. Press any key or move your mouse to resume system operation to where you stopped it.

A blinking system unit power lamp lets you know that the system is in Suspend mode.

ON THE BACK

On the back of your computer, you'll find external connectors, power supply features, and expansion board slots. The following figures show these features.



Rear features

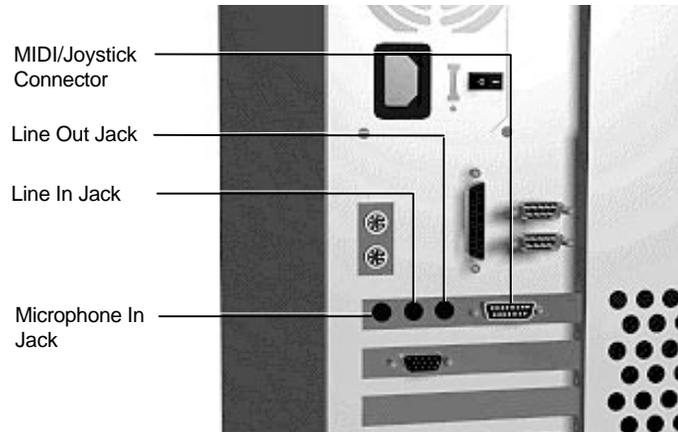
External Connectors

External connectors let you attach peripheral devices, such as a monitor, keyboard, mouse, and printer to your system. Your system has the following external connectors:

- **VGA monitor connector**
Attach the signal cable from your monitor to this connector. Supports an NEC MultiSync[®] monitor or other video graphics array (VGA)-compatible monitor with 15-pin connector.

■ Audio connectors

These connectors come integrated on multimedia models. The connectors include a microphone in, line in, and line out jack along with a musical instrument digital interface (MIDI)/joystick connector.



Audio connectors

- The microphone in jack lets you connect a microphone for recording audio information in your data system files and allows hands-free speakerphone functions.
- The line in jack lets you connect a stereo audio device such as a stereo amplifier or a cassette or minidisc player for playback or recording.
- The line out jack allows you to connect an *amplified* output device such as powered speakers, stereo tape recorder, or an external amplifier for audio output. Use this jack to connect the stereo speakers that come with your system.

-
- The MIDI/Joystick connector allows you to connect a joystick or MIDI kit to your system.

The joystick connector on your system is identical to that on a standard PC game control adapter or game I/O connector. You can connect any analog joystick with a 15-pin D-sub connector. It also works well with any application that is compatible with the standard PC joystick. To use two joysticks, you need a Y-cable splitter.

- **Printer Port**

Use this port to connect a parallel printer with a 25-pin connector to the system.

- **Serial Ports**

Attach a serial device with a 9-pin connector to each serial port. Serial devices include a pointing device, serial printer, or modem.

- **Keyboard port**

Attach the keyboard that comes with your computer to this connector.

The keyboard port supports a personal system (PS)/2[®]-compatible, 101-key or 104-key keyboard (in the U.S. and Canada) or a 102-key keyboard (in the United Kingdom and Germany) with a 6-pin mini DIN connector.

- **Mouse port**

Attach the mouse that comes with your computer to this port. The mouse port supports a PS/2-compatible mouse.

Power Supply Features

Your system has the following power supply features:

- Power supply fan
Keep this area clear for proper ventilation. The power supply fan cools system components and prevents them from overheating.
- Voltage selector switch
Sets the voltage for your system to 115 volts or 230 volts.



CAUTION

Set the switch correctly for the voltage in your area. Most wall outlets in the United States and Canada are 115 volts. Outlets in Europe, Australia, and Asia (except Taiwan) are 230 volts. Taiwan uses 115-volt outlets.

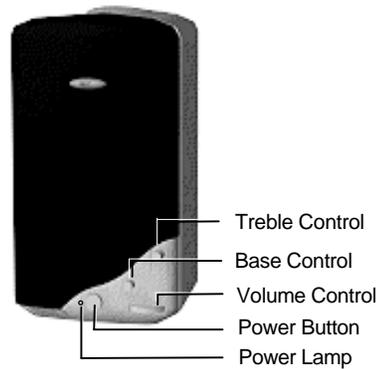
- Power supply switch
Powers on the power supply. The power supply must be powered-on before the power button on the front of the system will operate.
- Power socket
Connect your power cable to this socket.

SPEAKERS

Multimedia models come with a pair of high-quality stereo speakers that you can arrange to suit your work environment.

An AC adapter comes with the system. Set up the speakers with the AC adapter. The speakers connect to the line out jack on the back of the system unit.

The speaker set features a power button, power lamp, bass control, treble control and volume knob.



Speaker features

Adjust the speaker volume by using the volume control on the front of the right speaker or by using the preinstalled sound system software. Use the sound software to balance the speakers.

The software to operate the computer's sound system is AudioStation™.

MICROPHONE

Multimedia models come with a microphone. The microphone allows you to record voice and sound into your computer data files. See the online documentation in your sound software.

2 Getting Started

This chapter provides the information you need to start using your system. Information includes:

- **Using a Mouse**
If you are already familiar with using a mouse, skip this section.
- **Using Online Documentation**
Read this section to use the comprehensive online system documentation about your system.
- **Where to Go from Here**
Look at this section for a quick reference to what you can do and where you can information.

USING YOUR MOUSE

Use your mouse to quickly move around on the screen, to select menu items, and to choose functions specific to your software.

Moving your mouse across a flat surface moves a pointer on your screen.

Here are the basic ways to use your mouse:

- **Click**
Clicking selects an object on your screen. To “click,” point to the object and press and quickly release the left mouse button. Be sure you don’t move the mouse when you click.

- Double click

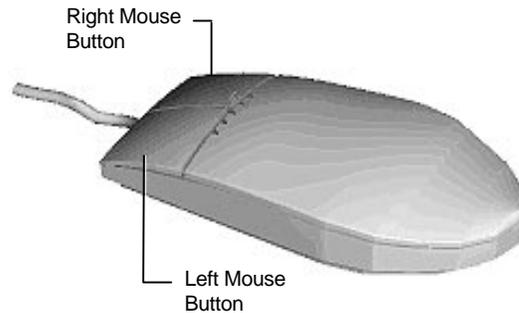
Some actions require a double click to execute them. To “double click” an object, point to the object and quickly press and release the left mouse button twice.

- Press

Pressing a mouse button holds an action until you release a mouse button. For example, pointing to a menu and pressing the left mouse button holds the menu open for reading until you release the button.

- Drag

Dragging your mouse attaches your pointer to an object on the screen and allows you to highlight text or move an object. To drag an object, point to the object, press the left mouse button, and move the mouse to the new location.



Locating mouse buttons

Typical screen objects that you click or double click are icons, buttons, and menu options.

You can use clicking and dragging to highlight a word. Click and hold down the left mouse button at the beginning of the word and move the pointer across the letters you want to highlight.



If your mouse pointer disappears, move your mouse in wide circles to bring it back into the screen.

The functions of the right mouse button depends on the application program you use. See the documentation for the application to see what the button does.

The pointer, also called a cursor, can take the following shapes:

- a small arrow — shows where you are on the screen.
- a blinking block or an “I” mouse cursor — shows you where you can type.
- an hourglass — the pointer changes to an hourglass when your computer is busy.
- a hand with a pointing finger — tells you it’s okay to click.
- a hand with all fingers extended — indicates when you can’t click.

Your mouse works best on a mouse pad. A mouse pad is a small piece of rubber, plastic, or textured material. The pad provides traction for moving the mouse and results in more sensitivity and control of movement.



CAUTION

To prevent damage to your mouse and to the system, turn off the system power before you connect or disconnect your mouse.

Also, the system fails to recognize that a mouse is attached if you connect the mouse after system power is on.

For more information about your mouse, see your online User's Guide.

USING ONLINE DOCUMENTATION

Your system comes with documentation conveniently available at your fingertips. No more looking for printed documents. Information about your system is available right from Windows.

To access the system documentation, locate the NEC Information group in Windows. Click the NEC PowerMate P Series Documentation icon. A welcome screen appears with information to find what you need

NEC PowerMate P Series System Documentation is a comprehensive source of information about your system. To help you find the information you need, the documentation is organized by topic in the following modules:

- System Tour
- User's Guide

-
- Hardware Reference Guide
 - Option Installation Guide
 - Support Guide.



Run the online NEC PowerMate P Series System Documentation at the shipping default video resolution — 800 by 600 with 256 colors.

Other online documents include:

- *Ergonomics*
- *MS-DOS Quick-Start Guide* (comes with Windows for WorkGroups systems)
- *Windows Quick-Start Guide* (comes with Windows for WorkGroups systems)
- *Using Windows 95* (comes with Windows 95 systems)

Most of your application programs provide extensive online help at the touch of a button (usually the Help button).

Some programs provide separate online user's guides for specific applications.

Windows 95 provides extensive online help and "wizards" to guide you through procedures.

WHERE TO GO FROM HERE

Once you have your system up and running, we suggest that you do the following:

- Read Appendix A, “Setting Up a Healthy Work Environment.”
- Take the System Tour in your online *NEC PowerMate P Series System Documentation*.
- See the online User’s Guide in your online *NEC PowerMate P Series System Documentation*.
- See “NEC Backup Utility” in the online Hardware Reference Guide to back up all your software. You can find the Hardware Reference Guide in your online *NEC PowerMate P Series System Documentation*.
- Install any applications. See the documentation that comes with the application.

See the following quick reference chart to find information about some of the things you might want to do:

Quick Reference to Information About Your Computer

WHAT YOU WANT TO FIND	WHERE TO FIND IT
Basic information about my computer	Online User’s Guide in <i>NEC PowerMate P Series System Documentation</i>
Backing up system software	“NEC Backup Utility” in the online Hardware Reference Guide (<i>NEC PowerMate P Series System Documentation</i>)
Setting a password	“Setting a Password” in the online User’s Guide (<i>NEC PowerMate P Series System Documentation</i>)

Quick Reference to Information About Your Computer

WHAT YOU WANT TO FIND	WHERE TO FIND IT
Using Windows	<p>Online</p> <p><i>MS-DOS Quick Start Guide</i> <i>Windows Quick Start Guide</i> <i>Using Windows 95</i></p> <p>Printed</p> <p><i>Windows 95 User's Guide</i> <i>(with Windows 95 systems)</i></p>
Loading a CD	"Loading a CD" in the online User's Guide (<i>NEC PowerMate P Series System Documentation</i>)
Playing a music CD	Online <i>AudioStation User's Guide</i> in the AudioStation group in Windows
Using the suspend button	"Saving Power" and Managing Power" in the online User's Guide (<i>NEC PowerMate P Series System Documentation</i>)
Adding options	"Adding Internal Options" or "Adding External Options, online Option Installation Guide (<i>NEC PowerMate P Series System Documentation</i>)
Understanding power management	"Saving Power" and Managing Power" in the online User's Guide (<i>NEC PowerMate P Series System Documentation</i>)
Using online services, like America Online [®] , Prodigy [®] , and CompuServe [®]	Online Services Help group
Transferring files from my laptop to my computer via the IR window	Printed <i>TranXit Quick Reference Guide</i> , online help in the Puma TranXit [™] software, and "Using the IR Port" in the online User's Guide (<i>NEC PowerMate P Series System Documentation</i>)

Quick Reference to Information About Your Computer

WHAT YOU WANT TO FIND	WHERE TO FIND IT
Changing video drivers	"Changing Video Drivers" in the online User's Guide (<i>NEC PowerMate P Series System Documentation</i>)
Using Desktop Management Interface	"Desktop Management Interface" in the online Hardware Reference Guide (<i>NEC PowerMate P Series System Documentation</i>)
Using support services	"24-Hour Information Services" in the online Support Guide (<i>NEC PowerMate P Series System Documentation</i>)
Taking care of my system	"Taking Care of Your System" in the online User's Guide (<i>NEC PowerMate P Series System Documentation</i>)

3 24-Hour Information Services

NEC has made it easy for you to get information and help when you need it. We offer 24-hour information services via:

- NEC's FastFacts™ Service
- NEC's Bulletin Board Service
- America Online® Service
- CompuServe® Online Service
- AT & T Interchange™ Online Service
- E-mail to NEC's Technical Support Services through a commercial online service or Internet
- Fax Service to NEC's Technical Support Services
- Internet World Wide Web and NEC's ftp Site
- NEC's Technical Support Services.

If you have access to a modem and/or fax machine (telephone for Technical Support), you can use the above services to obtain information about your system at any time, day or night, seven days a week.

Not only do these services provide general information about your system, they can also be used to answer your questions and help solve any problems you may have with your system, should that ever be necessary.

NEC'S FASTFACTS SERVICE

NEC's FastFacts service is a self-help, automated electronic information service for obtaining up-to-date product application notes, installation procedures, troubleshooting tips, data sheets, technical information bulletins, illustrated parts lists, part numbers, and other information about your system.

Using a fax machine, you can obtain information from FastFacts 24 hours a day, 7 days a week. You simply call the FastFacts number on your touch-tone telephone, order the information you want by following the voice prompts, and FastFacts will automatically fax the information to you.

If you are new to FastFacts, you should first order one of the following catalogs. Each catalog lists the available documents and their document numbers. Current catalogs include:

- Catalog 1, NEC Graphics Products
- Catalog 2, NEC CD-ROM, Printers, and Disk Drive Products
- Catalog 3, NEC Computer Products
- Catalog 4, NEC Products for the Macintosh
- Catalog 5, NEC Factory Refurbished Product List
- Catalog 6, NEC Select Direct Pricing
- Catalog 7, NEC Technical Support Notes, Technical Information Bulletins, Illustrated Parts Lists
- Catalog 9, NEC Product and Configuration Manual Index.

Order information from FastFacts as follows. If you would like instructions for using FastFacts, request document number 63233469 when prompted.

1. Be sure that your fax machine or fax/modem is on. Have the document number ready for the document you want.
2. At your touch-tone telephone, enter 800-366-0476 (U.S. and Canada only).

For international use, enter the international long distance access number, the U.S. country code, and the U.S. telephone number (708-238-7800).

3. Listen to the instructions provided by the voice prompts.

Press **1** if you do not want an introduction to FastFacts. Follow the automated instructions for ordering your document or catalog.

Press **2** if you want an introduction to FastFacts. Follow the automated instructions for ordering your catalog or document.

4. When prompted, enter your fax number and name.

For international use, first enter the international long distance access number (011), your country code, your area code or city code, then your fax number.

The information you requested will be automatically sent to your fax machine. Please wait for the ordered document to arrive at your fax machine before calling to order more documents. If FastFacts attempts to send the second order before the first order is completed, the order may be canceled. After three tries, FastFacts assumes that your line is busy and terminates any further processing of the order.

NEC BULLETIN BOARD SERVICE

If you have access to a modem, the NEC Bulletin Board Service (BBS) can be used to provide you with the latest information on hardware and software. The BBS allows you to download files (video drivers, printer drivers, BIOS updates, etc.) for system enhancements and upgrades.

The BBS can also be accessed through the CompuServe online service.

Log onto the BBS as follows.

1. From the Windows for Workgroups Program Manager, select Accessories and double click on Terminal.



If you have Windows 95, see the online help or your Windows 95 documentation to set the NEC BBS parameters and dial the BBS phone number.

2. From the Settings menu, click on Communications, check that the settings match the following BBS parameters, and click OK when done.
 - Baud rate: select any baud rate that matches your modem, up to 14.4 kbps (select 19200 if using 14.4 kbps)
 - Parity: none
 - Data bits: 8
 - Stop bits: 1
 - Flow control: Xon/Xoff (select Hardware if using 14.4 kbps)

-
3. From the Phone menu, click on Dial, enter the BBS phone number (508-635-4706), and click OK. Your business phone system and/or location might require a 9 1 or 1 prefix.



The first time that you use the BBS, you will be requested to provide information for a new user.

4. Press **Enter** twice
5. Enter your first name, last name, and password. Press **Enter** after each.
6. Follow the screen prompts until the NECTECH Main Menu is displayed.
7. At the Main Menu, select **J** to join a conference. Select **Conference 1** for the desktop conference.
8. From the Main Menu, press **F** and **Enter** for the File menu.
9. At the File menu, select **F** for a list of downloadable files. Follow the prompts to select a file for downloading.



CAUTION

Executable files automatically format your diskette when you download files from the BBS. Formatting destroys any data on the diskette. Before you download files from the BBS, check that you do not have information on the diskette that you need.

After you complete downloading your file, log off the BBS as follows.

1. Press **Enter** (to continue)
2. Press **G** (command for Goodbye/Hangup).
3. Press **Enter**.

AMERICA ONLINE SERVICE

If you subscribe to America Online, you can use the service to obtain information about NEC and its products. You can use America Online to E-mail technical questions to NEC's Technical Support staff, post technical questions and messages on the Message Board, and access the NEC Software Library to download files

Use the following steps to access America Online and NEC's online information services.

1. Log onto America Online.
2. At the opening screen, click on Go To in the Main Menu.
3. At the Go To menu, click Keyword.
4. At the prompt, type either NECTECH or NEC, then either press **Enter** or click on Go.
5. At the NEC menu, double-click on one of the following topics, then follow the prompts:
 - About NEC
 - Terms and Conditions
 - News
 - Product Information
 - Questions and Answers

-
- NEC Promotions
 - Message Board
 - Software Library.

6. Exit anytime by double-clicking on the rectangle in the upper left corner of the screen.

COMPUSERVE ONLINE SERVICE

If you subscribe to CompuServe, you can use the service to obtain information about NEC and its products. You can use CompuServe to E-mail technical questions to NEC's Technical Support staff, post technical questions and messages on the Bulletin Board, and access NEC's BBS to download files.

Use the following steps to access CompuServe and NEC's online information services.

1. Log onto CompuServe.
2. At the opening screen, click on Service, type in NECTECH at the prompt, and click OK.
3. At the NEC menu, double-click on one of the following topics, then follow the prompts:
 - NEC Bulletin Board
 - Information About This Service
 - Access NEC BBS
 - Access CompuServe Information Services
 - Exit.
4. Exit anytime by double-clicking on the rectangle in the upper left corner of the screen.

AT & T INTERCHANGE

If you subscribe to the AT&T Interchange online service, you can use the service to obtain information about NEC and its products. You can use the AT&T Interchange to obtain NEC corporate and product information, and participate in online discussions pertaining to NEC products.

Use the following steps to access the AT&T Interchange and NEC's online information services.

1. Log onto the AT&T Interchange.
2. At the opening screen, click on Interchange, enter your password at the prompt, and click on Connect.
3. At the Main Menu, click on Companies on Line.
4. At the Companies on Line menu, scroll down to and double-click on NEC Technologies.
5. At the NEC Technologies menu, double-click on one of the following topics, and follow the prompts:
 - Corporate Information
 - Latest News
 - Product Information
 - Discussions
 - Download Library.
6. Exit anytime by double-clicking on the rectangle in the upper left corner of the screen.

E-MAIL/FAX TECHNICAL SUPPORT SERVICE

The NEC Technical Support Center offers technical support by E-mail over the Internet network if you have a modem. The Internet address is:

tech-support@nectech.com

You can also fax technical questions to the NEC Technical Support Center if you have access to a fax machine or fax/modem. The fax number is:

(508) 635-4666

When using the E-mail or fax support service, you should include the following words in the subject field for prompt response from the appropriate technical person:

- Desktop (desktop or minitower systems)
- Monitor
- CD-ROM
- Printer
- Notebook.

You should provide as much specific information about your questions as possible. Also, if you are sending a fax, please include your voice telephone number and your fax number with the question. You will receive a response to your questions within one business day.

INTERNET

If you have a modem, you can access NEC's Home Page on the Internet World Wide Web. You can do this through a commercial online service or through your Internet account. NEC's Home Page contains general information about NEC products.

You can also use the Internet to access NEC's ftp (file transfer protocol) Site to download various files (video drivers, printer drivers, BIOS updates). The files are essentially the same files as on NEC's Bulletin Board Service.

To access the World-Wide-Web NEC Home Page, enter the following Internet Uniform Resource Locator (URL) through your service:

<http://www.nec.com>

To access NEC's ftp Site, enter the following Internet ftp address through your service:

<ftp.nectech.com>

Once in the file menu, follow the prompts to choose and download the file(s) you want.

NEC TECHNICAL SUPPORT SERVICES

NEC also offers direct technical support through its Technical Support Center.

Direct assistance is available 24 hours a day, seven days a week. Call the NEC Technical Support Center, toll free, at 1-800-632-4525.

Please have available your system's name, model number, serial number, and as much information as possible about your system's problem before calling.

4 If You Have a Problem

Your system has a built-in checking program that automatically tests its components when you turn the system unit power on. If there is a problem, the system displays an error message. If this happens, follow any instructions on the screen.

If screen messages do not help or an error message does not appear, use the information in this chapter to determine and solve the problem. The problem is often one that you can solve yourself.

See the following sections in this chapter for help:

- “What to Do If You Have a Problem”
See this section first to determine the cause of your problem.
- “Solutions to Common Problems”
Refer to this section to solve common minor problems.
- “Online Diagnostics”
If your system boots, use your online diagnostics utility to determine and solve the problem.
- “Getting Help”
See this section for the help available to you for information about your computer and for help when you cannot solve a problem yourself. Click on a topic for help on solving problems that you may have with your system.

WHAT TO DO IF YOU HAVE A PROBLEM

If you have minor problems, go through the following problem checklist for possible solutions.

- **Is the power switch on for the computer and any connected peripherals (monitor, printer)?**

Check that all power switches are on.

- **Is the computer and its peripherals connected to a working AC power outlet or surge protector?**

Check the outlet or surge protector by plugging a lamp into the outlet or surge protector.

- **Are all cables and power cords connected securely?**

Check that all cables and power cords are securely connected.

- **Is the monitor screen blank or is the display hard to read?**

Check that the monitor is on. Adjust the brightness and contrast controls on the monitor.

- **Was a Non-System Disk error message displayed when you started the system?**

You have a diskette in the diskette drive. Remove the diskette from drive A and restart the system.

- **Is your mouse or keyboard not responding?**

You may have connected the mouse and keyboard after turning on your system. Turn the system off, make sure the mouse and keyboard are connected, and turn the system back on.

- **Does your system fail to recognize the CD-ROM?**

Your drive designation may be incorrect. The reader is assigned as drive E.

SOLUTIONS TO COMMON PROBLEMS

See the following sections to match your problem area and view the possible causes and solutions.

When trying to solve problems, you should note what the system was doing when the problem occurred and what you attempted to do to correct the problem. This information is useful if you request assistance.

System Problems

Check the following list to match your problem and see the possible cause and solution.

- **No power and power lamp not lit**

Check that the power cable is plugged into the system power socket. Check that the other end of the cable is plugged into a live, properly grounded AC power outlet.

- **System does not boot and error message displayed on screen**

Run the Setup Utility. Check that the parameters are set correctly, particularly if you just installed an option.

- **System sounds continuous beeps**

Turn the system off, wait at least five seconds, and turn the system on. If the beeps continue, call your NEC dealer or the NEC Technical Support Center.

- **System does not maintain date, time, system configuration information**

Replace the CMOS battery if your system board has a replaceable battery.

- **System does not boot from hard disk**

The system tries to start from the diskette drive before it starts from the hard drive. Remove the diskette from the diskette drive.

Run the Setup Utility and check the Boot parameter settings to verify that the initial boot parameter is set for hard drive C and not for a diskette drive.

■ **System performance appears sluggish**

Check that your system is set for optimal operation. See your operating system documentation.

Check the memory requirements of your software applications. If required, install additional SIMM memory.

If you added optional memory, check that you correctly installed the SIMM memory.

■ **System did not recognize additional SIMM memory**

You added only one SIMM stick. SIMMs must be added in pairs. Add a second SIMM of the same type.

■ **System password forgotten**

Clear the password and reset it. See “Clearing Your Password” in the online Hardware Reference Guide.

Diskette Drive Problems

Check the following problems to see the possible cause and solution.

■ Diskette won't load

Check that the diskette is being loaded correctly.

Check that the system and monitor power lamps are on and the power-on screen appears.

Check that the diskette is formatted. If not, format it. See your operating system documentation.

If the diskette drive busy lamp does not light when you load the diskette, try a different diskette. If this loads, the problem is in the software.

■ Non-System Disk or Disk Error message displayed

If you are booting from the diskette drive, insert a diskette with system files into drive A.

If a bootable diskette does not boot, use the Setup Utility to verify that the initial boot parameter is set to diskette drive A and not a hard disk.

Monitor Problems

Check the following problems to see the possible cause and solution.

■ Monitor screen is dark

Check that the monitor power cable is connected to the monitor and a power outlet, the monitor signal cable is connected to the system, and the brightness and contrast controls are adjusted.

Press the space bar or move the mouse to take the system out of the power management mode.

■ Distorted image appears on your monitor screen

Adjust the monitor's video controls. If this does not help, turn the monitor off for several seconds, then back on.

■ There is constant movement on the screen.

A magnetic field is affecting your monitor. Move any devices (fan, motor, another monitor) that generate magnetic fields away from your monitor.

■ The screen display is fuzzy or flickering, graphics characters or garbage appears on the screen.

Check that your monitor is set up correctly and that all connections have been made.

Check that the video refresh rate and video driver are correct by using the Galileo video utility. Open the utility by double clicking the Galileo icon in the Windows Control Panel.

Keyboard/Mouse Problems

Check the following problem to see the possible cause and solution.

- **Image appears on screen but nothing happens when you use the mouse or keyboard**

Tighten the keyboard or mouse cable connection.

If this does not help, turn off the system, wait five or more seconds, and turn on the system.

CD-ROM Problems

Check the following problems to see the possible cause and solution.

- **The system does not see the CD-ROM reader**

The drive designation is wrong and should be changed. The CD-ROM reader is assigned as drive E.

- **The CD-ROM reader is not reading a disc**

Check that the disc is inserted in the CD tray with the label printed side up.

Check that the disc is a data disc, not a music disc.

Try a different disc to see if the problem is limited to one disc.

- **The CD-ROM disc does not eject due to a power failure or software error**

Turn off the system and use the CD-ROM emergency eject feature.

- **The CD-ROM does not play music CDs**

Use sound software.

Speaker Problems

Check the following problems to see the possible cause and solution.

- **No sound from the speakers**

Check that the speaker power is on.

- **Speaker volume is too low**

Adjust the volume control on the speaker. If the volume is still too low, adjust the volume through the system software.

- **Sound is only coming from one speaker**

Balance the speaker output by adjusting the balance in the sound software.

Microphone Problems

Check the following problem to see the possible cause and solution.

- **You get no response from the microphone**

Check that the microphone is connected to the microphone in connector on the back of your system.

Adjust the microphone (MIC) level through sound software.

REPLACING THE CMOS BATTERY

A 3-volt lithium battery in your computer maintains system configuration information. In the event that this CMOS battery fails to maintain system configuration information, replace the battery.



CAUTION

Removing the battery from the system board causes the computer to lose system configuration information. If you can, run the Setup Utility and print out or write down your system configuration settings. Then you can restore your system to its current settings.



WARNING

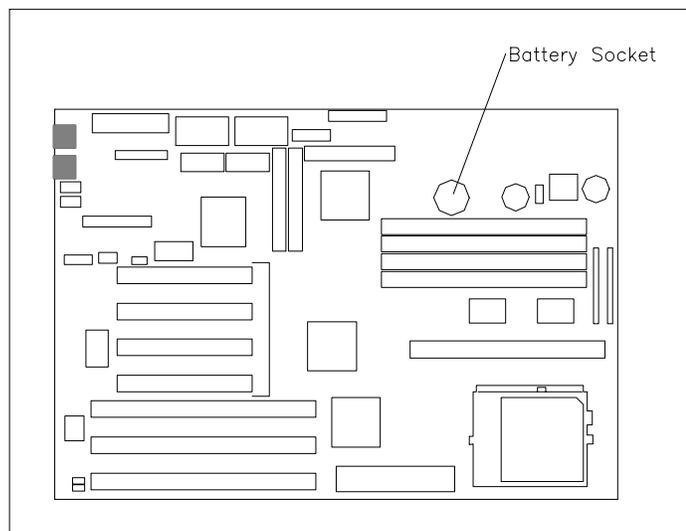
The battery can explode if it is incorrectly replaced or improperly discarded. Use only the same battery or an equivalent type recommended by the manufacturer when replacing the battery.

Lithium acts as a catalyst when exposed to water and causes spontaneous combustion on contact. Discard used batteries according to the manufacturer's instructions.

If you need to replace the battery, follow these steps:

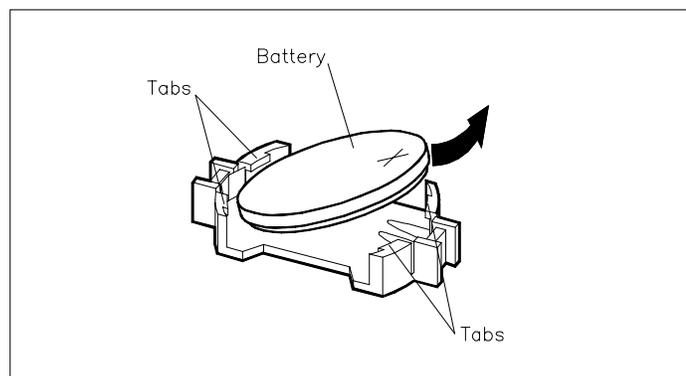
1. Turn off and unplug the system unit and any external option connected to it.
2. Remove the system unit cover.

3. Locate the battery socket on the system board.



Locating the battery socket on the system board

4. Carefully lift the battery from the socket tabs and out of the socket.



Removing the battery

-
5. With the positive (+) side facing up, press the new battery into the socket.
 6. Replace the system unit cover.
 7. Connect external peripherals and power cables.
 8. Run Setup to reconfigure your system parameters.

ONLINE DIAGNOSTICS

If you are unable to resolve your system's problem using the Problem/Solutions topics in this chapter, NEC suggests that you run the QA Plus online diagnostics software.

QA Plus is a software diagnostic program factory installed on your system's hard disk. QA Plus permits quick testing of all major system components, individual testing of different system components, and access to various testing options.

QA Plus comes on a diskette and is accessed through the MS-DOS directory.

GETTING HELP

If you tried correcting problems yourself and weren't successful, you may want to try one or more of the following 24-hour services for answers to your questions. (Some services require a modem or fax machine.) See Chapter 3 for information about using these services.

- NEC's FastFacts™ Service
- NEC's Bulletin Board Service
- America Online® Service
- CompuServe® Online Service
- AT & T Interchange™ Online Service

-
- E-mail to NEC's Technical Support Services through a commercial online service or Internet
 - Fax Service to NEC's Technical Support Services
 - Internet
 - NEC's Technical Support Services.

If you still need help, you continue with the suggestions that follow.

Getting Help From Your Company

If you are in a company, the best source of help may be internal. Your company may have designated central support personnel to whom you can go when you have problems.

Getting Help From Your NEC Dealer

The NEC dealer from whom you purchased your system is a good source of help and should be contacted. The dealer is backed by complete support resources and programs within NEC.

Getting Help From NEC's Technical Support Center

Help is available to you through the NEC Technical Support Center. Direct assistance is available 24 hours a day, 7 days a week. You can call the Support Center, toll free, at 1-800-632-4525.

Before calling, please have ready your system name, model number, serial number, and purchase date. Also have ready as much information as possible about the problem you are having, including any error messages that occurred.

NEC Warranty/Non-Warranty Repair Service

NEC's repair service is designed to support your warranty and non-warranty service activity.

Before you call for repair service, see the previous sections in this chapter to determine if you can solve the problem yourself, within your company, through your dealer, or with the help of a technician from the NEC Technical Support Center.

If your system requires repair service from NEC, call the appropriate repair service:

- To request repair service in the United States, call 1-800-632-4525 or fax to 1-800-695-3044.
- To request repair service in Canada, call 1-800-268-4191 (English response) or 1-800-268-4115 (French response).

A Setting Up a Healthy Work Environment



WARNING

Prolonged or improper use of a computer workstation may pose a risk of serious injury. To reduce your risk of injury, set up and use your computer in the manner described in this appendix.

Contact a doctor if you experience pain, tenderness, swelling, burning, cramping, stiffness, throbbing, weakness, soreness, tingling and/or numbness in the hands, wrists, arms, shoulders, neck, back, and/or legs.

MAKING YOUR COMPUTER WORK FOR YOU

Computers are everywhere. More and more people sit at computers for longer periods of time. This appendix explains how to set up your computer to fit your physical needs. This information is based on ergonomics — the science of making the workplace fit the needs of the worker.

Some nerve, tendon, and muscle disorders (*musculoskeletal disorders*) may be associated with repetitive activities, improper work environments, and incorrect work habits. Examples of musculoskeletal disorders that may be associated with certain forms of repetitive activities include: carpal tunnel syndrome, tendinitis, tenosynovitis, de Quervain's tenosynovitis, and trigger finger, as well as other nerve, tendon, and muscle disorders.

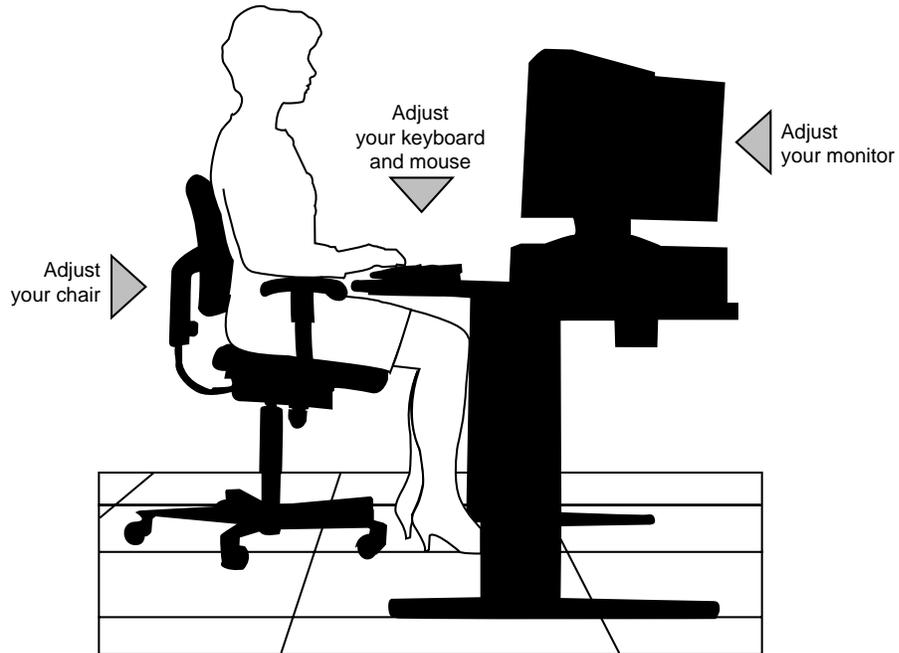
Although some studies have shown an association between increasing hours of keyboard use and the development of some musculoskeletal disorders, it is still unclear whether working at a computer causes such disorders. Some doctors believe that using the keyboard and mouse may aggravate existing musculoskeletal disorders.

Some people are more susceptible to developing these disorders due to pre-existing conditions or psychosocial factors (see “Pre-existing Conditions and Psychosocial Factors” later in the appendix).

To reduce your risk of developing these disorders, follow the instructions in this appendix. If you experience discomfort while working at your computer or afterwards, even at night, contact a doctor as soon as possible. Signs of discomfort might include pain, tenderness, swelling, burning, cramping, stiffness, throbbing, weakness, soreness, tingling and/or numbness in the hands, wrists, arms, shoulders, neck, back, and/or legs.

ARRANGE YOUR EQUIPMENT

Arrange your equipment so that you can work in a natural and relaxed position. Place items that you use frequently within easy reach. Adjust your workstation setup to the proper height (as described in this appendix) by lowering the table or stand that holds your computer equipment or raising the seat height of your chair. To create more desk space, you can put your computer base on the floor.



ADJUST YOUR CHAIR

Your chair should be adjustable and stable. Vary your posture throughout the day.

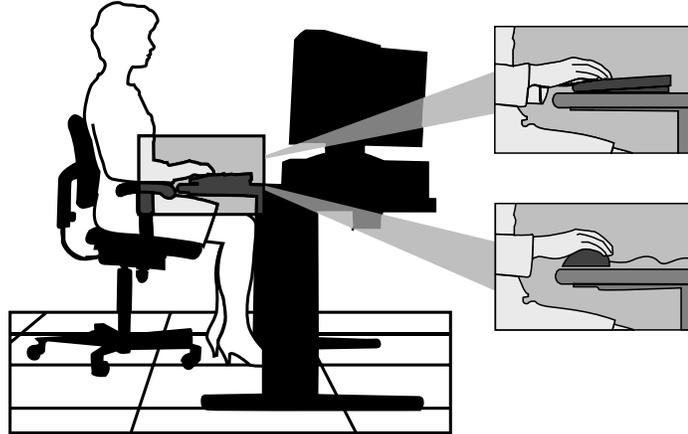


Check the following:

- Keep your body in a relaxed yet upright position. The backrest of your chair should support the inward curve of your back.
- Use the entire seat and backrest to support your body. Tilt the backrest slightly backwards. The angle formed by your thighs and back should be 90° or more.

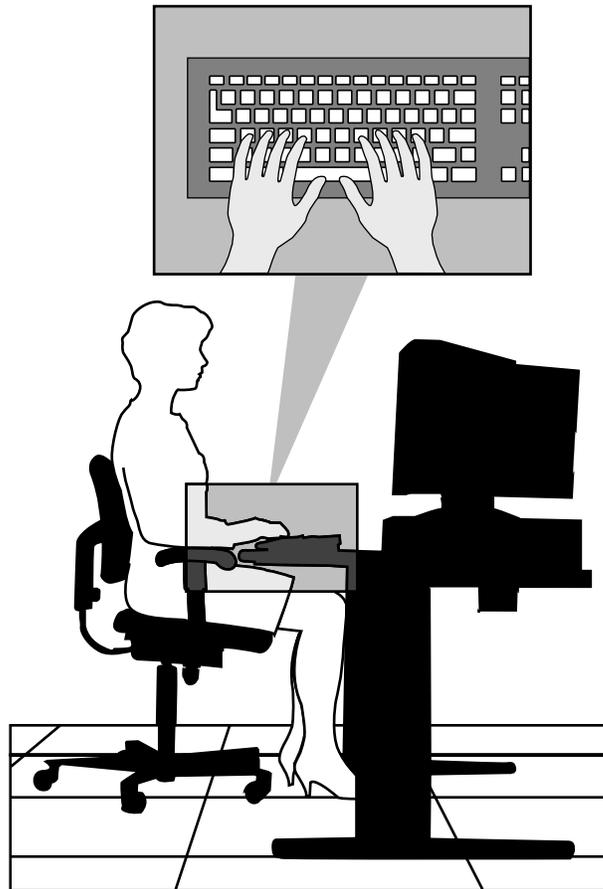
-
- Your seat depth should allow your lower back to comfortably contact the backrest. Make sure that the backs of your lower legs do not press against the front of the chair.
 - Extend your lower legs slightly so that the angle between your thighs and lower legs is 90° or more.
 - Place your feet flat on the floor. Only use a footrest when attempts to adjust your chair and workstation fail to keep your feet flat.
 - Be sure that you have adequate clearance between the top of your thighs and the underside of your workstation.
 - Use armrests or forearm supports to support your forearms. If adjustable, the armrests or forearm supports should initially be lowered while all the other adjustments discussed in this appendix are made. Once all these adjustments are completed, raise the armrests or adjust the forearm supports until they touch the forearms and allow the shoulder muscles to relax.

ADJUST YOUR INPUT DEVICES



Follow these points in positioning your keyboard and mouse.

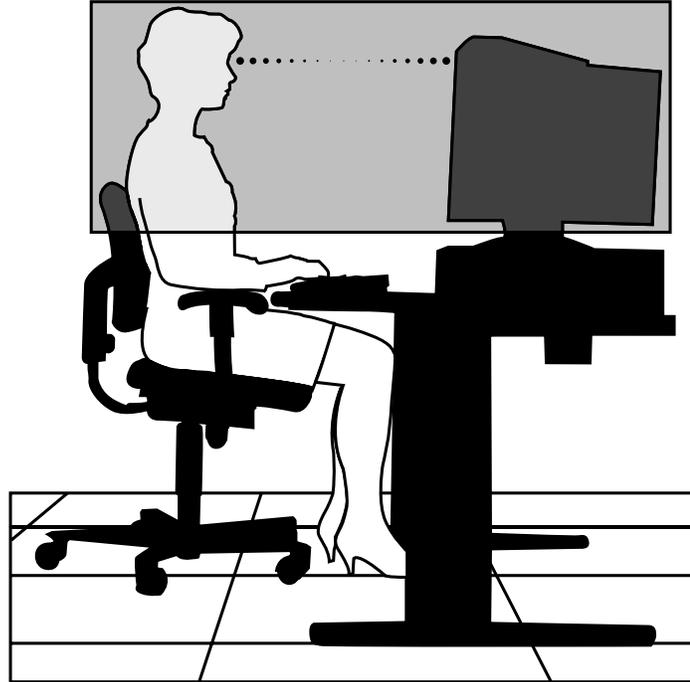
- Position your keyboard directly in front of you. Avoid reaching when using your keyboard or mouse.
- If you use a mouse, position it at the same height as the keyboard and next to the keyboard. Keep your wrists straight and use your entire arm when moving a mouse. Do not grasp the mouse tightly. Grasp the mouse lightly and loosely.
- Adjust the keyboard height so that your elbows are near your body and your forearms are parallel to the floor, with your forearms resting on either armrests or forearm supports, in the manner described previously. If you do not have armrests or forearm supports, your upper arms should hang comfortably at your sides.
- Adjust your keyboard slope so that your wrists are straight while you are typing.



- Type with your hands and wrists floating above the keyboard. Use a wrist pad only to rest your wrists between typing. Avoid resting your wrists on sharp edges.
- Type with your wrists straight. Instead of twisting your wrists sideways to press hard-to-reach keys, move your whole arm. Keep from bending your wrists, hands, or fingers sideways.
- Press the keys gently; do not bang them. Keep your shoulders, arms, hands, and fingers relaxed.

ADJUST YOUR MONITOR

Correct placement and adjustment of the monitor can reduce eye, shoulder, and neck fatigue. Check the following when you position the monitor.



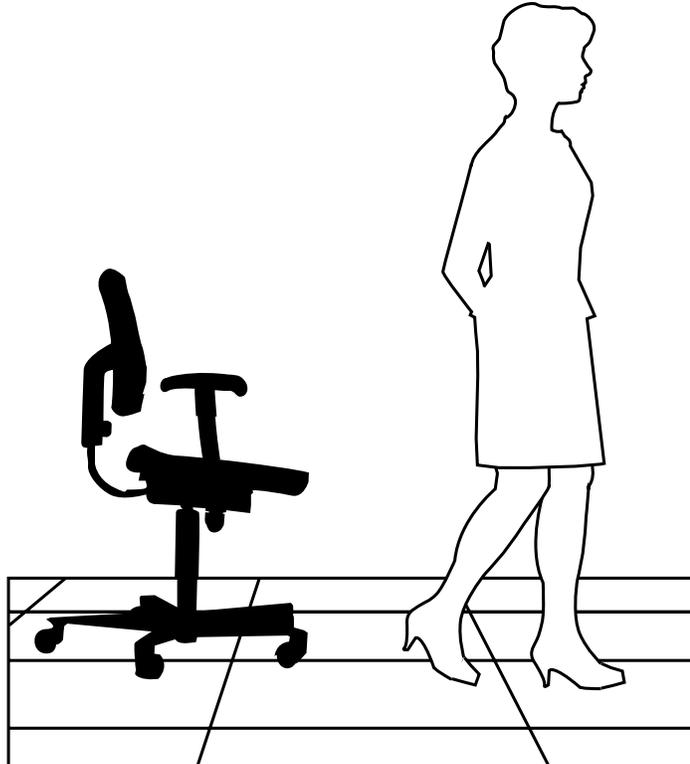
- Adjust the monitor height so that the top of the screen is at or slightly below eye level. Your eyes should look slightly downward when viewing the middle of the screen.
- Position your monitor no closer than 12 inches and no further away than 28 inches from your eyes. The optimal distance is between 14 and 18 inches.

-
- Rest your eyes periodically by focusing on an object at least 20 feet away. Blink often.
 - Position the monitor at a 90° angle to windows and other light sources to minimize glare and reflections. Adjust the monitor tilt so that ceiling lights do not reflect on your screen.
 - If reflected light makes it hard for you to see your screen, use an anti-glare filter.
 - Clean your monitor regularly. Use a lint-free, non-abrasive cloth and a non-alcohol, neutral, non-abrasive cleaning solution or glass cleaner to minimize dust.
 - Adjust the monitor's brightness and contrast controls to enhance readability.
 - Use a document holder placed close to the screen.
 - Position whatever you are looking at most of the time (the screen or reference material) directly in front of you to minimize turning your head while you are typing.
 - Get regular eye check-ups.

VARY YOUR WORKDAY

If you use your computer for prolonged periods, follow these instructions.

- Vary your tasks throughout the day.
- Take frequent short breaks that involve walking, standing, and stretching. During these breaks, stretch muscles and joints that were in one position for an extended period of time. Relax muscles and joints that were active.



-
- Use a timer or reminder software to remind you to take breaks.
 - To enhance blood circulation, alter your sitting posture periodically and keep your hands and wrists warm.



For more information on workstation setup, see the American National Standard for Human Factors Engineering of Visual Display Terminal Workstations. ANSI/HFS Standard No. 100-1988. The Human Factors Society, Inc., P.O. Box 1369, Santa Monica, California 90406

PRE-EXISTING CONDITIONS AND PSYCHOSOCIAL FACTORS

Pre-existing conditions that may cause or make some people more susceptible to musculoskeletal disorders include the following: hereditary factors, vascular disorders, obesity, nutritional deficiencies (e.g., Vitamin B deficiency), endocrine disorders (e.g., diabetes), hormonal imbalances, connective tissue disorders (e.g., arthritis), prior trauma (to the hands, wrists, arms, shoulders, neck, back, or legs), prior musculoskeletal disorders, aging, fluid retention due to pregnancy, poor physical conditioning and dietary habits, and other conditions.

Psychosocial factors associated with these disorders include: workplace stress, poor job satisfaction, lack of support by management, and/or lack of control over one's work.

Contact a doctor if you experience pain, tenderness, swelling, burning, cramping, stiffness, throbbing, weakness, soreness, tingling and/or numbness in the hands, wrists, arms, shoulders, neck, back, and/or legs.

CHECKING YOUR COMFORT: HOW DO YOU MEASURE UP?

Use this checklist to see if you are setting up your work environment to fit your physical needs.

Checking Your Chair

- Do you sit in an upright position with the backrest supporting your lower back?
- When sitting, are your feet flat on the floor?
- Do you periodically adjust your chair and your posture?

Checking Your Keyboard

- Is your keyboard angled so your wrists are straight when you type?
- Is your keyboard directly in front of you?
- Do you avoid resting your wrists on sharp edges?
- Do you press the keys gently and not bang on them?

Checking Your Mouse

- Is your mouse at the same height as the keyboard and next to the keyboard?
- Are your wrists straight and your touch light when moving the mouse?

Checking Your Monitor

- Did you adjust your monitor so that the top of the screen is at or slightly below eye level?
- Do you periodically rest your eyes by blinking often or looking away from the screen?
- Is your monitor no closer than 12 inches and no further away than 28 inches from your eyes?
- Do you use a document holder placed close to the screen?

Checking You

- Is your work area set up to promote a natural and relaxing working position with frequently used work items within close reach?
- Do you take frequent short breaks?
- Do you stretch and walk during your breaks?
- Do you vary your tasks during the day?
- Do you have regular eye checkups?
- Do you contact your doctor if you feel any sustained discomfort?

For more information on workstation setup, see the American National Standard for Human Factors Engineering of Visual Display Terminal Workstations. ANSI/HFS Standard No. 100-1988. The Human Factors Society, Inc., P.O. Box 1369, Santa Monica, California 90406

This appendix was prepared in consultation with Dr. David Rempel of the University of California/San Francisco Ergonomics Program and Mr. M.F. Schneider of HUMANTECH, Inc., Ann Arbor, Michigan.

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(For United States Use Only)

**FEDERAL COMMUNICATIONS COMMISSION
RADIO FREQUENCY INTERFERENCE STATEMENT**

WARNING: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from the one to which the receiver is connected.

Use shielded and properly grounded I/O cables and power cable to ensure compliance of this unit to the specified limits of the rules.

(For Canadian Use Only)

This equipment is a Class B digital apparatus which complies with the Radio Interference Regulations, C.R.C., c.1374.

Cet appareil numérique de la classe B est conforme au Règlement sur le brouillage radioélectrique, C.R.C., ch.1374.

BATTERY REPLACEMENT

A lithium battery in some computers maintains system configuration information. In the event that the battery fails to maintain system configuration information, NEC recommends that you replace the battery. See “Replacing the CMOS Battery” in Chapter 4 of this guide for battery replacement information.

WARNING: There is a danger of explosion if the battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer’s instructions.

ATTENTION: Il y a danger d’explosion s’il y a remplacement incorrect de la batterie. Remplacer uniquement avec une batterie du même type ou d’un type recommandé par le constructeur. Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

BATTERY DISPOSAL

Do not place used batteries in your regular trash.

The nickel-cadmium or nickel metal-hydride batteries must be collected, recycled, or disposed of in an environmentally-approved manner.

The incineration, landfilling, or mixing of batteries with the municipal solid waste stream is **prohibited by law** in most areas.

Return batteries to a federal or state approved battery recycler. This may be where you purchased the battery or a local seller of automotive batteries. In MINNESOTA, call 1-800-225-PRBA if further disposal information is required.

Contact your local waste management officials for other information regarding the environmentally sound collection, recycling, and disposal of the batteries.