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You can read the recommendations in the user guide, the technical guide or the installation guide for NEC VERSA 4000. You'll find the answers to all your questions on the NEC VERSA 4000 in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

User manual NEC VERSA 4000
User guide NEC VERSA 4000
Operating instructions NEC VERSA 4000
Instructions for use NEC VERSA 4000
Instruction manual NEC VERSA 4000

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Manual abstract:

To allow for design and specification improvements, the information in this document is subject to change at any time, without notice. Reproduction of this document or portions thereof without prior written approval of NEC is prohibited. NEC Versa is a trademark of NEC Corporation. All other product, brand, or trade names used in this publication are trademarks or registered trademarks of their respective trademark owners. First Printing -- July 1995 Copyright 1995 NEC Technologies, Inc. @@@@ This appendix also instructs you on how to set up and use your computer to reduce your risk of developing nerve, muscle, or tendon disorders. s Appendix B provides system specifications and environmental requirements. TEXT SETUP To make this guide as easy to use as possible, text is set up in the following ways. s 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.

Notes give particularly important information about whatever is being described. NOTE viii Using this Guide s Names of keys are printed as they appear on the key-board, for example, Ctrl, Alt, or Enter. s 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 In addition to this guide, other documents ship with your Versa system, including the following: s The NEC Versa 4000 Series Quick Setup shows how to set up and start your system after you unpack it.

s The NEC Versa 4000 Quick Reference Card contains brief descriptions of function keys, LCDs, NEC help telephone numbers and troubleshooting tips. Tuck this card inside the notebook when you take it with you. The card is designed as a quick, portable reference to frequently used functions. Using this Guide ix Contents Using this Guide Text Setup ..

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These ports are Serial-Infrared (S-IR), IrDA compatible. A second infrared port is located on the back of your notebook system. When your NEC Versa ships, the back port is enabled and the front port is disabled. When you dock your system, the back IR port is automatically disabled and the front IR port is enabled.

NEC VersaGlide The NEC VersaGlide touchpad gives you control of the pointer on the screen and replaces the mouse usually used with computers.

The VersaGlide touchpad is described in detail in Chapter 2, Learning to Use the Hardware. Diskette Drive and the NEC VersaBay II A 1.44-MB diskette drive comes installed in the NEC VersaBay IIures 1-12 Getting to Know Your NEC Versa 4000 s Hard Disk Drive Bay -- The hard disk drive bay contains the removable hard disk drive. Depending on your NEC Versa's configuration, it contains a 540-MB or 810-MB hard disk drive. You can exchange hard disks in the NEC Versa 4000. When you turn the system upside down with the front towards you, the hard disk drive is located on the left front of the system. s Memory Expansion Slot -- Located just under the hard disk drive, this slot lets you add an optional memory card to expand system memory. s Battery Bay -- Contains a Lithium Ion (Li-Ion) battery that lets you run your system on DC power. The battery bay is located on the right front of the system when the system is upside down with the front towards you. s NEC VersaBay II Release Latches -- These latches let you remove the option currently installed in the bay. s Adjustable Feet -- Adjustable feet let you change the angle and level of the NEC Versa 4000. SYSTEM CARE The NEC Versa 4000 is a durable, dependable system built for extensive use and travel. Follow these guidelines to maintain the condition and performance of your computer. Precautions Follow these precautions when using your NEC Versa 4000, AC adapter, and VersaBay II. s Avoid dropping or bumping the computer or the AC adapter. s Do not stack heavy objects on the computer. Getting to Know Your NEC Versa 4000 1-13 s Avoid moving the NEC Versa 4000 during system operation, especially while the hard disk or diskette drive is being accessed. s 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 foreign countries.) s Turn computer power off before attaching or removing non-plug and play devices. s Avoid using the computer or AC adapter for extended periods in direct sunlight. s Do not use the system in humid or dusty environments. s Turn computer power off before cleaning it. s Avoid exposing the NEC Versa 4000 or AC adapter to extreme changes in temperature or humidity. If it is unavoidable, allow your NEC Versa to adjust to room temperature before using. s When cleaning the system, use a soft, clean, dry cloth. Avoid wiping the display surface with abrasive material, including rough fabric. s If the AC adapter becomes extremely hot, unplug the adapter and let it cool. s Do not direct an IR port towards the LCD panel.

s Keep the AC adapter away from the IR ports. Storage Requirements Store the computer and AC adapter in an environment that meets the following conditions: s Maintain storage temperatures between 4°F and 104°F (20°C and 40°C). 1-14 Getting to Know Your NEC Versa 4000 s Keep the storage area free from vibration and magnetic fields. s Keep the system and its components away from organic solvents or corrosive gases. s Avoid leaving the system and its components in direct sunlight or near heat sources. ! CAUTION If the temperature of the NEC Versa 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. 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 4000.

These cleaners are usually high in alkalinity which is measured in pH. Using these cleaners can cause the plastic surface to crack or discolor. Getting to Know Your NEC Versa 4000 1-15 s 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. s System case -- NEC recommends that you carefully wipe the case with a slightly damp, almost dry cloth.

1-16 Getting to Know Your NEC Versa 4000 2 Using the Hardware Like any computer, the NEC Versa 4000 is made up of hardware (the physical unit and its components) and software (the programs that run on the computer). This chapter discusses the hardware. s Powering on the system s Keyboard features s NEC VersaGlide s Options and PC card expansion Powering Your NEC Versa The NEC Versa 4000 can be powered from a variety of different sources, making it a truly portable system. Operate your NEC Versa 4000 just about anywhere using one of the following power sources: s the AC adapter connected to an electrical wall outlet (using AC power) s the battery pack or an optional second battery pack s the optional DC adapter connected to a car cigarette lighter. AC Adapter Use the AC adapter that came with your NEC Versa 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. Using the Hardware 2-1 Keep the adapter connected whenever possible. The AC adapter charges the battery whether or not you are using the NEC Versa. Check that the AC outlet voltage falls in the range of 100-240 Volts AC. Verify that the cord and plug are appropriate for your AC source. NOTE Connect the AC adapter as follows: 1. Connect the AC adapter cable to the power port on the back of the NEC Versa 4000. 2. Plug one end of the AC power cable into the AC adapter and the other end into a properly grounded 120- or 240-volt wall outlet. Power Port AC Adapter Connecting the AC adapter 2-2 Using the Hardware Bridge Battery Your notebook computer comes with an internal bridge battery.

The bridge battery saves your system status in Suspend mode for up to five minutes. This gives you time to install a fully charged battery or plug in AC power when your battery charge becomes low. Only an authorized NEC dealer can change a bridge battery. Battery Pack The NEC Versa 4000 comes with a rechargeable Lithium Ion (Li-Ion) battery pack. With it, you can run your system on battery power for up to five hours with Power Management or 2.



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5 hours without Power Management. It's easy to install and remove. You can keep track of the battery's status through the status LCDs on the front of the system or the battery gauge in the power panel. Both let you know how much battery power remains. When installing a new battery, the first and third bars on the battery gauge may flash.

This indicates an unknown battery status. To correct the reading, recharge your battery for 8 hours. If the battery still shows an unknown status, contact dealer from whom you purchased the battery for a replacement. NOTE When battery power is very low, the battery outline on the battery status LCD blinks. If the system speaker is enabled, 3 low battery warning beeps are emitted.

Using the Hardware 2-3 When battery power gets low, do either of the following: s Put your system in Suspend mode, remove the battery pack, and replace it with a fully charged Li-Ion battery. s Leave the battery pack in the system and connect your NEC Versa to the AC adapter and a wall outlet. If you connect the system to AC power and continue to use it, the battery recharges in 2.5 to 7 hours. If you connect the system to AC power and do not use it, the battery recharges in about 2.

5 hours. You can also buy an optional battery charger to quickly charge your battery. See the online Options Catalog. ! WARNING To prevent accidental battery ignition or explosion, adhere to the following: s s Keep the battery away from extreme heat. Keep metal objects away from the battery terminals to prevent causing a short circuit. Make sure the battery is properly installed in the battery bay. Read the precautions printed on the battery and in the online Basics. s s Replacing the Battery Pack Replace the battery pack installed in your NEC Versa system as follows. 1. Turn the NEC Versa over so that it is upside down with the front of the system facing you.

2-4 Using the Hardware 2. Remove the battery cover as follows: s Locate the battery cover latch and slide it towards the front of the system. s Slide the cover about half an inch away from the system to align the cover tabs and notches. s Lift the cover up and away from the system. Battery Cover Latch Removing the cover 3. Locate the notch on the battery. Placing your fingers in the notch, lift the battery out of the system. ! CAUTION Always lift the battery out of the system by the notched end. Failure to do so can damage the battery terminals. Using the Hardware 2-5 Lift Here Notched Corner Removing the battery 4. Insert the new battery as follows: s Align the battery terminals with the terminals in the system. s Lower the terminal end of the battery pack into the bay. s Next, lower the notched end into the bay. ! CAUTION When installing a battery pack, be careful not to twist the terminals. 2-6 Using the Hardware Terminals Notched End Inserting the battery pack 5.

Replace the battery bay cover as follows: s Align the tabs on the battery cover with the notches in the system. s Lower the cover onto the system. s Slide the cover towards the middle of the unit. Tuck the tabs on the back of the cover under the chassis. Tabs (not shown) Notch Tab Notch Replacing the cover Using the Hardware 2-7 DC Car Adapter The NEC Versa 4000 can run on car battery power using the optional DC car adapter from NEC.

1. Disconnect the AC adapter from the system if connected. 2. Plug the appropriate end of the car DC adapter into the power port on the system. 3. Connect the plug of the DC car adapter to a car cigarette lighter. Cigarette Lighter DC Cable Connecting the car DC adapter Keyboard The NEC Versa 4000 keyboard is equipped with many features. They include the following: s Function keys s Cursor control keys s Typewriter keys s Numeric keypad s Control keys. 2-8 Using the Hardware Feature keys are located as shown in the following figure. Key operations are described after the figure.

Function Keys Numeric Keypad Control Keys Cursor Control Keys Keyboard s Function keys -- Twelve function keys, F1 through F12, are available on the NEC Versa 4000 keyboard. These keys work together with the Fn key to activate special functions. Six keys are preprogrammed with dual functions, which are printed in blue on the key. s 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 or block, depending on the application. The cursor indicates where the next text typed is inserted. s Typewriter keys -- The typewriter keys (also called alphanumeric keys) are used to enter text and characters. Those keys that have blue printing on them behave differently when combined with control keys or the Fn key. Using the Hardware 2-9 s Numeric Keypad -- Pressing Num Lock on the key-board activates the numeric keypad numbers and functions printed in blue on the keys. Num Lock works only when no external keyboard or scanner is connected.

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. s 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. How the key combination works depends on the applications you are running. The NEC VersaGlide Touchpad The NEC VersaGlide touchpad is an easy way to control the screen pointer (cursor) with your finger. Lightly glide your finger across the NEC VersaGlide touchpad and the cursor follows. You can select items in one of two ways: s Double tap your finger on the VersaGlide touchpad.

A gentle tap is all that is required. s Double click the left button (this is the primary button). 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. 2-10 Using the Hardware Touchpad Adjustments The NEC VersaGlide offers a number of options that let you customize how the cursor and touchpad function. To access these options, locate the Control Panel and double click on the VersaGlide icon. (In Windows 3.11, look in the Main program group; in Windows 95, look in the Settings group.) The options let you control the size and color of the cursor, the cursor speed, the accepted double-click speed, and selection button orientation. You can also disable the touchpad tap and drag feature.

The NEC VersaGlide also offers an autocentering feature that makes finding the cursor on your screen quick and easy. If you are away from your system and then return, the cursor is always located where you specified on the screen.



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Use the NEC VersaGlide online help button for details about configuring your VersaGlide. Ergonomics Follow these basic ergonomic tips while working: s Use a light touch on the VersaGlide surface. s Set up the NEC Versa with your keyboard and VersaGlide at a comfortable height. Keep your forearms parallel to the floor. Your wrists should be relaxed and straight. s While using the keyboard and VersaGlide, keep your shoulders and arms as relaxed as possible. s 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. Using the Hardware 2-11 OPTIONS AND PC CARD EXPANSION You can add a number of options and connect a number of external devices and PC cards to your NEC Versa 4000. For details on how to obtain these options, see the online Options Catalog. Hard Disk You can increase the system's storage capacity by replacing the standard hard disk or adding a second disk in the VersaBay II. (Adding a second hard disk is described in the section "VersaBay II.

") Replace the hard disk drive as follows. 1. Check that the NEC Versa power is off. 2. Turn the NEC Versa 4000 upside down with the front of the unit facing you.

3. Remove the drive cover as follows: s Locate the drive cover latch and slide it toward the front of the unit. s Slide the cover about a quarter of an inch away from the system. s Lift the cover up and off of the system. 2-12 Using the Hardware Release Latch Removing the drive bay cover 4. Remove the drive as follows: s Using your fingers, press down on the hard disk drive at the end closest to the connector. s While maintaining pressure, slide the drive towards the front of the system. ! CAUTION Do not lift the drive out of the system before releasing it from the system connector. Doing so can damage the connectors. s Once the drive is disconnected, lift the drive up and out of the system.

Using the Hardware 2-13 Press Here Removing the hard disk drive 5. Lower the new drive into the drive bay and align its connector with the hard disk drive connector in the system. Inserting the drive 6. Slide the drive back and push firmly to secure the connection. 2-14 Using the Hardware 7. Replace the cover as follows: s Align the tabs on the drive cover with the notches on the system chassis. s Lower the cover onto the chassis. s Slide the cover towards the center of the unit, making sure the second set of tabs at the back of the cover slide under the frame. s Gently push the cover until it snaps into place. Tabs (not shown) Tab Notch Notch Replacing the drive bay cover 8.

Turn the system over, power on, and run Setup to check the new configuration. Memory Expansion Your NEC Versa 4000 comes standard with 8 megabytes (MB) of random access memory (RAM). You can increase system memory to a maximum of 40 MB by installing one of the following memory modules in the system. s s 4-MB memory card 8-MB memory card Using the Hardware 2-15 s 16-MB memory card s 32-MB memory card Use the following steps to install a memory card. 1.

Follow steps 1 through 4 in the preceding section, "Hard Disks," to remove the hard disk drive. 2. Locate the memory connector in the drive bay. Memory Module Connector Locating the connector 3. Lower the module into the drive bay and align the module and system connectors. 4. Slide the module towards the front of the system to install it. 5. Press the card gently to make sure it is securely seated. Check that the edge of the card opposite the connector is aligned with the alignment arrow. 2-16 Using the Hardware Alignment Arrow Inserting a memory card 6. Lower the hard disk drive back into the drive bay and align its connector with the connector in the system. 7. Slide the drive back and push firmly to secure the connection. Replacing the drive Using the Hardware 2-17 8.

Replace the cover as follows: s Align the tabs on the drive cover with the slots on the system chassis. s Lower the cover onto the chassis. s Slide the cover to the right, making sure the second set of tabs at the back of the cover slide under the chassis frame. s Push the cover until it snaps into place. Tabs (not shown) Tab Notch Notch Replacing the drive bay cover 9. Turn the system over and power on. The system automatically configures the new memory. The Setup summary screen will display the new amount. 2-18 Using the Hardware VersaBay II The VersaBay II lets you remove your diskette drive and add another hard disk drive, CD-ROM reader, or a second battery pack. Optional CD-ROM readers installed in the VersaBay II must be specified as slave devices in the Setup utility.

They must also be set as slave devices via the hardware switch on the back of the CD-ROM reader. If you install a second hard disk drive in the VersaBay II, it can be set to either master or slave. However, if you use a hard disk drive from a previous Versa model, the drive is set to master. (The Master drive is the drive from which the system boots.) Setting the drive to master lets you access both the optional drive and internal drive.

NOTE Remove the diskette drive from the VersaBay II as follows: 1. Make sure the NEC Versa 4000 is powered off and all options are disconnected. 2. Turn the system upside down with the front facing away from you. 3.

Locate the VersaBay II release latches on the bottom of the unit. Using the Hardware 2-19 Front of the Unit VersaBay II release latches 4. Slide the front latch to the right. 5. Push the middle latch forward until the drive pops part way out of the unit. (You may need to use some force when pushing the middle latch.) ! CAUTION Do not use a metal object to push the release latch. @@ Pull the drive the rest of the way out of the system. 7. @@@@ Turn the system over and power on.

@@ 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. @@@ Open the port cover on the back of the system. 3. @@@@ Follow any setup instructions in the monitor manual. 6. Turn on power to the monitor. 7. Press the Suspend button to resume Active mode or power on the NEC Versa 4000. 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 most parallel printers, a Centronics®-compatible 36-pin connector. When you connect a printer, be sure to install the appropriate printer driver through the Windows Control Panel.



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NOTE Connect a parallel device to your NEC Versa 4000 as follows. 1. Secure the cable with the screws provided. 4.

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

- Secure the connection with the screws provided. 4. See the online Options Catalog. Press the Suspend button on the NEC Versa. (Only the numeric keypad on the external keyboard works in this case.) For instructions on connecting an external keyboard to a docking station, see the user's guide that came with your docking station. NOTE Mouse You can add an external mouse to your NEC Versa 4000 to use in place of the NEC VersaGlide for moving the pointer. Use the following procedure to connect a PS/2-style mouse to the system. The Plug and Play feature allows you to do this with the system in Suspend mode.*

Connecting an external mouse disables the NEC VersaGlide. NOTE 1. Check that the NEC Versa is in Suspend mode or powered off. ! CAUTION Make sure the NEC Versa is in Suspend mode (look for the moon icon on the Status Bar) or powered off whenever you add or remove a mouse. Connecting an external mouse while in Operating mode can damage the system. 2-28 Using the Hardware 2. Connect the mouse cable connector to the keyboard/mouse port on the system. Keyboard/Mouse Port Connecting an external mouse 3. Press the Suspend button again to resume Active mode on the NEC Versa. For instructions on connecting an external mouse to a docking station, see the user's guide that came with your docking station.

NOTE External Bar Code Scanner You can use an external bar code scanner with a PS/2-style connector with your NEC Versa 4000 using the Plug and Play feature. You can still use the system keyboard while a scanner is connected. To connect a bar code scanner, follow the instructions under "External Keyboard." Using the Hardware 2-29 External Audio Options The NEC Versa 4000 comes equipped with built-in audio ports that let you record and play sound. Connect audio jacks, like a microphone or headphones, to the audio ports as follows.

- Locate the audio port that you want to use. 2. Plug the jack into the port on the side of the NEC Versa. Headphones Microphone Line In Line Out Audio ports If you are using external speakers or an external microphone 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. NOTE 2-30 Using the Hardware PC Cards You can easily install and change peripheral devices, such as modems, LAN cards, and storage cards in your NEC Versa 4000. The NEC Versa 4000 series notebook computers have software that automatically allocates system resources when you install or remove a PC card using PCMCIA technology. To insert a PC card, open the slot cover and follow these steps. 1. Align the card so that the 68-pin connector points towards the slot. 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 through Setup or the PowerPanel, no sound is emitted.

) Other two-tone sequences such as high, then low tones indicate that the card is inserted, but the card type is unknown. Inserting a card Using the Hardware 2-31 3. If Windows for Workgroups is your operating system, check the CardWizard™ icon in the Program Manager. It shows which slot contains a PC card and which is empty. To remove the card, press the button on the side of the slot. A high tone followed by a low tone sounds. Docking the NEC Versa 4000 You can further enhance your NEC Versa 4000's capabilities by connecting the notebook computer to an optional docking station. NOTE If you have a CD-ROM reader installed in your NEC Versa 4000 and another CD-ROM reader installed in the docking station, you must select the audio source you want to use.

Check for the CD-ROM reader icon in the PowerPanel toolbar. Click to specify the CD-ROM reader to use.

NEC Versa PortBar 4000 The NEC Versa PortBar™ 4000 duplicates the ports found on the back of your NEC Versa 4000 system.

Each operating system offers its own look and means of operation. DOS uses commands that every personal computer user needs to know at least a little about. The Windows environment makes it possible for you to manage your system and application programs without knowing DOS commands, but as you become more comfortable with computers you may want to begin learning DOS. For detailed instructions on how to use MS-DOS, refer to the online book MS-DOS 6.

22 QuickStart in the NEC Information program group. Understanding the Software 3-3 GUIDE TO ONLINE HELP The NEC Versa has plenty of information for you online. The NEC Information group contains information about your NEC Versa 4000, warranty coverage, and customer services. NEC Versa 4000 InfoCenter The NEC Versa 4000 InfoCenter contains several specific areas of information to help you. s System Tour The NEC Versa System Tour gives you a complete tour of the system, pointing out components, switches, software, and utilities.

Take the tour to become comfortable with your new NEC Versa 4000. s Basics Basics describes the NEC Versa 4000 main features, how to travel with the system, use power management, and care for the system. Basics also includes a glossary. s Advanced Topics Advanced Topics covers specific areas such as adding options, changing setup settings, solving problems. Advanced Topics also includes a glossary. s Questions and Answers Questions and Answers provides frequently asked questions and their answers about portable computers to help you solve common problems yourself. s Options Catalog The Options Catalog lists options such as memory cards, hard drives, carrying cases, and PC cards that you can purchase for the NEC Versa 4000. 3-4 Understanding the Software Additional Topics s Customer Service Guide The NEC Customer Service Guide discusses the various levels of support NEC offers you, our customer. We provide lots of information to help you become self-sufficient with your NEC Versa, but if you need help, we're there for you. s UltraCare Guide The NEC UltraCare Guide describes NEC's three-year warranty program to help you protect your investment in an NEC Versa Series computer.

s The Windows QuickStart 3.11 Guide This online "book" provides lessons on using Microsoft Windows, which runs on the NEC Versa 4000. (This file is available only when Windows for Workgroups 3.11 is the operating system loaded.) s The MS-DOS 6.2.2 QuickStart Guide An online "book" that offers lessons on using MS-DOS, which also runs on the NEC Versa 4000. s Using Windows 95 This online help file lets you explore Windows 95 and learn about navigating through the new interface.



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(This file is available only when Windows 95 is the operating system loaded.) *GUIDE TO NEC UTILITIES* NEC provides several programs and routines designed to make your NEC Versa 4000 run more efficiently.

These programs are known as utilities. You can access most of these utilities from the Windows Program Manager. *Understanding the Software 3-5 Distribution Diskette Creator* This utility lets you create diskette copies of the system software that comes loaded on your NEC Versa 4000. Store the diskettes in a safe place in case you ever need to reload the system. *Setup Utility* The Setup utility automatically configures your NEC Versa each time you start it up. This utility that is not accessible from Windows. To change start-up settings, you can access the utility when the screen displays the following prompt at boot-up: Press <F2> to enter SETUP See *Advanced Topics* for details about the Setup utility. Also look at the next section "Using Setup." *Using Setup* The Setup utility automatically configures your NEC Versa each time you start it up. This utility also lets you change your system start-up settings.

Use the Setup utility as follows: 1. Reboot your system. When the screen displays the following prompt at boot-up, press F2. Press <F2> to enter SETUP 2. When the setup utility is displayed, use the left and right cursor arrows to move between the setup categories in the menu bar. For example, press the right arrow to move from Main to Peripherals to Security. Press the left arrow to move from Security back to Peripherals. 3-6 *Understanding the Software 3. Use the up and down arrows to move between selections displayed on the screen. As you move through the listed selections, the Item Specific Help column briefly describes the highlighted option.*

4. Follow the instructions at the bottom of the screen to access Help, make selections, and change values. If you set a boot password, the status LCDs blink for approximately 30 seconds. If you fail to enter the password within the 30 seconds and try to access the system, the LCDs begin to blink again to remind you to enter your password. If you specified a password for Resume, the blinking LCDs are your only indication that a password is required. The system does not issue a prompt. *NOTE* See *Advanced Topics* for details about the Setup utility. *OTHER SOFTWARE* Your NEC Versa 4000 comes with other software to make using your system more efficient. These programs include *s The Phoenix PowerPanel s TranXit s CardWizard s TaxiTM and Official Airline Guide (OAG). s ESS Audio.*

Understanding the Software 3-7 The PowerPanel The PowerPanel lets you control system settings with just the press of a button. Fn-Key changes do not affect the settings shown on the PowerPanel toolbar. Fn-keys change the settings for the session you are currently using. The toolbar shows the settings that you specify to go into effect whenever you invoke PowerPanel or reboot your system. Once you restart PowerPanel, your settings return to the default profile.

NOTE Some of the features that PowerPanel controls include the following: *s Power Management Profiles* let you turn power saving options off or choose from settings that provide the longest battery life, highest system performance, or customized settings. *s PowerPanel command buttons* let you control IR port assignments, speaker sound levels, video modes, and the backlight intensity. Command buttons also let you check the status of your battery charge, go into Suspend mode, turn off the LCD panel or save your current system state to file and shut down system power. *TranXit* TranXit software lets you use the IR ports to transfer files between your system and other systems or peripherals that are similarly equipped. TranXit also supports serial and parallel file transfers with a cable for devices not equipped with IR ports.

3-8 *Understanding the Software TranXit* provides a comprehensive online help file that answers any questions you may have about TranXit operation and use. Plus, a readme file containing important TranXit information can be found under the TranXit subdirectory "Ri." You can either print the file or view it online.

CardWizard CardWizard lets you manage your PC Cards and slots. Through CardWizard you can *s view card slot activity and availability s be alerted to missing or improperly installed card drivers s receive help to address resource conflicts and memory window allocation problems. Once CardWizard identifies and resolves configuration issues, it automatically configures PC cards each time they are installed. (CardWizard is only available with Windows for Workgroups.) Taxi and OAG* These two programs are included to demonstrate the convenience of "information on the go." You can purchase the full package or subscribe to future releases through the software publishers. The software publisher also provides technical support for these programs.

ESS Audio The ESS audio system that comes on your NEC Versa 4000 provides exceptional sound capabilities. Control the ESS audio system through the Windows Audio applications program group. *Understanding the Software 3-9 4 Traveling with Your NEC Versa 4000* The NEC Versa 4000 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 on the road. *s Carry an extra charged battery pack (and its VersaBay II adapter) for additional battery power. s 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 at the end of this chapter.) s If you run your system with battery power, maximize battery life by using power-saving features whenever possible.*

s Take the AC adapter in case you have an electrical outlet handy. This saves battery power for when you really need it. s 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 4000 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 4000 adapts to voltages ranging from 100 to 240 volts. *Traveling with Your NEC Versa 4000 4-1* 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. To use your system overseas, you need an adapter plug and transformer.

There are five different plugs available worldwide. You can buy these at an electronics supply store. *CHECKLISTS* The following checklists can help you prepare for your trip with your NEC Versa 4000. Look them over and use what fits your situation.



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What to Take The following are what you should take with you when you travel with your NEC Versa. s Extra fully charged batteries (and a VersaBay II battery adapter) s Single-outlet surge protector s Appropriate AC plug adapter s Copy of proof of purchase for computer and other equipment for customs check s Customer support phone numbers for your software s NEC Versa 4000 Series Quick Reference s AC extension cord. When using a modem outside the U.S. and Canada, you might need an international telephone adapter. You can buy this at an electronics supply store.

NOTE 4-2 Traveling with Your NEC Versa 4000 Things to Do Speed the trip through airport security by carrying a 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. *NOTE* Here is what you should do before you leave home: s Back up your NEC Versa's hard disk. s Put your system into Suspend or Standby mode so you can quickly boot up at the airport security check. s Fully charge all your batteries. Tape your business card to your NEC Versa, AC adapter, and batteries.

Traveling with Your NEC Versa 4000 4-3 5 Solving Problems Once in a while you may encounter a problem with your NEC Versa 4000. The Online Information program group has Questions and Answers that might be helpful to you. 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.

s Power is on to the computer. s The electrical outlet to which your AC adapter is connected is working. Test the outlet by plugging in a lamp or other electrical device. s All cables are tightly connected. s The display setting is configured correctly.

s The display's brightness control is adjusted properly. s If using battery power, check that the battery pack is properly inserted and fully charged. *Solving Problems 5-1 Troubleshooting PROBLEM* The system does not power on **WHAT TO DO** 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. Press a keyboard key, Fn F5, or the Suspend button. The built-in LCD may not be selected. Press Fn F3 once or twice. Brightness control needs adjustment.

Adjust the control. Power-saving mode has shut off the backlight. Press a keyboard key, Fn F5, or the Suspend button. The system entered Suspend mode due to low battery power. (Check the Status bar for a halfmoon icon.) Plug in the AC adapter or replace the battery pack, then press the suspend button to resume operation. Battery power does not last long Information on the LCD screen is difficult to see An optional component does not work The Suspend/Resume button does not work Use power-saving modes. Adjust the brightness control. 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.

A disk drive might be busy. Wait until the disk drive stops and try again. The NEC Versa may be connected to a docking station. Some power management functions do not work when the NEC Versa is docked. *5-2 Solving Problems START-UP PROBLEMS* The system displays an invalid configuration error message at power on when there are the following conditions: s the current configuration information doesn't match configuration information stored in Auto Setup, such as when an internal option is added.

s 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. When the NEC Versa detects an error related to display devices, it cannot display on either the LCD or a CRT. The system warns you by beeping. *NOTE POST Error Messages* The NEC Versa 4000 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 the POST, the system displays an error message. If this happens, follow the instructions in the POST error message table. *Solving Problems 5-3 POST Error Messages MESSAGE* Diskette drive A or B failure or No Floppy Drive **WHAT TO DO** Drive A does not work or is not properly connected. Drive A is the diskette drive. Check that drive A is securely connected and power is on.

Press F2 to start Setup to check the diskette drive parameters. If there's still a problem, the drive might need repair. *General Failure Reading Drive A or Diskette Read Failure* press F2 to run Setup. Press any other key to retry boot Non-system disk or disk error; Replace and press any key when ready Remove the diskette from drive A and press F2 to start the system from the hard disk. Or, insert a bootable disk in drive A and press F2. Remove the diskette from drive A and press any key to start the system from the hard disk. Or, insert a bootable disk in drive A and press any key. Press F2 to start Setup. Change the hard disk type to the correct setting. Exit and save Setup changes.

Operating System Not Found or Fixed Disk Failure 0 Invalid configuration information run Setup program Real time clock failure Time-of-day not set run Setup One or more system configuration parameters are not properly set. Start Setup, set them correctly, and exit and save to update the parameters. Set time and date using Setup. Exit and save to update the parameters. Set the time and date using Setup.

Exit and save Setup changes to update the parameters. *5-4 Solving Problems POST Error Messages MESSAGE System CMOS Checksum Bad* run Setup or Press (F1) to resume, (F2) to setup. Fixed disk configuration error **WHAT TO DO** Press F2 to enter Setup. Under Exit, set the default values. Under Main, set the date and time.

Save your changes and exit. Start Setup. Exit and save to update the parameters. Check to see if the hard disk connector is seated properly. If there is still a problem, the hard disk might need repair. Press F2 to start Setup. Exit and save to update the parameters.



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Check to see if the hard disk connector is seated properly. If there is still a problem, the hard disk might need repair. Fixed disk failure Fixed disk controller failure Press F2 to start Setup.

Exit and save to update the parameters. Check to see if the hard disk connector is seated properly. The hard disk controller does not work and might need repair. Keyboard clock line failure Keyboard data line failure Keyboard controller failure Unplug external keyboard if attached. Have the keyboard repaired. Unplug external keyboard if attached. Have the keyboard repaired. Unplug external keyboard if attached and reboot the system. If it still fails, have the keyboard repaired. NOTE Repeated keystrokes during boot may produce an error message.

Solving Problems 5-5 POST Error Messages MESSAGE xx Key Stuck Keyboard Error WHAT TO DO A key is jammed. Remove any obstruction you find. You may have repeatedly pressed the F2 key when trying to enter Setup. If the error message remains, the keyboard may need repair. 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, call the NEC Technical Support Center (TSC), toll free, at 1-800-632-4525. Direct technical assistance is available 24 hours a day, seven days a week. If you have an optional modem, a TSC technician may be able to diagnose the system remotely. Direct Technical Support When TSC receives a call from you, a technician attempts to diagnose your problem over the telephone. The technician determines if your problem requires troubleshooting your system remotely with the Remote Support Session software that comes on your bootable NEC diskette.

5-6 Solving Problems Remote Technical Support With Remote Support Session, the technician can diagnose your system from a TSC computer. To use this utility, you must connect a modem to a telephone line. (See the user's guide that came with your modem for connection details.) If the Remote Support Session software is required, the technician asks you for your phone number and helps you to prepare your system for remote support. Follow these steps to prepare your system for remote support. You must have the modem connected to a telephone line. 1. With the system power off, insert the bootable diskette (labelled "Co-Session Host") that came with your NEC Vesa into the diskette drive. 2. Turn on the system power.

A menu appears. 3. Type 2 to select "Remote Support Session." Your screen displays "Wait Dial-In Set" and a message indicating that the system is waiting for the remote dial-in. Do not touch your keyboard while waiting for the remote dial-in. You may interfere with the remote connection. NOTE To cancel the remote dial-in, remove the diskette and simultaneously press Ctrl-Alt-Del. Solving Problems 5-7 Features Remote Support Session has the following features: s The remote screen (technician's screen) looks like your computer's screen. s The technician can access data, run and control applications on your system, and print reports using the remote keyboard and mouse. Or the technician can simply observe your computer's operations.

s You can simultaneously view what the technician sees on the remote screen. s The technician can view your keystrokes and whatever appears on your screen. 5-8 Solving Problems 6 Getting Help NEC is ready and willing to help you with our products. Here's how to reach us. NEC Vesa Diskette Fulfillment Center (800) 842-6446 To purchase backup diskettes and manuals.

NEC Customer Service and Support (800) 632-4525 Fax (508) 635-4666 Spare parts ordering, warranty claims, repair services, technical support, and service authorizations. NEC FastFacts (800) 366-0476 (U.S and Canada) (708) 860-9500 x2621 (International) Automated fax service that offers product brochures, installation procedures, quick reference guides, promotional forms, troubleshooting information, and more. NEC Electronic Bulletin Board (508) 635-4706 Remote database system containing files that are dedicated to enhancing the functions of NEC products, It also gives general public access to drivers for NEC products to be used with various software applications. CompuServe Password: "GO NECTECH" Internet Address: tech-support@NECTECH.

com America On-Line: nectech Getting Help 6-1 Worldwide Web Address www.nec.com NEC is a member of TSANet (Technical Support Alliance Network).

6-2 Getting Help A Setting Up a Healthy Work Environment ! WARNING Prolonged or improper use of a computer workstation may pose a risk of serious injury. To reduce your risk of injury, set up and use your computer in the manner described in this appendix. Contact a doctor if you experience pain, tenderness, swelling, burning, cramping, stiffness, throbbing, weakness, soreness, tingling and/or numbness in the hands, wrists, arms, shoulders, neck, back, and/or legs. MAKING YOUR COMPUTER WORK FOR YOU Computers are everywhere. More and more people sit at computers for longer periods of time.

This appendix explains how to set up your computer to fit your physical needs. This information is based on ergonomics -- the science of making the workplace fit the needs of the worker.

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

Work Environment A-1 Although some studies have shown an association between increasing hours of keyboard use and the development of some musculoskeletal disorders, it is still unclear whether working at a computer causes such disorders. Some doctors believe that using the keyboard and mouse may aggravate existing musculoskeletal disorders. Some people are more susceptible to developing these disorders due to pre-existing conditions or psychosocial factors (see "Pre-existing Conditions and Psychosocial Factors" later in the appendix). To reduce your risk of developing these disorders, follow the instructions in this appendix. If you experience discomfort while working at your computer or afterwards, even at night, contact a doctor as soon as possible. Signs of discomfort might include pain, tenderness, swelling, burning, cramping, stiffness, throbbing, weakness, soreness, tingling and/or numbness in the hands, wrists, arms, shoulders, neck, back, and/or legs. 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: s NOTE use a separate, external keyboard attached to your notebook computer use a separate, external monitor attached to your notebook computer.



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s A-2 Setting Up a Healthy Work Environment **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: s Keep your body in a relaxed yet upright position. The backrest of your chair should support the inward curve of your back. s Use the entire seat and backrest to support your body. Tilt the backrest slightly (90° to 105°). The angle formed by your thighs and back should be 90° or more.

s 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. s Extend your lower legs slightly so that the angle between your thighs and lower legs is 90° or more. s 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. s Be sure that you have adequate clearance between the top of your thighs and the underside of your workstation. Setting Up a Healthy Work Environment A-3 s 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.

s Position your keyboard directly in front of you. Avoid reaching when using your keyboard or mouse. s 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. s 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. s Adjust the keyboard slope so that your wrists are straight while you are typing. s Type with your hands and wrists floating above the keyboard.

Use a wrist pad only to rest your wrists between typing. @@@@ Check the following when you position the screen or external monitor. s 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. s 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. s Rest your eyes periodically by focusing on an object at least 20 feet away. Blink often. s Position the screen or external monitor at a 90° angle to windows and other light sources to minimize glare and reflections. @@@@ Relax muscles and joints that were active.

s Use a timer or reminder software to remind you to take breaks. s To enhance blood circulation, alter your sitting posture periodically and keep your hands and wrists warm. For more information on workstation setup, see the American National Standard for Human Factors Engineering of Visual Display Terminal Workstations. ANSI/HFS Standard No. 100-1988. The Human Factors Society, Inc., P.O. Box 1369, Santa Monica, California 90406 **NOTE A-6 Setting Up a Healthy Work Environment 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. Setting Up a Healthy Work Environment A-7 **B Specifications and Environment** The following specifications are standard except where noted. System Processor s NEC Versa 4000 DSTN, TFT, and High Resolution models -- Intel Pentium-75 Mhz s NEC Versa 4050 TFT and High Resolution models -- Intel Pentium-90 Mhz Random Access Memory (RAM) Standard Main Memory -- 8-MB high-speed interleaved access Optional Expansion 1 slot.

Expandable in 4-MB, 8-MB, 16-MB or 32-MB increments. Maximum 40 MB total. Video RAM 1 MB Cache RAM L1: 8 KB for code, 8 KB for data; L2: 256 KB Read-Only Memory (ROM) 256 KB x 8 bit, Flash ROM Calendar Clock Year/month/day/hour/minute/second maintained by internal back-up battery Specifications and Environment B-1 Input/Output (I/O) Facilities Integrated industry-standard interfaces s Parallel -- 1 port, 25-pin D-sub s Serial -- 1 port, 9-pin D-sub s Infrared -- 2 ports, 1 on front of system; 1 on back, IrDA-1 compatible s VGA -- 1 port, 15-pin high-density D-sub s External Keyboard/External Mouse 1 port, PS/2, 6-pin MiniDin; exclusionary use or both supported with optional Y-adapter s Expansion 1 port, VGA CRT signal, external keyboard signal, PS/2 mouse signal, ISA bus signals s Speakers -- 2 built-in, .15 watts (W) each with a maximum .3-W output s Mono MIC IN -- 1 port, 3-pin, Mini Pin Jack s Stereo Headphones -- 1 port, 3-pin, Mini Pin Jack, .

5 watts per channel s Stereo Line In -- 1 port, 3-pin, Mini Pin Jack s Stereo Line Out -- 1 port, 3-pin, Mini Pin Jack Card Slots Two slots for two Type I/Type II PCMCIA cards or one Type III PCMCIA card, 5 V or 3.3 V interface LCD Display s Dual-Scan STN (DSTN) CCFT Backlit color; 10.



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