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Using This Guide

The *NEC Versa® Note User's Guide* gives you the information you need to use your NEC Versa Note notebook computer. The information in this guide refers to the Windows 98, Windows 95, and Windows NT operating systems. Read this guide to familiarize yourself with the system and its features. For specific information, see

■ Chapter 1, "Getting Started," acquaints you with the system hardware.

■ Chapter 2, "Understanding the Software," summarizes the applications loaded on your system. Software included lets you experience the full spectrum of the system, from creating vivid multimedia presentations to accessing the Internet.

■ Chapter 3, "Using Setup and Power Management," explains how to customize your notebook's parameter and power management settings.

■ Chapter 4, "Using Your NEC Versa Note," describes the NEC Versa Note features and functions. You'll also master procedures for connecting external options like a headphone, microphone or speakers.

■ Chapter 5, "Using Multimedia," details how to integrate video and sound clips into impressive presentations.

■ Chapter 6, "Traveling with Your NEC Versa Note," lists valuable tips for getting the most out of your system while on the road.

■ Chapter 7, "Solving Problems," provides simple solutions to common problems that may arise while operating your notebook.

■ Appendix A, "Setting Up a Healthy Work Environment," provides guidelines to help promote a healthy work setting.

■ Appendix B, "Specifications," reviews NEC Versa Note system specifications.

■ Appendix C, "Getting Services and Support," describes the variety of services available for you when you need help with your system.

Text Setup

To make this guide easy to use, text is set up in the following ways.

■ Warnings, cautions, and notes have the following format:

⚠ 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 system hardware or software.

Note: Notes give particularly important information on whatever is being described.

■ Names of keys are printed as they appear on the keyboard, for example, **Ctrl**, **Alt**, or **Enter**.

■ Text that you must type or keys that you must press are presented in bold type. For example, type **dir** and press **Enter**.

Related Documents

See the following documents for additional information on your NEC Versa Note notebook computer:

- The *NEC Versa Note Quick Setup* sheet helps you get your system up and running.

- The *NEC Versa Note Quick Reference* card provides an easy-to-carry reference to LED meanings, controls, function key combinations, and NEC help numbers.

- The *NEC Versa Note User's Guide* is a fully navigational, HTML-based document containing a full search capability and all of the information about your NEC Versa Note that you find in this printed user's guide, and more. This is installable from the Applications and Drivers CD that ships with the system.

1

Getting Started

- Your NEC Versa Note
- Around the Front of the System
- Around the Back of the System
- Around the Left Side of the System
- Around the Right Side of the System
- Around the Bottom of the System
- NEC Versa Note Power Sources
- Internal Batteries
- System Care
- Important Safety Instructions
- German Language Version of Important Safety Instructions

Your NEC Versa Note

⚠ 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 completing the steps in the quick setup sheet that comes with your
computer, your NEC Versa Note system is ready to go! To get started:

■ Read Appendix A, Setting Up a Healthy Work Environment, for
guidelines that help you use your computer productively and safely.
Information includes how to set up and use your computer to reduce
your risk of developing nerve, muscle, or tendon disorders.

■ Read through this guide to familiarize yourself with the NEC Versa
Note.

The NEC Versa Note notebook computer offers you a portable system
filled with exciting resources for home, business or travel. Standard
features include a powerful Intel® Pentium microprocessor that works
together with the latest Peripheral Component Interconnect (PCI)
architecture. Depending on the model, your NEC Versa Note is equipped
with one of the following processors: Pentium Tillamook or Pentium II.

In addition, your all-in-one system provides a high-performance hard disk drive, diskette drive, 20X or 24X CD-ROM, PC card slots, and a V.90-compliant 56 kilobits per second (Kbps) modem (modem only available on some models). As a multimedia system, your NEC Versa Note provides the tools needed to create and present impressive images using video clips and sound.

To get comfortable with your notebook, read the following sections and take a tour around your system!

NEC Versa Note notebook computer
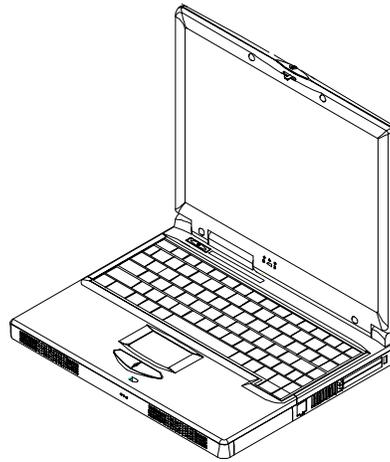
Around the Front of the System

The NEC Versa Note is compact with features on every side. First, look at the front of the system. The following sections describe front features, beginning with the liquid crystal display (LCD) panel.

LCD Panel

The NEC Versa Note comes with a color LCD panel that you can adjust for a comfortable viewing position. The LCD panel can be a 12.1-inch Dual Scan Super-Twisted Nematic (DSTN) or Thin Film Transistor (TFT), Super Video Graphics Array (SVGA) color display, or a 13.3-inch TFT, Extended Graphics Array (XGA). The features of the LCD panel are described after the figure.

LCD panel
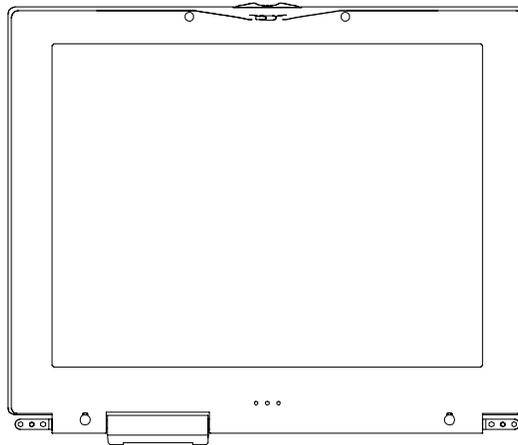
- ■ Power and Suspend Status LEDs — (identified by icons) are located just under the front of the LCD panel. The status LEDs are duplicated on the back of the LCD panel to allow viewing when the panel is closed.

Power and Suspend LEDs
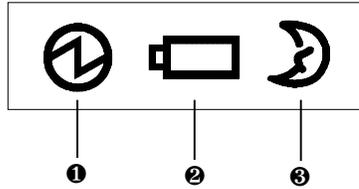
1. Power LED   2. Battery Charging LED   3. Suspend Mode LED

— Power LED — lets you know that power to the system is turned on. This LED is positioned so that you see the power state whether the LCD panel is opened or closed.

  – Lights green when the system is powered on using the AC adapter, battery, or PowerXtender™ Auto adapter.

  – Lights green when on and has normal battery power. Lights yellow when on and low (8% to 4%) battery power. Lights amber when in Suspend mode and very low (3% or less) battery power.

— Battery Charging LED — lights to indicate battery charging status.

  – Lights amber to indicate the battery is charging.

  – Lights off to indicate the battery is fully charged.

— Suspend Mode LED — is on when the system is in Standby mode, blinks in Suspend mode and off in full on or Power off mode.

Control Panel

The NEC Versa Note control panel provides the features shown in the following figure. The control panel features are described after the figure.

Control Panel
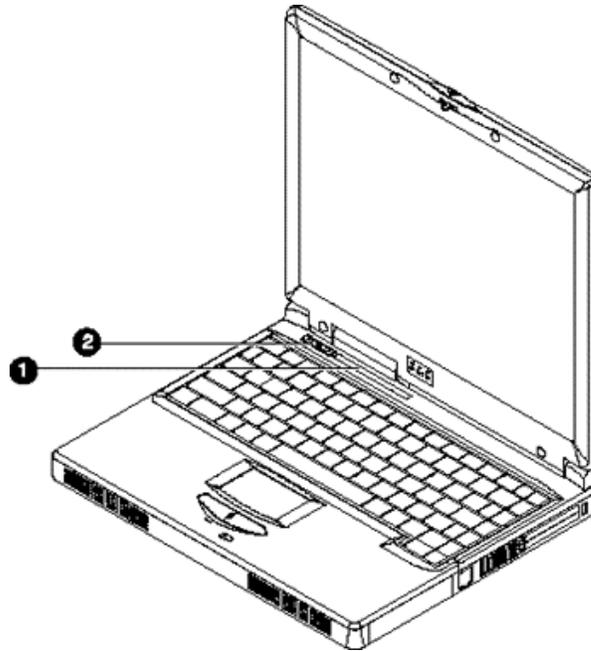
1. Status LEDs   2. Power Button

■ Status LEDs — keep you informed of your NEC Versa Note's current operating status. Descriptions of the status icons appear in the following section.

■ Power Button — press the Power button either to power on or power off the system.

> **Note:** If you are unable to power off the system, use the power override. Press the Power button and hold it in place until the system powers off.

Status Icons

The NEC Versa Note system uses status lights marked with icons to communicate system status. See the following figure and list for each icon's meaning.

Status LED icons
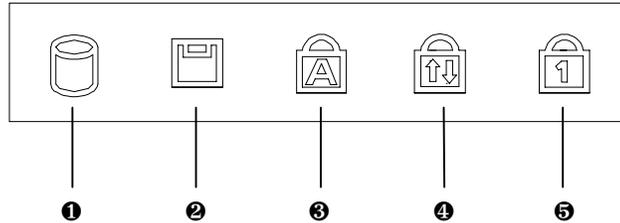
1. Hard Drive Access   2. Diskette Drive Access

3. Caps Lock   4. Scroll Lock

5. Num Lock

- Hard Drive Access — lights when the NEC Versa Note accesses the hard disk drive.

- Diskette Drive Access — lights when the NEC Versa Note writes data to or retrieves data from the diskette drive.

- Caps Lock — lights when caps lock is in effect.

- Scroll Lock — lights when scroll lock is in effect.

- Num Lock — lights when Num Lock mode is active.

Keyboard Panel and Base Unit

The NEC Versa Note keyboard panel and base unit contain the following features. The keyboard panel and base unit features are described after the figure.

Keyboard Panel and Base Unit
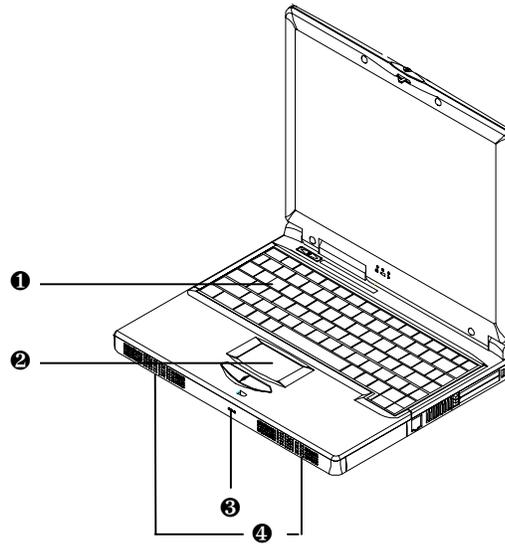
1. Keyboard	2. NEC VersaGlide
3. Microphone	4. Built-in Speakers

■ Keyboard — standard QWERTY-key layout. See "Using the Keyboard" in Chapter 4 for details about control keys, function keys, and keyboard features. (Models shipped outside of the U.S. are equipped with country-specific keyboard layouts.)

■ NEC VersaGlide — works like a standard computer mouse. Simply move your fingertip over the VersaGlide to control the position of the cursor. Use the selection buttons below the VersaGlide to select menu items. See "NEC VersaGlide" in Chapter 4 for information about customizing VersaGlide settings.

■ Microphone — allows you to record monophonic sound directly into your notebook computer. See Chapter 5, "Using Multimedia," for details about recording.

■ Built-in Stereo Speakers — provides stereo sound for your multimedia presentations or listening pleasure.

Around the Back of the System

You'll find system ports for connecting your NEC Versa Note to optional devices (like a printer or external monitor) on the back of your NEC Versa Note. The ports are described after the figure.

Back system features
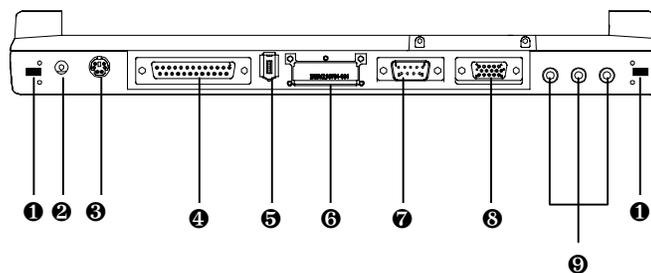
1. PortBar Notches   2. AC Power Port

3. PS/2 Port   4. Parallel Port

5. USB Port   6. Expansion Port

7. Serial Port   8. Monitor (Video) Port

9. Audio Ports (From left to right): Microphone, Line In & Headphones

■ PortBar Notches — Use these notches to secure the PortBar to the back of the system. (There are two PortBar notches located at the both ends of the rear side of the system.)

- AC Power Port — Lets you attach the NEC Versa Note to the AC power source using the AC adapter that comes with your system. Keep the system connected to AC power whenever possible to keep the battery pack and internal CMOS battery charged.

- PS/2 Port — Use the standard PS/2 port to connect an external PS/2-style mouse, PS/2-style keyboard, or PS/2 style Numeric Keypad to the system. With an optional Y adapter, you can connect up to two of these devices at the same time.

- Parallel Port — Use this port to connect a parallel printer or other parallel device. The parallel port default supports the Enhanced Capabilities Port (ECP) standard. The port also supports bi-directional and output only protocols.

> ✉ **Note:** The default setting for the parallel port on your NEC Versa Note is set to Enhanced Capabilities Port (ECP). Some older parallel devices may not function with the ECP default setting. You may need to adjust the setting to accommodate your parallel device. Follow the instructions in Chapter 3, "Using Setup and Power Management," to adjust the setting.

- USB Port — The Universal Serial Bus (USB) port allows you to connect up to 127 USB-equipped peripheral devices (for example, printers, monitors, scanners) to your NEC Versa Note.

- Expansion Port — Use this port to connect the NEC PortBar.

- Serial Port — Use this port to connect a serial printer or other serial device.

- Monitor (Video) Port — Use this 15-pin port to attach an external monitor to your NEC Versa Note. You can run the LCD display and the external monitor simultaneously or run either alone.

■ Audio Ports

— Microphone — Allows you to connect an external microphone for monophonic recording or amplification through the unit. Plugging in an external microphone disables the built-in microphone.

— Line In — Lets you use another audio system, like a home stereo, as an input source. Use a cable to connect to the Line-Out port on the other audio system to record or play.

— Headphones — Lets you plug in stereo headphones or powered speakers.

Around the Left Side of the System

The left side of your NEC Versa Note provides the features shown in the following figure. The left side features are described after the figure.

Left side features
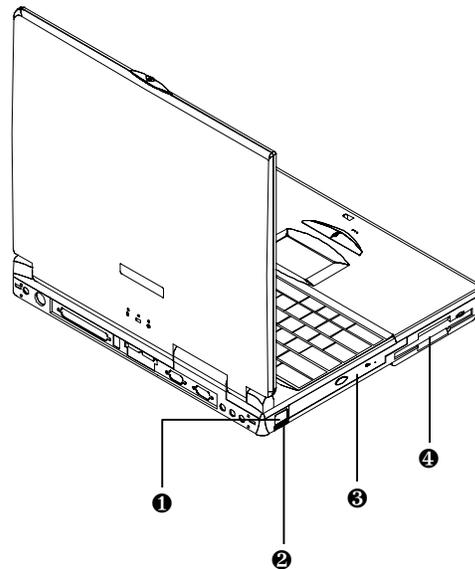
1. IR Port   2. Volume Control

3. CD-ROM Reader   4. Diskette Drive

- IR Port — Use this port to transfer files between your NEC Versa Note and an IR-equipped desktop or notebook computer. You can also print to an IR-equipped printer without using cables. Use the IRMON utility in Windows 98 with your IR-equipped printer. With Windows 95/NT, make sure the IR port is set properly in BIOS to use your system with an IR-equipped printer.

- Volume Control — Allows you to control the speaker volume through the thumb wheel.

- CD-ROM Reader — Allows you to load and start programs from a compact disc (CD) and play audio CDs. See Chapter 4, "Using Your NEC Versa Note Computer," for details about using the CD-ROM reader.

- Diskette Drive — A 3.5-inch, 1.44-MB diskette drive comes installed in the NEC Versa Note system. The drive accepts 1.44-MB high-density diskettes as well as 720-KB double-sided double-density diskettes.

Around the Right Side of the System

The right side of the NEC Versa Note offers the features shown in the following figure. The right side features are described after the figure.

Right side features
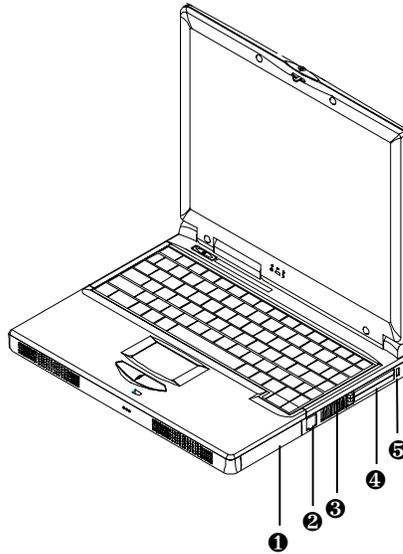
1. Battery Bay   2. Modem Port

3. Fan   4. PC Card Slots

5. Kensington Lock

■ Battery Bay — Depending upon the model, the battery bay contains a rechargeable Nickel-Metal-Hydride (NiMH) or Lithium-Ion (Li-Ion) battery pack.

■ Modem Port (modem only available on some models) — NEC includes a 56K internal voice/fax/data modem. It keeps you connected to the outside world!

■ Fan — Allows your system to cool properly and maintain a safe operating environment.

⚠ **CAUTION**

Do not block the fan while the NEC Versa Note is in use.

■ PC Card Slots — Two PC card slots allow you to insert two Type II PC cards or one Type III PC card in the bottom slot. Card BUS cards are supported and Zoom Video is supported in the top slot.

■ Kensington Lock — Lets you provide added security by installing an optional Kensington Lock.

Around the Bottom of the System

The bottom of the NEC Versa Note offers the following features. The features are described after the figure.

Bottom of the system
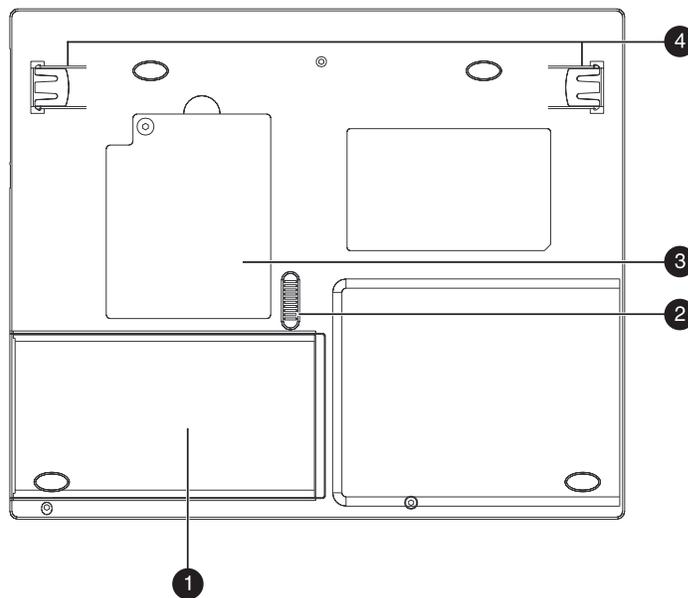
1. Battery Bay   2. Battery Release Latch

3. Memory Module Bay Cover   4. Tilt Foot

■ Battery Bay — Equipped with a rechargeable Nickel-Metal-Hydride (NiMH) or (depending on the model) Lithium-Ion (Li-Ion) battery.

■ Battery Release Latch — Slide the latch to the other end and hold it. While holding the latch, slide the battery bay outwards to remove the battery.

- Memory Module Bay Cover — Remove the screw to find two SO-DIMM slots. One is inserted with SDRAM memory board configured by the factory. The other is empty for upgrade use.

- Tilt Foot — Adjust to provide flexible keyboard angle.

NEC Versa Note Power Sources

The NEC Versa Note can be powered using different sources, making it a truly portable system. Operate your NEC Versa Note system just about anywhere using one of the following power sources:

- the AC adapter connected to an electrical wall outlet (using AC power).

- the battery pack.

- the PowerXtender Auto Adapter.

Read the following sections for specific steps on powering on the system.

Using the AC Adapter

Use the AC adapter and power cable that came with your NEC Versa Note to run your computer on alternating current (AC) power, or to recharge the battery pack. Use the AC adapter whenever a wall outlet is nearby.

⚠ WARNING

Do not attempt to disassemble the AC adapter. The AC adapter has no user-replaceable or serviceable parts inside. Dangerous voltage in the AC adapter can cause serious personal injury or death. The AC adapter is intended for use with a computer. Both must meet EN60950 standards.

When connected, the AC adapter charges the battery whether or not the NEC Versa Note is powered on.

> ✏ **Note:** The AC outlet voltage should be in the range of 100–240 Volts AC. Verify that the cord and plug are appropriate for your AC source.

Connect the AC adapter as follows:

⚠ **CAUTION**

Use only the AC adapter that comes with your NEC Versa Note system. Although other AC adapters may look similar, using them can damage the system.

1. Connect the AC adapter cable to the power port on the rear side of your NEC Versa Note system.

2. Plug one end of the AC power cable into the AC adapter and the other end into a 120- or 240-volt wall outlet.

⚠ **WARNING**

Do not cover or place objects on the AC adapter. Doing so can cause the adapter to overheat.

Powering On / Off

To power on, locate the Power button on the left hand side of the control panel above the keyboard and press it. To power off the system, press the Power button. In Windows, the computer automatically shuts down, when "Shut Down" is selected from the Start menu. That is, you do not need to press the Power button to switch off the computer.

Using the Battery Pack

The NEC Versa Note system comes with a rechargeable Nickel Metal-Hydride (NiMH) or Lithium-Ion (Li-Ion) battery pack. You can run your system on battery power for approximately 2.5 hours with power management features enabled. Battery packs are easy to install and remove.

> ≣ **Note:** Although the battery is fully charged at the factory, transit and shelf time may reduce the initial battery charge. We recommend that the first time you use your system, connect it to AC power using the AC adapter. This also recharges your battery.

When battery power drops to the level where the Battery Warning is activated, the power LED lights yellow.

When battery power reaches 8%, the power LED lights amber and the system beeps a warning and the system goes into Suspend/Save to File mode.

Replacing the Battery Pack

Install the battery pack in your system as follows:

> ⚠ **CAUTION**
>
> Be sure to save your data before replacing the battery pack or connecting the AC adapter. Failure to do so can result in data loss.

1. If your system is on, save your data, power down the system.

2. Close the LCD and turn the system over.

3. Release the battery bay latch, slide the battery away from the system, and lift it off.

4. Align the terminals on the new battery with the terminal connector in the bay. Insert the battery into the bay, until the battery bay latch locks the battery in place.

5. Press down on the battery to secure the terminal connection.

6. Turn the system over and press the Power button to power on the system.

When Battery Power is Low

When battery power gets low, connect your system to the AC adapter. If an AC adapter is not available, change the battery pack using the Replace Battery Pack procedure. See the section, "Replacing the Battery Pack."

⚠ WARNING

To prevent accidental battery ignition or explosion, adhere to the following:

Keep the battery away from extreme heat.

Keep metal objects away from the battery terminals to prevent a short circuit.

Make sure the battery is properly installed in the battery bay.

Read the precautions printed on the battery.

Battery Handling

Review the following before handling the system battery.

⚠ **CAUTION**

Use the NiMH or Li-Ion batteries only in the NEC
Versa Note computer for which they are designed.
Mixing other NEC Versa Note batteries, other
manufacturer's batteries, or using a combination of
very old and new batteries can deteriorate battery
and equipment performance.

- Turn off power to the system after use.

- Clean the battery terminals with a dry cloth if they get dirty.

- When not in use, store the battery in a cool dry area.

The following symptoms indicate that battery life is nearing an end.
Discard batteries that display these symptoms:

- shorter work times

- discoloration, warping

- hot to the touch

- strange odor.

Battery Life

The NEC Versa Note NiMH or Li-Ion battery has an approximate life of
2.5 hours under the following conditions:

- When it is new and fully charged.

- When no peripherals are connected to your NEC Versa Note.

- When you have no options installed.

Enabling power management features increases battery life.

Extending Battery Life

While on the road, it is important to be aware of the simple things you can do to extend the life of the system's main battery. Turning down the screen brightness (**Fn + F9**) and contrast (**Fn + F11**) extends battery life. Press **Fn + F7** to toggle through different power management modes and extend battery life. Chapter 3 "Using Setup and Power Management" gives details about power management features and the modes available.

Battery Charging

Charge time depends on whether or not you are using the system. There are two ways to charge your battery while it is installed in the NEC Versa Note:

■ When the system is off or in Suspend mode and the AC adapter is connected, charge time is approximately 3 hours.

■ When the system is powered on and the AC adapter is connected, charge time is approximately 4 hours.

For maximum battery performance, fully discharge the battery before recharging it. To do so, unplug the AC adapter, turn off power management features (through BIOS Setup (**Fn + F7**) and Windows power management), and turn on the system. Once the battery is fully discharged, plug in the AC adapter and recharge the battery.

If you do not discharge the battery completely, it not only fails to accept a full recharge, but also sends incorrect information to the Battery Gauge utility. The utility may indicate that you have plenty of battery power when you actually have very little. This can result in data loss when the battery suddenly dies.

The warning beep that sounds when battery power becomes critically low is always a true indicator that battery power is low. Be sure to save your data when you hear the beep and take proper steps to provide power to your system.

Battery Precautions

To prevent accidental battery ignition, rupture, or explosion, adhere to the following precautions.

⚠ 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.

Keep the battery away from heat sources including direct sunlight, open fires, microwave ovens, and high-voltage containers. Temperatures over 60ºC (140ºF) may cause damage.

Do not drop or impact the battery.

Do not disassemble the battery.

Do not solder the battery.

Do not puncture the battery.

Do not use a battery that appears damaged or deformed, has any rust on its casing, is discolored, overheats, or emits a foul odor.

Keep the battery dry and away from water.

Keep metal objects away from battery terminals. Metal objects in contact with the terminals can cause a short circuit and damage.

If the battery leaks onto skin or clothing, wash the area immediately. Battery fluid can cause a skin rash and damage fabric.

If battery fluid gets in eyes, DO NOT rub; rinse with clear water immediately and see a doctor.

Battery Disposal

Before disposing of the battery, put adhesive tape on the terminals. Depending upon the NEC Versa Note model, the main battery is made of Nickel Metal-Hydride (NiMH) or Lithium-Ion (Li-Ion).

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

Internal Batteries

The Nickel Metal-Hydride or Lithium-Ion battery is the main power source in your NEC Versa Note computer. Appendix B lists battery specifications. In addition to the main battery, the CMOS battery provides power to maintain system configuration settings.

CMOS Battery

This battery provides battery backup and prevents data loss in the system's complementary metal-oxide semiconductor (CMOS) RAM. This memory area contains information on the system's configuration, for example, date, time, drives, and memory. The CMOS battery lasts approximately two years. An authorized NEC service technician can replace the CMOS battery for you.

⚠ CAUTION

This equipment uses an ungrounded power cable. Replace the cord if it becomes damaged. U.S. and Canadian replacement cords must be UL-approved (CSA certified in Canada) type SPT-2, 18 AWG, 2-conductor cord with a permanently attached NEMA type 5-15P plug at one end, and a permanently attached connector body on the other. Cord length may not exceed 15 feet.

Outside the U.S. and Canada the cord must be rated for at least 250VAC at 10 amps, and must indicate international safety agency approval. The plug must be a type appropriate for the country where it is used. Check with your local dealer for HAR type 18 AWG, 2 conductor cord, or better. (Reference the booklet, "Getting Service and Support for Asia, Australia, and Europe" to find out how to contact the local office in your country.)

Obtain replacement cords at an authorized service center. The replacement must be of the same type and voltage rating as the original cord.

Disconnect all supply lines before the hinged front cover is removed. Replace the hinged cover before the unit is restarted.

System Care

Storage Requirements

Store the computer and AC adapter in an environment that meets the following conditions:

■ Maintain storage temperatures between –4ºF to 104ºF (–20ºC to 40ºC).

⚠ **CAUTION**

If the temperature of the NEC Versa Note suddenly rises or falls (for example, when you move the system from a warm place to a cold place) vapor condenses inside the system. Turning on the system under this condition can damage the internal system components.

Before turning on the system, wait until the system's internal temperature equalizes with the new environment and any internal moisture can evaporate.

- Keep the storage area free from vibration and magnetic fields.

- Keep the system and its components away from organic solvents or corrosive gases.

- Avoid leaving the system and its components in direct sunlight or near heat sources.

Routine Cleaning

Clean or dust your system as follows.

⚠ **CAUTION**

Never use harsh solutions, household cleaners, or spray cleaners that contain caustic materials on the NEC Versa Note. These cleaners are usually high in alkalinity which is measured in pH. Using these cleaners can cause the plastic surface to crack or discolor.

- LCD screen — Carefully wipe the LCD screen with a soft cloth or a screen wipe designed for that purpose. Special screen wipes are available through your local computer dealer.

- System case — NEC recommends that you carefully wipe the case with a slightly damp, almost dry cloth.

Important Safety Instructions

The NEC Versa Note is a durable, dependable system built for extensive use and travel. Follow these guidelines to maintain the condition, performance and safety of your computer. Please read these safety instructions carefully and keep this User's Guide for reference.

⚠ CAUTION

Immediately turn off and unplug the NEC Versa Note under the following conditions:

■ The power cord is damaged or frayed.

■ Liquid spills on or into the NEC Versa Note.

■ System is dropped or casing is damaged.

Precautions

Follow these precautions when using your NEC Versa Note and AC adapter. Always follow all cautions and warnings.

■ Avoid dropping or bumping the computer or the AC adapter.

■ Do not stack heavy objects on the computer, the AC adapter, or the battery packs.

■ Do not place items near the NEC Versa Note that could block air vents and cause overheating.

■ Use the NEC Versa Note on a level surface and avoid moving the NEC Versa Note during system operation, especially while the hard disk, diskette drive, or CD-ROM reader is being accessed.

■ When using the AC adapter, make sure the power source falls within the system's compatible range of 100–240 volts AC. Never use the AC adapter if the voltage falls outside of this range. (Watch for this when traveling to other countries.)

- Turn computer power off before attaching or removing non-plug and play devices.

- Disconnect the notebook from the electrical outlet if it is not going to be used for a long time. This will avoid damage by transient over-voltage.

- Do not attempt to disassemble the computer. For safety the computer should be disassembled only by a qualified service person.

- Do not push any foreign objects into the NEC Versa Note bays, connectors, and slots.

- Avoid using the computer or AC adapter for extended periods in direct sunlight.

- Do not use the system in humid or dusty environments.

- Keep liquids and food away from the system.

- Turn computer power off before cleaning it.

- Avoid exposing the NEC Versa Note or AC adapter to extreme changes in temperature or humidity. If it is unavoidable, allow your NEC Versa Note to adjust to room temperature before use.

- When cleaning the system, use a soft, clean, dry cloth. Avoid wiping the display surface with abrasive material, including rough fabric. Do not use a cleaning solution, this may damage the notebook's plastic.

- If the AC adapter becomes extremely hot, unplug the adapter and let it cool.

- The electrical outlet and any extension cords should be rated to support the total current load of all connected devices.

- Be sure to follow these power cord safety tips:

  — Unplug by the plug only; do not pull on the cable.

  — Place the power cord so that it can not be tripped on, stepped on, nor have items placed directly on the power cord.

  — Use an electrical outlet that is as close as possible to the computer.

- Do not use the IR port directly under fluorescent lighting, or near flashing incandescent light.

- If one of the following situations arises, have the notebook checked by service personnel:

  — The power cord or plug is damaged.

  — Liquid has penetrated into the notebook.

  — The notebook has been exposed to moisture.

  — The notebook has not worked well or you can not get it to work according to the user's guide.

  — The notebook has been dropped and damaged.

  — If the notebook has an obvious sign of damage.

- An approved power cord has to be used for the notebook's power supply. For a rated current up to 6A and an equipment weight more than 3 kg, a power cord not lighter than H05VV-F, 2G, 0.75mm^2, has to be used.

- The sound pressure level at the operator's position according to IEC 704-1: 1982 is equal or less than 70dB(A).

German Language Version of Important Safety Instructions

The NEC Versa Note is an international notebook computer. This section contains the German version of the Important Safety Instructions from the prior section.

Wichtige Hinweise Zur Sicherheit

Das NEC Versa Note ist ein langlebiges und zuverlässiges System, das für häufige Verwendung und den Einsatz auf Reisen konzipiert wurde. Befolgen Sie die nachstehenden Anweisungen, um die Funktionsfähigkeit, die Leistungsfähigkeit und die Sicherheit Ihres Computers zu gewährleisten. Lesen Sie diese Hinweise zur Sicherheit bitte aufmerksam durch und bewahren Sie diese Bedienungsanleitung sorgfältig auf, um jederzeit darin nachlesen zu können.

⚠ ACHTUNG

Schalten Sie das NEC Versa Note in den folgenden Fällen sofort aus und ziehen Sie den Stecker:

■ Wenn das Stromkabel beschädigt oder durchgescheuert ist.

■ Wenn Flüssigkeit auf oder in das NEC Versa Note geraten ist.

■ Wenn das Gerät fallen gelassen bzw. das Gehäuse beschädigt wurde.

Vorsichtsmaßnahmen

Halten Sie sich bei der Verwendung Ihres NEC Versa Note und des Wechselstromadapters an die folgenden Vorsichtsmaßnahmen. Berücksichtigen Sie stets alle Hinweise und Warnungen.

■ Lassen Sie den Computer und den Wechselstromadapter nicht fallen und setzten Sie die Geräte auch keinen Stößen aus.

■ Stellen Sie keine schweren Gegenstände auf den Computer, auf den Wechselstromadapter oder auf das Batterieladegerät.

■ Legen Sie in der Nähe des NEC Versa Note keine Gegenstände ab, die die Lüftungsschlitze blockieren und ein Überhitzen des Geräts verursachen könnten.

■ Verwenden Sie das NEC Versa Note auf einer ebenen Arbeitsfläche und vermeiden Sie es, das NEC Versa Note während des Betriebs zu bewegen, vor allem während auf die Festplatte, auf das Diskettenlaufwerk oder auf das CD-ROM-Laufwerk zugegriffen wird.

■ Wenn Sie den Wechselstromadapter verwenden, vergewissern Sie sich, daß die Stromversorgung dem Kompatibilitätsbereich des Systems entspricht (100 – 240 Volt Wechselstrom). Verwenden Sie den Wechselstromadapter niemals, wenn die Spannung nicht innerhalb dieses Bereichs liegt. (Beachten Sie diesen Punkt insbesondere bei Reisen ins Ausland.)

■ Schalten Sie Ihren Computer ab, bevor Sie „non-plug and play"-Geräte anschließen oder entfernen.

■ Trennen Sie das Notebook von der Stromversorgung, wenn es über einen längeren Zeitraum nicht verwendet werden wird. So können Schäden aufgrund einer kurzzeitigen Überspannung vermieden werden.

■ Versuchen Sie nicht, den Computer zu demontieren. Aus Gründen der Sicherheit sollte der Computer nur von qualifizierten Servicetechnikern demontiert werden.

■ Stecken Sie keine Gegenstände in die Öffnungen, Anschlüsse und Schlitze des NEC Versa Note.

- Vermeiden Sie es, den Computer oder den Wechselstromadapter über längere Zeit hinweg bei direkter Sonneneinstrahlung zu verwenden.

- Verwenden Sie das System nicht in feuchten oder staubigen Umgebungen.

- Halten Sie Flüssigkeiten und Nahrungsmittel von Ihrem System fern.

- Schalten Sie den Computer ab, bevor Sie ihn reinigen.

- Vermeiden Sie es, das NEC Versa Note oder den Wechselstromadapter extremen Änderungen der Temperatur oder der Luftfeuchtigkeit auszusetzen. Falls dies unvermeidlich ist, lassen Sie Ihr NEC Versa Note sich vor der Verwendung an die Raumtemperatur anpassen.

- Verwenden Sie zum Reinigen des Systems ein weiches, sauberes, trockenes Tuch. Vermeiden Sie es, den Bildschirm mit scheuernden Materialien - dazu gehört auch rauher Stoff - abzuwischen. Verwenden Sie keine Reinigungslösung, diese könnte den Kunststoff Ihres Notebooks beschädigen.

- Wenn der Wechselstromadapter extrem heiß wird, ziehen Sie den Netzstecker und lassen Sie den Adapter abkühlen.

- Der Stromanschluß und allfällige Verlängerungsstecker sollten so ausgelegt sein, daß sie der gesamten Strombelastung aller angeschlossenen Geräte entsprechen.

  — Stellen Sie sicher, daß die nachfolgenden Sicherheitstips in bezug auf das Stromkabel befolgt werden:

  — Entfernen Sie das Stromkabel nur am Stecker, ziehen Sie niemals am Kabel.

  — Plazieren Sie das Stromkabel so, daß niemand darauf steigen, darüber stolpern oder Gegenstände direkt auf das Kabel stellen kann.

  — Verwenden Sie eine Steckdose, die dem Computer so nahe wie möglich liegt.

- ■ Verwenden Sie den IR-Port nicht direkt unter Leuchtstoffröhren oder in der Nähe flackernder Glühlampen.

- ■ Falls einer der nachfolgenden Fälle eintritt, lassen Sie Ihr Notebook von einem Servicetechniker überprüfen:

  — Das Stromkabel oder der Stecker ist beschädigt.

  — Flüssigkeit ist in das Notebook eingedrungen.

  — Das Notebook ist Feuchtigkeit ausgesetzt worden.

  — Das Notebook hat nicht richtig funktioniert bzw. Sie können das Notebook nicht dazu bringen, entsprechend der Bedienungsanleitung zu funktionieren.

  — Das Notebook wurde fallengelassen und ist beschädigt.

  — Das Notebook weist eindeutige Zeichen einer Beschädigung auf.

- ■ Für die Stromversorgung des Notebooks ist ein zugelassenes Stromkabel zu verwenden. Für einen Nennstrom von bis zu 6 A und ein System mit einem Gewicht von mehr als 3 kg ist ein Stromkabel mit den folgenden Mindestanforderungen zu verwenden: H05VV-F, 2G, 0,75 mm2.

In Übereinstimmung mit IEC 704-1: 1982 ist der Geräuschpegel am Arbeitsplatz des Benutzers kleiner oder gleich 70 dB(A).

2

Understanding the Software

- Windows Introduction
- Guide to Online Help
- Guide to NEC Utilities
- Other Software
- World Wide Web Browsers
- Applications and Drivers CD

This chapter introduces you to the software that comes with the NEC Versa Note system, including:

■ Windows 98 operating system, Windows 95 operating system, or Windows NT operating system

■ Online Help

■ NEC Utilities

— Setup

— NEC Customize Utility

— PHDisk

■ Other Software*

— Adobe Acrobat Reader

— QuickLink MessageCenter III

— eSafe Protect®

— Microsoft Office Professional 97

■ World Wide Web Browsers*

— Microsoft Internet Explorer

— Netscape

* Software not available on all models.

Windows Introduction

Your NEC Versa Note comes pre-installed with the Windows 98, Windows 95, or Windows NT operating system. These Microsoft® operating systems provide a means of running applications, navigating through your file structure, and using your notebook computer. Each operating system offers its own look and tools through an easy-to-use graphical interface.

Windows 98

Windows 98 gives you the newest features offered by Microsoft, including a Desktop with room to maneuver, a taskbar for quick access to a variety of system functions, state-of-the-art plug and play support, powerful system utilities, enhanced entertainment features, and a fully integrated Internet experience.

Desktop Icons

With Windows 98, the following icons are installed on your desktop:

- My Computer — Provides access to drives, printers, the control panel, network features, and scheduled tasks.

- Recycle Bin — Gives you a trash container in which to put and discard unwanted files or allows you to restore those same files back to their original location.

- Set Up the Microsoft Network — Provides a setup program that allows you to sign-up for the Microsoft Network. If you already have an account, use this interface to sign-on to the Microsoft Network.

- Network Neighborhood — Appears when your computer is connected to a network. Use the network neighborhood to browse through the computers in your workgroup and the computers in the entire network.

- My Briefcase — Provides a mechanism for file synchronization between the NEC Versa Note and another system.

- My Documents — Provides you with a convenient place to store documents, graphics, and other files for quick access.

- Connect to the Internet — Runs the Internet Connection wizard that helps you to set up your computer to access the Internet.

   Note: Before connecting to the Internet, you must either connect an optional modem and a working phone line to your system or install a LAN card for network access.

- Online Services — Includes setup icons for a variety of online services.

   Your NEC Versa Note comes with all the software you need to get started on the most popular services available today. For a fee, online services give you access to the Internet, email, the world wide web, travel information, news reports, and more.

   Note: Before choosing and registering for an online service, you must either connect an optional modem and a working phone line to your system or install a LAN card for network access.

   If you are using this product outside of the United States or Canada, some online services may require a long-distance or international call.

- NEC Customize — Gives you the option to launch the Applications and Drivers CD.

Taskbar Icons

With Windows 98, a number of icons appear on the taskbar. Use the cursor to hover over the icon and display its function, right click the icon to display its menu options, or double click the icon to launch it.

The following icons normally appear on the left side of the Windows 98 taskbar.

- Internet Explorer — Allows you to browse the internet or view local HTML files. Also access Internet Explorer under Start, Programs, Internet Explorer.

- Outlook Express — Provides your default email program with secure and personalized features for email and newsgroup communication. Also access Outlook Express under Start, Programs, Internet Explorer.

- Show Desktop — Minimizes all active screens to display your desktop.

- Channels — Delivers content from your favorite web sites directly to your computer.

The following icons normally appear on the right side of the Windows 98 taskbar.

- Task Scheduler — Enables you to schedule tasks, such as Disk Defragmenter, to run regularly. Also access Task Scheduler under Start, Programs, Accessories, System Tools, Scheduled Tasks.

- Power Management Properties — Displays your current power source and total remaining battery power. Access Power Management Properties under Start, Settings, Control Panel, Power Management.

- NEC VersaGlide — Allows you to adjust your VersaGlide (mouse) properties. Also access NEC VersaGlide under Start, Settings, Control Panel, Mouse.

- Volume Control — Adjusts the volume and speaker balance when you play audio files. Also access Volume Control under Start, Programs, Accessories, Entertainment, Volume Control.

- Time Clock — Allows you to adjust the time and date, rearrange active windows on your desktop, create a new toolbar or customize your existing toolbar.

For more information about the desktop and taskbar icons, refer to the Windows 98 online help.

Windows 95

Windows 95 provides many Windows features, including a Desktop with room to maneuver, a taskbar for quick navigation between open windows, plug and play features, online networking functions, and more.

When you install Windows 95, the following icons are loaded on your desktop:

- My Computer — Provides access to drives, printers, the control panel, and network features.

- Inbox — Lets you access the Microsoft fax and mail software as well as Microsoft network services.

- Recycle Bin — Gives you a trash container in which to put unwanted files.

- The Microsoft Network — Provides a setup program that allows you to sign-up for the Microsoft Network. If you already have an account, use this interface to sign-on to the Microsoft Network.

- Network Neighborhood — Shows you the network, integrated LANs, and WANs (only after your system has been configured for a network).

- My Briefcase — Allows easy transfer of files between the NEC Versa Note and another system.

- Online Services — Includes setup icons for a variety of online services.

  Your NEC Versa Note comes with all the software you need to get started on the most popular services available today. For a fee, online services give you access to the Internet, email, the world wide web, travel information, news reports, and more.

- Internet Explorer — Makes finding information on the Internet easy.

- Outlook Express — Provides email capability.

> **Note**: Before choosing and registering for an online service, you must connect the internal modem to your system and to a working phone line. The phone line must be analog. If you are unsure what type of line you have, call your local phone company.
>
> If you are using this product outside of the United States or Canada, some online services may require a long-distance or international call.

- NEC Customize — Gives you the option to launch the Applications and Drivers CD.

Active Desktop

The Active Desktop in Internet Explorer 4.0 integrates the browser software with Windows 95 to bring true web integration to all your computing activities. The Active Desktop lets you place both Windows icons and HTML elements on your computer desktop making it easier to navigate anywhere on your system. The Active Desktop consists of the following two layers.

- A transparent icon layer that displays all your existing desktop shortcuts.

- A background HTML layer that hosts any HTML-based items, including ActiveX controls and scripts.

Internet Explorer Channel Bar

The Channel Bar appears on the right side of the Windows 95 desktop. The Channel Bar is another implementation of HTML on the Active Desktop giving you direct access to web sites and content designed for Internet Explorer 4.0.

Taskbar Icons

A number of icons appear on the taskbar. Move the cursor over the icon to display its function, right click the icon to see its menu options, or left click the icon to launch it. The following icons appear on the left side of the Windows 95 taskbar.

■ Internet Explorer

■ Outlook Express

■ Show Desktop

■ Channels

The following icons appear on the right side of the Windows 95 taskbar.

■ Power Management Properties

■ Volume Control

■ NEC VersaGlide

■ Time Clock

See the Windows 95 online help for detailed instructions on using Windows 95.

Windows NT

Windows NT allows you to run applications created specially for Windows NT and Windows 95. You can also run applications created for other versions of Windows or MS-DOS® operating systems.

Windows NT gives you a variety of features offered by Microsoft, including a desktop to maneuver, a taskbar for quick navigation between open windows, and more. The following icons/buttons appear on the desktop.

■ My Computer — Provides access to drives, printers, the Control Panel, and network features.

■ Network Neighborhood — Shows you the network, integrated LANs, and WANs.

- Inbox — Lets you access the Microsoft mail software as well as Microsoft services.

- Recycle Bin — Gives you a trash container in which to put unwanted files.

- My Briefcase — Allows easy transfer of files between the NEC Versa and another system.

- NEC Customize — Gives you the option to install NEC custom wallpaper, launch the Applications and Drivers CD, or install the NEC-supplied mouse driver.

Service Pack 4

Service Pack 4 is a large update to the Windows NT 4.0 operating system. The components included within Service Pack 4 are the latest available from Microsoft. Many software packages include calls to Windows NT to install drivers that are Windows NT specific. As a result, when installing new hardware or software, like a network PC card or a remote access service, parts of Service Pack 4 may be overwritten by the original Windows NT files. Therefore, it is very important to reinstall Service Pack 4 after introducing new hardware or software.

To reinstall Service Pack 4, double click the sp4i386.exe file located in the C:\SP4 directory on your hard disk drive.

⚠**CAUTION**

When running update.exe , DO NOT replace the file, PCMCIA.SYS and DO NOT overwrite newer files installed by some applications.

When running update.exe, be sure to select the Details button for additional installation instructions.

Service Pack 4 for Windows NT 4.0 is available from the Microsoft web site at http://www.microsoft.com.

> ✉ **Note:** When reinstalling Service Pack 4, a message pertaining to Windows NT 4.0 year 2000 issues appears.

Guide to Online Help

The NEC Versa Note User's Guide, NEC UltraCare Guide, and Modem User's Guide are included on the Application and Drivers CD that ships with the system. You can install the online documentation onto the system using the Applications and Drivers CD.

■ The NEC Versa Note User's Guide

The NEC Versa Note User's Guide is an online version of this user's guide, which provides general information on system usage as well as more extensive topics including using power management, PC card technology, and system memory map.

■ NEC UltraCare Guide

The NEC UltraCare Guide describes NEC's extended warranty program to help you protect your investment in an NEC Versa Note system. (If you purchased your system outside of the United States or Canada, please contact yout local dealer for extended warranty information.)

■ Modem User's Guide

The Modem User's Guide provides information on the modem and on using it with your system.

Guide to NEC Utilities

NEC provides several programs and routines designed to make your NEC Versa Note run more efficiently. These programs are known as utilities.

Setup

The Setup utility automatically configures your NEC Versa Note each time you start it up. This utility is not accessible from Windows. Access Setup at power-on. Press **F2** at the screen prompt, "Press <F2> to Enter Setup." (You may need to press **F2** several times.)

See Chapter 3, "Using Setup and Power Management," for a discussion of the Setup utility. In addition, online help assists you in changing settings.

NEC Customize Utility

The NEC Customize utility provides easy access to your Applications and Drivers CD.

PHDisk

This utility creates a file on the hard disk that is large enough to contain the entire program and data residing in the NEC Versa Note dynamic memory. You only need to update this file size if you upgrade the amount of memory in your system. Run this utility in DOS mode or DOS environment. It will not run on a compressed drive. Access PHDisk from

> **C:\necutils\PHDisk\phdisk /create /file**
>
> **or**
>
> **C:\necutils\PHDisk\phdisk /?** (For extended Help)

Other Software

Your Applications and Drivers CD that ships with your NEC Versa Note contains other applications that let you take full advantage of your system resources. The rest of this chapter discusses each application, including what it can do for you, how to get started, and how to use the program help.

Adobe Acrobat Reader

Adobe Acrobat Reader allows you to view, navigate, and print PDF files from your local hard drive, your local network, or the Internet.

QuickLink MessageCenter III

QuickLink MessageCenter III is a multi-functional communications application. It provides integrated voice mail, fax, and data communications, customizable voice mailboxes, incoming call routing and transfer, call monitoring, and much more.

eSafe Protect

eSafe Protect is a personal Internet safety solution for your NEC Versa Note at home or work. In addition to sealing off unwanted visitors in the "Sand Box" quarantine, this Complete Internet Protection solution includes complete Anti-Virus protection, a state-of-the-art Personal Firewall and the Anti-Vandal Defense System.

Microsoft Office 97 Professional Edition (only on selected models)

Microsoft Office 97 includes everything you need to create dynamic reports, including Word 97, Excel 97, PowerPoint, Access 97, Outlook 97, and Binder.

World Wide Web Browsers

Your NEC Versa Note comes with the two of the most popular World Wide Web browsers available: Microsoft Internet Explorer and Netscape.

Netscape Navigator

Netscape Navigator is one of the most popular software applications for browsing information on intranets or the Internet. Netscape Navigator is not pre-installed on the system. It is located on the Applications and Drivers CD that ships with the system. You can install Netscape Navigator onto the system using the Applications and Drivers CD.

Information tools simplify access to favorite sites and provide one-click access to Internet searches. Navigator's features include technology that allows you directly manipulate and move images and Java applets to create visually exciting, fully interactive pages. In addition, Navigator lets you customize for individual preferences and bookmark favorite web sites to facilitate repeated access.

Microsoft Internet Explorer

Microsoft's Internet Explorer 4.0 makes finding information on the Internet easy. Built-in webcasting features give you the content you want, when you want it. An integrated set of tools provides services ranging from basic email to exciting conferencing, broadcasting, and web-authoring capabilities.

Microsoft's Internet Explorer 4.0 is built into the operating system.

Applications and Drivers CD

Use the Applications and Drivers CD to install applications, drivers, utilities, and Internet browsers.

Launching the Applications and Drivers CD

Follow these steps to launch the Applications and Drivers CD using NEC Customize.

1. Insert the Applications and Drivers CD into the CD-ROM reader.

2. Double click the NEC Customize icon.

3. Select "Launch Applications and Drivers CD."

4. Click Install to launch the CD.

The Applications and Drivers CD dialog box appears.

Installing the Software

The Applications and Drivers CD dialog box consists of the following components.

- Selection Tabs — Located just below the title bar, each tab represents a software category. The selection tabs include applications, drivers, utilities, and Internet browsers.

- Description — Located in the bottom portion of the dialog box, the text describes the selected or highlighted software category or application, driver, etc.

- Install — Clicking the Install button installs the selected software.

- Exit — Clicking the Exit button closes the Applications and Drivers CD dialog box.

Once the Applications and Drivers CD dialog box appears, follow these steps to install the desired software.

1. Click the selection tab of your choice.

2. Click the plus (+) box beside the desired application, driver, etc. to expand the selection.

3. Click the Installation selection to activate the Install button.

4. Click the Install button to install your selection.

Follow the on-screen instructions to install your selection.

5. Click Exit to close the Applications and Drivers CD dialog box.

6. Remove the CD from the CD-ROM reader when the installation is complete.

3

Using Setup and Power Management

- Setup Utility

Setup Utility

Your NEC Versa Note system comes with a hardware configuration program called Setup that allows you to view and set system parameters. Setup also allows you to set password features that protect your system from unauthorized use.

Use Setup to:

■ set the current time and date (you can also set the date and time through Windows)

■ customize your operating system to reflect your computer hardware

■ secure your system with a password

■ balance your performance needs with power conservation.

How to Enter Setup

Access Setup at power-on. Just press **F2** at the screen prompt "Press <F2> to Enter Setup."

When you press **F2** to enter Setup, the system interrupts the Power-On-Self-Test (POST) and displays the current CMOS RAM settings.

If the system detects an error during POST, it prompts you with a double beep and a message: "Press <F1> to resume." If you press **F1**, the system may enter setup to allow you to correct the error. If you want to fix the error, carefully read the error message that appears above the prompt (taking notes if you want). If the system does not enter setup, the standard bootup procedure resumes.

When you enter setup, the system displays the Setup Main screen, similar to the following.

```
                      PHOENIXBIOS SETUP UTILITY

   Main     Advanced      Security    Power Saving     Boot    Exit

     System Time:          [15:00:00]              Item Specific Help
     System Date:          [01/14/1999]          <Tab>, <Shift-Tab>, or
     Language:             [English (US)]         <Enter> selects field

     Diskette A:           [1.44/1.25 MB, 3 1/2"]
     Internal HDD:         [3253MG]
     Internal CD-ROM:      Installed

     Boot Display Device   [Both]
     System Memory         640KB
     Extended Memory       63MB
     CPU Type              Pentium II
     CPU Speed             266 MHz
     BIOS Version          0.4B-0166-6205/083A0200


   F1  Help      ↑↓  Select Item      –/+   Change Values    F9  Setup Defaults
   Esc Exit      < > Select  Menu     Enter Select Sub-Menu  F10 Save and Exit
```

How to Use Setup

The following sections describe how to use Setup, including these topics:

■ Looking at screens

■ Using keys

■ Checking and setting system parameters.

Looking at Screens

Setup screens have three areas as shown in the previous page.

■ Menus
The top part of the screen. This area lists six menus in which related parameters are shown.

■ Parameters
The left part of the screen. This area lists parameters and their current settings.

■ Item Specific Help
  The right part of the screen. This area lists tips and explanations to
  help you.

■ Key Legend
  The bottom corner of the screen. These lines display the keys that
  move the cursor and select parameters.

Using Keys

The following table lists Setup keys and their functions.

Setup Key Functions

Key	What It Does
F1	Shows on-line help on key functions.
↑ ↓	Moves the cursor between the displayed parameters.
−/+	Modifies the current parameter settings.
F9	Load default configuration.
Tab, Shift-Tab or Enter	For some parameter settings, moves the cursor between the subfields. Also moves the cursor to the next line or selection. For example, for System Time, Tab moves the cursor from hour to minute to second.
Esc	Exits the current screen and returns to the main menu or exit menu.
←→	Changes between displayed menus.
F10	Save changes and exit.

Checking/Setting System Parameters

See the following table for a list of parameters, their factory default settings, and alternate settings. A description of each setting follows the table.

To reset all parameters to the default settings, select F9 or Load Setup Defaults from the Exit Menu and select **Yes**.

Setup Parameters

Parameter	Default Setting	Alternate Setting(s)
Main Menu		
Language	English (US)	Japanese
System Time	hh:mm:ss	
System Date	mm/dd/yyyy	
Diskette Drive A	1.44/1.25 MB, 3 1/2"	Disabled
Internal HDD	Auto	User Defined
Internal CD-ROM	Auto	
Boot Display Device	Both	Both, CRT, LCD
System Memory	640 KB	(Auto Detect)
Extended Memory		
CPU Type		
CPU Speed		
BIOS Version		
Advanced Menu		
PS/2 Mouse	Auto	Auto, Disabled, Both
Installed O/S	Win98	Win95, Win98, Other
Silent Boot	Enabled	Enabled, Disabled, Black
I/O Device Configuration		
Serial Port	Auto	Enabled, Disabled, Auto
Infrared Port	Disabled	IrDA, FIR
Mode	FIR	Enabled, Disabled, Auto
Parallel Port	Auto	Output only, Bi-directional, ECP
Mode	ECP	Enabled, Disabled
Floppy Disk Controller	Enabled	

Setup Parameters

Parameter	Default Setting	Alternate Setting(s)
Security Menu		
Set Supervisor Password	None	User Defined
Set User Password	None	User Defined
Password on Boot	Disabled	Enabled, Disabled
Password on Resume	Disabled	Enabled, Disabled
Fixed Disk Boot Sector	Normal	Normal, Write Protect
Diskette Access	Supervisor	User, Supervisor
Power Saving Menu		
Power Switch	On/Off	On/Off, Suspend/Resume
Power Management Function	Battery only	Always on, Battery only
Power Savings	Maximum Power Saving	Customized, Maximum Performance, Disabled Maximum Power Saving
Standby Timeout	1 min	Off, 1/2/4/6/8/12 min
Suspend Timeout	5 min	Off, 5/10/15/20/30/40/60 min
Suspend Mode	Suspend	Suspend, Save To Disk
Audio Save To Disk	Off	Off, After 1 Hour
Hard Disk Timeout	1 min	Disabled, 1/2/4/6/8/10/15 min
Video Timeout	2 min	Disabled, 1/2/4/6/8/10/15 min
LID Switch	Suspend	Suspend, Backlight Off
Resume On Modem Ring	Off Off	On, Off On, Off
Resume On Time Resume Time	[00:00:00]	User Defined
Boot Menu		
Bootup Sequence is described in numerical order.	ATAPI CD-ROM Drive	Diskette Drive, Hard Drive, ATAPI CD-ROM Drive, Network Boot

Setup Parameters

Parameter	Default Setting	Alternate Setting(s)
Exit Menu		
Exit Saving Changes		User Selectable when exiting
Exit Discarding Changes		same as above
Load Setup Defaults		same as above
Discard Changes		same as above
Save Changes		same as above
Battery Refresh		

Setup Menus

Read the following descriptions for explanations of items that appear in the Setup menus, as listed in the preceding table. See the item-specific help that appears on the Setup screen for more details.

Main Menu

- Language — This field lets you set the type of language for the BIOS display.

- System Time — To set the time, enter the current hour, minute, and second on hr/min/sec, 24 hour format.

- System Date — This field lets you set your NEC Versa Note calendar month, day, and year. The calendar clock is year 2000-compliant. These settings remain in memory even after you turn off the system.

  To set the date, use the **Tab/Shift-Tab/Enter** key to move from field to field. Use the *+/–* keys to change numbers within each field.

- Diskette Drive A —This field allows you to enable or disable the built-in 1.44/1.25MB 3 1/2" diskette.

- Internal HDD — This field displays various parameters for the hard disk drive. If type [Auto] is selected, the system automatically sets these parameters. If type [User] is selected, Cylinders, Heads and Sectors can be edited.

- Internal CD-ROM — This field is for information only as the BIOS automatically detects the CD-ROM.

- Boot Display Device — Allows you to select the display device.

- System Memory, Extended Memory, CPU Type, CPU Speed and BIOS Version — These fields are for information only as the BIOS automatically detects related values.

Advanced Menu

- PS/2 Mouse — [Auto] allows the OS to determine whether to enable or disable the PS/2 mouse. [Disabled] prevents any installed PS/2 mouse from functioning. [Both] is also an available option.

- I/O Device Configuration — lets you configure input/output device such as Serial Port, Parallel Port, IrDA and Floppy disk controller.

> **Note:** If you disable a device in Setup, you cannot enable or assign it using the Windows device manager. The device is not listed in the Windows device list. To control the device using the Windows device manager, select any setting other than "Disable" in Setup.

- Installed O/S — Specifies the installed operating system which you use most commonly.

Security Menu

- Set User Password — Specifies if the system prompts you to enter a password when accessing the system. The Set User Password function will be enabled once a Supervisor password is set.

- Set Supervisor Password — Specifies if the system prompts you to enter a password when entering Setup.

- Password on Boot — Enables password check when booting.

- Password on Resume — Enables password check when resuming from suspend.

- Fixed Disk Boot Sector — [Write Protect] enables write protect boot sector on hard disk to prevent against viruses. [Normal] disables this write protect function.

- Diskette Access — Controls access to diskette drive.

Power Menu

The Power Saving management setup menu lets you balance high performance and energy conservation using parameters including the following.

> 📧 **Note:** Some operating systems, like Windows 95. 98, or NT, have their own power management software which overrides CMOS settings.

- Power Button — The power button operates as both a On/Off and Suspend/Resume switch.

  — On/Off functions as a normal Power button to power the system on or off.

  — Suspend/Resume functions as a Suspend button to put the system into Suspend mode and return to normal operation from Suspend.

- Power Management Function — Battery only enables the power saving management function when the system operates in battery power only. Always enables the power saving management function when the system operations either in AC power or battery.

- Power Savings — Lets you choose one of four levels of power management.

  — Maximum Power Savings — conserves the greatest amount of system power.

  — Maximum Performance — conserves power but allows the greatest system performance.

  — Disabled — turns off the power management function.

— Customized — allows you to change related settings so that you can define your own power management configuration. You can set the following parameters:

■ Standby Timeout — Allows you to select the system standby timeout period. The Standby Timeout sets the time the system needs to be idle before entering the Standby mode. Standby mode powers down various devices in the system until you start using the system again.

— Suspend Timeout is amount of time the system needs to be in Standby mode before entering the Suspend mode.

■ Suspend Mode — If you choose Suspend the system saves its state, but remains in a low power mode. If you choose Save To Disk, the system saves its state to disk and powers off.

— When Auto Save To Disk is turned on, the system saves its state to disk and then powers off after being in Suspend mode for a period of time.

■ Hard Disk Timeout — Allows you to select the amount of time the hard disk needs to be inactive before it shuts down.

■ Video Timeout — Allows you to select the amount of time the user input devices needs to be inactive before it shuts down.

■ LID Switch — Determines system state when panel is closed.

■ Battery Low Suspend — On allows the system to enter Suspend Mode upon battery low condition.

■ Resume On Modem Ring — On wakes the system up when an incoming call is detected on your modem. If Suspend Mode is set to "Save To Disk" the Resume On Modem Ring does not work.

■ Resume On Time — On will wakes the system up at a specific time. If Suspend Mode is set to "Save To Disk" the Resume On Time does not work.

■ Resume Time — Specifies the time when system is to wake up.

Boot Menu

The Boot menu lets you decide the boot order of booting devices including:

- ATAPI CD-ROM Drive

- Diskette Drive

- Hard Drive

- Network Boot

The booting order is listed in numerical sequence in the menu.

Exit Menu

- Exit Saving Changes — Exits System Setup and saves your changes to CMOS.

- Exit Discard Changes — Exits Setup utility without saving Setup data to CMOS.

- Load Setup Defaults — Loads default settings for all items in Setup.

- Discard Changes — Reverts to previously selected settings and exits Setup.

- Save Changes — Saves Setup data to CMOS.

Battery Refresh — Conditions the battery so that the battery can be fully charged. The function applies to NiMH battery only.

4

Using Your NEC Versa Note

- LCD Panel
- Keyboard
- NEC VersaGlide
- Integrated Drives
- 56K Internal Modem
- PC Cards
- Enabling and Disabling Devices
- Increasing System Storage and Memory
- Connecting Options

The more you use your NEC Versa Note system, the more proficient you become at everything — from using function keys to setting up presentations.

This chapter gives concise information on these and other important tasks, including how to use the:

- LCD panel

- keyboard

- NEC VersaGlide

- integrated drives

- 20X or 24X CD-ROM reader

- internal modem (included on some models)

- PC card slots

- USB port

- IR port.

In addition, this chapter focuses on expanding memory capacity and installing options.

LCD Panel

The LCD panel on your NEC Versa Note system is fully adjustable to provide comfortable viewing. To adjust the viewing angle, gently tilt the LCD panel into position.

Keyboard

The NEC Versa Note keyboard is equipped with many features. These include:

- Function keys

- Windows keys

- Cursor control keys

■ Typewriter keys

■ Numeric keypad

■ Control keys.

Key features and operations are described after the figure.
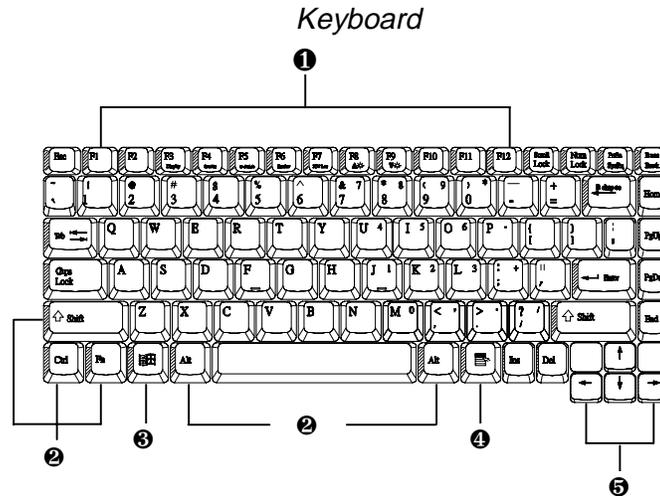
Keyboard

1. Function Keys   2. Control Keys

3. Windows Start Menu Key   4. Windows Shortcut Key

5. Cursor Control Keys

■ Function Keys — Twelve function keys, **F1** through **F12**, are available on the NEC Versa Note keyboard. These keys work together with the **Fn** key to activate special functions. Eight keys (printed in blue) are preprogrammed with dual functions.

   Function keys are application-driven. See the specific application's user guide for information about how each function key works within the application you are using.

■ The following function key combinations are pre-programmed for the NEC Versa Note.

   Fn-F3 — Display toggles between three video modes, LCD, CRT, or simultaneous display on both.

Fn-F4 — Standby sets standby power management mode to On. Press any key to turn off Standby mode.

Fn-F5 — LCD Expansion expands applications to fill the LCD panel - 800 x 600 on XGA (any mode) and 640 x 480 on SVGA.

Fn-F6 — System Speaker Volume toggles the built-in speakers to on or off. A single beep indicates that the speaker mode has changed. The speaker icon in the lower right-corner of the Windows 98 or Windows 95 desktop may give a false status.

Fn-F7 — Power Management Level sets the power saving mode.

Fn-F8 — Increases the LCD's brightness seven settings from the lowest setting.

Fn-F9 — Reduces the LCD's brightness seven settings from the highest setting.

Fn-F10 —Increases the LCD's contrast (DSTN only).

Fn-F11 — Reduces the LCD's contrast (DSTN only).

■ The following key combinations are available with some applications.

Fn-SysReq — System request is used in terminal emulation applications.

Fn-Break — Break sends a break command.

■ Windows keys — Use the following two keys to facilitate your work.

── Shortcut/Application key – provides quick access to shortcut menus. (This key acts like a right mouse button.)

── Floating Window key – displays the Start menu.

■ Cursor Control keys — Cursor control keys let you position the cursor on the screen where you want. On the screen, the cursor is a blinking underline, block, or vertical bar depending on the application. The cursor indicates where the next text typed is inserted.

- Typewriter keys — Typewriter keys (also called *alphanumeric* keys) are used to enter text and characters. Keys with blue print on them behave differently when combined with control keys or the **Fn** key.

- Numeric Keypad — Pressing **Num Lock** on the keyboard activates the numeric keypad numbers and functions printed in blue on top of the keys.

  The keypad lets you type numbers and mathematical operands (+, –) as you would on a calculator. The keypad is ideal for entering long lists of numbers.

  When you press **Num Lock** again, the keys revert to their normal functions as typewriter keys.

- Control keys — **Ctrl**, **Alt**, **Fn**, and **Shift** are controls used in conjunction with other keys to change their functions. To use control keys, press and hold the control key while pressing another key. For example, "Press **Ctrl c**" means to hold down the **Ctrl** key and type the letter **c**. Key combinations work specific to the application you are running.

NEC VersaGlide

The NEC VersaGlide is an easy way to control the cursor with your finger. Lightly glide your finger across the NEC VersaGlide and the cursor follows. To use the VersaGlide, you can

- Double tap your finger on the VersaGlide (emulates the left mouse button).

- Double click the left button (this is the primary button).
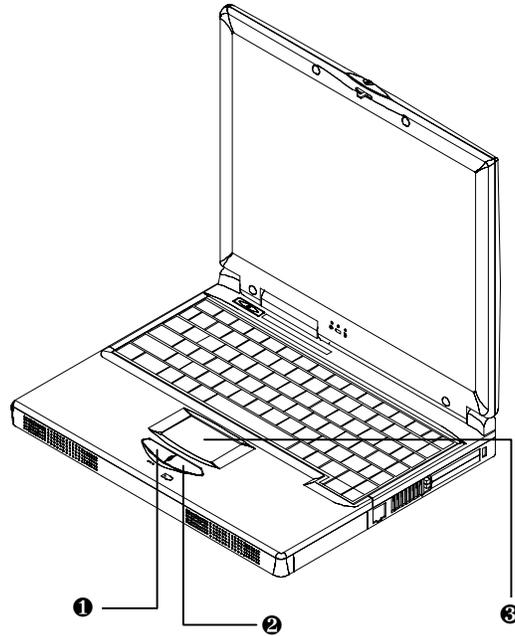
1. Left Button   2. Right Button

3. VersaGlide Touchpad

Try both ways and decide which you prefer. If you find the double tap difficult to use, go to the next section for general directions about adjusting the touchpad properties.

> 📝 **Note:** If you install another mouse driver over the shipping default, the double-tap capability may be lost.

Making VersaGlide Adjustments

The NEC VersaGlide offers a number of options that let you customize how it functions. To access these options, locate the Control Panel and double click on the Mouse icon.

The options let you control the size and color of the cursor, cursor speed, the accepted double-click speed, and selection button orientation.

VersaGlide Tips

Follow these basic ergonomic tips while working:

- Use a light touch on the VersaGlide surface.

- Set up the NEC Versa Note with your keyboard and VersaGlide at a comfortable height. Keep your forearms parallel to the floor. Your wrists should be relaxed and straight.

- While using the keyboard and VersaGlide, keep your shoulders and arms as relaxed as possible.

- Take regular breaks from the computer to rest your eyes. Perform stretching exercises to relax your fingers, hands, wrists, forearms, and shoulders.

  See Appendix A, "Setting Up a Healthy Work Environment," for more information.

Integrated Drives

The NEC Versa Note comes with three integrated drives — two on the left side of the system, and one inside of the system. The drives are as follows:

- CD-ROM — Your system ships with either a 20X or 24X CD-ROM reader already installed in the front of the system.

- Diskette Drive — Your system ships with a standard 3.5-inch 1.44-MB diskette drive already installed in the left side of the system.

- Hard Disk Drive — Depending upon the model, your system ships with a 2.1, 3.2, or greater GB hard disk drive already installed under the base unit cover.

20X or 24X CD-ROM Reader

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 20X and 24X CD-ROM readers are compatible with industry data and 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.

> **Note:** The CD-ROM reader is a Class 1 Laser Product.

CD-ROM reader features include the following:

- Release Button — ejects the CD tray. Press this button when power is on to insert a CD into or remove a CD from the reader.

- Emergency Eject Hole — allows you to manually remove a CD from the reader if the eject function is disabled by software or a power failure occurs.

  To remove a CD, insert the end of a paper clip into the eject hole, and push in until the CD tray releases. Now you can manually open the drawer.

- Status LED — lights during data read operations. Do not eject the CD or turn off the NEC Versa Note when the indicator is lit.

CD Loading

To insert a CD into the CD-ROM reader, follow these steps.

1. Press the Release button and pull the CD tray out from the reader door.

2. Put your CD, printed side up, into the circular impression in the tray.

3. Push the CD tray in until it clicks shut.

> ≡ **Note:** Some CDs vibrate when playing. This does not affect CD-ROM reader functioning.

CD Care

When handling CDs, consider the following guidelines.

- Always pick up the CD by its edges.

- Avoid scratching or soiling the side of the CD that has no printing or writing on it.

- Do not write on or apply labels to either side of the CD.

- Keep the CD away from direct sunlight or high temperatures.

- Clean fingerprints or dust from the CD by wiping it with a soft cloth.

Changing the Auto Play Setting

Your system ships so that a CD inserted into the reader automatically starts playing. The system periodically checks the reader to see if a CD was inserted. Although this feature makes using your CDs very convenient, it interferes with the system's automatic Save to File feature.

To disable the Auto Play feature or re-enable it, follow these instructions.

1. From the Windows Start menu, select Settings and Control Panel.

2. In the Control Panel, highlight and double click on the System icon to show system properties.

3. Go to the Device Manager tab.

4. Locate and open the CD-ROM folder.

5. Highlight the line marked "*xxxx*" for the CD-ROM model name (Where *xxxx* refers to the specific model name).

6. Press the Properties button at the bottom of the window and select the Settings tab.

7. Proceed as follows:

- To disable Auto Play, click to remove the check mark next to the line "Auto insert notification."

- To enable Auto Play, click to add a check mark next to the line "Auto insert notification."

8. Select OK twice to accept the settings in the Settings tab and exit the Properties window.

9. To activate the new setting, reboot the system when prompted.

56K Internal Modem

The NEC Versa Note comes equipped with a 56K capable internal voice/fax/data modem that allows you to communicate with others via fax, email, or connect to an online service or bulletin board. (The modem is only available on some models.)

> **Note:** Due to FCC regulations in effect at the time that this document was printed, the 56K internal modem transmits at a maximum speed of 52K.
>
> The speed of data transmission is dependent on the quality of telephone lines. Digitally terminated lines improve the speed of data transmission. Contact your service provider for more information.
>
> Be sure to check the NEC Bulletin Board (916-379-4499) for the latest firmware enhancements to the 56K internal modem.

To find out more about your modem capabilities and uses, refer to the online modem user's guide that is available on your NEC Versa Note system.

Connecting the Internal Modem

The built-in voice/fax/data modem provides one standard phone connector. NEC provides one analog cable for your convenience.

Use the following steps to connect the analog phone cable to your modem.

1. Locate the analog phone cable in the accessories box in the NEC Versa Note computer shipping carton. Each end of the cable has a RJ-11 connector that plugs into a standard wall outlet.

    ✍ **Note:** The analog phone cable is an industry standard cable. Longer cables are available at your local electronics store.

2. Connect one end of the cable into a standard telephone wall outlet.

3. Connect the other end of the cable into the computer's modem port.

    ✍ **Note:** Depending on your operational requirements, you may need to disable the modem in order to enable the IR port for wireless data transfer.

    For information about enabling and disabling devices on your NEC Versa Note, see "Enabling and Disabling Devices," later in this chapter.

PC Cards

PC cards are all approximately the same size and vary only in thickness. All have a standard 68-pin connector. Your NEC Versa supports the installation of the PC cards described next.

Type II Cards

Type II cards have a thickness of 5.0 millimeters (mm). Type II cards are often storage or communications devices such as battery backed Static Random Access Memory (SRAM), Read Only Memory (ROM), Flash Memory, LAN, and Small Computer System Interface (SCSI). Typical Type II cards include input/output (I/O) features such as modems and LANs.

Type II Extended Cards

Many PC cards are Type II extended cards. The extended card has an additional physical component that protrudes beyond the traditional card size. The extension can be as large as 40 mm deep by 9.65 mm high. This extension provides room for additional electronics as well as a location for external connectors.

Type III Cards

Type III cards are thicker (10.5 mm) than Type II cards and allow no extensions. Type III card uses include advanced function I/O cards with additional features such as wireless modems, multimode cards (cards with more than one function such as a combined modem and LAN card), and small hard drive storage.

Communication Cards

You can use both fax/modem and network PC cards with your NEC Versa Note. Here are some suggestions to help you get the best system performance.

- Network Cards
- Fax/Modem Cards

You can insert a fax/modem in either slot.

Always insert the fax/modem card before using your fax/modem software application. If you start the application before inserting the fax/modem card, the application typically does not find the card.

PC Card Modems

You can use a PC card modem with your NEC Versa Note to communicate with others via fax, e-mail, or connect to an online service or bulletin board.

Follow these steps to connect your system to a phone line.

1. Connect the telephone cable to the modem port.

2. Connect the other end of the telephone cable to the wall outlet (you might have to unplug the telephone if it is plugged into the outlet)

Storage Cards

When you insert a memory or storage card in an NEC notebook computer, it appears as a unique drive as long as the system has an available interrupt for the card.

Interface Cards

You can connect most standard Small Computer System Interface (SCSI) devices using the optional NEC PC cardSCSI card. This PC card is also known as the Adaptec SlimSCSI.

Other Cards

Many other kinds of PC cards are available to notebook computer users. They include the following cards:

■ Global Positioning System (GPS) – to enable the tracking of remote units (for example, delivery trucks)

■ Paging – for receiving remote paging messages

■ Serial – for adding an extra serial communications port

- Multimedia – for combining animation and sound

- Audio – to enable the use of sound.

PC Card Slots

Your NEC Versa Note has two Cardbus slots for inserting two PC or Cardbus cards. The slots support two Type II cards or one Type III PC card.

Using the system's PC card slots, you can add optional PC cards and connect external devices to your NEC Versa Note. These devices include peripheral devices, such as modems, LAN cards, and storage cards.

Inserting a PC Card

Follow these steps to insert a PC card in your system.

⚠ CAUTION

Some PC cards require additional system resources. Before inserting a PC card you may have to disable either the IR port, USB port, or the 56K internal modem. Check the Windows device manager to ensure that one of these devices is disabled before inserting a PC card.

For information about enabling and disabling devices on your NEC Versa Note, see "Enabling and Disabling Devices," later in this chapter.

---

1. Align the card so that the 68-pin connector points towards the slot and the arrow on the PC card faces up.

2. Slide the card into either slot. A low tone followed by a high tone lets you know that the card is fully inserted and recognized. (If you turn off the sound, no sound is emitted.)

⚠ CAUTION

Other two-tone sequences such as high, then low tones indicate that the card is inserted, but the card type is unknown.

3. You can use the PC card software preinstalled on your system to check PC card slot availability. For example, look for the PC Card icon in the Windows Control panel. It shows which slot contains a PC card and which is empty.

Removing a Card

Remove a PC card as follows.

1. From the screen, select My Computer, then Control Panel. (You can also double click on the PC Card icon in the lower right side of the toolbar on your desktop.)

2. Select the PC Card icon.

3. Select the PC card to remove and select Stop. Windows alerts you if any applications are still using the card. If all applications using that card are closed, services for that card are shut down, and you get a message telling you it is safe to remove the card.

4. Press the button beside the PC card slot.

5. When the card pops out slightly, pull it out of the slot.

📄 **Note:** PC cards draw power even when not in use. To save energy, press the button to disconnect the card when it is not in use. You can leave the card in the slot while it is disconnected for easy storage.

IR Port

The IR port on the left side of your system lets your NEC Versa Note communicate with other devices that also use infrared technology. The IR port is Infrared Data Association (IrDA) compatible. You can easily transfer files between your NEC Versa Note and an IR-equipped desktop, or print to an IR-equipped printer without using cables.

There are three transfer rates for the IR port on your NEC Versa Note. The transfer rates are FIR (Fast Infrared - 4.0 Mbit/sec), MIR (Medium Infrared - 1.152 Mbit/sec), and SIR (Serial Infrared Standard - 2.4 Kbit/sec). Windows 98 and Windows 95 transfers at up to 4 Mbits/sec. Windows NT does not support IR.

Your NEC Versa Note transfers data at the speed compatible with the receiving device. If the receiving device is also FIR equipped, your NEC Versa Note recognizes this capability and transfers data at the FIR rate.

⚠ **CAUTION**

Your NEC Versa Note ships with the IR port disabled. The first time that you use the IR port you must enable the device through the setup utility.

Once the IR port is enabled in setup, use the Windows 95/98/NT device manager to enable and disable devices.

For information about enabling and disabling devices on your NEC Versa Note, see "Enabling and Disabling Devices," later in this chapter.

Follow these steps to enable the IR port using the Setup utility.

1. Enter the setup utility as indicated in Chapter 3, "Using Setup and Power Management."

2. Select Advanced Menu.

3. Select I/O Device Configuration.

4. Set the Infrared Port to AUTO.

5. Exit I/O Configuration and Advanced menu.

6. Save settings and exit.

> ◢ **Note:** To use the IR port to communicate with an external device when a PC card is installed, use the Windows 95/98/NT device manager to disable either the USB port or the 56K internal modem (modem only available on some models). Ensure that the IR port has been enabled through the setup utility.
>
> To take advantage of the FIR transfer rate, disable the 56K internal modem.
>
> For information about enabling and disabling devices on your NEC Versa Note, see "Enabling and Disabling Devices," later in this chapter.

For the infrared technology to work, follow these guidelines:

■ position the NEC Versa Note no more than three feet way from the IR peripheral device you are using, and

■ keep the IR ports between the computer and the device parallel.

USB Port

The USB port on the rear side of your system allows you to connect up to 127 USB-equipped peripheral devices to your NEC Versa Note notebook computer. These peripherals may include digital cameras, scanners, printers, CD-ROM/DVD-ROM drives, modems, keyboards, telephones, and games devices.

USB devices called USB hubs can serve as connection ports for other USB peripherals. Only one device needs to be plugged into your NEC Versa Note. Additional peripherals can be connected in a daisy chain configuration where one device is connected to another in a series. Up to 127 USB devices can be connected together in this way.

Note: Connect the USB device to the port on your NEC Versa Note that displays the USB icon.

Depending on your operational requirements, you may need to disable the USB port in order release system resources to use other devices.

For information about enabling and disabling devices on your NEC Versa Note, see "Enabling and Disabling Devices," later in this chapter.

Enabling and Disabling Devices

Depending on your operational requirements you may need to enable and disable devices on your NEC Versa Note to optimize system resources.

Follow these steps to enable or disable a device on your NEC Versa Note:

1. Press Start, slide the cursor to Settings, and locate the Control Panel.

2. Double click the System icon and select Device Manager.

3. Double click the appropriate device (for example, the Infrared Port), then double click the device name (e.g., NEC Versa Note Fast Infrared Port).

4. Enable or disable a device as follows.

   ■ To enable a device, click to remove the check mark beside "Disable in this hardware profile" in the device usage portion of the screen.

   ■ To disable a device, click to add the check mark beside "Disable in this hardware profile" in the device usage portion of the screen.

5. Click OK and follow the on-screen instructions, as appropriate.

Note: When a device is disabled, a red X appears beside the device name in the device manager device list.

⚠ CAUTION

Reboot your system after enabling or disabling a
device to implement the modification to the system
configuration.

Increasing System Storage and Memory

As your needs grow and change, you may need to add an optional hard
disk drive with a greater capacity or additional memory. Read the
following sections to learn how to install an optional hard disk drive or a
memory module.

Hard Disk Drive

You can increase the system's storage capacity by replacing the standard
hard disk drive with a drive with greater storage capacity.

📝 **Note:** If you want to replace your hard disk,
contact your local dealer for more information about
this dealer-installable device.

If you purchased this system outside of the United
States or Canada, see the booklet, "Getting Service
and Support in Asia, Australia, and Europe," to find
out how to contact the local office in your country.

Memory Module Installation

Depending on configurations, your NEC Versa Note comes standard
with 32 or 64 megabytes (MB) of synchronous DRAM (SDRAM)
memory. This new technology gives your system higher performance.
You can increase system memory to a maximum of 128 MB by
installing one small outline double inline memory module (SO-DIMM)
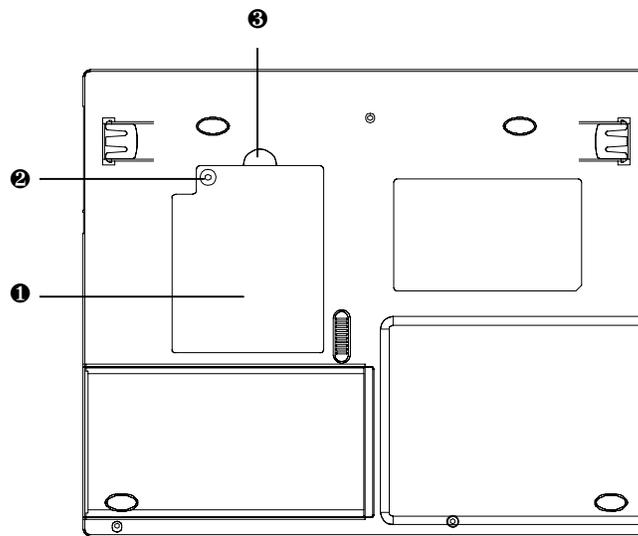in the system.

The following module capacities are available:

■ 32-MB memory module.

■ 64-MB memory module

■ 128-MB memory module (depending on availability).

Install SO-DIMMs as follows.

1. Make sure the system is powered off and that no peripheral devices are attached.

2. Turn the system over and locate the screw on the Memory Module Bay cover as indicated in the figure shown next.

Memory Module Bay Cover on the bottom of the system

1. Memory Module Bay Cover   2. Screw

3. Upper side of Memory Module Bay Cover

3. Remove the screw.

4. Gently lift the Memory Module Bay cover.

5. Locate the alignment notch on the module.

6. Locate the memory module sockets. Your system comes with one module already installed in the socket. When installing additional memory, use the other empty socket.

⚠ **CAUTION**

Avoid touching the exposed components inside the system. Doing so can damage the system.

7. Align the notch with the notch in the socket connector and insert the module as follows.

■ Hold the SO-DIMM at a 30-degree angle and align the SO-DIMM connector with the socket in the system. Push the connector into the socket.

■ Press down on the edge of the SO-DIMM until the locking tabs on the sides snap into place, securing the module.

To remove a SO-DIMM, press the locking tabs away from the sides of the module until the module pops up. Then, remove the SO-DIMM.

8. Reassemble the NEC Versa Note components as follows.

■ Replace the Memory Module Bay cover.

■ Replace the screw.

■ Turn the system over.

■ Rebuild your PHDisk Save-to-Disk file as described in Chapter 2.

Connecting Options

Your NEC Versa Note notebook provides industry-standard connectors so that you can integrate the following.

- External monitor

- Printers (parallel and serial)

- External keyboard

- External mouse

- External audio options.

In addition, NEC offers the NEC PortBar that was developed to work specifically with your NEC Versa Note.

See the following sections for steps on using the options.

Back system features
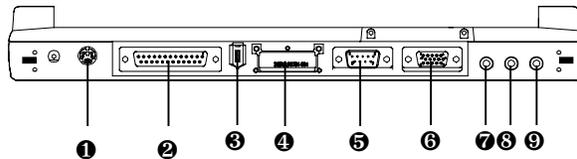
1. PS/2 port	2. Parallel port
3. USB port	4. Expansion port
5. Serial port	6. VGA port (monitor port)
7. Microphone in jack	8. Line-in jack
9. Headphone jack	

External Monitor

You can add a standard external monitor to your NEC Versa Note. You need a display signal cable (usually provided with the monitor). One end of the cable must have a 15-pin connector for the system.

Follow these steps to connect an external monitor to your NEC Versa Note.

1. Check that the NEC Versa Note is powered off and the monitor Power switch is turned off.

   > *Note:* The NEC Versa Note must be powered off or suspended while the monitor is being connected.

2. Attach the 15-pin cable connector to the monitor port on the system. Secure the cable connection with the screws provided.

3. Connect the monitor power cable and plug it into a properly grounded wall outlet.

4. Follow any setup instructions in the monitor user's guide.

5. Turn on power to the monitor.

6. Power on the NEC Versa Note.

Press the **Fn-F3** function key combination to toggle between the LCD, CRT, or simultaneous display on both.

Printer

You can attach a printer with either a parallel or a serial connector. A parallel printer connector has 25 pins; a serial connector has 9 pins. Some printers come with both types of connectors.

Parallel Devices

To install a parallel device, such as a printer, you need a cable with a male 25-pin connector for the system and, for some parallel printers, a Centronics®-compatible 36-pin connector.

📝 **Note:** When you connect a printer, be sure to install the appropriate printer driver through the Windows Control Panel.

Connect a parallel device to your NEC Versa Note as follows.

1. Check that both the NEC Versa Note and parallel device power are off.

2. Align and connect the 25-pin parallel cable connector to the parallel port on the system. Secure the cable with the screws provided.

3. Align and connect the other end of the cable to the parallel port on the device. Lock the connector clips.

4. Connect the power cable to the device and a properly grounded wall outlet.

5. Turn on power to the system and the device.

📝 **Note:** Check that the device is online before you try to use it. See the instructions that came with the device for more information.

Serial Devices

To install a serial device such as a printer or an external mouse, you need a cable with a female 9-pin connector.

📝 **Note:** When you connect a printer, be sure to install the appropriate printer driver through the Windows Control Panel.

Follow these steps to connect a serial device to your NEC Versa Note.

1. Check that both the NEC Versa Note and the device power are off.

2. Align and connect the 9-pin connector with the serial port on the system. Secure the connection with the screws provided.

3. Align and connect the other end of the cable to the appropriate port on the device. Secure the connections with the screws provided.

4. Connect the power cable to the device and a properly grounded wall outlet.

5. Turn on power to the system and the device.

External Keyboard/Mouse/Keypad

You can add a full-size PS/2-style keyboard or PS/2-style mouse to your NEC Versa Note.

When you connect an external keyboard, you can use both the built-in keyboard and external keyboard simultaneously. (The embedded numeric keypad on the NEC Versa Note does not work in this case. Use the keypad on the external keyboard.)

To attach two external PS/2-style devices at the same time, use the optional NEC Y-adapter. Contact an authorized NEC dealer in your area for information.

Follow these steps to connect an external keyboard, mouse, or keypad to your system.

1. Connect the keyboard, mouse, or keypad cable connector to the PS/2 port on the system.

2. If power is turned off, power on the NEC Versa Note to resume operation.

The system immediately recognizes the device.

External Audio Options

The NEC Versa Note comes equipped with built-in audio ports that let you record and play sound.

Connect audio jacks, like a microphone or external speakers, to the audio ports as follows.

> ⊟ **Note:** Some audio device cable connectors are designed with an icon representative of the device. When connecting the audio device to your NEC Versa Note, be sure to match the icon on the cable connector to the icon on the system port.

1. Locate the audio port (Microphone, Line-in or Headphones) that you want to use.

2. Plug the jack into the port on the rear side of the system.

> ⊟ **Note:** If you use external speakers and experience sound distortion or feedback, lower the volume.
>
> Some feedback is caused by having the microphone and speakers too close to each other, so moving the external audio option away from the unit may also help.

NEC PortBar

The NEC PortBar™ is an accessory that duplicates the ports found on the back of your NEC Versa Note system. Keep the NEC PortBar in your office connected to peripherals while you take your NEC Versa Note on the road. (PortBar ports are described in the next section.)

Using the PortBar

Follow these steps to install the optional PortBar.

1. Rotate the release bars to the outside.

2. Plug the PortBar into the expansion connector on the back of the NEC Versa Note computer. Be sure that the PortBar snaps into the PortBar latches on each side of the NEC Versa Note.

3. Rotate to release bar to the center to lock.

Using PortBar
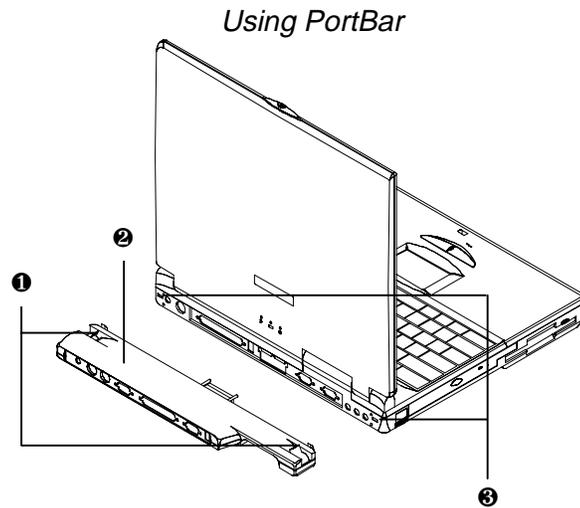
1. Release bars   2. PortBar

3. PortBar latches

PortBar
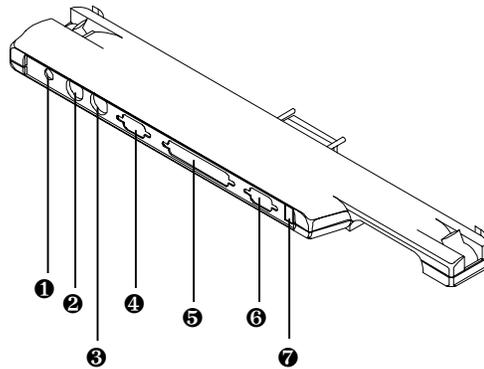
1. AC Power Port	2. Mini-DIN PS/2 Mouse Port
3. Mini-DIN PS/2 Keyboard Port	4. Serial Port
5. Parallel Port	6. Monitor Port
7. USB Port	

The ports on the PortBar are described next.

- AC Power Port — Connects an AC adapter to your notebook computer.

- Mini-DIN PS/2 Mouse Port — Connects to a PS/2 mouse.

- Mini-DIN PS/2 Keyboard Port — Connects to a 6-pin standard PS/2-style keyboard.

- Serial Port — Connects a serial device to your notebook computer, such as an external modem or mouse.

- Parallel Port — Connects a printer to your notebook computer. You can change the LPT Mode in the Setup program.

- Monitor Port — Connects an external VGA/SVGA monitor to your notebook computer.

- USB Port — Connects up to 127 peripheral devices to your notebook computer.

Updating the System BIOS

Use the following steps to update your NEC Versa Note system BIOS with the BIOS Update Diskette (BUD). Specifically, the BIOS is the code transmitted onto your system's read-only memory (ROM).

> **Note:** You only need to update the BIOS if NEC makes significant improvements or fixes to the current system BIOS. Your authorized dealer or Customer Services representative can help you determine this.

If you are informed that the BIOS needs an upgrade, contact NEC CSD Customer Services (800) 632-4525, Fax (801) 578-5101 to receive a copy of the BUD.

You can also download the BIOS from the NEC CSD BBS or web site. Refer to appendix C for detailed instructions on how to download the BIOS.

Only use the BIOS upgrade diskette for your specific model.

> **Note:** If you purchased or are using this system outside of the U.S. or Canada, please contact a local office or dealer in your country.
>
> If you purchased this system outside of the United States or Canada, see the booklet, "Getting Service and Support in Asia, Australia, and Europe" to find out how to contact the local office in your country.

5

Using Multimedia

- Audio
- Video
- Multimedia Applications

With its fast Pentium II/MMX processor and enhanced audio and video capabilities, you can perform fantastic multimedia feats with your NEC Versa Note! This section describes the NEC Versa Note's multimedia features and how you can use them to create high-quality, powerful presentations.

Multimedia combines audio, text, animation, photo images, and video sources into one presentation.

Audio

The NEC Versa Note provides entertainment-level sound quality through the stereo speakers and. It handles musical instrument digital interface (MIDI) files, digital audio files, and analog audio sources. This means the NEC Versa Note recognizes .WAV, .MID, and .AVI files. The system is also Sound Blaster™ compatible.

Recording

All information on a computer must be stored in digital form. Analog audio signals from sources such as tape cassettes or music CDs must be digitized before being recorded and stored on disk.

> **Note:** The built-in microphone is muted by default. Enable the microphone before attempting to use it.

You can make recordings from two classes of audio input: line level and microphone level. Line level accepts analog audio signals from electronic sources such as tape cassettes, VCRs, and CD/VCD/DVD players through the Line-In port.

> **Note:** When using the built-in microphone, make sure the speaker volume is turned down or feedback may occur.

The following procedure describes how to use the Sound Recorder in the Microsoft Windows Accessories group to record sound into a file on the NEC Versa Note. (For details, see the online help that is available when you open the Sound Recorder.)

1. Locate the Sound Recorder by sliding the cursor over Programs, Accessories, Entertainment, Multimedia, and the Sound Recorder line. Release your finger from the VersaGlide to open the recorder. (You may have to press the left selector button on the VersaGlide.)

2. Use the VersaGlide to press the Record button on the screen. The Record button has a red circle in the middle.

3. Speak into the microphone to create a sound file.

4. When you finish recording, press the Stop button. Be careful when recording; audio files can become quite large.

Line-In

Analog signals come in through the NEC Versa Note's Line-In port. The analog signals are converted into digital bits and bytes (digitized) through a converter known as an ADC (analog-to-digital converter). The resulting digital sound bytes can be stored, edited, processed, and transferred. You can record ambient sound effects, specific sound effects, or music to enhance a presentation.

Ambient sound effects create a sense of place or environment and include sounds such as rain, heavy traffic, chirping birds. *Specific* sound effects accent or illustrate an action. Examples of specific sound effects include footsteps, a crash, and a clock chime. There are many sources of prerecorded sound effects available on the market, or, you can record your own sounds.

Line-In accepts analog signals from external devices such as a tape deck, a stereo CD-player, or a stereo tuner. The Line-In port has a mini-type connector. You may need an adapter to connect your input device to the NEC Versa Note through Line-In.

> ✉ **Note:** Using Line-In does not disable the
> internal speakers.

CD-ROM Input

You can record music and sound effects from a CD (compact disc) and
store them on your hard disk. The audio signal from the CD-ROM reader
connects directly to your NEC Versa Note. Simply follow the
instructions in "Recording" to record sound from your CD player.

Microphone

You can capture and record sounds through the internal microphone on the
NEC Versa Note or through an external microphone that connects to the
system through the microphone port. You can record voice-overs for
narration, reminders, or special instructions.

See "Recording" earlier in this chapter, for details about recording sound
with the microphone.

Playing Back

You can play back your recorded soundtrack through stereo headphones,
the internal NEC Versa Note stereo speakers, or external stereo speakers.
You can play .WAV and MIDI files as well as CD audio. Adjust the
volume through the software (a volume control feature can be found in
Accessories or on the system tray in the Toolbar) or with the volume
control knob on the left side of the system.

Play audio from files or audio devices as follows. (This example shows
how to use the Media player option in Accessories. You can also play
audio by opening a file through the Sound Recorder and pressing the
Play button.)

1. Go to Programs, Accessories, Multimedia, and open the Media
   Player.

2. Select your audio source as follows:

- If playing a file, use the File menu to specify the file name.

- If playing from a device, use the Device menu to select your audio source. Once your file is open or your source specified, press the Play button.

3. Press the square Stop button to stop playing the audio.

Using Headphones

The NEC Versa Note headphone port delivers sound at half a watt. Stereo headphones plug in through the headphone jack located on the rear side of the NEC Versa Note. Use the audio software that comes on your system to adjust the volume.

> ✏ **Note:** Using headphones disables the internal speakers.

Using the Built-In Speakers

The NEC Versa Note has built-in stereo speakers. Adjust the volume through the software or with the volume control knob located on the left side of the system.

Using External Stereo Speakers

For full stereo sound impact, you can plug a pair of stereo speakers into the headphones jack located on the rear of the system. Adjust the volume through software, with the controls on the external speakers (if equipped with controls), or with the volume control knob on the NEC Versa Note. When using external speakers the internal speakers are disabled.

Video

Depending on the model, the NEC Versa Note features a DSTN or TFT panel with SVGA or a TFT panel with XGA resolution. This enables color display for sharp effective visuals right on the system or projected onto an external CRT monitor.

Use your NEC Versa Note to run full motion, full-screen MPEG video. In Windows 98, Windows 95 and Windows NT, the Active Movie Control gives you MPEG capabilities. In Windows NT, you must install Internet Explorer to use the Active Movie Control function.

Access the Active Movie Control as follows:

1. Go to Start, Programs, Accessories, Entertainment (Windows 98), or Multimedia (Windows 95 and NT), and select Active Movie Control.

   An Open dialog box displays.

2. Locate your CD-ROM drive and double click on the appropriate drive to display its contents.

3. Open your file and press the Play button. (To play full screen MPEG video, you may need to press the Window maximize button to bring your video to full size.)

Using Digital Video Files

With commercial video capture hardware and application software, you can plug any video device, including VCRs, televisions, camcorders, and laser disc players into your NEC Versa Note and record motion graphics to your hard drive.

Use a video frame grabber and store a stream of grabbed stills on your hard disk.

Using Animation Files

You can create a dynamic presentation using an animation application. Animation can illustrate a concept, drive home an important point, or command attention. Graphics animation can add punch to a presentation with an animated illustration, a flashing arrow, or a flying logo.

Multimedia Applications

A growing number of multimedia applications are available for PC/notebook users. These multimedia software packages include graphics packages, animation software, and presentation authoring systems as follows:

■ Animation software allows you to create 3-D effects and 3-D titles and add interest to an otherwise static presentation.

■ Authoring packages let you pull all the elements of your design into an exciting, interactive multimedia presentation.

6

Traveling with Your NEC Versa Note

- Power Connections
- Checklist Information

The NEC Versa Note makes a natural traveling companion. Using a battery, you can use the computer anywhere you go. Here is some information you might find helpful when taking the NEC Versa Note on the road.

■ Carry an extra charged battery pack for additional battery power.

■ Check that you have everything you need before you leave on a trip. Be sure you have all the necessary cables and accessories. (See the checklist section in this chapter.)

■ If you run your system with battery power, maximize battery life by using power-saving features whenever possible.

■ Bring your optional PowerXtender Auto adapter to connect to automobile cigarette lighters.

■ Take the AC adapter in case you have an electrical outlet handy. This saves battery power for when you really need it.

■ Take along any application or data files on diskette that you might need.

Power Connections

With the right accessories, you can run your NEC Versa Note system almost anywhere! Your system self-adjusts to various power sources. The United States, Canada, and most of Central and South America use 120-volt alternating current (AC). Most other countries of the world use 240-volt AC. The NEC Versa Note adapts to voltages ranging from 100 to 240 volts, 50 to 60 Hz.

There are a few countries with areas that use direct current (DC) as their main power source. You need a DC-to-AC converter in particular areas of Argentina, Brazil, India, Madeira, and South Africa.

Checklist Information

The following information can help you prepare for your trip with your NEC Versa Note. Look them over and use what fits your situation.

What to Take

You should take the following with you when you travel with your NEC Versa Note.

■ extra fully charged batteries

■ single-outlet surge protector

■ appropriate AC plug adapter

■ copy of proof of purchase for computer and other equipment for customs check

■ customer support phone numbers for your software

■ AC extension cord.

Preparing Your NEC Versa Note for Travel

Here is what you should do before you leave home:

> 📝 **Note:** Speed the trip through airport security by carrying a fully charged system. Inspectors want to see the screen display a message. The boot message is usually sufficient.
>
> If your system is fully charged, the inspection only takes a minute or so. Otherwise, be prepared to attach the AC adapter and power cable. And if you don't have these, the inspection might include a disassembly of the system.

■ Back up your NEC Versa Note's hard disk.

■ Put your system into Suspend or Standby mode so you can quickly boot up at the airport security check.

■ Fully charge all your batteries.

■ Tape your business card to your NEC Versa Note, AC adapter, and batteries.

7

Solving Problems

- Problem Checklist
- Start-up Problems
- If You Need Assistance
- Product Recovery CD

Once in a while you may encounter a problem with your NEC Versa Note. If the screen is blank, the instructions don't help, or no error message appears, use the information here to determine and fix the problem. You still may be able to solve the problem yourself!

Problem Checklist

First check the items in the following list. If these items don't help, see the table that follows the list.

- Power is on to the computer.

- The electrical outlet to which your AC adapter is connected is working. Test the outlet by plugging in a lamp or other electrical device.

- All cables are tightly connected.

- The display setting is configured correctly.

- The display's brightness control is adjusted properly.

- If using battery power, check that the battery pack is properly inserted and fully charged.

Troubleshooting

Problem	What To Do
The system does not power on.	If you are operating the system with battery power, check that the battery pack is correctly inserted. Attach the AC adapter to recharge the battery.
	If you have the AC adapter attached, check that the electrical outlet you are using works.
LCD screen is dark and blank.	Power-saving mode has shut off the backlight. So try to recover by pressing any keyboard key.
	The built-in LCD may not be selected. Press **Fn-F3** once or twice.
	Screen brightness needs adjustment. Adjust the control (**Fn-F8** and **Fn-F9**).

Problem	What To Do
	The system entered Suspend mode due to low battery power. Plug in the AC adapter before resuming operation.
Battery power does not last long.	Use power-saving modes.
	Fully charge and fully discharge the battery several times to recondition it. You may need to use Battery Refresh function under Setup menu.)
	Replace the battery.
Information on the LCD screen is difficult to see.	Adjust the brightness and contrast using the brightness and contrast controls.
The Suspend/Resume function does not work.	If the system does not Suspend a disk drive might be busy. Wait until the disk drive stops and try again.
	If system does not resume, it may have auto suspended on a low battery. Attach the AC adapter and try again.
	If the system still does not Suspend, check that Auto Play is disabled for the CD-ROM drive.
An optional component does not work.	Make sure the component is securely installed or connected. Verify that the system parameter for the I/O port configuration is set correctly in Setup.

Start-up Problems

The system displays an invalid configuration error message at power on when there are the following conditions:

■ the current configuration information doesn't match configuration information stored in Setup, such as when an internal option is added.

■ the system loses configuration information.

If either condition is true, the system displays an invalid configuration information message.

To continue start-up procedures, press **F2** and run the Setup utility to set current system parameters.

If an error message appears before the operating system starts, look up the error message in the following table. Follow the instructions. If you see other error messages, the hardware might need repair.

If the system frequently loses the setup configuration data, the internal CMOS battery may need to be replaced at an authorized NEC repair center.

POST Error Messages

The NEC Versa Note has a built-in checking program that automatically tests its components when you turn the system power on. This diagnostic test is called the Power-On Self-Test (POST). If the system finds a problem during POST, the system displays an error message. If this happens, follow the instructions in the POST error message table.

Post Error Messages

Error Message	Explanation
Diskette drive A error	Drive A: is present but fails the BIOS POST diskette tests. Check to see that the drive is defined with the proper diskette type in Setup and that the diskette drive is attached correctly.
Extended RAM Failed at offset: *nnnn*	Extended memory not working or not configured properly at offset *nnnn*.
Failing Bits: *nnnn*	The hex number *nnnn* is a map of the bits at the RAM address (in System, Extended, or Shadow memory) which failed the memory test. Each 1 (one) in the map indicates a failed bit.
Fixed Disk 0/1/Disk Controller Failure	Fixed disk is not working or not configured properly. Check to see if fixed disk is attached properly. Run Setup to make sure the fixed-disk type is correctly identified.
Incorrect Drive A type – run SETUP	Type of floppy drive A: not correctly identified in Setup.

Post Error Messages

Error Message	Explanation
Keyboard Controller error	The keyboard controller failed test. You may have to replace keyboard or controller.
Keyboard Error Keyboard not working	Keyboard error *nn* BIOS discovered a stuck key and displays the scan code *nn* for the stuck key.
Operating system not found	Operating system cannot be located on either drive A: or drive C:. Enter Setup and see if fixed disk and drive A: are properly identified.
Parity Check 1 Parity error found in the system bus	BIOS attempts to locate the address and display it on the screen. If it cannot locate the address, it displays ????.
Parity Check 2 Parity error found in the I/O bus	BIOS attempts to locate the address and display it on the screen. If it cannot locate the address, it displays ????.
Previous POST did not complete successfully.	POST loads default values and offers to run Setup. If the failure was caused by incorrect values and they are not corrected, the next boot will likely fail. On systems with wait states, improper Setup settings can also terminate POST and cause this error on the next boot. Run Setup and verify that the wait-state configuration is correct. This error is cleared the next time the system is booted.
Real time clock error	Real-time clock fails BIOS test. It may require board repair.
Resource allocation conflict on motherboard	Run Configuration Utility and/or ISA or EISA Configuration Utility to resolve resource conflict.
Shadow Ram Failed at offset: *nnnn*	Shadow RAM failed at offset *nnnn* of the 64k block at which the error was detected.
System battery is dead - Replace and run SETUP	The CMOS clock battery indicator shows the battery is dead. Replace the battery and run Setup to reconfigure the system.
System cache error - Cache disabled	RAM cache failed the BIOS test. BIOS disabled the cache.

Post Error Messages

Error Message	Explanation
System CMOS checksum bad - run SETUP System	CMOS has been corrupted or modified incorrectly, perhaps by an application program that changes data stored in CMOS. Run Setup and reconfigure the system either using the Default Values and/or making your own selections.
System RAM Failed at offset: *nnnn*	System RAM failed at offset *nnnn* of the 64k block at which the error was detected.
System timer error	The timer test failed. Requires repair of system board.

If You Need Assistance

If you have a problem with your computer, first review the checklist and troubleshooting table in the previous section.

If you still have a problem, see Appendix C, "Getting Services and Support," for details about contacting NEC CSD.

📰 **Note:** If you purchased your computer outside of the U.S. or Canada, please contact the local NEC CSD office or their dealers for the support and service available in your country.

Product Recovery CD

If you determine that you need to restore your system to its initial installation state follow the instructions given here.

> **Note:** Make sure the Fixed Disk Boot Sector is not write protected in BIOS Setup.

In the Windows NT environment you can use the repair/emergency disk to restore your system to its current state of operation without reverting to its initial installation state. For details about creating the repair/emergency disk, refer to the Windows NT documentation.

> **Note:** Only use the Recovery CD as a last resort. Check the problem checklist at the beginning of this chapter for information about solving problems before using the CD. The recovery CD provides a variety of options that either remove or replace existing files. This may result in data loss.

The Product Recovery CD gives you the following choices.

■ Full — Completely rebuilds your hard disk drive, destroying all existing data in the process. Once you choose this option, you are prompted to confirm your choice. When your choice is confirmed, the recovery proceeds without requiring any intervention or responses on your part. Simply walk away and return in about half an hour.

> **Note:** Use full restore if your hard disk consists of one partition (drive).

■ Partition — Lets you preserve your existing hard disk drive partition structure and format only the primary partition without affecting the extended partition(s).

Partition restore formats drive C (of a multiple partitioned drive) and restores drive C to its initial installation state. Additional partitions, e.g., drives D, E, etc., remain intact.

> *Note:* Use partition restore if your hard disk is partitioned into two or more partitions (drives).

- Express — A full restore option that completely rebuilds your hard disk drive, destroying all existing data in the process. Once you choose this option, the recovery proceeds without requiring any intervention or responses on your part. Simply walk away and return in about half an hour.

> *Note:* Use express restore if your hard disk consists of one partition (drive).

- Exit — Exits the restore program.

Full/Express Restore

If your preinstalled software becomes unusable and you cannot boot from the hard disk, use the Recovery CD to restore your system to its initial shipping configuration.

Full/Express Restore *erases* the hard disk *completely* before reinstalling the files.

⚠ **CAUTION**

A Full/Express restore deletes *all* files on the hard drive and replaces them with the original factory installed files.

Only use a Full/Express Restore if the preinstalled software is unusable.

Use the Recovery CD to perform a full/express restore as follows:

1. Check the Recovery CD title and make sure that it is the correct CD for your NEC Versa Note computer and operating system.

2. Put the CD into the CD-ROM reader tray, close the reader door, and reboot your computer.

3. Read the License Agreement screen that appears. Use the cursor keys or VersaGlide touchpad to position the cursor on the Accept button. Left click to accept the agreement.

    You have the option of accepting or declining the agreement. If you decline the agreement, the recovery program exits.

4. In the Restore Choices screen, use the cursor arrows or VersaGlide touchpad to select the type of restore procedure to use.

> ⚠ **CAUTION**
>
> Choose your restore option carefully to prevent losing data and applications installed on your system.

5. Choose Full or Express to restore your hard disk drive to its original factory installed state.

    ■ If you choose Full, the Confirm Your Choice screen appears. Proceed to step 6.

    ■ If you choose Express, the recovery process begins immediately. A screen with progress bars displays and lets you know the progress of the recovery.

    Proceed to step 8.

> ⚠ **CAUTION**
>
> Do not turn off or disturb the system during the recovery process.

6. If you chose Full, read the Confirm Your Choice screen.

A warning display indicates that your hard disk is about to be erased.

7. Select Continue to proceed to perform a Full restore.

If you select Go Back, the restore program returns to the prior screen that has an exit option.

If you select Continue, a screen with progress bars displays and lets you know the progress of the recovery.

⚠ **CAUTION**

Do not turn off or disturb the system during the recovery process.

---

8. When the recovery process is complete, you are prompted to remove the CD from the CD-ROM reader and reboot your system.

9. Press **Enter**, click Reboot, or press **Alt-R** to reboot your system.

A series of hardware detection screens display, the system reboots and the Windows Setup screen appears. Follow the on-screen instructions to set up Windows.

You are required to reenter your Microsoft license number.

## Partition Restore

If your preinstalled software on drive C: of your multiple partitioned drive becomes unusable and you cannot boot from the hard disk, use the Recovery CD to restore your primary partition to its initial shipping configuration.

⚠ **CAUTION**

Use Partition Restore only if your hard disk drive
consists of multiple partitions *and* if drive C: contains
the operating system and related drivers. Move all
other data and applications to other partitions
(drives) or the Partition Restore process will erase
them completely.

A Partition restore deletes *all* files on drive C and
replaces them with the original factory installed files.

Only use a Partition Restore if the preinstalled
software on drive C: is unusable.

Use the Recovery CD to perform a partition restore as follows:

1. Check the Recovery CD title and make sure that it is the correct CD
   for your NEC Versa Note computer and operating system.

2. Put the CD into the CD-ROM reader tray, close the reader door, and
   reboot your computer.

3. Read the License Agreement screen that appears. Use the cursor keys
   or VersaGlide touchpad to position the cursor on the Accept button.
   Left click to accept the agreement.

   You have the option of accepting or declining the agreement. If you
   decline the agreement, the recovery program exits.

4. In the Restore Choices screen, use the cursor arrows or VersaGlide
   touchpad to select the type of restore procedure to use.

⚠ **CAUTION**

Choose your restore option carefully to prevent
losing data and applications installed on your
system.

If the hard disk was configured with multiply or
extended partitions you may have to reinstall some
software because configuration settings and shared
files may be lost.

5. Choose Partition if you wish to restore drive C: of a multiple partitioned drive to its original factory installed state.

6. Read the Confirm Your Choice screen.

A warning display indicates that drive C: (the primary drive/partition) is about to be erased and formatted. It may be necessary to reinstall software to the other drives (partitions) to reestablish Start Menu links and other configuration requirements stored on drive C:.

7. Select Continue to proceed, if you wish to perform a Partition Restore.

If you select Exit, the restore program exits.

If you select Continue, a screen with progress bars displays and lets you know the progress of the recovery.

⚠ CAUTION

Do not turn off or disturb the system during the recovery process.

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8. When the recovery process is complete, you are prompted to remove the CD from the CD-ROM reader and reboot your system.

9. Press **Enter**, click Reboot, or press **Alt-R** to reboot your system.

A series of hardware detection screens display, the system reboots, and the Windows Setup screen appears. Follow the on-screen instructions to set up Windows.

You are required to reenter your Microsoft license number.

If You Need Assistance

If you have a problem with your computer, first review the checklist and troubleshooting table in the previous section.

If you still have a problem, see Appendix C, "Getting Services and Support," for details about contacting NEC CSD.

> ✍ **Note:** If you purchased and are using this product outside the U.S. or Canada, please contact the local NEC CSD office or their dealers for the support and service available in your country.
>
> Reference the booklet, "Getting Service and Support in Asia, Australia, and Europe" to find out how to contact the local office in your country.

A
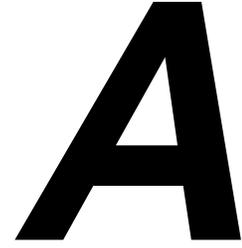
Setting Up a Healthy Work Environment

- Making Your Computer Work for You
- Arrange Your Equipment
- Adjust Your Input Devices
- Adjust Your Screen or Monitor
- Vary Your Workday
- Pre-existing Conditions and Psychosocial Factors

`

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.

> **Note:** 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.

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.

> **Note:** 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.

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.

> 📰 **Note:** To increase your comfort and safety when using your notebook computer as your primary computer system at your home or office, note the following recommendations:
>
> Use a separate, external keyboard attached to your notebook computer.
>
> Use a separate, external monitor attached to your notebook computer.

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. Position your notebook computer directly in front of you for increased safety and comfort.

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

Note the following points when positioning your notebook computer or any external input devices.

- 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 the 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 Screen or Monitor

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

- Adjust the height of your screen or external monitor 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 or external monitor.

- Position your screen or external 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 screen or external 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 or external monitor.

- If reflected light makes it hard for you to see your screen or external monitor, use an anti-glare filter.

- Clean your screen or external 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 screen or external monitor's brightness and contrast controls to enhance readability.

- Use a document holder placed close to the screen or external monitor.

- 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.

> ▤ **Note:** 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.

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.

B

Specifications

- System Components
- Interrupt Controllers
- DMA Settings

System Components

The following specifications are standard except where noted.

System Processor

Depending on the model:

- Intel Pentium 233 MMX MHz or 266 MMX MHz

- Intel Pentium II 233 MHz or 266 MHz

Random Access Memory (RAM)

- Standard Main Memory — 32 MB or 64 MB high-speed interleaved access (depending on the model)

- Optional Expansion — 1 SO-DIMM slot

  — Expandable in 32-MB or 64-MB increments

  — Maximum 128 MB total

- Video RAM — 2.0 MB

- Cache RAM — 512 KB L2 cache

Read-Only Memory (ROM)

256 KB flash ROM with boot block

Calendar Clock

Year/month/day/hour/minute/second maintained by internal back-up battery

Input/Output (I/O) Facilities

Integrated industry-standard interfaces

- Modem Port — 1 port, RJ-11 Jack or LAN Port on some models

- DC In — 1 port for AC adapter cable

- PS/2 Port — 1 port, PS/2, 6-pin MiniDin

- Parallel — 1 port, 25-pin D-sub (supports both ECP and EPP modes)

- USB Port — 1 port, 4-pin

- Expansion — 1 port, 80-pin for optional PortBar

- Serial — 1 port, 9-pin D-sub

- VGA — 1 port, 15-pin high-density D-sub

- Microphone — 1 port, 3-pin, Mini-Pin Jack

- Stereo Line-In — 1 port, 3-pin, Mini-Pin Jack

- Stereo Headphones – 1 port, 3-pin, Mini-Pin Jack

- Infrared — 1 port, IrDA-1 compatible

Main Battery

- Types:

  — Nickel-Metal-Hydride, (NiMH), eight cell

    – Output Voltage – 9.6v

    – Capacity – 3,800 mAh

  — Lithium-Ion (Li-Ion), eight cell

    – Output Voltage – 14.4v

    – Capacity – 2,800 mAh

- Battery Life — Up to 2.5 hours depending on model and power management features enabled.

- Recharging Time

  — Nickel-Metal-Hydride, (NiMH):

    Approximately 3 hours when system is not in use; approximately 3.5 hours when system is in use.

  — Lithium-Ion (Li-Ion):

    Approximately 3.5 hours when system is not in use; approximately 4 hours when system is in use.

Card Slots

Two 32-bit card slots for two Type II or one Type III PC card, 5 V or 3.3 V interface

LCD Display

- Panel (depending on the model):

  — 12.1/13.3-inch Thin Film Transistor (TFT) cold-cathode fluorescent tube (CCFT) Extended Graphics Array (XGA 13.3") or backlit Super VGA (SVGA 12.1") color

  — 12.1-inch Dualscan Super-Twisted Nematic (DSTN), cold-cathode fluorescent tube (CCFT) backlit Super VGA (SVGA) color

- Resolution

  — 1024 x 768 pixels for XGA

  — 800 x 600 pixels for SVGA

Keyboard

Membrane-type, with standard QWERTY-key layout (International keyboards are country specific)

- Function keys — 12 keys

- Cursor Control keys — 8 keys; arrow keys arranged in inverted T layout

- Numeric keypad — embedded

- Special Windows 95 keyset

- Fn key — function key for ROM-based key functions

Diskette Drive

Standard 1.44 MB

- Size — 3.5 inch

- Capacity — 1.44 MB (formatted), 2 MB (unformatted)

Hard Disk Drives

- Internal, 2.5 inch, IDE

- Capacity (depending on the model) 2.1, or 3.2 GB, or larger hard disk drive

CD-ROM Reader

- Thin-type CD-ROM Pack

- Access Time — 20X or 24X

- Interface — IDE (ATAPI)

- Photo CD Compatibility — Multisession Photo CD, Single Session Photo CD, Video CD, CS-I, CD-I Ready, CD-G and CD-Plus

56K Internal Modem

- Field-upgradeable firmware

- K56 Flex compatible

- V.34 protocol

- V.90 compliant

- Class 1 and 2 Fax protocols

- Full Duplex speakerphone

AC Adapter

- Input Voltage — 100 to 240 volts (V) AC, 50 watt (max.)

- Output Voltage — 19 volts DC, 2.6A

Dimensions

System

- Width — 11.8 in. (299 mm)

- Depth — 9.7 in. (247 mm)

- Height — 1.5 in. (39 mm)

Weight

- 6.1 lbs. (2.77 kg) 13.3-inch LCD with Li-Ion
  6.8 lbs. (3.08 kg) with AC adapter

- 6.3 lbs. (2.86 kg) 12.1-inch LCD with NiMH
  6.9 lbs. (3.13 kg) with AC adapter

Recommended Environment

Operation

- Temperature — 41ºF to 95ºF (5ºC to 35ºC)
- Relative Humidity — 20% to 80% (Noncondensing)

Storage

- Temperature — –4ºF to 104ºF (–20ºC to 40ºC)
- Relative Humidity — 20% to 80% (Noncondensing)

Interrupt Controllers

The following table shows default interrupt level assignments 0 through 15.

> ⬛ **Note:** These resources may change after this user's guide goes to print. Please refer the *NEC Versa Note Important Information* sheet that came with your NEC Versa Note.

Interrupts

IRQ#	Device
IRQ00	System Timer
IRQ01	Keyboard
IRQ02	Cascade
IRQ03	Available (If IR disabled) IR (If IR enabled)
IRQ04	Serial Port
IRQ05	Sound
IRQ06	Diskette Drive
IRQ07	Parallel Port
IRQ08	RTC Alarm
IRQ09	ACPI
IRQ10	Modem/LAN/CardBus Controller
IRQ11	Available
IRQ12	PS/2 Mouse
IRQ13	FPU
IRQ14	Hard Disk Drive
IRQ15	CD-ROM

DMA Settings

The following table shows default DMA settings for channel assignments 01 through 07.

DMA Settings

DMA Channel	Device
DMA00	FIR
DMA01	ECP
DMA02	Floppy Diskette
DMA03	Audio
DMA04	Cascade
DMA05	Unused
DMA06	Unused
DMA07	Unused

C
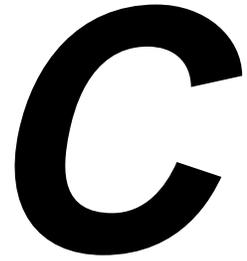
Getting Services and Support

- Quick Reference Chart
- NEC NOW
- NEC CSD Web Site
- NEC CSD FTP Site
- NEC CSD FaxFlash Service
- Email/Fax to Support Services
- NEC CSD Bulletin Board
- NEC CSD Support Services
- NEC CSD Customer Assistance Center
- Versa Laptop Fulfillment Hotline

Quick Reference Chart

NEC CSD Services

Service	Contact Information
NEC NOW	888-8NEC-NOW (888-863-2669) or 888-306-4636
	Web address: www.nec-now.com
NEC CSD Web and FTP Sites	Web address: www.nec-computers.com
	FTP site: ftp.neccsdeast.com
NEC CSD FaxFlash^{SM} Service	U.S. and Canada: 888-329-0088 International: 916-379-4780
Email to NEC CSD Support Services through a commercial online service or the Internet.	Internet email address: tech-support@neccsd.com
NEC CSD Bulletin Board System	916-379-4499
NEC CSD Support Services (U.S. and Canada customers only).	800-632-4525
NEC CSD Customer Assistance Center	888-632-9128
Versa Laptop Fulfillment Hotline	800-842-6446

 Note: If you purchased your computer outside of the U.S. or Canada, please contact the local NEC office or their dealers for support and service.

See the booklet, "Getting Service and Support in Asia, Australia, and Europe" to find out how to contact the local office in your country.

If you have access to a telephone, modem, and/or fax machine, you can use these services to obtain information about your system at any time, day or night, seven days a week.

Not only do these services provide information about your NEC 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 NOW

If you are interested in purchasing another system, or upgrades and options for your existing system, contact NEC NOW. NEC NOW offers standard configuration components, customized, "build-to-order" systems, or the name of the NEC reseller nearest you.

Whether you purchase through the Online Store or by calling an NEC NOW System Consultant, NEC NOW makes your computer shopping easy.

To access the NEC NOW web site and purchase through the Online Store, enter the following Internet Uniform Resource Locator (URL) in your browser:

http://www.nec-now.com/

To contact a System Consultant (8:00 a.m. to 8:00 p.m. EST) to obtain additional information about your purchase simply dial:

1-888-8NECNOW (1-888-863-2669) or
1-888-306-4636

NEC CSD Web Site

If you have a modem or a network board, you can access the NEC CSD Web site. You can do this through a commercial online service or through your Internet account. The NEC CSD web site contains general information about NEC CSD and its products, an online store, press releases, reviews, and service and support information.

Look in the Service and Support area for the following:

■ technical documentation, including Frequently Asked Questions, reference manuals, and warranty information

■ BIOS updates, drivers, and Setup Disk files to download

■ contact information, including telephone numbers for Technical Support and FaxFlash, and links to vendor web sites

■ Click, the NEC CSD Customer Service newsletter

■ an automated email form for your technical support questions

■ a Reseller's area (password accessible).

To access NEC CSD's Home Page, enter the following Internet Uniform Resource Locator (URL) in your browser:

http://www.nec-computers.com/

NEC CSD FTP Site

You can use the Internet to access the NEC CSD FTP (file transfer protocol) site to download various files (video drivers, printer drivers, BIOS updates, and Setup Disk files). The files are essentially the same files as on the NEC CSD web site and the NEC CSD Bulletin Board System.

To access the NEC CSD FTP site, enter the following Internet ftp address through your service:

ftp.neccsdeast.com/

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

NEC CSD FaxFlash Service

The NEC CSD FaxFlash 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 FaxFlash 24 hours a day, 7 days a week. Simply call the FaxFlash number on your touch-tone telephone and order the information you want by following the voice prompts. FaxFlash automatically faxes the information to you.

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

■ Catalog 1, NEC CSD Telephone Directory and Online Service Information

■ Catalog 3, NEC CSD Computer Product Specifications, Warranty Policy, UltraCare Guidelines, and Sales Information

■ Catalog 5, NEC ProServa™ and Express Serva Product Information

■ Catalog 6, NEC Ready Consumer Desktop Systems

■ Catalog 7, NEC PowerMate Commercial Desktop Systems

■ Catalog 8, NEC Portable Systems (including Versa® Notebook and MobilePro™ Handheld computers).

Catalogs 5, 6, 7, and 8 contain technical support information, including Technical Information Bulletins, Illustrated Parts lists, Frequently Asked Questions (FAQs) lists, and other product support documents.

Order information from FaxFlash as follows.

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 888-329-0088 (U.S. and Canada only) or 916-379-4780 (international).

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

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

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

6. 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 request 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 FaxFlash attempts to send the second order before the first order is completed, the order may be canceled. After three tries, FaxFlash assumes that your line is busy and terminates any further processing of the order.

Email/Fax to Support Services

The NEC CSD Support Services offers technical support by email over the Internet network if you have a modem. The Internet address is:

tech-support@neccsd.com

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

801-578-5101

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

■ Desktop

■ 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.

NEC CSD Bulletin Board

If you have access to a modem, you can use the NEC CSD Bulletin
Board System (BBS) to get the latest information on hardware and
software. The BBS allows you to download files (video drivers, printer
drivers, BIOS updates, etc.) to a diskette for system enhancements and
upgrades.

⚠ CAUTION

NEC CSD recommends that you download files from
a Bulletin Board System to a diskette and not to your
hard disk drive.

Log onto the BBS as follows.

1. From the Windows desktop, click the Start button.

2. Point to Programs. Point to Accessories and then click
   HyperTerminal.

3. Double click the Hypertrm.exe icon. The HyperTerminal program
   appears.

4. Follow the instructions on the screen to set up your modem. Click
   the HyperTerminal help button for information about dialing the
   phone number.

   If you need to check communications settings, check that the settings
   match the following BBS parameters.

   ■ Baud rate: select any baud rate that matches your modem

   ■ Parity: none

   ■ Data bits: 8

   ■ Stop bits: 1

   ■ Flow control: Xon/Xoff (select Hardware if using 14.4 bps or
     higher).

5. Following the HyperTerminal instructions, enter the BBS phone number (916-379-4499). Your business phone system and/or location might require a **9 1** or **1** prefix.

> 📝 **Note:** The first time that you use the BBS, you are requested to provide information for a new user questionnaire.

6. Press **Enter** twice.

7. Enter your first name, last name, and password. Press **Enter** after each.

8. Follow the screen prompts until the Main menu appears.

9. At the Main menu, select **J** to join a conference. Select **Conference 2** for the laptop and portable PC conference.

10. From the Main menu, press **F** and **Enter** for the File menu.

11. 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**.

NEC CSD Support Services

NEC CSD also offers direct technical support through Support Services. (NEC CSD Support Services is for U.S. and Canadian customers only; international customers should contact the local NEC office or dealer for the support and service available in your country.)

Direct assistance is available 24 hours a day, 7 days a week. Call the NEC CSD Support Services, toll free, at **1-800-632-4525** (U.S. and Canada only) for the following support.

■ System hardware — toll-free phone support is limited to the length of the standard warranty.

■ For hardware support after the standard warranty, get system hardware support for a fee.

■ Preinstalled software — toll-free phone support for 90 days from the time of your first call to the NEC CSD Support Services.

　After the initial 90 days, get preinstalled software for a fee.

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

For outside the U.S. or Canada, please contact your local NEC office or dealer for the support and service available in your country.

NEC CSD Customer Assistance Center

NEC CSD offers Customer Service for extended warranty and contract information, spare parts ordering, warranty claims, repair services, and service authorizations.

Direct assistance is available Monday through Friday from 8:30a.m. to 8:00p.m. EST. Call the NEC CSD Customer Assistance Center, toll free, at **1-888-632-9128** (U.S. and Canada only).

Versa Laptop Fulfillment Hotline

(800) 842-6446

NEC CSD provides driver files and BIOS updates free of charge through our Bulletin Board System (BBS). Also, diskettes containing these updates can be mailed at a rate of $15/per disk for duplication, shipping and handling. Call the fulfillment center from 8:30 a.m. to 6:00 p.m. (EST), Monday through Friday.

Glossary

A

applications programs
Software designed to perform specific functions, like solving business or mathematical problems.

AC Adapter
A device that connects an NEC Versa portable computer and an AC wall outlet to provide AC power for running the system or recharging the battery.

B

base RAM
Area of system memory between 0 and 640 kilobytes available to the user for operating system and application programs.

BIOS
Basic Input Output System. A collection of primitive computer routines, usually burnt into ROM, that controls the real-time clock, keyboard, disk drives, video display, and other peripheral devices.

bit
Binary digit. The smallest unit of computer data.

bits per second
(bps) A unit of transmission. Also called baud rate.

board
Printed circuit board. Board onto which computer components are soldered and thin wires are printed to connect the components.

boot

To start up a computer. See cold boot and warm boot.

bus

An electronic circuit within a computer used for transmitting data or electrical power from one device to another.

byte

Group of eight contiguous bits.

C

clock

Electronic timer used to synchronize computer operations.

CMOS

Complementary Metal Oxide Semiconductor. A chip that contains nonvolatile memory in the Versa. CMOS is backed up by an internal lithium battery that preserves clock/calendar data and system configuration parameters stored in CMOS.

cold boot

Process of starting up the computer by turning on the power. If power is already on, the process means to turn off the computer and turn it on again. A cold boot reinitializes all devices.

crt

Cathode-Ray Tube. A type of display screen used in desktop monitors. It forms the screen image using tiny dots called pixels. See also LCD.

cursor

A movable image on the display screen that indicates where the next entered data appears.

D

diskette

A thin flexible platter coated with a magnetic material for storing information.

diskette drive

A magnetic drive that writes on and retrieves data from a diskette.

DSTN

Double-Scan Super-Twisted Nematic. A type of technology used in some Versa LCD screen displays.

E

enhanced VGA

A video interface that offers more colors or higher resolution than VGA.

extended RAM

The area of RAM above the first megabyte of memory in the system available for enhancing system performance.

F

function key

The set of keys on the keyboard (usually F1 through F12) that let you get help and error message information or quickly select frequently used commands.

H

hard disk

A rigid magnetic storage device that provides fast access to stored data.

hardware

The electrical and mechanical parts from which a computer is made.

hertz

(Hz) A unit of frequency equal to one cycle per second.

hot key

Combination of two or three keys (such as **Ctrl-Alt-D**) that you press simultaneously for a particular function.

I

input/output

(I/O) The process of transferring data between the computer and external devices.

IDE

Intelligent Drive Electronics. A hard disk drive type that has controller electronics built into the drive and delivers high throughput.

interface

A connection that enables two devices to communicate.

interrupt

A special control signal from an I/O device that diverts the attention of the microprocessor from the program to a special address.

K

kilobyte

(KB) 1024 bytes.

L

LAN

Local Area Network.

LCD

Liquid Crystal Display. An LCD consists of a thin sandwich of two glass plates with sealed edges, containing nematic liquid-crystal material that forms the screen image. NECVersa displays are LCD type.

load

To copy a program into the computer's memory from a storage device.

M

megabyte

(MB) 1,048,576 bytes.

memory

Electronic storage area in a computer that retains information and programs. A computer has two types of memory — read-only memory (ROM) and random access memory (RAM).

menu

A video display of programs or options.

microprocessor

A semiconductor central processing unit that is the principal component of a microcomputer. Usually contained on a single chip that includes an arithmetic logic unit, control logic, and control-memory unit.

mode

A method of operation; for example, the NEC Versa operates in either normal or power-saving modes.

modem

MOdulator-DEModulator. A device that links computers over a telephone line.

N

nonvolatile memory

Storage media that retains its data when system power is turned off. Nonvolatile memory in the NEC Versa is a complementary metal oxide semiconductor (CMOS) chip which is backed up by an internal battery. The backup battery preserves the clock/calendar data and system configuration parameters stored in CMOS. See volatile memory.

O

operating system

Set of programs that manage the overall operation of the computer.

overwrite

Storing information at a location where information is already stored, thus destroying the original information.

P

page

A type of message transmission in which a message is sent or received via modem to a paging device from a computer (with paging communications software) or telephone.

parallel interface

Interface that communicates eight bits at a time.

parallel printer

A printer with a parallel interface.

parameter

A characteristic of a device or system.

password

A string of characters that the user must enter before the system allows access or system privileges.

PC card

Also called PCMCIA. A credit card sized peripheral interface standard for portable devices. Types of PCMCIA cards currently offered by major vendors include fax/modems, LAN, storage cards, and wireless communications devices.

peripheral

Input or output device not under direct computer control. A printer is a peripheral device.

pixels

Picture elements. Tiny dots that make up a screen image.

port

Provides the means for an interface between the microprocessor and external devices. A cable connector is usually plugged into the port to attach the device to the computer.

processor

In a computer, a functional unit that interprets and executes instructions.

prompt

A special symbol indicating the beginning of an input line. Also a message that appears on the screen indicating that the user must take a certain action.

R

RAM

Random Access Memory. A storage device into which data is entered and from which data is retrieved in a nonsequential manner.

read

To extract data from a storage device such as a diskette.

ROM

Read-Only Memory. Memory in which stored data cannot be modified by the user except under special conditions.

reset

The process of returning a device to zero or to an initial or arbitrarily selected condition.

resolution

The degree of screen image clarity. Video display resolution is determined by the number of pixels on the screen. Resolution is usually specified in pixels by scan lines, for example, 640 by 480. See pixels.

RS-232C

Standard interface for serial devices.

S

scanner

An optical device that reads printed material and converts it to a computer screen image.

serial interface

An interface that communicates information one bit at a time.

serial printer

A printer with a serial interface.

software

Programs that run on a computer, such as operating systems, word processors, and spreadsheets.

super video graphics array (SVGA)

A color bit-mapped graphics display standard, that provides a resolution of 1024x 768 with up to 256 colors displayed simultaneously.

system board

The main printed circuit board inside the system unit into which other boards and major chip components, such as the system microprocessor, are connected.

T

TFT

Thin Film Transistor. A type of NEC Versa LCD color screen that supports 256 colors and provides exceptional screen display.

V

VGA
Video Graphics Array. Graphics technology that supports up to 256 K colors and a graphics resolution of 640 by 480 pixels.

volatile memory
Storage media that loses its data when system power is turned off. Standard memory and memory that you add to the Versa are volatile memory. See nonvolatile memory.

W

warm boot
Process of resetting the computer without turning off the power through keyboard input (pressing **Ctrl**, **Alt**, and **Del** keys simultaneously) or the reset button. The system returns to an initial or arbitrarily selected condition.

write
To record or store information to a storage device.

Index

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 CSD recommends that you replace the battery. For battery replacement information, call your NEC CSD dealer or the NEC CSD Customer Assistance Center.

⚠ 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.

⚠ AVERTISSEMENT

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

Battery Disposal

The main battery is made of Lithium-Ion (Li-Ion) or nickel-metal hydride (NiMH).

Contact your local waste management officials for other information regarding the environmentally sound collection, recycling, and disposal of the batteries. For additional information on the proper collection or disposal of rechargeable batteries, please call 1-800-8-BATTERY.

NEC Computer Systems Division,
A Division of Packard Bell NEC, Inc.

DECLARATION OF CONFORMITY

<u>We, the Responsible Party</u>

NEC Computer Systems Division
Packard Bell NEC, Inc.
1 Packard Bell Way
Sacramento, California 95828-0903
1-916-388-0101

<u>*declare that the product*</u>

EUNC2

is in conformity with part 15 of the FCC Rules. Operation of this product is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.