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OmniBook 800 Corporate Evaluator's Guide

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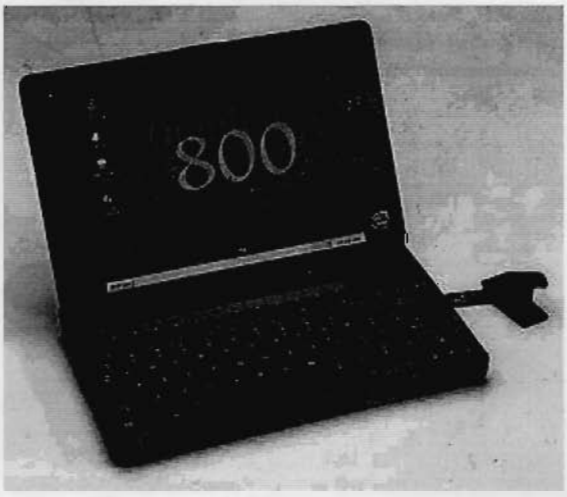

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Dear OmniBook 800 Evaluator:

The Mobile Computing Division of Hewlett-Packard Company thanks you for the opportunity to have the HP OmniBook 800 evaluated by your company. The HP OmniBook 800 is truly a remarkable notebook PC. It is the lightest, full function notebook PC on the market today at 3.75 pounds (1.70 kg) and is designed for the rugged use of mobile professionals. The size and weight of the HP OmniBook 800 provides the ultimate computing convenience. It offers your users a full-size keyboard, 810MB or 1.44GB hard drives, large active matrix and dual scan SVGA displays and performance that is second to none. The HP OmniBook 800 comes with the Intel Pentium 100 or 133 MHz processor, PCI BUS architecture, 128-bit high speed graphics, 256-Kbyte Pipeline Burst Synchronous L2 cache, and up to 48 Mbytes of Extended Data Output (EDO) DRAM. The combination of these performance features offers no compromise power that will rival advanced-performance desktop computers and full-sized notebooks.

Hewlett-Packard designed the HP OmniBook 800 to comply with industry standards to ensure compatibility and connectivity. However, you may need technical information and instructions to help your evaluation of the HP OmniBook 800 go quickly and smoothly in your specific environment. To provide you easy access to this information, the Mobile Computing Division developed this OmniBook 800 Corporate Evaluator's Guide. In this guide you will find the following information to assist you in the evaluation process:

- OmniBook 800 system resources including memory maps, interrupt settings, I/O addresses
- Instructions for using the recovery CD ROM to rebuild the OmniBook 800, retrieve key operating system drivers, and accessing the electronic manuals
- Troubleshooting information
- Where to go to access data from electronic bulletin boards and the WWW
- Detailed specifications

In addition there is data on installing the major operating systems: Windows 3.1, Windows for Workgroups, Windows 95, Windows NT, and OS/2 Warp. This information focuses on the process to rebuild the HP OmniBook 800 if the drive is first formatted and then loaded with a specific image for your company. This information includes instructions by operating system on how to reinstall the HP OmniBook 800 unique features including PCMCIA, video and sound support. Also included are specific operating tips for each operating system for your reference. The information provided is subject to change.

I encourage you to review the table of contents for the technical information that will assist you in your HP OmniBook 800 evaluation. Once again, the Mobile Computing Division of Hewlett-Packard sincerely appreciates this opportunity and it is our hope that this guide will be of value to you.

Sincerely,

Rob Emmons
Corporate Evaluation Team Manager

Technical Overview

This chapter details the technical information about the HP OmniBook 800 that is not directly related to an operating system. For more information about an operating system refer to the appropriate chapter.

OmniBook Documentation

This Corporate Evaluator's Guide provides technical information to assist in setting up the OmniBook 800 in a network environment. For more general OmniBook 800 information refer to the following OmniBook documentation.

- The Getting Started Manual. This manual is located in your OmniBook 800 Box.
- The OmniBook User's Guide located online on your OmniBook in C:\OMNILIB\HPBOOK.EXE. The OmniBook User's Guide is also located on the OmniBook 800 Recovery CD in the D:\OMNIBOOK\MANUALS\WIN95 and ..\WFW subdirectories. These manuals can be copied to any PC or run directly from the Recovery CD.
- The OmniBook Docking Station User's Guide located in the Docking Station box. Please refer to this for installing a PCI or ISA card in the Docking Station.
- OmniBook Support. This document details OmniBook Electronic and Telephone support.
  - If you chose Windows for Workgroups during the load process the OmniBook Support file is C:\OMNIBOOK\SUPPORT.WRI
  - If you chose Windows 95 during the load process the OmniBook Support file is C:\OMNIBOOK\SUPPORT.TXT
- OmniBook Notes. This document details the latest information which Hewlett-Packard was not able to include in the OmniBook User's Guide.
  - If you chose Windows for Workgroups during the load process the OmniBook Notes file is C:\OMNIBOOK\OMNIBOOK.WRI
  - If you chose Windows 95 during the load process the OmniBook Notes file is C:\OMNIBOOK\OMNIBOOK.DOC
- About Power Management. This document details the Advanced Power Management on the OmniBook 800. The file is C:\OMNIBOOK\READ-APM.WRI.
- Applications Notes. Application Notes contain information on the supported and tested ISA, PCMCIA and PCI cards in each operating system. Each card has a Application Note that describes how to configure it in the OmniBook 800 or OmniBook Docking Station. These application notes can be obtained from HP Electronic Support Services. Refer to the OmniBook Support chapter for more information.

OmniBook 800 Operating System Support

The OmniBook 800 comes preloaded with Windows 95 and Windows for Workgroups. When you first turn on the OmniBook the Windows 95 setup program starts. To install Windows for Workgroups do the following:

1. Click Next to start the Install
2. Click Next
3. Click Yes to Accept the License agreement and click Next.
4. Enter the License number on the Windows 95 CD-ROM included with the OmniBook documentation.
5. Click Change
6. Click **No, I want to install MS-DOS 6.22 and Microsoft Windows for Workgroups 3.1**.
7. Once you have made this decision the other operating system is deleted from the Hard Drive.

OmniBook 800 Recovery CD

If you make a mistake and choose the wrong operating system or if your hard drive gets corrupted for any reason, you can reinstall the OmniBook preloaded software from the OmniBook Recovery CD. This will reformat the hard drive and install the OmniBook 800 Windows 95 install process. If you are using Windows for Workgroups you must install DOS and Windows from Diskette. You can then install the OmniBook 800 specific drivers and tools from the Recovery CD.

Note: The Support Utilities Disk is the boot disk for the OmniBook Recovery CD. Please store them together in a safe place. Refer to the Online User's Guide or the Getting Started Guide for more information

HP OmniBook Drivers and Online Documentation

Hewlett-Packard recommends using the preloaded operating systems if possible, however, we recognize that it is often necessary to reformat the hard drive and install a custom build. The OmniBook specific drivers for each operating system are located on the hard drive under C:\OMNIBOOK\DRIVERS to assist in the custom build process. Each operating system has its own subdirectory. Please backup the drivers for the operating system you intend to install before starting. Refer to the chapter on the operating system you are using for more information. The drivers are also located on the Recovery CD. Updates to these drivers, when available, will be posted to the HP Electronic Support Services. Refer to the OmniBook Support chapter for more information.

Contents of the Recovery CD

Directory	Contains...
README.TXT text file	Instructions for using the *Recovery* CD.
\RECOVER	
\ENC	Encrypted Microsoft Windows 95 recovery files. (Usable only in conjunction with the *Support Utilities* disk.)
\BOOTDISK	For creating your own copy of a boot disk (like the *Support Utilities* disk). You will need to edit the resulting boot disk if you are *not* using a SCSI CD-ROM drive for the *Recovery* CD.
	Boot Disk for installing Retail Windows 95
\OMNIBOOK	
\HPADDON.WFW	For Windows 3.1 and Windows for Workgroups: Use for the easiest setup after installing Windows for Workgroups. Installs necessary drivers and optional OmniBook software.
\HPUTILS	For Windows 3.1, 3.11, and 95: Use to pick and install optional HP OmniBook applications, including Appointment Book, Phone Book, Calculator, the online *User's Guide*, OmniBook Tools, Diagnostics, and icon-strip printing.
\DRIVERS	Includes audio, video, SCSI, and PC-Card (PCMCIA) drivers for various operating systems (MS-DOS, OS/2, Windows of all types). Look for the specific driver for the specific version of your operating system.
\MANUALS	User's guides under \W95 and \WFW.

Updating the BIOS

Hewlett-Packard in the future may release updates to the BIOS which will enhance the capabilities of the OmniBook 800. These updates are available on the HP Electronic Support Services. Refer to the OmniBook Support chapter for more information. To create a HP OmniBook BIOS Update disk, please follow the instructions below.

- Download the BIOS update.
- Insert a blank floppy disk into the A: drive.
- Type the following command at the DOS Prompt: 2FLOPPY A: BIOS.IMG.

Note: Because this BIOS update replaces the BIOS on the system it is very important you follow these instructions exactly.

1. Shutdown the operating system you are using.
2. Undock the OmniBook 800.
3. Plug in the AC Adapter and Floppy disk drive and insert the BIOS Update disk.

4. Remove any PCMCIA Cards.
5. Hold down the On/Off button while you press the Reset button, then release the On/Off button.
6. You will hear multiple alternating beeps, when you hear three beeps in quick succession and no more beeps press the reset button again.

Note: Do not interrupt the update process. If the BIOS is not updated successfully the system will have to be serviced to replace the BIOS chip. You may want to run CHKDSK or SCANDISK on the BIOS Update disk to confirm there are no bad sectors that will interfere with the update process.

Note: The BIOS update process resets the configuration options in the System Configuration utility except for the PC Identification and Passwords.

System Resources

System Interrupts (IRQs)

0	System timer
1	Keyboard
2	Redirect IRQ 9
3	Free (Com2 or Com4 if modem installed)
4	Com1 & Com3 (External Serial Port)
5	ESS Sound Chip
6	Floppy Drive
7	LPT1 (External Parallel Port)
8	Real Time Clock
9	FREE
10	SCSI
11	Wave 2 (Sound)
12	Mouse
13	Coprocessor
14	Internal Hard Disk (Primary IDE Controller)
15	Infrared when undocked, PCI Card when docked (if installed)

- When setting up a PCMCIA Network Card you can use IRQ 9. When setting up a PCMCIA Modem Card or Network+Modem Combo card you can use IRQ 3. If you need another IRQ you can disable Infrared in the System Configuration Utility and use IRQ 15. If you are using a PCI Card in the docking station, it will automatically be set for IRQ 15 since Infrared is disabled when the OmniBook 800 is docked. You can also use IRQ 15 for an ISA card in the dock.
- If you are using Microsoft Windows NT or OS/2 Warp you can share IRQ 7 with a printer and another device. You can also do this in Windows 95 if you disable

automatic configuration for the printer and the other device on the Device Manager tab of System in the Control Panel.

- If the device you are configuring requires IRQ 5, you can reconfigure the IRQ for sound in the System Configuration Utility.

Note: Refer to the System Configuration Utility section later in this chapter to explain how to reassign IRQs.

System Memory Map

C0000 - C9FFF	40K	NeoMagic Video
CA000 - CFFFF	24K	Free
D0000 - D1FFF	8K	PCMCIA Memory
D2000 - E7FFF	90K	Free
E8000 - E87FF	2K	Enhanced Parallel Port
E8800 - EBFFF	14K	Plug-n-Play BIOS
EC000- EFFFF	16K	PCI BIOS
F0000 - FFFFF	64K	System BIOS

- The default size for PCMCIA cards is 8K. If you are using a PCMCIA card which requires more memory (i.e. the IBM Token Ring PCMCIA Card) in Windows 3.1 or Windows for Workgroups you can easily change the memory size. Refer to the Using Windows for Workgroups in the Windows 3.1 chapter for the procedure. It is not necessary to expand this if you are using Windows 95, Windows NT or OS/2 Warp.

System Input/Output (IO) Addresses

1F0-1F7	Internal Hard Disk
220-22F	ESS Sound
2F8-2FF	Com 2 (if Modem is installed)
330-331	Wave 2 (Sound)
378-37F	LPT 1 (External Printer Port)
388-38B	Sound
3B0-3BB	NeoMagic Video Adapter
3C0-3DF	NeoMagic Video Adapter
3E0-3E1	PCMCIA Bridge on PCI
3F0-3F5	Floppy Controller
3F6	Internal Hard Disk
3F8-3FF	Com 1 (External Serial Support)
3000-301F	PCI Infrared Controller
4100-41FF	Symbios SCSI on PCI (when SCSI device attached)

- I/O Addresses 300, 310, 320, 340 and A20 are free for network cards.

DMA Channels

DMA Channel	
0	Free
1	Sound
2	Floppy Disk
3	Free
4	DMA Controller
5	Wave 2
6	Free
7	Free

OmniBook Function Keys

Certain OmniBook settings are accessible directly from the keyboard. To configure these settings hold down the Function key (Fn) and press the appropriate key. Since most standard external keyboards don't have a Fn key, there is a setting in the System Configuration Utility (SCU) to substitute Ctrl+Alt for the Fn key. For instance, to access Fn+Esc, press Ctrl+Alt+Esc.

Fn+ESC	Display or hide the Status Panel.
Fn+Home, End, PgUp, or PgDn	Move the Status Panel to another corner.
Fn+Up Arrow and Fn+Down Arrow	Increase and decrease the master volume.
Fn+SPACE	Turn master volume on or off.
Fn+Left Arrow and Fn+Right Arrow.	Adjust the beeper mix/volume.
Fn + and Fn -	Increase and decrease the Speed of the OmniBook
∧ and ∨ (near the mouse button)	Increase and decrease contrast (DSTN display) or increase and decrease brightness (TFT display).
FN+∧ and FN+∨	Increase and decrease brightness (DSTN display).

Replacing the Hard Drive

You normally don't remove the drive C, the main internal disk (also called the "hard disk drive"). The two main reasons to replace drive C are for upgrade and for repair. For more information on replacing the hard drive see the Getting Started Manual or the Online Users Guide.

The Status Panel

The Status Panel contains indicators that show the current status of the OmniBook for the C drive, the three keyboard locks, and the battery power level. You can turn the Status Panel on and off by pressing FN+ESC.

Drive C

The disk symbol shows whether the hard drive (drive C) is active (that is, reading or writing).

Keyboard

The A, 1, and arrow labels appear if Caps Lock, Num Lock, and Scroll Lock are active respectively. (Certain applications such as Word also show keyboard status in the application window.)

Power

The shading of the battery symbol shows the approximate charge level of the battery relative to a full charge.
A plug symbol is displayed while the ac adapter is connected and supplying power.
The electrical bolt symbol means that the battery is being charged.

The Default setting for the Status panel: The keyboard indicators appears only when a keyboard lock is active, the Drive C indicator never appears. You can change this to display the indicators always in the User Tools or System Configuration Utility.

System Configuration Utility

The System Configuration Utility provides settings for some basic configurations, such as port settings and password. You must reboot the computer to run the System Configuration Utility.

1. Close all open applications. Reset the computer by exiting Windows and pressing CTRL+ALT+DEL, or by pressing the reset button.
2. At the message **<F2> to enter System Configuration Utility**, immediately press F2 to open the System Configuration Utility. *The mouse does not work in this environment.*
3. You will see the specifications for the hard drive, the ports, the CPU, and the memory allocation and availability. Press ALT to highlight the menu. Press ENTER to open the highlighted menu. The menu has categories for these settings:
   - **System:** date and time, boot devices and configurations, docking messages (on/off), passwords, PC identification text, cache enabling, status panel enabling, and status panel settings (position, contents).
   - **Input/Output:** configuration of peripheral devices (serial and parallel ports, keyboard, display, audio, external mouse, IrDA enabling).

- **Power:** power management configuration.
- **Defaults**: change to the factory default settings or restore the settings in effect prior to opening the System Configuration Utility.
- To exit the System Configuration Utility, press ALT X. You can then choose to save new settings you have made, or not to save them.

Power Management
Frequently Asked Questions

Important Notice
Do not unplug the AC adapter power cable from the power outlet while it is connected to the HP OmniBook 800. Unplugging the adapter from the outlet can cause a minor power surge which can disrupt the operation of the HP OmniBook 800. This will in no way damage the OmniBook but it could cause a system reboot. First unplug the AC adapter from the HP OmniBook 800 then disconnect it from the wall outlet.

Designed for Power

What are the different power modes on the OmniBook 800?
The following chart briefly describes the various power saving modes on the OmniBook 800.

Power States	User Action Taken	Status
Standby	Press Blue ON/OFF key while on AC Power	Display Off External Display Off Kbd, Mouse & Sound disabled All other devices powered (includes netcards and modem cards)
Suspend	Press Blue ON/OFF key AC adapter disconnected By default occurs after 3 min of inactivity	CPU off Display off Setup self-refresh RAM Most devices in a low power state.
Unit shut off	Press Ctrl, Alt + Blue ON/OFF key or Shutdown Windows 95 (on AC or battery power)	CPU off Display off Setup self-refresh RAM Most devices in a low power state. Unit reboots when turned on

Can the OmniBook 800 be completely powered off?
You can shut down the OmniBook to its lowest-power state and cause it to reboot when it restarts. Do this by pressing CTRL+ALT+On/Off. (It is recommended that you save your work and exit any applications and operating system before you do this.) To charge the battery while the unit is off plug in the AC adapter. To turn the OmniBook on, press the Blue On/Off button and the system will boot up.

Can the OmniBook 800 be turned off while docked?

Yes, the OmniBook can be turned off by pressing Ctrl+Alt+On/Off. It will continue to charge the battery. If you are using an external keyboard you can press Ctrl+Alt and the On/Off button on the Docking Station.

What actually happens when I press the blue On/Off key?

If the AC adapter is connected, pressing On/Off turns off the display, keyboard, mouse, and turns down sound. Normal operating system functions continue in the background without visible feedback. This power state is called Standby. Pressing On/Off again turns on the disabled devices.

If the AC adapter is unplugged, pressing On/Off causes the system to save the current session in RAM and turn off or power down all system devices. This power state is called Suspend. Pressing On/Off again turns on system devices and restores the previous session.

Both of these states are sometimes called "Instant On" or "Instant Off" states. Hewlett-Packard is a leader in implementing this technology in notebook products.

It is always recommended to save critical data before shutting the system off in any power mode.

Why does the OmniBook turn off by itself?

The OmniBook uses Advanced Power Management (APM) to determine how power is used by different parts of the computer based on current needs. It does this to manage battery life, giving you longer battery operating time. This is a APM version 1.1 standard.

One way Advanced Power Management saves power is by turning off parts of the OmniBook when they're not needed--even turning off the OmniBook itself--in a way that lets you quickly and easily resume without affecting your work. In addition, you can define the time-out settings that control how long APM waits before it turns off the hard disk or the computer if it's been idle.

Power in Action

How can I control power management?

The OmniBook provides two methods for controlling power management:

The "Tools" utility

- In Windows 95, use HP User Tools.
- In Windows for Workgroups, use OmniBook Tools.

The System Configuration Utility (SCU)

➢ During reboot, press F2 when prompted. Use the Power menu.

What are the different levels of power management?

The System Configuration Utility provides three levels of power management. These three levels affect how the CPU operates while the OmniBook is turned on, affecting battery operating time.

Maximum

➢ When the operating system determines the system is idle, power management stops the CPU clock and CPU activity. Power savings is greatest, but there's a very slight pause each time CPU activity resumes. (If the AC adapter is connected, the CPU clock doesn't stop and the CPU operates the same as for the Moderate setting.) A more noticeable pause occurs when the hard disk has been stopped to save power. It takes a moment to come up to speed.

Moderate

➢ When the operating system determines the system is idle, power management stops CPU activity, but not the CPU clock. Power savings is somewhat less than for the Maximum setting, but CPU activity can resume instantly.

None

➢ The CPU runs at full speed while the OmniBook is turned on.

What happens to a network connection or SCSI device when I turn off the OmniBook?

Network connections and SCSI devices are always powered on when you are connected to AC Power or in the OmniBook Docking Station. When you press the On/Off button the OmniBook will go into standby and all devices except the keyboard, mouse, display and sound will still be activated.

If the OmniBook is not connected to AC power or in the OmniBook Docking Station, all network connections and SCSI devices will be powered down when the OmniBook goes into suspend. If you have a PCMCIA adapter or SCSI device attached to the OmniBook always make sure the AC adapter is plugged in. (ISA and PCI Cards will never turn off in Suspend since the Docking Station is always powered.)

The following chart briefly describes when a network connection or SCSI device is on or off in the different power states.

Power States	Standby AC Powered	Suspend Battery Powered
CPU	ON	Sleep Mode
PCMCIA Netcards	ON	OFF
ISA or PCI cards in the Dock	ON	N/A
SCSI Devices	ON	OFF

Where can I get the current status of the battery?

The Status Panel shows the current battery and charging status. (If the Status Panel isn't visible, press Fn+ESC to display it.)

- The shading in the battery symbol shows the charge level.
- A plug symbol appears while the ac adapter is connected.
- A lightning symbol appears while the battery is charging.

For Windows 95, you can also move the mouse pointer onto the battery icon or plug icon in the taskbar, or double-click the icon.

In addition, the System Configuration Utility (SCU) shows the battery charge status. You can access the SCU by pressing F2 when prompted during a reboot.

Battery Smarts

How can I maximize battery operating time?

- Adjust the display brightness as low as possible. This can increase battery life.
- When using external devices such as the floppy drive, printers, modems, or network cards, plug in the AC adapter whenever possible. I/O activity usually requires additional power.
- If you are not actively using the infrared port, make sure Infrared Monitor is not running. Or, in Windows 95, you can disable its infrared communication instead. Infrared Monitor can cause significant power usage.
- Remove network and modem PC Cards when you're not using them. They can use additional power even while they're inactive. Or use PC Cards that switch to a low-power state when they're inactive.
- In the System Configuration Utility, set the power management options to their default settings, which emphasize saving power.

- In the System Configuration Utility, mark the Enable Audio Power Savings option under the Power Controls, which allows the audio system to conserve power. (This may cause some audible clicks when the audio system powers up or down.)
- Whenever possible, disable software features that cause ongoing activity and prevent the OmniBook from turning off. For example, screen savers prevent turn-off.

How long can I expect the OmniBook 800 battery to last?

If you set the power management to Maximum the OmniBook 800 will last approximately 3 hours.

How long does it take to recharge a discharged battery while the OmniBook 800 is on or off?

A fully discharged battery will take approximately 2 ½ hours to charge regardless of whether the OmniBook is on or off. The battery will quickly charge to 90% then switches to a trickle charging for the last 10%. This may cause the battery to appear not to be fully charged but is required to avoid over charging the battery.

Why does the screen dim when I disconnect the AC Adapter?

The HP OmniBook 800 automatically lowers the display backlight to extend battery life by up to 25%. When it is plugged back in, the OmniBook 800 automatically remembers and restores the previous, always higher AC setting.

Do I have to drain the battery completely before recharging it?

The lithium-ion battery does not suffer from the effects of memory the way a nickel-cadmium battery does. A lithium-ion battery is best maintained by recharging it often to some degree, and recharging it fully when convenient or when you need a full battery.

How quickly must I swap batteries?

You have thirty seconds to swap batteries. If you take longer than about 30 seconds, the OmniBook may reboot when it turns on. (If the OmniBook reboots, your current session will be lost--so you should save your work before swapping batteries.)

How can I get the battery gauge to show the charge for a new battery?

If you swap batteries in less than about 5 seconds, the battery charge level may not get updated. Turn off the OmniBook, then hold F4 while you press On/Off (F4+ON) to turn on the OmniBook. These steps force the battery gauge to reset. Without any user action, after 15 minutes or so, the gauge should reflect the actual battery charge level.

How can I prevent the hard disk from spinning while recharging the battery?

If you press the On/Off key to turn off the OmniBook while the AC adapter is plugged in, the hard disk still operates periodically. To turn off the OmniBook and prevent hard disk activity (without rebooting the computer), first unplug the AC adapter, then press On/Off. You can then plug in the AC adapter again to recharge the battery, and the hard disk will not be accessed.

Microsoft Windows 3.1

Installing Windows 3.1 or Windows for Workgroups 3.11

Microsoft Windows for Workgroups and Windows 95 come preinstalled on the OmniBook 800. When you setup your OmniBook the first time will require a choice of operating systems. At this time, you must choose between Windows for Workgroups or Windows 95. But in the event you need to reinstall Microsoft Windows for Workgroups or install Microsoft Windows 3.1 follow these steps to install and reconfigure your computer with the HP OmniBook 800 drivers.

Requirements

- HP OmniBook 800
- DOS and Windows Diskettes
- Microsoft Windows 3.1 or Windows for Workgroups 3.11
- OmniBook 800 Windows 3.x Driver Setup Program. This program will be available on HP Electronic Support Services on September 9, 1996. If you are evaluating the HP OmniBook 800 before this date contact your HP representative for this program. The filename is DWFW800.EXE. Refer to the OmniBook Support chapter for more information.

Before you Start

If you are going to format the hard drive (drive C:\), please make a backup of the C:\OMNIBOOK\DRIVERS\WFW directory. This directory contains all of the necessary drivers for Windows 3.1 and Windows for Workgroups 3.11.

Procedure

Installing DOS

1. Insert the DOS Setup Disk 1
2. Turn on the computer or press Ctrl-Alt-Delete to reboot
3. Press Enter at the DOS Welcome screen
4. Choose Continue Setup and Replace Current version of DOS.

5. Enter the information DOS Setup requests or press Enter to accept the defaults.
6. Changes Disks as requested

Note: This section is not intended to replace your DOS Documentation. Please refer to your DOS Documentation for specific installation instructions.

Installing Windows 3.1 or Windows for Workgroups 3.11

7. Insert the Windows Setup Disk 1 and type A:\SETUP from the DOS command prompt.
8. Setup installs the Windows files, enter disks as requested. If you are installing Windows for Workgroups, do not install networking at this time. Follow the instructions in the Application Note for your specific network card.

Note: This section is not intended to replace your Windows Documentation. Please refer to your Windows Documentation for specific installation instructions.

Installing OmniBook 800 Windows 3.x Device Driver Support

Requirements

- HP OmniBook 800 with Windows 3.1 or Windows for Workgroups 3.11
- OmniBook 800 Windows 3.x Driver Setup Program. This program will be available on HP Electronic Support Services on September 9, 1996. If you are evaluating the HP OmniBook 800 before this date contact your HP representative for this program. The filename is DWFW800.EXE. Refer to the OmniBook Support chapter for more information.
- AC adapter

This program will install device driver support for:

- Video
- Sound
- SCSI
- PC Card (formerly PCMCIA)
- Pop-up mouse
- Power management
- IrDA (Windows for Workgroups only)

Note: This program edits your AUTOEXEC.BAT, CONFIG.SYS, CONTROL.INI, WIN.INI, and SYSTEM.INI to make the necessary changes to support the OmniBook 800 devices. It also changes your EMM386 and SMARTDRV lines to the OmniBook 800 defaults. A backup will be created of the original files.

Procedure

1. Insert the disk labeled "OmniBook 800 Windows 3.x Driver Setup Program Disk 1."
2. In Program Manager, choose File/Run and type A:\SETUP and press Enter.

3. Follow the instructions as displayed.

Note: If these drivers are being installed with Windows 3.1, IrDA support will not be available. There is no IrDA support for Windows 3.1. (See Command-line Switches below)

4. When requested insert the disk labeled "OmniBook 800 Windows 3.x Driver Setup Program Disk 2."
5. When the installation is finished, the OmniBook will be rebooted.

Command-line Switches

- If the setup program determines that you have Windows for Workgroups installed on your OmniBook, it will install the IrDA drivers. If the setup program incorrectly identifies your system as a Windows 3.1 system, you can force it to install the IrDA drivers by invoking setup as follows: A:\SETUP ir+
- If you have Windows for Workgroups but do not want the IrDA drivers installed, you can force the setup program to not install these drivers by invoking setup as follows: A:\SETUP ir-
- The setup program can be run in "terse" mode which requires no interaction from the user (unless an error occurs) by invoking setup as follows: A:\SETUP terse
- The command-line switches can be combined, e.g.: A:\SETUP ir+ terse

Installing the 3COM 3C562 EtherLink III Lan+28.8 Modem PC Card

Requirements

- OmniBook 800 installed with Windows for Workgroups 3.11
- 3Com Driver Disk Version 5.1
- 3Com Driver: ELPC3X.DOS 04/30/95

Note: The point enabler must be used in place of PCMCIA Card and Socket services.

Configuration

- IRQ 3
- IO Address 300
- Com Port 2

Procedure

1. Insert the 3Com 3C562 EtherLink III PC Card and start Windows.
2. Double-click the Network icon.
3. Double-click on the Network Setup icon.
4. Click the "Network" button.
5. Select "Install MS Network" click OK.
6. Click "Drivers" button.
7. Click "Add Adapter".
8. Double-click "Unlisted or Updated Network Adapter".
9. Insert the 3Com driver disk into drive A:\ and click OK.
10. There should be a single choice; " 3Com 3C562 EtherLink III PC Card"
11. Highlight this choice and click OK.

12. Double-click on "3Com 3C562 EtherLink III + Modem PC Card Adapter."
13. The 3Com card will choose default parameters which are not changable.
14. Click OK. Click Close. Click OK.
15. If you have a specific Workgroup and User Name, please enter it now and click OK.

Note: The drivers on A:\ will now be copied. You may need to enter the C:\MASTERS\WFW311\DISK7 and the C:\MASTERS\WFW311\DISK8 path to transfer the rest of the necessary network files. After the files have been copied, you will see a series of Windows messages. If you are using the HP Standard Windows for Workgroups Build, the first message will state that the Network Setup did not change the AUTOEXEC.BAT or CONFIG.SYS file. This is due to our use of a multi-boot configuration. Remove the /N parameter from the WIN command near the end of the AUTOEXEC.BAT in order to load the network each time you reboot.

16. Click OK to several messages referring to file modifications.
17. Before rebooting, edit the CONFIG.SYS file and REM out the the following lines. (This step removes PCMCIA Card and Socket Services.)
    devicehigh=C:\CARDWIZ\SS365LP.EXE
    devicehigh=C:\CARDWIZ\CS.EXE /POLL:1
    install=C:\CARDWIZ\CS_APM.EXE
    devicehigh=C:\CARDWIZ\CSALLOC.EXE
    devicehigh=C:\CARDWIZ\ATADRV.EXE /S:2
    devicehigh=C:\CARDWIZ\MTSRAM.EXE
    devicehigh=C:\CARDWIZ\MTDDRV.EXE
    devicehigh=C:\CARDWIZ\CARDID.EXE
18. Before rebooting, add the NET START statement to the AUTOEXEC.BAT file.
19. Remove the driver disk from A:\ and reboot the OmniBook.
20. Windows will prompt you for a User Name and Password.
21. Your 3Com EtherLink III + modem PC Card is now ready for use.

Installing the Xircom Ethernet IIps PCMCIA Adapter

Requirements

- OmniBook 800
- Xircom Ethernet IIps PCMCIA Adapter
- Windows for Workgroups 3.11
- Xircom Driver disk
- Xircom driver: XPSNDIS.EXE DATED: 12-04-95

Configuration

- Interrupt 9
- IO Base Address 300
- Base Memory Address D0000

Procedure

Note: This is assuming that Card and Socket Services is being utilized.

1. Boot the OmniBook 800 into Windows for Workgroups 3.11.
2. Open the Network group icon and the Network Setup group.
3. Click on the Networks button. Select "Installing Microsoft Windows Network:" and click OK.
4. Click on Drivers and Add Adapter.
5. Double-click on "Unlisted or Updated Network Adapter".
6. Insert the driver disk into A:\ and click OK.
7. Choose the driver "Xircom XPS NDIS 2.01 Protected mode ". Click OK.
8. With the selected driver highlighted, click on "Setup".
9. Change the interrupt to 9 and ensure the I/O Port address is one of the following: 300, 310, 320, 340.

10. Change the Base Memory Address to D0000. Click OK.
11. Click "Close". Click OK. If you have a specific Workgroup you are connecting to, enter it now. Click OK.

Note: The drivers on A:\ will now be copied. You may need to enter the C:\MASTERS\WFW311\DISK7 and the C:\MASTERS\WFW311\DISK8 path to transfer the rest of the necessary network files. After the files have been copied, you will see a series of Windows messages. If you are using the HP Standard Windows for Workgroups Build, the first message will state that the Network Setup did not change the AUTOEXEC.BAT or CONFIG.SYS file. This is due to our use of a multi-boot configuration. Enter the C:\WINDOWS\NET START statement to the beginning of your AUTOEXEC.BAT and remove the /N parameter from the WIN command near the end of the AUTOEXEC.BAT in order to load the network each time you reboot.

12. Click OK several times.
13. Click "Restart Computer". Your network adapter is now ready for use.

Installing the IBM Auto 16/4 Token-Ring ISA Adapter

Requirements

- OmniBook 800 installed with Windows for Workgroups 3.11
- OmniBook 800 Docking System
- IBM Auto 16/4 Token-Ring ISA Adapter
- IBM Auto 16/4 Token-Ring ISA Adapter Driver Disk 1 labeled LANAID
- IBM driver: IBMTOK.DOS DATED: 02-20-95
- OmniBook 800 Docking Station

Configuration

- Interrupt: 9
- IO Base Address: A20-A23
- ROM Address: DA00-DBFF
- RAM Address: DC00-DFFF
- RAM size: 16kb
- Auto Sense: Enabled
- Remote IPL: Disabled

Procedure

1. Confirm that the HP OmniBook 800 external CD-ROM and floppy are connected to the docking station ports. Ensure that the IBM Token-Ring ISA adapter is properly installed into the docking station. Ensure that the HP OmniBook 800 is properly docked into the docking station. For information on docking and undocking or, installing adapter cards into the HP OmniBook 800 docking station, please refer to your OmniBook Docking Station manual.
2. Insert the IBM Auto 16/4 Token-Ring driver disk 1 labeled LANAID into the floppy disk drive and then power up the HP OmniBook 800—this will allow a boot off of the floppy drive.

3. At the first prompt, choose option 2—to configure the IBM 16/4 Auto Token-Ring adapter. Hit the space bar to continue with the LANAID program. LANAID will take a few minutes to load the program. At the next window, choose 'Continue' to continue with the procedure. Choose the 'Standard Install' button at the next window. Now choose 'Configuration' to confirm the configuration of the card. Choose Plug-n-play then check Lock System Resources. The following settings should be used to ensure proper function:

Interrupt:	9
I/O Address:	A20-A23 (Primary)
ROM Address:	0DA000-0DBFFF
RAM Address:	0DC000-0DFFFF
RAM size:	16kb
Auto Sense:	Enabled
Remote IPL:	Disabled

   After confirming these settings choose the 'Store' button to save the configuration. Now choose the 'Done' button. To test the configuration, choose 'Quick Test' at the next window. The test should reply with a pass result. Choose 'OK'' then 'Exit' to exit the configuration utility. Remove the floppy disk from the floppy drive and reboot the HP OmniBook 800 into Windows for Workgroups 3.11.

4. Open the Network group icon and the Network Setup group.
5. Click on the Networks button. Select "Installing Microsoft Windows Network:" and click OK.
6. Click on Drivers and Add Adapter.
7. Double-click on "Unlisted or Updated Network Adapter."
8. Insert the driver disk into A:\ and click OK.
9. Choose the driver "IBM Auto 16/4 Token-Ring Network Adapter." Click OK.
10. With the selected driver highlighted, click on "Setup".
11. The card is configured automatically and the parameters are not changeable in Windows.
12. Enter a Workgroup and User Name.

Note: The drivers on A:\ will now be copied. You may need to enter the C:\MASTERS\WFW311\DISK7 and the C:\MASTERS\WFW311\DISK8 path to transfer the rest of the necessary network files. After the files have been copied, you will see a series of Windows messages. If you are using the HP Standard Windows for Workgroups Build, the first message will state that the Network Setup did not change the AUTOEXEC.BAT or CONFIG.SYS file. This is due to our use of a multi-boot configuration. Enter the C:\WINDOWS\NET START statement to the beginning of your AUTOEXEC.BAT and remove the /N parameter from the WIN command near the end of the AUTOEXEC.BAT in order to load the network each time you reboot.

13. Click OK several times.

14. Click "Restart Computer".
15. Notice when the OmniBook 800 is rebooting the message "Identified and Configured IBM Auto 16/4 Token-Ring ISA Adapter" is displayed after the memory test and the (F2) BIOS option is displayed.
16. Your network adapter is now ready for use.

Using Windows 3.1 And Windows for Workgroups

Memory maximization

Certain configurations/applications may require the use of a large portion of conventional memory. For instance, an application may require SCSI drivers, as well as, network drivers to be loaded and still have ample conventional memory to run. This scenario poses a problem when using Windows 3.1 and Windows for Workgroups 3.11.

In order to free up conventional memory, upper memory will first need to be optimized and specific device drivers (i.e. SCSI or network drivers) loaded high. The following will provide 142K of upper memory.

- Enter The default EMM386 line in the CONFIG.SYS is as follows:
  device=c:\dos\emm386.exe noems i=b000-b7ff x=c000-c9ff i=ca00-cfff x=d000-d1ff i=d200-e7ff x=e800-efff

Warning: *There may be some applications which require the UMB **b000-b7ff** (the VGA monochrome memory area) to be available. In this instance, a memory conflict could occur. If the application does not require the VGA monochrome memory area, there will be no conflict.*

- The default EMM386 line allots PCMCIA cards 8K of upper memory. If you are using a PCMCIA Card that requires more upper memory change the EMM386 to read as follows:
  device=c:\dos\emm386.exe noems i=b000-b7ff x=c000-c9ff i=ca00-cfff x=d000-d7ff i=d800-e7ff x=e800-efff
- The C:\CARDWIZ\CSALLOC.INI file also needs to be edited to reflect the emm386 line change. The CONFIG.SYS and the CSALLOC.INI file have pre-configured lines for either 8K or 32K of PCMCIA support. Simply remove the # in the C:\CARDWIZ\CSALLOC.INI file per the instructions contained in the file.

Note: The memory range CA00-CBFF is available for programs loaded into upper memory but it cannot be used for hardware devices such as PCMCIA cards

Note: The OmniBook 800 has 142K of upper memory in the Windows 3.x default configuration. Allowing most users enough memory to configure most PC Cards. This made CardLite (a reduced memory version of PCMCIA Card & Socket Service) no longer necessary.

Software

32-bit disk access

- 32-bit disk access is not enabled by DEFAULT on the OmniBook 800. This is due to the fact that the OmniBook 800 is Advanced Power Management (APM) aware. 32-bit disk access is **NOT** recommended for portables PCs running APM.
- You can see large performace gains from 32-bit file access (and correct cache size), but not from 32-bit disk access. (Considering Windows 3.1 and WFW 3.11 are 16-bit operating systems.)

Increasing the Speed

- In Windows for Workgroups, you can get your OmniBook to work even faster by optimizing the amount of memory reserved for reading and writing files:
  - In Control Panel, double-click the Enhanced icon, then choose Virtual Memory and Change.
  - First clear the Use 32-Bit File Access option—then select this option again. This updates the Cache Size setting.
  - Choose OK to save the new setting. When prompted, choose Restart Computer to activate the new setting.

Using DriveSpace Compression

- If you use Microsoft DriveSpace to compress the data on drive C, you should check the commands in CONFIG.SYS to ensure proper operation:
  - In Program Manager, from the File menu choose Run, then type SYSEDIT and choose OK.
  - In the CONFIG.SYS window, check the end of the file. If the DRVSPACE.SYS line comes after the IFSHLP.SYS line, move the IFSHLP.SYS line to the end of the file.
  - Save your changes, exit Windows, then press Ctrl-Alt-Delete to reboot.

Infrared Printing

- Do not close the Infrared Monitor while in the process of printing. If you do so, you will need to reboot the computer, or else the computer will reboot itself the next time you start an infrared printing task.

Setting up IR Monitor

- To automatically start the IrDA protocol stack (and enable IrDA communications) each time Windows is started:

  1. Open the Program Manager StartUp group by double-clicking the StartUp icon.

2. Select the New... command from the File menu of Program Manager.
3. Make sure that Program Item is selected and then click the OK button.
4. In the Description box, enter: IrMonitor
5. In the Command Line box, enter: C:\IRMON\IRMON31.EXE
6. To have IrMonitor launched as an icon, click the Run Minimized box.
7. Click the OK button. The IrMonitor icon should appear in the StartUp group.

Computer Museum

Connecting a serial mouse

➢ To activate a serial mouse connected to the OmniBook or the Docking System, you must change the mouse type in Windows Setup.

1. Open the Windows Setup icon in Program Manager, change the mouse type to Mouse System Serial.
2. Restart Windows. (If prompted for the mouse driver, type the C:\MASTERS. This will be the path suggested in the dialog box. (If the software is NOT the default Hewlett-Packard load, type A:\ and insert the requested Windows for Workgroups installation floppy disk.)
3. To reactivate the built-in mouse, use Windows Setup to change the mouse type to Microsoft Or IBM PS/2.

OmniBook Docking Station

➢ Windows for Workgroups supports Hot, Warm and Cold Docking.
  ➢ Hot Docking: When you dock the OmniBook while it is running
  ➢ Warm Docking: When you dock the OmniBook while it is in Suspend.
  ➢ Cold Docking: When you dock the OmniBook when it is off.

Note: If you dock the OmniBook while it is running (hot docking), your display, mouse and keyboard will automatically be switched to the attached devices. A system message will appear to provide a choice to continue or reboot. Any ISA, PCI cards, or SCSI devices attached to the OmniBook Docking Station will only be recognized when you reboot the OmniBook.

Note: The HP OmniBook ships with a DOS driver called Dockboot.exe. the device line in the config.sys reads as follows:

REM HWP2190 is ID for SCSI and HWP2170 is ID for the Docking System
device=c:\omnibook\dockboot.exe /2=HWP2190 /3=HWP2170

Note: This driver is NOT necessary to dock the OmniBook. It is utilized when the user has a multi-boot (booting options) configuration.

Using ISA or PCI cards in the Docking Station

Note: With certain PCI cards, if their drivers are not capable of scanning card on the secondary bus, they will not work with the enhanced mode drivers. If the problem persists with the network card in the docking system, try using the Real mode drivers for the card instead of its Enhanced mode drivers. See the documentation for the card.

Microsoft Windows 95

Installing Microsoft Windows 95

Microsoft Windows 95 comes pre installed on the OmniBook 800. Hewlett-Packard has tuned the software build to make full use of the advanced technologies used in the OmniBook 800 and recommends its' build be used as a starting point. However, in the event you need to reinstall a retail copy of Microsoft Windows 95 follow these steps to install and reconfigure your computer with the Hewlett-Packard OmniBook 800 drivers.

Requirements

- HP OmniBook 800.
- Microsoft Windows 95 (the HP OmniBook 800 ships with the Microsoft Windows 95 Installation CD-ROM).
- HP OmniBook 800 External CD-ROM, or a compatible CD-ROM drive & cable attached to the OmniBook Docking Station or access to a CD-ROM drive via a network connection.
- HP OmniBook 800 External Floppy Disk Drive and a blank floppy.
- HP OmniBook drivers for the SCSI, Video, Sound, PCMCIA, Mouse and IrDa. These drivers are located on the hard drive in the C:\OMNIBOOK\DRIVERS\WIN95 directory. These files are available after finishing the selection of Windows 95 or Windows for Workgroups during the pre-install process. The drivers are also located on the HP OmniBook Recovery CD in the \OMNIBOOK\DRIVERS\WIN95 subdirectory.
- HP OmniBook User Tools Support. These files are also located on the HP OmniBook Recovery CD in the \OMNIBOOK\ HPUTILS directory.

Before you Start

Use the HP OmniBook Recovery CD to create a boot disk. This will allow you to boot the OmniBook 800 from the floppy drive and still have access to SCSI and PCMCIA systems.

This procedure also requires the OmniBook 800 hard disk to be formatted so all user data should be backed up. This process will result in all data being erased from the C:\ drive – **BACKUP YOUR DATA.**

Create Boot Disk

1. Connect the OmniBook 800 floppy drive and CD-ROM drive.
2. Insert the OmniBook 800 Recovery CD into the CD-ROM drive.
3. At the DOS prompt change to the CD-ROM drive and goto the directory "\RECOVER\IT_BOOT".
4. Insert a blank 3.5 inch floppy disk in drive A:\ and run the "MAKEDISK" utility in the IT_BOOT directory. This will create an MS-DOS 7.0 boot disk with SCSI and PCMCIA support for the OmniBook 800.

Procedure

1. Connect the OmniBook 800 floppy drive and CD-ROM drive.
2. Insert the Windows 95 Installation CD in the CD-ROM drive.
3. Insert the OmniBook 800 boot disk in drive A:\ and reboot the unit. Select Command Prompt with SCSI.
4. Format drive C:\. **WARNING -- ALL DATA ON DRIVE C:\ WILL BE LOST!**
5. Run the Windows 95 SETUP program. The Setup program will perform a routine check on your system.
6. Click Yes to agree to the license agreement.
7. Click Next to accept the default of C:\WINDOWS.
8. Select Portable on the Setup Options screen.
9. Select Sound, MIDI or Video Capture Card and click Next.
10. Select any items you wish to install from the Get Connected screen and click Next.
11. Select Yes or No for the Startup Disk then click Next.
12. The Setup Wizard will now configure Hardware, Control Panel, Programs on the Start Menu, Windows Help, the MS-DOS program settings, Time Zone and Microsoft Exchange. Enter any changes when the system displays the Time Zone screen. If you chose Microsoft Exchange, enter the information or click cancel to enter it later. You can also add a printer at this time, or click Cancel
13. Click OK to restart the computer.

Installing SCSI Support

Requirements

- HP OmniBook 800 with retail Windows 95 installed.
- HP OmniBook Recovery CD and CD-ROM drive.
- HP OmniBook drivers for SCSI. These drivers are located on the hard drive in the C:\OMNIBOOK\DRIVERS\WIN95\SCSI directory. These files are available after finishing the selection of Windows 95 or Windows for Workgroups during the pre-install process. The drivers are also located on the HP OmniBook Recovery CD.

Procedure

1. Connect the CD-ROM drive to the OmniBook 800 and insert the OmniBook Recovery CD.
2. Copy the "SCSI.INF" file from "\OMNIBOOK\DRIVERS\WIN95\SCSI" on the Recovery CD to "C:\WINDOWS\INF". If this file is not copied it is possible that an incorrect SCSI driver may be loaded each time a new SCSI device is attached to the OmniBook 800.
3. In Windows 95 open Control Panel and double-click on System.
4. Go to the "Device Manager" tab.
5. Double-click on "SCSI controllers".
6. Double-click on the entry under "SCSI controllers" (probably "PCI NCR C810 SCSI Host Adapter).
7. Go to the "Driver" tab.
8. Click on "Change Driver...".
9. Click on "Have Disk...".
10. Click on "Browse...".
11. Select the CD-ROM drive and goto "\OMNIBOOK\DRIVERS\WIN95\SCSI".
12. Select the "symc8xx.inf" file and click on OK until the driver database is rebuilt.
13. Click on Yes to restart your computer now.

Installing PC Card (PCMCIA) Support

Requirements

- HP OmniBook 800 with retail Windows 95 installed.
- HP OmniBook Recovery CD and CD-ROM drive.
- HP OmniBook drivers for PCMCIA. These drivers are located on the hard drive in the C:\OMNIBOOK\DRIVERS\WIN95\PCMCIA directory. These files are available after finishing the selection of Windows 95 or Windows for Workgroups during the pre-install process. The drivers are also located on the HP OmniBook Recovery CD.

Note: This procedure is only necessary if you have installed retail Windows 95 on the OmniBook 800.

Procedure

1. Connect the OmniBook 800 floppy drive and CD-ROM drive.
2. Insert the OmniBook Recovery CD in the CD-ROM drive.
3. Insert the OmniBook 800 boot disk in drive A:\ and reboot the unit. Select SCSI only.
4. At the DOS prompt change to the CD-ROM drive and goto the directory "\OMNIBOOK\DRIVERS\WIN95\PCMCIA\CARDWORK".
5. Type "xcopy *.* C:\CARDWORK".
6. Select "D" for directory when xcopy prompts.
7. Change directory to "\OMNIBOOK\DRIVERS\WIN95\PCMCIA\WINDOWS\SYSTEM" on the Recovery CD.
8. Type "xcopy *.* C:\WINDOWS\SYSTEM".
9. Change directory to "\OMNIBOOK\DRIVERS\WIN95\WINDOWS\INF" on the Recovery CD.
10. Type "xcopy PCMCIA.INF C:\WINDOWS\INF".
11. Change directory to "\OMNIBOOK\DRIVERS\WIN95\PCMCIA".
12. Type "xcopy PCMCIA.REG C:\".

13. Remove the OmniBook boot disk from the floppy drive and reboot the OmniBook into Windows 95.
14. Open a DOS window and type "regedit C:\PCMCIA.REG".
15. Reboot the OmniBook into Windows 95.
16. The C:\PCMCIA.REG file should be removed.
17. The following lines should be added to the CONFIG.SYS file if PCMCIA support is needed in MS-DOS mode.

```
REM -- OmniBook Socket Services driver required for card slot support
devicehigh=C:\CARDWORK\SS365LP.EXE

REM -- Card Services driver required for card slot support
devicehigh=C:\CARDWORK\CS.EXE /POLL:1

REM -- Initial resource allocator required for card slot support
devicehigh=C:\CARDWORK\CSALLOC.EXE

REM -- ATA card driver required for ATA cards
devicehigh=C:\CARDWORK\ATADRV.EXE /S:2

REM -- Driver required for RAM cards
devicehigh=C:\CARDWORK\MTSRAM.EXE

REM -- Memory card driver required for all memory cards
devicehigh=C:\CARDWORK\MTDDRV.EXE

REM -- Card identification driver required for cards other than memory cards
devicehigh=C:\CARDWORK\CARDID.EXE
```

Installing Mouse Support

Requirements

- HP OmniBook 800 with retail Windows 95 installed.
- HP OmniBook 800 Recovery CD and CD-ROM drive.
- HP OmniBook drivers for Mouse. These drivers are located on the hard drive in the C:\OMNIBOOK\DRIVERS\WIN95\MOUSE directory. These files are available after finishing the selection of Windows 95 or Windows for Workgroups during the pre-install process. The drivers are also located on the HP OmniBook Recovery CD.

Note: The OBAMC32.EXE program lets you define different accelerations for the built-in OmniBook mouse and for an external PS/2 mouse. The acceleration automatically switches whenever you use an external PS/2 mouse or the built-in mouse. The built-in mouse uses the acceleration you select in this window. An external PS/2 mouse always uses the acceleration you set in the Mouse Control Panel.

Procedures

1. Connect the OmniBook 800 CD-ROM drive.
2. Insert the OmniBook Recovery CD in the CD-ROM drive.
3. Copy the "OBAMC95.EXE" file from "\OMNIBOOK\DRIVERS\MOUSE\WINDOWS\ on the Recovery CD to "C:\WINDOWS"
4. Copy the "MOUSE.REG" file from "\OMNIBOOK\DRIVERS\MOUSE" on the Recovery CD to "C:\"
5. Open a DOS window on the OmniBook and type "REGEDIT C:\MOUSE.REG".
6. Reboot the OmniBook.
7. The "MOUSE.REG" file in C:\ should be removed.

Installing Video Support

Requirements

- HP OmniBook 800 with retail Windows 95 installed.
- HP OmniBook 800 Recovery CD and CD-ROM drive.
- HP OmniBook drivers for Video. These drivers are located on the hard drive in the C:\OMNIBOOK\DRIVERS\WIN95\VIDEO directory. These files are available after finishing the selection of Windows 95 or Windows for Workgroups during the pre-install process. The drivers are also located on the HP OmniBook Recovery CD.

Procedure

1. Connect the OmniBook 800 CD-ROM drive.
2. Insert the OmniBook Recovery CD in the CD-ROM drive.
3. Run Windows 95.
4. Open the Control Panel and double-click on Display.
5. Go to the Setting Tab.
6. Select Change Display Type.
7. Under Adapter Type, select Change.
8. Click Have Disk
9. Go to "\OMNIBOOK\DRIVERS\WIN95\VIDEO" on the Recovery CD.
10. Select "nmx.inf"
11. Click OK until the "Select Device" window appears.
12. Select "NeoMagic NMX" and click OK.
13. Change the Monitor Type to "Laptop Display Panel (800x600), click Close.
14. Select 800x600 Desktop Size and 256 Colors.
15. Click Close in Display Properties.
16. Click Yes to restart the System.

Installing Sound Support

Requirements

- HP OmniBook 800 with retail Windows 95 installed.
- HP OmniBook Recovery CD and CD-ROM drive.
- HP OmniBook drivers for Sound. These drivers are located on the hard drive in the C:\OMNIBOOK\DRIVERS\WIN95\SOUND directory. These files are available after finishing the selection of Windows 95 or Windows for Workgroups during the pre-install process. The drivers are also located on the HP OmniBook Recovery CD.

Procedures

1. Open the Control Panel and double-click on System
2. Go to the Device Manager tab
3. Double-click on Sound, video and game controllers.
4. Double-click on ESS ES1688 AudioDrive.
5. Go to the Drivers tab.
6. Change Driver.
7. Select Have Disk
8. Go to "\OMNIBOOK\DRIVERS\WIN95\SOUND" on the Recovery CD.
9. Select oemsetup.inf and click OK.
10. Click OK to install from disk.
11. Click OK to Select Device.
12. Click OK in ESS ES1888 AudioDrive Properties.
13. Close the System Properties window.
14. Restart Windows 95.

Installing Infrared Support

Requirements

- HP OmniBook 800 with retail Windows 95 installed.
- HP OmniBook Recovery CD and CD-ROM drive.
- HP OmniBook drivers for Infrared. These drivers are located on the hard drive in the C:\OMNIBOOK\DRIVERS\WIN95\IRDA directory. These files are available after finishing the selection of Windows 95 or Windows for Workgroups during the pre-install process. The drivers are also located on the HP OmniBook Recovery CD.

Procedure

1. Open a DOS box in Windows 95.
2. Change directory to "\OMNIBOOK\DRIVERS\WIN95\IRDA" on the Recovery CD.
3. Type "XCOPY /S /E /V WINDOWS C:\WINDOWS".
4. Type "XCOPY IRDA.REG C:\".
5. Type "REGEDIT C:\IRDA.REG".
6. Restart Windows 95.
7. The "IRDA.REG" file in C:\ should be removed.

Installing HP User Tools

Requirements

- HP OmniBook 800 with retail Windows 95 installed.
- HP OmniBook Recovery CD and CD-ROM drive.
- HP OmniBook User Tools. This program is located on the hard drive in the C:\OMNIBOOK\HPUTILS directory. These files are available after finishing the selection of Windows 95 or Windows for Workgroups during the pre-install process. The program is also located on the HP OmniBook Recovery CD.

Procedure

1. In Windows 95 goto "\OMNIBOOK\HPUTILS\DISK1" on the OmniBook Recovery CD.
2. Run SETUP.EXE.
3. Select the applications you want to install and click on "Install Now".
4. Click "Restart Now' to finish the installation.

Installing Windows 95 Networking

Networking On The OmniBook 800

- If you install a network card in your OmniBook Docking Station, Windows 95 automatically adds the card to both your docked and undocked hardware configurations. You should remove the card from all invalid configurations. Open Control Panel, System, and look at the Device Manager tab. Select the network card (adapter) you installed and click Remove, then remove the card from ONLY the configurations that do not use the network card (such as undocked and Dock 1).
- It is possible to see a Fatal Exception Error in NDIS if a new Dock profile is created at the same time a new network card is installed. To recover, undock the OmniBook, remove the network card in Control Panel, Network, restart Windows 95, dock the OmniBook and reload the network drivers. It is possible to see this same error if the OmniBook is docked and then undocked within 30 seconds.
- If Windows 95 is started with a network card present but no network cable attached you will see an error that the card is not working properly and needs to be setup again. To avoid this error connect the network cable before starting Windows 95.

Installing The 3COM 3C562 Etherlink III LAN+28.8 Modem PC Card

Requirements

- HP OmniBook 800 with Microsoft Windows 95 installed.
- HP OmniBook 800 external floppy drive attached to HP OmniBook 800.
- Microsoft Windows 95 CD-ROM or setup files available on a local hard disk. The default Hewlett Packard build has these files located in the following directory: C:\WINDOWS\OPTIONS\CABS.
- 3COM EtherLink III LAN+Modem PC Card (3C562) with necessary cables.
- 3COM EtherLink III LAN+Modem PC Card (3C562) driver version 5.1.

Procedure

1. Boot up Windows 95 on the HP OmniBook 800 as you normally would.
2. Insert the 3COM EtherLink III LAN+Modem PC Card (3C562) into one of the available PC Card slots located on the upper left of the HP OmniBook 800.
3. Microsoft Windows 95 will auto-detect the cards insertion and will prompt with a 'Windows 95 has found new hardware' dialog box. Windows 95 will now build the driver database for the known devices.
4. Once Windows 95 has built the device database, you will be prompted on what type of driver to install. Select the default, 'Driver from disk provided by hardware manufacturer' and select 'OK' to continue. Windows 95 will ask for the location of the driver disk. Insert the 3COM EtherDisk version 5.1 into the floppy drive and ensure that the path is A:\. Then press the 'OK' box to give Windows 95 the correct location of the disk.
5. Microsoft Windows 95 will prompt you that it has found new hardware again. At the prompt, choose 'Driver from disk provided by manufacturer' as you did before and select 'OK' to continue. Give Windows 95 the correct location of the 3COM EtherDisk driver (A:\).

6. Microsoft Windows 95 will bring up a window for you to enter information so that the modem works correctly. Enter your area code and, if applicable, the digit to dial outside your area. Choose 'OK' once the correct information has been installed.
7. Windows 95 will, for the final time, find new hardware and will install it. Once again, choose 'Driver from disk provided by hardware manufacturer' and choose 'OK' to install. Windows 95 will ask for the correct location of the driver files. If the floppy is inserted into the floppy drive, give it the correct floppy drive letter then choose 'OK' to continue.
8. Windows 95 will now prompt you informing that you need to provide a workgroup name to identify your computer on the network. Enter a workgroup name then choose 'Close' to continue.
9. Windows 95 Setup will copy files to your hard disk. Give Setup the correct location where the Windows 95 files can be found. Once Windows 95 has completed copying files you will be asked to reboot Windows 95. After rebooting the 3COM EtherLink III 3C562 LAN+Modem adapter will function correctly. Confirm this by logging on to the network or by dialing out with the modem.

Installing The IBM Auto 16/4 ISA Token Ring Adapter

Requirements

- HP OmniBook 800 with Microsoft Windows 95 installed.
- HP OmniBook 800 Docking Station.
- IBM Auto 16/4 Token Ring ISA adapter.

Configuration

- Input/Output Range: 0A20-0A23
- Memory Range: 000DC000-000DFFFF
- Memory Range: 000DA000-000DBFFF
- Interrupt Request: 9

Procedure

1. Before inserting the IBM 16/4 ISA Token Ring adapter into the HP OmniBook 800 docking station, first successfully dock the HP OmniBook 800 into the docking station. Windows 95 will build a hardware profile called 'Dock 1' when you dock the HP OmniBook 800. If you need any assistance docking the HP OmniBook 800 please refer to your HP OmniBook Docking Station Users Manual.
2. Once you have docked the HP OmniBook 800 successfully and Windows 95 has created a hardware profile, shutdown the HP OmniBook 800.
3. Insert the IBM 16/4 ISA Token Ring card into the HP OmniBook 800 docking station. Also, connect a hot Token Ring LAN cable to the IBM 16/4 Token Ring adapter.
4. With the HP OmniBook 800 completely turned off, dock it by inserting it into the HP OmniBook 800 docking station.
5. Once correctly docked, turn on the HP OmniBook 800 and load Windows 95. Windows 95 will prompt you informing that it has found new hardware (IBM Auto 16/4 Token-Ring Adapter). You will be prompted to provide a workgroup and computer name for your machine. Insert this and any other LAN information that your local area network requires (i.e. add any additional protocols).

6. Once all of your network information is entered correctly, choose the 'Close' option. Windows 95 will copy necessary files to your hard disk then inform you that your computer needs to be restarted. Choose 'Yes' to restart your computer now.

7. Once Windows 95 restarts, the IBM 16/4 Token Ring LAN Adapter should function correctly. As Windows 95 is a Plug And Play (PnP) operating system, the system resources used may change. The following system resources were used by Windows 95 during this install:

Input/Output Range:	0A20-0A23
Memory Range:	000DC000-000DFFFF
Memory Range:	000DA000-000DBFFF
Interrupt Request:	9

Using Windows 95

Instant-On

- Under normal conditions the OmniBook 800 should be turned on and off by using the blue On/Off button. In this state the OmniBook is in its Instant-On/Off mode. If you need to completely power down the OmniBook you can choose Shutdown from the Start Menu and Windows 95 will automatically turn off the system (on AC or batteries). The next time the unit is turned on it will reboot and load Windows 95. To turn off the OmniBook using the keyboard press Ctrl-Alt-On/Off button. Either of these methods will power down the OmniBook immediately and any data that has not been saved will be lost. For more information on power management please refer to the Power Management chapter of this guide.

OmniBook 800 CD-ROM

- The first time the OmniBook CD-ROM drive is connected to the OmniBook 800, Windows 95 will build a new Hardware Configuration called Dock 1, this adds the SCSI adapter to the Hardware profiles.
- The SCSI adapter should be removed from the undocked hardware configuration.
- To disconnect the CD-ROM from the OmniBook you should choose Eject PC from the Start Menu in Windows 95. This will prevent unexpected results when the CD-ROM drive is removed.
- You can set up your system to automatically detect and respond when you insert a CD into the CD-ROM drive. For example, Windows 95 can automatically start playing an audio CD when you insert it. However, this setup prevents the OmniBook from automatically turning off after a period of inactivity if the CD-ROM drive is present.
  - To set up automatic CD detection, open Control Panel, System, then on the Device Manager tab find the CD-ROM drive and click Properties. On the Settings tab, select the Auto Insert option.
- In order to play Audio CDs through the OmniBook 800's internal speakers, do the following:

1. To install the Windows 95 CD Player, go to the Control Panel and choose Add/Remove Programs. Select the Windows Setup tab and double click on Multimedia. Select the CD Player and click OK. The CD player can then accessed through Start-Programs-Accessories-Multimedia.
2. Connect a 1/8" stereo phono plug from the phone jack on CD-ROM to the line-in input on the OmniBook 800. The output level can be controlled by the Volume control on the CD-ROM.

Using The Infrared Port

- When the Infrared Monitor is running it causes the OmniBook 800 to use extra power. If the OmniBook is being operated from batteries the IR Monitor should be turned off if not being used. If the IR Monitor is running it can reduce battery life by up to 10%.

RAS, IrDA and Instant On

- If you are using IrDA and experience connection reliability problems check the Device Manager to see if RAS is enabled in your current Hardware Profile. If it is, uncheck it and see if this improves connection reliability.
- If when resuming from suspend the OmniBook seems to take an unusually long time to become responsive after being turned on , check the Device Manager to see if RAS is enabled in your current Hardware Profile. If it is and there is no modem present in the OmniBook RAS may be looking for one during the Windows 95 startup process. Try unchecking RAS from the current Hardware Profile.
- If, upon docking, plugging in a PCMCIA LAN card or using and IrDA LAN connection, you find that your TCPIP connections are not re-established, check the Device Manager to see if RAS is enabled in your current Hardware Profile. If it is, uncheck it and see if this improves TCPIP reliability.

Running MS-DOS Programs outside Windows 95

- You might want to run an MS-DOS program outside Windows 95, but still have SCSI, PCMCIA, and other system devices enabled. To do this, use the special MS-DOS Mode command:

    1. Click Start, Programs, OmniBook, MS-DOS Mode. This shuts down Windows and loads drivers for MS-DOS.
    2. Run your MS-DOS program.
    3. When you're done, type exit to restart Windows.

OmniBook Docking Station

- Each OmniBook Docking Station has a unique hardware ID. Windows 95 will automatically setup a separate configuration for each Docking Station you use. This will allow you to access different hardware in each Docking Station and even to set different screen resolutions.
- When setting up an OmniBook Docking Station for the first time, Windows 95 will require you to reboot three times. During the second reboot the system will start in 640x480. Windows will build a driver information database then ask you to reboot again. When Windows 95 restart it will display 800x600 correctly.

- When you dock the OmniBook the Suspend option on the Start menu is changed to Eject. Use this to eject the OmniBook from the Docking Station. If you are having trouble undocking, shutdown Windows 95 then undock the OmniBook using the front button on the right side of the Docking Station. It has a picture of a lock on it.
- When the OmniBook 800 is undocked it will turn off. To resume operation press the blue On/Off button.
- If you install a network card in your docking system, Windows 95 automatically adds the card to both your docked and undocked hardware configurations. You should remove the card from all invalid configurations. Open Control Panel, System, and look at the Device Manager tab. Select the network card (adapter) you installed and click Remove, then remove the card from ONLY the configurations that do not use the network card (such as undocked and Dock 1).
- The SCSI adapter should also be removed from the undocked hardware configuration.
- Do not remove devices such as the keyboard, mouse, or display from any hardware profile.
- It is possible to see a Fatal Exception Error in NDIS if a new Dock profile is created at the same time a new network card is installed. To recover, undock the OmniBook, remove the network card in Control Panel, Network, restart Windows 95, dock the OmniBook and reload the network drivers. It is possible to see this same error if the OmniBook is docked and then undocked within 30 seconds.
- When setting up an external video card in Windows 95, Setup will ask you to reboot to activate the video card. Choose yes, then press the reset button as soon as Windows 95 shuts down. This will correctly activate the external video card.

Windows NT 3.51

Installing Windows NT 3.51

Requirements

- HP OmniBook 800
- Microsoft Windows NT 3.51 CD-ROM and three Boot floppies
- 16MB of RAM (preferably 24-32MB)
- HP OmniBook 800 external CD-ROM drive connected via SCSI cable connection to back of HP OmniBook 800.
- HP OmniBook 800 external 3.5" floppy disk drive connected to HP OmniBook 800.

Before you Start

Make sure that you have the available HP OmniBook 800 specific drivers for Microsoft Windows NT 3.51 Workstation. These drivers can be located in the C:\OMNIBOOK\DRIVERS\NT directory. These drivers can also be found on the HP OmniBook 800 Recovery CD. If you plan to format the drive in order to have Windows NT as the sole operating system, make copies of these drivers before formatting the drive. If you do plan on formatting the drive, backup any critical files that you may need in the future.
This installation guide assumes that either the hard drive is blank and has been formatted for a FAT (File Allocation Table) file system or contains a resident operating system of Microsoft Windows 95. Also, installation is assumed to be local over a CD-ROM drive. For information on a distributed share (or network installation) please refer to *the Microsoft Windows NT Resource Guide*. Specifically chapter 3 "Customizing Windows NT Setup" for further information.

IMPORTANT: Before installing Windows NT 3.51 on the OmniBook 800 you must make a setting change in the System Configuration Utility (SCU). Boot up the OmniBook 800 and press the 'F2' key to enter SCU. Under the 'System' heading, choose 'Boot Devices' then put a check mark next to the 'Force PCI Bridge Configuration' title. This will allow Windows NT to detect all hardware in the OmniBook 800. If this is not done, the installation process will crash on the second boot

up disk. Microsoft is aware of this problem and needs to make changes to Windows NT for the VLSI chipset. When a software patch is available it will be posted to our electronic distributions.

Procedure

1. Confirm that the HP OmniBook 800 is completely turned off. If you are in a Windows 95 session, exit by choosing 'Start Menu' then 'Shutdown.' Windows 95 will shutdown the OmniBook 800.
2. Confirm that the external CD-ROM drive and the external floppy disk drive are both connected to the OmniBook 800. Also, plug in the AC adapter to provide uninterrupted power during the installation process.
3. Insert the Windows NT 3.51 Workstation Setup Boot Disk into the external floppy disk drive. Place the Windows NT 3.51 Workstation CD-ROM into the external CD-ROM drive.
4. Power up the HP OmniBook 800 by pressing the 'On/Off' button located at the top right side of the keyboard. This will allow the boot process to load from the floppy drive. During this process, Windows NT will load all necessary files. Also, power up the CD-ROM drive by pressing the power button on the right side near the rear of the unit.
5. The setup program will then prompt you for Setup Book Disk #2. Insert the disk then press the 'Enter' key. Setup loads necessary files for installation from disk #2.
6. Setup will prompt you with the 'Welcome to Setup' message. Press 'Enter' to setup Windows NT 3.51 now.
7. Setup now prompts you to choose between 'Express' or 'Custom' setup options. Press the 'C' key to do a Custom Setup. Setup will ask you whether you want to specify your hardware components or have Windows NT find them. Press the 'Enter' key to let Windows NT auto-detect hardware components. Setup will now ask for 'Setup Book Disk #3'—place Setup Book Disk #3 into the floppy drive then press the 'Enter' key.
8. Setup now begins a detection process to determine what type of drivers need to be loaded. Depending on whether the device is detected or not, you should follow the applicable instructions on the screen. The default is pressing 'Enter' because the device is recognized and the device drivers are loaded. In the case of the HP OmniBook 800, the 'NCR PCI (53c810)' device will be detected and loaded.
9. Microsoft Windows NT 3.51 Workstation Setup will prompt you for the type of installation (floppy or CD-ROM). Press 'Enter' to choose CD-ROM installation. Windows NT Setup will now prompt you with a summary of the hardware components in the HP OmniBook 800. You need to make one change at this point—at the 'Display' line change the setting from 'VGA or Compatible' to 'Standard VGA (640x480, 16 colors).' After making tis change highlight 'The

above list matches my computer' then press Enter. The next Windows NT prompt will ask which drive you want to install Windows NT on. Choose the corresponding drive that meets your needs then press the 'Enter' key. Setup requires the user to make a file system type selection. Follow the Windows NT installation instructions and choose the type of file system that meets your needs. Windows NT setup will also ask you where to install the system files.

Note: For a detailed discussion of FAT, HPFS, and NTFS file systems, please refer to the *Microsoft Windows NT Resource Guide* within the *Microsoft Windows NT Resource Kit*. Specifically chapter 5 'Windows NT File Systems and Advanced Disk Management.'

10. Setup will ask if you want to perform an 'exhaustive test' of the hard disk. Follow the instructions on the screen to perform or to skip the test. Setup will now copy files from the CD-ROM to the hard disk. Setup will now ask you to remove the 3.5" floppy disk drive from the 3.5" floppy drive and then press the 'Enter' key to reboot. Windows NT setup will now reboot the HP OmniBook 800. Once the HP OmniBook has rebooted, Setup will continue.

11. Continue Windows NT Setup by entering your name and company name then press the 'Enter' key. Confirm the input by pressing the 'Enter' key once again or choosing the 'Continue' option. You will now be prompted for the product identification number. This number is stamped on the back of the Windows NT jacket. You should enter the unique ID number and press the 'Continue' option. Follow by pressing 'Continue' or pressing the 'Enter' key to confirm the product ID number.

12. Windows NT requires you to provide a computer name to be recognized by a domain server (if applicable). Type in a unique name (15 characters maximum) and choose 'Continue.' Choose 'Continue' again to verify the computer name.

13. Setup will ask for you to enter the correct language. Choose 'Continue' for English (default) or select the appropriate language. Setup will ask which components you wish to install. Press 'Continue'. Setup will now prompt you for local printer information. Choose your printer or choose cancel to setup a printer later.

14. Setup will now begin 'Network Card Setup.' Choose 'Continue, Continue, No Network, and then OK' for the next four screens to bypass network card installation. If you wish to install Windows NT networking, see the appropriate application note for your network adapter. Windows NT will now begin copying files from the CD-ROM to your hard disk drive.

15. After completion of CD-ROM file transfer, Setup will configure the Program manager's groups then prompt you for an administrative password. Enter this password then press the 'Continue' box. Setup will now prompt you for a local account. Enter the correct information then press 'Continue.'

16. Windows NT will now ask how large you wish to set the page file. Press the 'Continue' button to proceed.

17. Windows NT 3.51 Setup will prompt you to enter the correct time and date. Enter this information and choose the 'OK' box.

18. A detected display will now pop up asking the you to set the size and number of colors for the display. Let Windows NT Setup keep the VGA display setting it has chosen by choosing the 'OK' box. Choose 'OK' again to complete the video section of Windows NT Setup. Since Windows NT will not let you set up the correct video display adapter at this time, later in this chapter instructions will be given on changing the video display adapter to the correct settings.

19. Windows NT 3.51 Workstation reports that it is saving configuration information. Windows NT will now ask you to create an 'Emergency Disk.' Windows NT will now reboot the OmniBook 800. After completion of the reboot, Windows NT 3.51 will be successfully installed on the HP OmniBook 800.

Installing Video Support

Requirements

- HP OmniBook 800 with Microsoft Windows NT 3.51 installed
- HP OmniBook 800 drivers for video. This driver is located on the HP OmniBook 800 hard drive in the C:\OMNIBOOK\DRIVERS\NT\VIDEO\NT351 directory. These drivers are also located on the HP OmniBook 800 Recovery CD.

Procedure

1. Boot the OmniBook 800 and load Microsoft Windows NT 3.51. Logon with administrative permissions.
2. From the 'Main' program group double click on 'Control Panel.'
3. From within Control Panel, double click on 'Display.'
4. Under Display Settings choose 'Change Display Type.'
5. In the 'Adapter Type' panel, choose the 'Change' dialog box.
6. This will bring the 'Select Device' dialog box to the foreground. Choose the 'Other' dialog box (located at the very bottom of the Select Device window).
7. Windows NT will now ask you for the location of the video driver files. Enter the location (either C:\OMNIBOOK\DRIVERS\NT\VIDEO\NT351 or any other location that has the correct driver) of the driver files.
8. Windows NT will bring up a new window with the 'NeoMagic' model selected. Choose 'Install' to install the NeoMagic video driver for Windows NT.
9. Windows NT will prompt you with the following message: "This operation will change your system configuration. Do you want to proceed anyway?" Choose 'Yes' to continue with the driver installation.
10. Windows NT will ask for the location of the drivers for the NeoMagic video adapter. Enter the correct driver then choose 'Continue.'
11. Windows NT will load the driver and display that the driver has been successfully installed. Choose 'OK.' Windows NT will prompt informing that the driver could not be started dynamically and will ask you to restart Windows NT to run with the new driver. Choose 'OK' and then choose 'Restart Now' to restart the HP OmniBook with the correct video driver installed.

12. After restarting the HP OmniBook with Windows NT 3.51 the default display resolution has been temporarily used by the system. Windows NT will prompt you upon login to use the Display option in Control Panel to configure the adapter. Choose 'OK' at this prompt then under 'Display Settings' change the 'Desktop Area' to 800 by 600 pixels and set the number of colors to 256. Then choose 'Test' to confirm that the adapter works at these settings. If the adapter worked correctly choose 'OK' then choose to restart Windows NT. The HP OmniBook 800 video will now function correctly while running Windows NT 3.51 Workstation.

Installing Sound Support

Requirements

- HP OmniBook 800 with Microsoft Windows NT 3.51 Workstation installed.
- HP OmniBook 800 drivers for sound. These drivers are located on the HP OmniBook 800 hard drive in the C:\OMNIBOOK\DRIVERS\NT\SOUND directory. The files can also be found on the HP OmniBook 800 Recovery CD.

Procedure

1. The sound chip for the OmniBook 800 is integrated into the system board of the unit. Enter the SCU of the HP OmniBook 800 by pressing 'F2' upon booting the system. Once in the SCU, confirm that the audio is set to the following settings by choosing the 'Input/Output' menu, 'Audio Ports', and then choose 'Advanced Audio.' The following settings should be confirmed (these are the default settings):

Audio		Wave 2 Audio	
IRQ	5	IRQ	11
DMA	1	DMA	5
Address	220		

   If the settings do not match the above, change them to match by using the tab key. Or if you wish to change the settings so that no conflicts occur in your environment, change the settings—although these default settings are highly recommended. Once the settings are correct, save and exit the SCU and load Microsoft Windows NT 3.51 Workstation.

2. From the 'Main' Program Group, double click on the 'Control Panel' icon.
3. From within Control Panel, double click on the 'Drivers' icon.
4. Windows NT brings up a drivers windows. Choose 'Add' from this window.
5. At the next window, choose 'OK.' This selects the default option (Unlisted or Updated Driver).
6. Windows NT will now ask for the location of the driver. Enter the correct location of the driver files at the prompt then choose 'OK.'
7. The following driver will appear in the window: 'ES1888/ES1868/ES888 AudioDrive 2.00.04.' Choose 'OK' to install this driver.
8. The driver will need to know an appropriate I/O address. These settings must match what the SCU settings are for sound. Choose the default 220 address by selecting 'Continue.' The driver will now need to know the appropriate resources to use. In

the 'Settings' dialog box choose the following settings (these are the defaults, if you changed the settings in the BIOS for some reason, you will need to make the same changes here):

I/O Address:	220
IRQ:	5
Capture DMA:	1
MPU 401 Address:	330
Playback DMA:	5
Playback IRQ:	11

Once the following has been entered choose 'OK.' Windows NT will load the driver then prompt you that you must reboot your computer for the changes to take effect. Choose to reboot the OmniBook 800 now. After completion of the reboot, the audio capabilities should work under Windows NT 3.51 Workstation.

Installing Mouse Support

Requirements

- HP OmniBook 800 with Microsoft Windows NT 3.51 Workstation installed.
- HP OmniBook 800 drivers for the Mouse. These drivers are located on the HP OmniBook 800 hard drive in the C:\OMNIBOOK\DRIVERS\NT\MOUSE directory. The files can also be found on the HP OmniBook 800 Recovery CD.

Procedure

1. Copy the files in the directory of the default HP build of Windows 95 or Windows for Workgroups C:\OMNIBOOK\DRIVERS\NT\MOUSE to a 3.5" floppy disk.
2. Boot up Windows NT 3.51 as you normally would. Insert the 3.5" floppy disk with the mouse driver files into the HP OmniBook 800 floppy disk drive. Create a new directory called 'mouse' on the root of the C: drive. Copy the files on the floppy disk drive to the 'mouse' directory.
3. Double click on 'setupamc.exe.'
4. Reboot the HP OmniBook 800. The correct mouse driver will now function correctly.

Installing SCSI Support

Requirements

- HP OmniBook 800 with Windows NT 3.51 installed.
- HP OmniBook 800 Microsoft Windows NT SCSI driver. This driver can be found on the HP default build in the following directory: C:\OMNIBOOK\DRIVERS\NT\SCSI. This driver can also be found on the HP OmniBook 800 Recovery CD.

Procedure

1. Boot Windows NT and log on as administrator.
2. Open the 'Main' window in Program Manager. Double-click on Windows NT Setup.
3. Choose 'Options' then 'Add/Remove SCSI Adapters.'
4. Choose to 'Remove' the current SCSI Adapter by highlighting it and then choosing the Remove button. When asked to enable or disable 'Fast 20' choose the default of disabling it by selecting 'Cancel.'
5. Now choose 'Add' to add an adapter. Scroll down to 'Other requires disk from manufacturer.' Windows NT will ask for the location of the driver. Enter the path where the driver disks can be found. Windows NT will find the 'Symbios Logic PCI (53c8XX)' choose 'OK' to load this driver.
6. Once Windows NT has loaded the driver, you will be asked to reboot. Once rebooted, the SCSI adapter will function correctly.

Installing the 3COM 3C562 Etherlink III LAN+28.8 Modem PC Card

Requirements

- HP OmniBook 800 with Microsoft Windows NT 3.51 installed.
- HP OmniBook 800 external floppy disk drive connected to OmniBook 800. (Depending on where the Windows NT files are located, the OmniBook external CD-ROM drive may need to be connected).
- Microsoft Windows NT CD-ROM, Windows NT files on a local hard disk, or available from a shared network drive.
- 3COM 3C562 PC Card.
- 3COM 3C562 driver disk for Microsoft Windows NT 3.51. To get this driver you must call the 3COM BBS at 408 980 8204 or visit the 3Com WWW site at http://www.3com.com.
- Live modem line and cable to connect to 3COM 3C562 card.

Configuration

- I/O Port Address: 0x300
- Memory Address: 0xD4000
- Interrupt: 3
- Com Port: COM2

Procedure

Network

1. Confirm that the OmniBook 800 is completely turned off. If you are in a Windows NT session, exit and choose 'Shutdown' to shutdown the OmniBook 800.

2. Insert the 3COM EtherLink III 3C562 PC Card into the PC Card slot on the HP OmniBook 800. Power up the OmniBook 800 and load Microsoft Windows NT 3.51. Log on to Windows NT when prompted with administrative permissions.
3. Within the 'Main' program group, double click on the 'Control Panel' icon. Double click on the 'Network'' icon. Windows NT will ask you if you want to install Windows NT Networking, choose 'Yes' to continue.
4. Windows NT will ask you for the location of the Windows NT Setup files, enter the correct path then choose 'Continue'. Setup prepares network card selection at this time.
5. Setup will prompt you asking if you want Windows NT to auto-detect the network card. Choose 'Do Not Detect'. The next prompt will ask you if you are connecting remotely (using RAS) or locally (over a LAN), choose continue to install Windows NT LAN networking.
6. Windows NT Network Setup will now ask you for the name of the network card. Scroll down to the label '<Other> Requires disk from manufacturer.' Highlight this option then choose 'Continue'.
7. Setup will now prompt you for the location of the disk containing the network card information. Enter the path where the driver disk files can be found on your local hard disk and then choose 'OK' at the prompt.
8. Windows NT Setup locates the '3COM EtherLink III LAN+288 Modem PC Card (3C562).' Choose 'OK' to continue with installation.
9. The 3COM EtherLink III LAN+288 Modem PC Card V1.50 setup dialog box appears next. Choose the following settings:

I/O Port Address:	0x300
Memory Address:	0xD4000
Interrupt:	7
Cable:	<Your network selection>
LAN Only Mode:	Disabled
Com Port:	COM2

   Now choose the 'Continue' option to continue with installation. Windows NT Network Setup will continue to load files. NOTE: You might get a network warning informing you of a dependency service or group failure that prevented the network from starting. Choose OK at this prompt. Then choose No at the next dialog box. Now enter your correct workgroup or domain information and then restart the HP OmniBook by selecting the restart box Windows NT prompts you with.
10. Windows NT will now ask you for the appropriate network protocols to install. Select the protocols you desire then choose 'Continue.' Setup will bring up the 'Network Settings' window. Choose 'OK' to install the network options. Insert the correct protocol information for the protocols you selected then choose 'OK.'

11. Windows NT will now prompt you that the HP OmniBook 800 needs to be rebooted. Choose 'Restart Now' to reboot the OmniBook 800 with networking installed. Once the OmniBook 800 reboots, Windows NT 3.51 Workstation networking will be installed and functioning.
12. Verify proper setup of the network installation by attempted to log on to the network.

Modem

Note: This modem procedure assumes that you have followed the above network card installation.

13. Boot up Windows NT 3.51 with the 3COM card inserted into the PC Card slot on the HP OmniBook 800.
14. Connect the 3COM phone adapter into the appropriate connection located on the 3COM card. Also, plug the phone cable into a live phone jack and also into the 3COM phone adapter.
15. Under the 'Accessories' Program Group double click on 'Terminal.' In Terminal choose 'Settings' then 'Communications.' Under the Connector heading, make sure that COM2 is highlighted. Also change the Baud Rate to 57.6K. Choose OK to close the window. Now type 'AT' in the Terminal window and hit the Enter key. If your modem is working correctly, Terminal will respond with a 'OK' reply.

Windows NT RAS

Note: To install Microsoft Windows NT 3.51 RAS, you must update the modem.inf file that Windows NT uses to identify modems. This file can be obtained from the 3COM World Wide Web page (http://www.3com.com). From the 3COM home page follow the following links: Customer Support, Software Library, 3COM FTP site, Pub, Software-Library, Files-by-Product-Family, Modems, and download the file called 562scrip.exe. Execute this file and follow the directions in the INSTALL.TXT file to correctly append the information to the modem.inf. The following instructions should be similar, although not exact, to the INSTALL.TXT file located in the 562scrip.exe file.

16. Open the 'Main' Program Group then double click on the 'Control Panel' icon. From the Control Panel icon double click on the 'Network' icon.
17. Choose 'Add Software' from the Network Settings window. A 'Add Network Software' dialog box will appear. Scroll down and highlight 'Remote Access Service' then choose 'Continue.' Windows NT will now ask for the location of the Windows NT files—put the correct path in then choose 'Continue.'' Windows NT will copy the necessary files to your hard disk.

18. Windows NT Setup will prompt you to add a port. Select to add COM2 then choose 'OK' to continue.

19. Windows NT will now try to detect the modem you are installing but will not be successful. Choose the 'Hayes Compatible 14400' modem manually. Although this is not the correct 3COM Modem, we must select a different modem then after editing the modem.inf file we can return and choose the correct 3COM modem.

20. Windows NT will now need to be rebooted. Reboot the OmniBook 800 and log back on the Windows NT 3.51.

21. Copy the 3COM file named 562RAS.INF to the C:\windows\system32\ras directory. By uncompressing the 562scrip.exe file you can find the 562RAS.INF file. Open a DOS emulated shell and follow the following steps:

    CD C:\WINDOWS\SYSTEM32\RAS
    copy modem.inf modem.bak
    type 562ras.inf >> modem.inf

    Now, enter the 'Networking' control panel. Select the 'Remote Access Service' and choose to 'Configure' the service. Remove the 'Hayes Compatible 14400' modem that you installed originally and select to 'Add' a modem. Do not let Windows NT detect a modem, instead choose the 3COM 3562C modem which will now be listed as one of the first available modems. Windows NT 3.51 RAS will now be available for use.

Installing the Xircom Ethernet IIps PCMCIA Adapter

Requirements

- HP OmniBook 800 with Microsoft Windows NT 3.51 installed.
- HP OmniBook 800 external floppy disk drive connected to OmniBook 800. (Depending on where the Windows NT files are located, the OmniBook external CD-ROM drive may need to be connected.)
- Microsoft Windows NT CD-ROM, Windows NT files on a local hard disk, or available from a shared network drive.
- Xircom Ethernet IIps PC Card.
- Xircom Ethernet IIps driver disk 2, version 2.21.

Configuration

- I/O Port Address: 0x300
- Memory Address: 0xd4000
- Interrupt: 3
- Full Duplex: No
- Mode: I/O Mode

Procedure

1. Confirm that the OmniBook 800 is completely turned off. If you are in a Windows NT session, exit and choose 'Shutdown' to shutdown the OmniBook.
2. Insert the Xircom Ethernet IIps PC Card into the PC Card slot on the HP OmniBook 800. Power up the OmniBook 800 and load Microsoft Windows NT 3.51. Logon to Windows NT when prompted with administrative permissions.
3. Within the 'Main' program group, double click on the Control Panel icon. Next, double click on the 'Network' icon. Windows NT will ask you if you want to install 'Windows NT Networking', choose 'Yes' to continue.
4. Windows NT will ask you for the location of the Windows NT Setup files. Enter the correct path (if you are using the CD-ROM you would put the path to the CD-ROM drive) then choose 'Continue'. Setup prepares network card selection at this time.

5. Setup will prompt you asking if you want Windows NT to auto-detect the network card. Choose 'Do Not Detect'. The next prompt will ask you if you are connecting remotely or locally, choose 'Continue' to install Windows NT networking locally.
6. Windows NT Network Setup will now ask you for the name of the network card. Scroll down to the label '<other> Requires disk from manufacturer.' Highlight this option then choose 'Continue'.
7. Setup will now prompt you for the location of the disk containing the network card information. Place the Xircom network driver disk #2 version 2.21 into the floppy disk drive (A:\) and then choose 'OK' at the prompt.
8. Windows NT Setup locates the Xircom CreditCard Ethernet IIps. Choose 'OK' to continue with the installation.
9. The Xircom CreditCard Ethernet IIps setup dialog box appears next. Choose the following settings by manually adjusting them:

I/O Port Address:	0x300
Memory Address:	0xd4000
Interrupt:	3
Full Duplex:	No
Mode:	I/O Mode
Early Transmit:	On
Link Integrity:	Enabled
Cable:	Auto Detect

   Now choose the 'Continue' option to continue with installation. Windows NT Network Setup will continue to load files.
10. Windows NT will now ask you for the appropriate network protocols to install. Select the correct protocols you desire then choose 'Continue.' Setup will bring up the 'Network Settings' window. Choose 'OK' to install the network options. Insert the correct protocol information for the protocols you selected then choose 'OK.'
11. Windows NT will now prompt you informing that the HP OmniBook 800 needs to be rebooted in order for Windows NT networking to finish installation. Choose 'Reboot Now' to reboot the OmniBook 800. Once the OmniBook 800 reboots, Windows NT 3.51 Workstation networking will be installed and functioning.
12. Verify proper setup of the network installation by attempted to log on to the network.

Installing the IBM Auto 16/4 Token-Ring ISA Adapter

Requirements

- HP OmniBook 800 with Microsoft Windows NT 3.51 installed.
- HP OmniBook 800 docked into an HP OmniBook 800 docking station.
- HP OmniBook 800 external floppy disk drive and CD-ROM drive connected to OmniBook 800 docking station.
- Microsoft Windows NT CD-ROM, Windows NT files on a local hard disk, or available from a shared network drive.
- IBM Auto 16/4 Token-Ring ISA Adapter.
- IBM Auto 16/4 Token-Ring ISA Adapter driver disk 1 labeled LANAID.

Configuration

- Interrupt: 9
- IO Base Address: A20-A23
- ROM Address: DA00-DBFF
- RAM Address: DC00-DFFF
- RAM size: 16kb
- Auto Sense: Enabled
- Remote IPL: Disabled

Procedure

1. Confirm that the HP OmniBook 800 external CD-ROM and floppy are connected to the docking station ports. Ensure that the IBM Token-Ring ISA adapter is properly installed into the docking station. Ensure that the HP OmniBook 800 is properly docked into the docking station. For information on docking and undocking or, installing adapter cards into the HP OmniBook 800 docking station, please refer to your Docking Station manual.
2. Insert the IBM Auto 16/4 Token-Ring driver disk 1 labeled LANAID into the floppy disk drive and then power up the HP OmniBook 800—this will allow a boot off of the floppy drive.

3. At the first prompt, choose option 2—to configure the IBM 16/4 Auto Token-Ring adapter. Hit the space bar to continue with the LANAID program. LANAID will take a few minutes to load the program. At the next window, choose 'Continue' to continue with the procedure. Choose the 'Standard Install' button at the next window. Now choose 'Configuration' to confirm the configuration of the card. Choose Plug-n-play then check Lock System Resources. The following settings should be used to ensure proper function:

Interrupt:	9
I/O Address:	A20-A23 (Primary)
ROM Address:	0DA000-0DBFFF
RAM Address:	0DC000-0DFFFF
RAM size:	16kb
Auto Sense:	Enabled
Remote IPL:	Disabled

   After confirming these settings choose the 'Store' button to save the configuration. Now choose the 'Done' button. To test the configuration, choose 'Quick Test' at the next window. The test should reply with a pass result. Choose 'OK'' then 'Exit' to exit the configuration utility. Remove the floppy disk from the floppy drive and reboot the HP OmniBook 800 into Windows NT 3.51.

4. Within the 'Main' Program Group, double click on the 'Control Panel icon. Double click on the 'Network' icon. Windows NT will ask you if you want to install Windows NT Networking, choose 'Yes' to continue.

5. Windows NT will ask you for the location of the Windows NT Setup files, enter the correct path then choose 'Continue.' Setup prepares network card selection at this time.

6. Setup will prompt you asking if you want Windows NT to auto-detect the network card. Choose 'Continue' to let Windows NT auto detect the card. Windows NT will automatically locate the 'IBM Auto Token-Ring Adapter.' Choose 'Continue' to proceed. At the next window will be setup prompting for I/O Base Address. Choose 'Primary' then select the 'Continue' button.

7. Windows NT will now ask you for the appropriate network protocols to install. Select the correct protocols you desire then choose 'Continue.' Setup will bring up the 'Network Settings' window. Choose 'OK' to install the network options. Insert the correct protocol information for the protocols (IP address, subnet mask etc.) you selected then choose 'OK.' Windows NT will also need either a Workgroup or Domain to become a member of. Enter the correct information corresponding to your network then choose 'OK.'

8. Windows NT will now prompt you that the HP OmniBook 800 needs to be rebooted. Choose 'Reboot Now' to reboot the OmniBook 800 with networking installed. Once the OmniBook 800 reboots, Windows NT 3.51 Workstation networking will be installed and functioning.

9. Verify proper setup of the network installation by attempted to log on to the network.

Using Windows NT 3.51

Power Management & Plug-n-Play:

Windows NT 3.51 is not an Advanced Power Management (APM) aware or Plug and Play (PnP) compatible operating system. This is a challenge for mobile users who want to use Windows NT with their portable computer.

- PC Cards (PCMCIA) cannot be hot swapped into any laptop with Windows NT. Windows NT 3.51 does not support dynamic allocation of resources. PC Cards must be inserted into the unit before booting.
- PC Card sockets are not enabled after resuming. PC Cards are inoperable after a true suspend then resume cycle. Again, after a reboot the sockets are restarted.
- The operating system's clock is stopped when suspended and does not re-synchronize with the hardware clock when resuming. When users resume NT's clock starts up exactly where it was when they suspended. The clock is reset during reboot of your portable, when Windows NT reads the hardware's real time clock.
- The OmniBooks standby (pressing On/Off with AC inserted) mode is not affected since only the display, keyboard, sound, and mouse are turned off by the BIOS. The CPU and network cards are still active and operating normally.

Solutions:

Two models of everyday use are possible: Desktop and Instant On/Off.

- In the desktop model, you use your portable like a desktop that you can pick up and take with you. When you need to change hardware (plug in a PC Card) or take your portable somewhere else (a meeting) you should shutdown Windows NT 3.51. Then press Ctrl+Alt+Blue button to completely turn off the computer. After adding a PC Card or relocating reboot Windows NT. This allows NT to synchronize its time with the hardware clock and allocate resources for new cards during its boot up process.
- The other model, Instant On/Off works well with Windows NT as long as you keep in mind the constraints of Windows NT. After resuming your portable from suspend you will not be able to use the PC Card devices until you have rebooted. Also, time will be incorrect until you manually change it or reboot. When adding or removing cards you should power down, change the card, then reboot.

Example

A common situation is where you are at your desk and need to go to a meeting. At the meeting you want to take notes on your portable.

- With the Desktop model, you would close your applications and shutdown Windows NT. Then completely turn off the OmniBook by pressing Ctrl+Alt+Blue button. In the meeting you turn on the computer and boot up Windows NT. Open your applications and take notes. At the end of the meeting, save your file, then close the application, shutdown Windows NT and power down the computer. Once back at your desk turn on your computer and run your applications. This ensures the clock is correct and all PC Card devices are powered up.
- In the Instant On/Off model, you would save any open files then suspend. Windows NT's lack of APM causes it to take a little longer to suspend. Go to the meeting and resume. Take notes, save data, then suspend. Before you want to use your PC Card devices you will need to shutdown Windows NT then restart your computer. Also, the computers clock will be incorrect until rebooting or manually changing it. The clock will be off the amount of time that Windows NT was in the suspend mode.

OmniBook 800 Docking Station:

When the OmniBook is completely off and you dock it (cold docking), by turning on the power Windows NT will boot up and recognize all PCI, ISA, and PC Cards in the system. As NT boots it will allocate resources and initialize the devices. This configuration is essentially the same as a desktop PC.

When the OmniBook is running or suspended and you dock it (hot docking), Windows NT will not recognize any PCI or ISA cards in the dock. You must restart Windows NT after you either dock or undock for the current hardware setup to be recognized.

Windows NT 4.0

Installing Windows NT 4.0

Requirements

- Hewlett Packard OmniBook 800 with floppy drive and CD-ROM drive attached.
- 16MB of memory (24MB or more recommended)
- Microsoft Windows NT 4.0 CD-ROM disk with the 3 setup floppy disks.

Before you Start

Make sure that you have the available HP OmniBook 800 specific drivers for Microsoft Windows NT 4.0 Workstation. These drivers can be located in the C:\OMNIBOOK\DRIVERS\NT directory. These drivers can also be found on the HP OmniBook 800 Recovery CD. If you plan to format the drive in order to have Windows NT as the sole operating system, make copies of these drivers before formatting the drive. If you do plan on formatting the drive, backup any critical files that you may need in the future.
IMPORTANT: Before installing Windows NT 4.0 on the OmniBook 800 you must currently make a setting change in the System Configuration Utility (SCU). Boot up the OmniBook 800 and press the 'F2' key to enter SCU. Under the 'System' heading, choose 'Boot Devices' then put a check mark next to the 'Force PCI Bridge Configuration' title. This will allow Windows NT to detect all hardware in the OmniBook 800. If this is not done, the installation process will crash on the second boot up disk. Microsoft is aware of this problem and needs to make changes to Windows NT for the VLSI chipset. When a software patch is available it will be posted to our electronic distributions.

Procedure

1. Ensure that the HP OmniBook 800 is turned off. Make sure that the floppy disk drive and the CD-ROM drive is properly attached.
2. Insert the Windows NT 4.0 disk labeled 'Setup boot disk' into the floppy disk drive and insert the Windows NT 4.0 CD into the CD-ROM drive then boot up the HP OmniBook 800. This will allow the boot process to run on the floppy drive.
3. Windows NT will start the Setup program. Necessary files will be copied and then you will be asked to insert 'Windows NT Setup disk 2.' Insert this disk when prompted.

4. Setup will copy necessary files then will prompt you welcoming you to Setup. Press the 'Enter' key to set up Windows NT now. The next prompt will inform you that Setup automatically detects floppy disk controllers and standard ESDI/IDE hard disks without user intervention. Press the 'Enter' key to allow Setup to auto-detect mass storage devices.
5. Setup will now ask for 'Windows NT Workstation Setup disk 3.' Insert this disk into the floppy drive then press the 'Enter' key to continue.
6. Windows NT Setup will locate the following device: 'IDE CD-ROM (ATAPI 1.2)/Dual Channel PCI IDE Controller' and 'Symbios Logic C810 PCI SCSI Host Adapter.' After these devices are located, press the 'Enter' key to continue.
7. Windows NT Setup will copy necessary files. The next prompt will ask for confirmation of some computer settings. Change Display to Standard VGA (640x480 16 Colors) then press Enter. Windows NT Setup will now ask you for the location on the hard disk where you want to install Windows NT 4.0. Follow the instructions on the screen and choose where you want to install Windows NT 4.0.
8. Setup will now ask you for the name of the directory where you want the Windows NT files to be located on your hard disk. Choose the default, or change it, then press the 'Enter' key. Setup will now ask you if you want to do an exhaustive examination of your hard disk. If you want to perform this test press the 'Enter' key, if you wish to skip this press the 'Esc' key. Setup will now start to copy files to your hard disk—this may take several minutes.
9. Setup will now inform you that 'This portion of Setup has been completed successfully.' Remove the floppy disk from the floppy disk drive then press the 'Enter' key to reboot and continue Setup.
10. Upon rebooting, Windows NT will be automatically loaded. If you selected to use a NTFS file table, Windows NT Setup will reboot your machine twice. The graphical part of Setup will now begin. Note: Since Windows NT uses a default VGA video driver, the video will not be correct. The correct video driver is supplied—for more information on loading the correct video driver see the application note for Windows NT 4.0 Video Installation.
11. The first window will welcome you to Setup. Simply press the 'Next' button to let Setup gather information about your computer. The 'Setup Options' window will now be presented. Choose 'Typical' then press the 'Next' button to continue.
12. Windows NT Setup will now ask for your name and organization information. Insert this information then press the 'Next' key. The Registration window will be displayed. Enter your 10-digit CD-key then click 'Next'. You will be prompted for your computer name. Enter name and click 'Next.' You will then be prompted for an Administrative password. Enter the password then click 'Next.' Setup will ask if you wish to create an 'Emergency Disk.' Make your choice and click 'Next.'
13. Setup will ask you which components to install. Choose to install the most common components and click 'Next.' Click 'Next' again to install the components. Windows NT will prompt you to install networking. Choose 'Do not connect this computer to a network at this time' (you will be installing network support later.) Choose Continue then Finish in the next two windows. Enter your time zone when prompted. The Display Settings windows will

appear, follow the instructions on the screen and choose the default video adapter. After necessary files are copied, Windows NT 4.0 Setup will need to be rebooted. Reboot the HP OmniBook 800 and Windows NT 4.0 will be correctly installed on the HP OmniBook 800.

Installing Video Support

Requirements

- HP OmniBook 800 with Microsoft Windows NT 4.0 installed.
- HP OmniBook 800 Windows NT 4.0 video driver. This video driver can be obtained from the default HP Windows 95 build in the following directory: C:\OMNIBOOK\DRIVERS\NT\VIDEO\NT40\. The driver can also be found on the HP OmniBook 800 Recovery CD.

Procedure

1. Boot the HP OmniBook 800 with Microsoft Windows NT 4.0 and logon with administrative permissions.
2. Double click on the 'My Computer' icon then double click on the 'Control Panel' icon. From within the Control Panel icon, double click on the 'Display' icon. Choose the 'Settings' tab. Select the option 'Display Type.' Under the 'Adapter Type' choose the 'Change' box. Choose the 'Have Disk' option at the Change Display windows. Enter the location of the Windows NT 4.0 video driver for the HP OmniBook 800 then choose 'OK.'
3. The following adapter should be located by using the correct Windows NT 4.0 video driver: 'NeoMagic MagicGraph 128/Z/ZV'. Select this driver then choose 'OK' to continue.
4. Windows NT will prompt you that you are installing a third-party driver. Choose 'Yes' to install the driver and continue. Windows NT will load the necessary files and then will prompt you that you need to reboot in order for the changes to take effect. Choose 'OK' to continue. Close all of the video display windows and then select 'Yes' to reboot the HP OmniBook 800 (make sure you remove the floppy disk from the floppy disk drive).
5. Once rebooted the video driver will not appear to be in effect, Microsoft Windows NT will prompt you that a new graphics card has been installed. Choose 'OK' at this prompt and then change the 'Desktop Area' to 800x600 and change the colors to 256. Click the 'Test' button to test the adapter at this display setting. Choose 'Yes' to confirm that the test bitmap was successful. Choose 'OK' at the display properties window and Windows NT will set the screen resolution. The Windows NT 4.0 video driver is now installed correctly.

Installing Sound Support

Requirements

- HP OmniBook 800 with Microsoft Windows NT 4.0 installed.
- HP OmniBook 800 Windows NT sound driver. This driver can be found on the default HP Windows 95 build in the following directory: C:\OMNIBOOK\DRIVERS\NT\SOUND. This driver can also be found on the HP OmniBook 800 Recovery CD.

Procedure

Note: The sound chip for the OmniBook 800 is integrated into the system board of the unit. Enter the SCU of the HP OmniBook 800 by pressing F2 upon booting the system. Once in the SCU, confirm that the audio is set to the following settings by choosing the Input/Output menu, Audio Ports, and then choose Advanced Audio. The following settings should be confirmed (these are the default settings):

Audio		Wave 2 Audio	
IRQ	5	IRQ	11
DMA	1	DMA	5
Address	220		

If the settings do not match the above, change them to match by using the tab key. Or if you wish to change the settings so that no conflicts occur in your environment, change the settings—although these default settings are highly recommended. Once the settings are correct, save and exit the SCU and load Microsoft Windows NT 4.0 Workstation.

1. Boot Microsoft Windows NT 4.0 up on the HP OmniBook 800 and logon with administrative permissions.
2. Double click on the icon labeled 'My Computer.' Now double click on the 'Control Panel' icon. From within the Control Panel window, double click on the 'Multimedia' icon. This brings up the Multimedia Properties window. Choose the 'Devices' tab. Now choose the 'Add' options to add a device. Select the default highlighted option of 'Unlisted or Updated Driver' and then select 'OK.' Enter the path to the driver file for the HP OmniBook 800 sound driver. Windows NT Setup will bring up the following listed driver: 'ES1888/ES1868/ES888 AudioDrive 2.00.04.' Select 'OK' to install this driver.

3. Setup will prompt you for the 'ESS Base I/O Address.' Choose the default of 220 then choose 'Continue.' Setup now brings up the ESS 1888/ES888/ES1868 Configuration window. These settings must match what is set in the SCU—since the sound chip is on the system board of the HP OmniBook 800. Enter the following settings and choose 'OK.'

Capture DMA:	1
Capture IRQ:	5
MPU 401 I/O Address:	330
Playback DMA:	5
Playback IRQ:	11

4. Windows NT 4.0 will need to be restarted. Restart Windows NT 4.0 for the audio device to be in effect. After completion of the reboot, the Windows NT 4.0 audio driver will function correctly.

Installing Mouse Support

Requirements

- HP OmniBook 800 with Microsoft Windows NT 4.0 Workstation installed.
- HP OmniBook 800 drivers for the Mouse. These drivers are located on the HP OmniBook 800 hard drive in the C:\OMNIBOOK\DRIVERS\NT\MOUSE directory. The files can also be found on the HP OmniBook 800 Recovery CD.

Procedure

1. Copy the files in the directory of the default HP build of Windows 95 or Windows for Workgroups C:\OMNIBOOK\DRIVERS\NT\MOUSE to a 3.5" floppy disk.
2. Boot up Windows NT 4.0 as you normally would. Insert the 3.5" floppy disk with the mouse driver files into the HP OmniBook 800 floppy disk drive. Create a new directory called 'mouse' on the root of the C: drive. Copy the files on the floppy disk drive to the 'mouse' directory.
3. Double click on 'setupamc.exe.'
4. Reboot the HP OmniBook 800. The correct mouse driver will now function correctly.

Installing the 3COM 3C562 Etherlink III LAN+28.8 Modem PC Card

Requirements

- HP OmniBook 800 with Microsoft Windows NT 4.0 installed.
- HP OmniBook 800 external floppy disk drive connected to OmniBook 800. (Depending on where the Windows NT files are located, the OmniBook external CD-ROM drive may need to be connected).
- Microsoft Windows NT CD-ROM, Windows NT files on a local hard disk, or available from a shared network drive.
- 3COM 3C562 PC Card.
- 3COM 3C562 driver disk for Microsoft Windows NT 3.51/4.0. To get this driver you must call the 3COM BBS at 408 980 8204 or visit the 3Com web site at http://www.3com.com.
- Live modem line and cable to connect to 3COM 3C562 card.

Configuration

- I/O Port Address: 0x300
- Memory Address: 0xD4000
- Interrupt: 3
- Com Port: COM2

Procedure

Network

1. Confirm that the OmniBook 800 is completely turned off. If you are in a Windows NT session, exit and choose 'Shut down the computer' to shutdown the OmniBook 800.

2. Insert the 3COM EtherLink III 3C562 PC Card into the PC Card slot on the HP OmniBook 800. Power up the OmniBook 800 and load Microsoft Windows NT 4.0. Log on to Windows NT with administrative permissions when prompted.

3. Within the 'My Computer' icon, double click on the Control Panel icon. Double click on the Network icon to open the Networking Control Panel. Windows NT will ask you if you want to install Windows NT Networking, choose 'Yes' to continue.

4. Windows NT will prepare Network Setup. The next prompt will ask how your computer will be connected to the network. Check 'Wired to Network' (installation of RAS will be discussed later in this application note) then choose the 'Next' button to continue. Windows NT Setup will now prompt you for the network adapter you are using. Choose 'Select from List' at this window to choose the correct adapter. At the 'Select Network Adapter' window, choose 'Have Disk.' Windows NT Network Setup will need the location of the 3COM Windows NT 3C562 driver. This driver must be on your local hard disk. Enter the correct path to the files then choose 'OK' to continue. Windows NT Network Setup will prompt you that it has found the '3Com EtherLink III LAN+288 Modem PC Card (3C562)' choose 'OK' to load this driver. Now choose 'Next' to continue with the selected driver.

5. Windows NT Setup will now prompt you to declare which network protocols you want to install. Put check marks next to the protocols you wish to install then choose 'Next' to continue. Windows NT will now show you a list of the services it is going to install, choose the 'Next' button to continue. Windows NT will inform you that it is ready to install the networking components. Choose 'Next' to install the components—enter path to the Windows NT CD-ROM disk when asked. Windows NT will ask you again for the location of the Windows NT setup files, now enter the path to the 3Com Windows NT driver files.

6. The next windows that appears is the 'EtherLink III LAN+288 Modem PC Card C1.50' setup window. Choose the following settings:

I/O Port Address:	0x300
Memory Address:	0xD4000
Network Interrupt:	7
Media Type:	<Your Network Selection>
LANOnly Mode:	Disabled
Com Port:	COM2

   Then choose 'Continue' to proceed.

7. Windows NT Network Setup will ask if there is a DHCP server on your network. Choose the appropriate response to continue. Setup will load the necessary files for the network.

8. Windows NT will now ask that you provide the necessary information for the protocols that you installed. Follow the instructions on the screen and enter your network information then choose 'OK' to continue. The next window that will appear will show you the services that Windows NT Setup is going to install. Choose 'Next' to continue. Choose 'Next' once again and then Windows NT will ask you to put in a Workgroup or Domain name for your computer. Enter this information then choose 'Next' to continue. Click 'Finish' now and Windows NT Setup will prompt you that your computer needs to be rebooted. Click 'Yes' to reboot now (remove any floppy disk that may be in the floppy drive).

9. Verify proper setup of the network installation by attempted to log on to the network.

Modem

10. Boot up Windows NT 4.0 with the 3COM card inserted into the PC Card slot on the HP OmniBook 800.
11. Connect the 3COM phone adapter into the appropriate connection located on the 3COM card. Also, plug the phone cable into a live phone jack and also into the 3COM phone adapter.
12. In Control Panel, double click on the 'Modem' icon. Choose 'Do not detect my modem, choose from list' then select the 'Next' button. Under 'Standard Modems' select 'Standard 28800.' NOTE: This is not the correct 3Com modem adapter. At the time of this application note 3Com did not have a Windows NT 4.0 driver. The Standard 28800 modem will function fine under Windows NT 4.0 and will give users 28.8bps capability.
13. Verify that the modem is functioning properly by running 'HyperTerminal' (located in the Windows directory) and attempting to dial a BBS or ISP.

Windows NT RAS

14. Open the 'My Computer' icon then double click on the 'Control Panel' icon. From the Control Panel icon double click on the 'Network' icon.
15. Select the 'Services' tab then choose the 'Add' option. Scroll down and highlight the 'Remote Access Service' and then choose 'OK' to install this service. Windows NT will ask for the Windows NT 4.0 files. Enter the correct path to these files then choose 'Continue' to load the files.
16. Windows NT will prompt you showing RAS capable devices in your computer. Insure that the 'COM2 - Standard 28800 bps Modem is highlighted then choose 'OK.'
17. The next window will be the 'Remote Access Setup' window. Click on the 'Network' button and check the appropriate network protocols you want to use with RAS. After that choose 'Continue' to finish loading necessary files. Finally, choose to 'Close' the 'Network' control panel.
18. Windows NT will now need to be rebooted. Reboot the OmniBook 800 and log back on the Windows NT 4.0. Create a 'Dial Up Networking' profile and then attempt to use RAS to connect to an ISP or other RAS server. RAS should function correctly now.

Installing the Xircom Ethernet IIps PCMCIA Adapter

Requirements

- HP OmniBook 800 with Microsoft Windows NT 4.0 installed.
- HP OmniBook 800 external floppy disk drive connected to the OmniBook 800. (Depending on where the Windows NT files are located, the OmniBook external CD-ROM drive may need to be connected.)
- Microsoft Windows NT CD-ROM, Windows NT files on a local hard disk, or available from a shared network drive.
- Xircom Ethernet IIps PC Card.

Configuration

- I/O Port Address: 0x300
- Memory Address: 0xd4000
- Interrupt: 3
- Full Duplex: No
- Mode: I/O Mode

Procedure

1. Confirm that the OmniBook 800 is completely turned off. If you are in a Windows NT session, exit and choose 'Shutdown' to shutdown the OmniBook 800.
2. Insert the Xircom Ethernet IIps PC Card into the PC Card slot on the HP OmniBook 800. Power up the OmniBook 80 and load Microsoft Windows NT 4.0. Logon to Windows NT with administrative permissions when prompted.
3. Within the 'My Computer' desktop icon, double click on the Control Panel icon. Next, double click on the 'Network' icon. Windows NT will ask you if you want to install 'Windows NT Networking', choose 'Yes' to continue.
4. Windows NT will prepare Network Setup. The first prompt you will get will ask how your computer is going to connect to the network (either LAN or through RAS). Choose 'Wired to Network' then click the 'Next' button. Windows NT will now need to know which network card you have in your computer. Choose 'Select from list' to select the Xircom

CreditCard Ethernet Adapter IIps. Scroll down until you find the network adapter labeled 'Xircom CreditCard Ethernet IIps then highlight this card and choose 'OK' to continue. Now choose 'Next' to install this adapter. Windows NT Setup will now ask which network protocols you would like to install. Select the correct protocols for your network environment then choose 'Next' to continue. Windows NT Setup will now prompt you informing you which services it is going to install. Choose 'Next' to let Windows NT install the basic network services. Windows NT will ask you for the location of the Windows NT Setup files. Enter the correct path (if you are using the CD-ROM you would put the path to the CD-ROM drive then the \I386 directory if you have an Intel processor) then choose 'Continue'. Setup will now load necessary files.

5. The Xircom CreditCard Ethernet IIps setup dialog box appears. Choose the following settings by manually adjusting them:

I/O Port Address:	0x300
Memory Address:	0xd4000
Interrupt:	3
Full Duplex:	No
Mode:	I/O Mode
Link Integrity:	Checked
Cable:	Auto Detect

Now choose the 'Continue' option to continue with installation. Windows NT Network Setup will continue to load files. You will be asked if their is a DHCP server on your network. Choose the appropriate answer to continue. Setup will continue to copy files from the Windows NT 4.0 CD-ROM to the hard disk.

6. Windows NT 4.0 Setup will now need the appropriate protocol information. Enter this information (DNS, WINS, Gateway etc.) then choose 'OK' to continue. The next window will show you some of the services that Windows NT 4.0 has installed (NetBIOS interface, Server, and Workstation) choose 'Next' to continue. Choose 'Next' again to start the services. You will now be asked to enter a Workgroup or Domain name. Enter the appropriate information for your network then choose 'Next.'

7. Windows NT will now prompt you informing that the HP OmniBook 800 needs to be rebooted in order for Windows NT networking to finish installation. Choose 'Yes' to reboot the OmniBook 800. Once the OmniBook 800 reboots, Windows NT 4.0 Workstation networking will be installed and functioning.

8. Verify proper setup of the network installation by attempted to log on to the network.

Installing the IBM Auto 16/4 Token-Ring ISA Adapter

Requirements

- HP OmniBook 800 with Microsoft Windows NT 4.0 installed.
- HP OmniBook 800 docked into an HP OmniBook 800 docking station.
- HP OmniBook 800 external floppy disk drive and CD-ROM drive connected to OmniBook 800 docking station.
- Microsoft Windows NT CD-ROM, Windows NT files on a local hard disk, or available from a shared network drive.
- IBM Auto 16/4 Token-Ring ISA Adapter.
- IBM Auto 16/4 Token-Ring ISA Adapter driver disk 1 labeled LANAID.

Configuration

- Interrupt: 9
- IO Base Address: A20-A23
- ROM Address: DA00-DBFF
- RAM Address: DC00-DFFF
- RAM size: 16kb
- Remote IPL: Disabled

Procedure

1. Confirm that the HP OmniBook 800 external CD-ROM and floppy are connected to the docking station ports. Ensure that the IBM Token-Ring ISA adapter is properly installed into the docking station. Ensure that the HP OmniBook 800 is properly docked into the docking station. For information on docking and undocking or, installing adapter cards into the HP OmniBook 800 docking station, please refer to your owners manual.
2. Insert the IBM Auto 16/4 Token-Ring driver disk 1 labeled LANAID into the floppy disk drive and then power up the HP OmniBook 800—this will allow a boot off of the floppy drive.

3. At the first prompt, choose option 2—to configure the IBM 16/4 Auto Token-Ring adapter. Hit the space bar to continue with the LANAID program. LANAID will take a few minutes to load the program. At the next window, choose 'Continue' to continue with the procedure. Choose the 'Standard Install' button at the next window. Now choose 'Configuration' to confirm the configuration of the card. The following settings should be used to ensure proper function:

Interrupt:	9
I/O Address:	A20-A23 (Primary)
ROM Address:	0DA000-0DBFFF
RAM Address:	0DC000-0DFFFF
RAM size:	16kb
Auto Sense:	Enabled
Remote IPL:	Disabled

   After confirming these settings choose the 'Store' button to save the configuration. Now choose the 'Done' button. To test the configuration, choose 'Quick Test' at the next window. The test should reply with a pass result. Choose 'OK'' then 'Exit' to exit the configuration utility. Remove the floppy disk from the floppy drive and reboot the HP OmniBook 800 into Windows NT 4.0.

4. Within the 'My Computer' icon, double click on 'Control Panel.' Now double click on the icon labeled 'Network.' Windows NT will ask you if you want to install Windows NT Networking, choose 'Yes' to continue.

5. Windows NT will prepare Network Setup. At the 'Network Setup Wizard' check mark the box labeled 'Wired to Network' then choose the 'Next' button.

6. Setup will prompt you asking if you want Windows NT to auto-detect the network card. Choose 'Select from list' to specify the network adapter type manually. At the next window, scroll down to 'IBM Auto 16/4 Token-Ring ISA Adapter.' Highlight this adapter and then choose 'OK.'

7. At the next window, choose 'Next' to confirm that you want to install the 'IBM Auto 16/4 Token-Ring Adapter.' Windows NT will now need network specific information such as which protocols to install and protocol information. Follow the on screen instructions and enter this information when prompted. When the 'IBM Auto 16/4 Token-Ring ISA Adapter Card Setup' window comes up, simply press the 'Continue' button without changing any of the information.

8. Windows NT will now prompt you that the HP OmniBook 800 needs to be rebooted. Choose 'Reboot Now' to reboot the OmniBook 800 with networking installed. Once the OmniBook 800 reboots, Windows NT 4.0 Workstation networking will be installed and functioning.

9. Verify proper setup of the network installation by attempted to log on to the network.

Using Microsoft Windows NT 4.0

Note: While using the HP OmniBook 800, with Microsoft Windows NT 4.0 installed and a network PCMCIA Card in use, you may encounter a Windows NT software bug. Network cards that use a window of memory will have problems when users choose to 'Shutdown' or 'Shutdown and Restart' the HP OmniBook 800. Windows NT 4.0 will not free up the memory in use by the network PCMCIA Card and will not allow Windows NT to complete the shutdown process. Users will have to press the 'reset' button located on the HP OmniBook 800 in order to reboot or shutdown the unit. This is a known bug and Microsoft is committed to providing a solution as soon as possible. Please check the Hewlett Packard web site at http://www.hp.com and also the Microsoft web site at http://www.microsoft.com for a fix. A plausible work around is available. Follow these steps:

- Choose the Start Menu
- Choose Shutdown then choose 'Close all applications and logon as a new user.'
- Now while at the logon screen, pull out the network PCMCIA Card. Now you can choose to shutdown or shutdown and restart Windows NT.

Power Management & Plug-n-Play

Windows NT 4.0 is not an Advanced Power Management (APM) aware or Plug and Play (PnP) compatible operating system. This is a challenge for mobile users who want to use Windows NT with their portable computer.

- PC Cards (PCMCIA) cannot be hot swapped into any laptop with Windows NT. Windows NT 4.0 does not support dynamic allocation of resources. PC Cards must be inserted into the unit before booting.
- PC Card sockets are not enabled after resuming. PC Cards are inoperable after a true suspend then resume cycle. Again, after a reboot the sockets are restarted.
- The operating system's clock is stopped when suspended and does not re-synchronize with the hardware clock when resuming. When users resume NT's clock starts up exactly where it was when they suspended. The clock is reset during reboot of your portable, when Windows NT reads the hardware's real time clock.
- The OmniBooks fake-off (pressing the blue-key with AC inserted) mode is not affected since only the display, keyboard, sound, and mouse are turned off by the BIOS. The CPU and network cards are still active and operating normally.

Solutions

Two models of everyday use are possible: Desktop and Instant On/Off.

In the desktop model, you use your portable like a desktop that you can pick up and take with you. When you need to change hardware (plug in a PC Card) or take your portable somewhere else (a meeting) you should shutdown Windows NT 4.0. Then press Ctrl+Alt+Blue button to completely turn off the computer. After adding a PC Card or relocating reboot Windows NT. This allows NT to synchronize its time with the hardware clock and allocate resources for new cards during its boot up process.

The other model, Instant On/Off works well with Windows NT as long as you keep in mind the constraints of Windows NT. After resuming your portable from suspend you will not be able to use the PC Card devices until you have rebooted. Also, time will be incorrect until you manually change it or reboot. When adding or removing cards you should power down, change the card, then reboot.

Example

A common situation is where you are at your desk and need to go to a meeting. At the meeting you want to take notes on your portable.

- With the Desktop model, you would close your applications and shutdown Windows NT. Then completely turn off the OmniBook by pressing Ctrl+Alt+Blue button. In the meeting you turn on the computer and boot up Windows NT. Open your applications and take notes. At the end of the meeting, save your file, then close the application, shutdown Windows NT and power down the computer. Once back at your desk turn on your computer and run your applications. This ensures the clock is correct and all PC Card devices are powered up.
- In the Instant On/Off model, you would save any open files then suspend. Windows NT's lack of APM causes it to take a little longer to suspend. Go to the meeting and resume. Take notes, save data, then suspend. Before you want to use your PC Card devices you will need to shutdown Windows NT then restart your computer. Also, the computers clock will be incorrect until rebooting or manually changing it. The clock will be off the amount of time that Windows NT was in the suspend mode.

OmniBook Docking Station

When the OmniBook is completely off and you dock it (cold docking), by turning on the power Windows NT will boot up and recognize all PCI, ISA, and PC Cards in the system. As NT boots it will allocate resources and initialize the devices. This configuration is essentially the same as a desktop PC.

When the OmniBook is running or suspended and you dock it (hot docking), Windows NT will not recognize any PCI or ISA cards in the dock.

SCSI

The default SCSI driver that Windows NT 4.0 loaded during the install process will remain loaded. This can cause an Event Log error if you restart the HP OmniBook 800 without the external CD-ROM drive attached to the SCSI port. The Event Log is not a critical error and it will not effect your operation--although Windows NT 4.0 will report the error upon each bootup. You can fix this by following the procedure below:

1. Click the 'Start' menu then choose the 'Run' command type 'regedt32' and run this command.
2. This brings up the registry editor. Highlight the Hkey_Local_Machine window then traverse through the following path: System, CurrentControlSet, Services, then Symc8XX. Click and highlight the value called 'ErrorControl:REG_DWORD:0x1.
3. With this value highlighted, press the 'Enter' key. Put in a value of '0' then press 'OK.' This will stop Event Log from reporting the driver error.

OS/2 Warp

Installing OS/2 Warp or Warp Connect

Requirements

- OS/2 Warp or Warp Connect Installation CD-ROM and the two CD-ROM installation boot disks or OS/2 Warp or Warp Connect Installation Disks
- 8MB of RAM for OS/2 Warp, 16MB of RAM for Warp Connect
- Hard drive with 80 - 120 MB of free space
- If installing from CD-ROM: HP OmniBook 800 CD-ROM, SCSI CD-ROM drive & cable attached to the OmniBook Docking Station or access to a CD-ROM drive via a network connection

Note: If you are using the HP OmniBook 800 CD-ROM or a SCSI CD-ROM delete the files SONY31A.ADD and AHA152X.ADD from the OS/2 Diskette 1. Copy C:\OMNIBOOK\DRIVERS\OS2\SCSI\OS2CAM.ADD to the OS/2 Diskette 1. Add the following statement to CONFIG.SYS file on the OS/2 Diskette 1: BASEDEV=OS2CAM.ADD. Remark the following statements from the CONFIG.SYS file on the OS/2 Diskette 1: REM BASEDEV=SONDY31A.ADD and REM BASEDEV=AHA152X.ADD.

- HP OmniBook drivers for the Video, Sound and SCSI. These drivers are located on the hard drive in the C:\OMNIBOOK\DRIVERS\OS2\VIDEO, \...\OS2\SOUND and \..\OS2\SCSI subdirectories. These files are available after finishing the selection of Windows 95 or Windows for Workgroups. The drivers are also located on the HP OmniBook Recovery CD.

Note: You must install the Video drivers from floppy disk. To create an OS/2 OmniBook 800 drivers disks do the following:

1. Copy the contents of C:\OMNIBOOK\DRIVERS\OS2\VIDEO to the root directory of a blank floppy disk.
2. Type LABEL A: MAGIC. Label the Diskette OS/2 OmniBook 800 Video Drivers Disk.

3. Copy the contents of C:\OMNIBOOK\DRIVERS\OS2\SOUND to the root directory of another floppy disk.
4. Create a directory on the floppy disk for SCSI and copy the contents of C:\OMNIBOOK\DRIVERS\OS2\SCSI to this directory
5. Label the second disk OS/2 OmniBook 800 Sound & SCSI Drivers Disk

Procedure

1. Confirm that the OmniBook 800 is completely off. Press Ctrl-Alt-On/Off.
2. Confirm that the external CD-ROM drive and the external floppy disk drive are both connected to the OmniBook 800. Also plug in the AC adapter to provide uninterrupted power during the installation process.
3. Place the OS/2 Warp connect installation CD-ROM in the CD-ROM drive.
4. Insert the Installation Diskette for CD-ROM into the floppy drive and press the On/Off button.
5. When prompted, remove the Installation Diskette for CD-ROM from drive A: and insert the OS/2 Diskette 1 for CD-ROM in its place and press Enter.
6. When the Installing OS/2 screen is displayed, select Easy Installation or Advanced Installation based on your needs.

Note: If you choose Advanced Installation you will be asked if you wish to format the hard disk. Make sure you have backed up the HP OmniBook 800 OS/2 Drivers before formatting the hard disk. If Windows 95 is installed on this OmniBook, it is recommended that you format the hard disk. Windows 95 and OS/2 Warp are not compatible.

7. After the OS/2 Warp base operating system is installed on the OmniBook 800, you will be prompted to remove the diskette from drive A:. Press Enter.
8. After the HP OmniBook 800 restarts, the System Configuration window. Click OK.

Note: Once setup continues, you will notice that the video on the HP OmniBook 800 is distorted. This is due to the default video driver that OS/2 Warp uses and also the fact that the HP OmniBook will try to maximize the viewable area by stretching the video. You should continue with the Setup program. Changing the video driver will be explained later in this chapter—this will result in clear and crisp video resolution.

9. You may receive a Multimedia device settings window. For now select NO Support. Device Selection and Settings window is displayed, select OK. (You will be adding support later.)

10. The Select System Default Printer window is displayed, use the arrow keys to highlight the name of your printer and the port to which your printer is connected. Click OK
11. The Display Driver Install window is displayed. Select Video Graphics Array (VGA). Click OK. (You will be adding Video Support later)
12. Click OK to install system configuration.
13. If you chose Advanced Installation previously OS/2 Warp Installation will ask you to choose the options you wish to install. Select the options you wish to install, then click the Install button. Click on OK button in the Advanced Options window.
14. It is recommended you do not install Networking Support at this time. Choose No Networking. Finish the Install of OS/2 Warp then Shutdown and restart. This will save your desktop settings. Follow the instructions for adding Warp Connect Networking Support after OS/2 is installed later in this chapter.
15. The installation program begins copying files and configuring the HP OmniBook 800. When OS/2 setup and Installation window is displayed, click on the OK button. Press Ctrl-Alt-Del to restart the HP OmniBook 800.
16. After the system restarts, exit the OS/2 tutorial by selecting Quit.
17. It is recommended you shutdown and reboot immediately to save your desktop settings.

Note: This section is not intended to replace your OS/2 Documentation. Please refer to your OS/2 Documentation for specific installation instructions.

Installing Video Support

Requirements

- HP OmniBook 800 with OS/2 Warp or Warp Connect Installed.
- HP OmniBook drivers for the Video. This driver is located on the hard drive in the C:\OMNIBOOK\DRIVERS\OS2\VIDEO subdirectory. These files are available after finishing the selection of Windows 95 or Windows for Workgroups. This driver is also located on the HP OmniBook Recovery CD.

Note: You must install the Video drivers from floppy disk. To create an OS/2 OmniBook 800 Video drivers disk do the following:

1. Copy the contents of C:\OMNIBOOK\DRIVERS\OS2\VIDEO to the root directory of a blank floppy disk.
2. Type LABEL A: MAGIC 1. Label the Diskette OS/2 OmniBook 800 Video Drivers Disk.

Before You Start

Before installation of this display driver, the system display should be set to VGA mode. VGA is the default video mode enabled when OS/2 is first installed.
If the current system primary display is not VGA, or if a previous version of this driver is being used, the system should first be returned to VGA mode. To restore VGA mode, use Selective Install and select VGA for Primary Display and reboot. For more information on this procedure, see the section on Changing Display Adapter Support in the OS/2 Users Guide.

Procedure

1. Open an OS/2 full screen or windowed session.
2. Place the HP OmniBook 800 OS/2 Video Drivers Diskette in drive A.
3. Type A: <ENTER> to make this the default drive.
4. Type SETUP C <ENTER> where C: is the hard disk partition containing \OS2
5. From the Display Driver Install, Select Primary Display then click OK.
6. From the Primary Display Driver List, Select NeoMagic NM2070 then click OK.
7. From the Source Directory window, make sure the source directory points to A:\ and click Install...

8. Make Sure the HP OmniBook 800 OS/2 Video Drivers Diskette is in drive A and click OK.
9. The Installation will ask you if you want to overwrite newer files than you are installing. Click Yes each time.
10. Click OK
11. Type Exit to close the OS/2 Command Prompt and remove the diskette from Drive A.
12. Restart by selecting the Shut down button on the LaunchPad, and press Ctrl-Alt-Delete to reboot when prompted.
13. Open the System Setup icon in the OS/2 System folder, then double-click on System. From the list of available screen resolutions, select a new resolution. The HP OmniBook 800 is designed for SVGA or 800x600x256.
14. Close System. You must shutdown and reboot before the change will take affect.

Note: See Changing Screen Resolution in OS/2 Users Guide for more information. The system must now be shut down and restarted for changes to take effect.

Installing Sound Support

Requirements

- HP OmniBook 800 with OS/2 Warp or Warp Connect Installed.
- HP OmniBook 800 drivers for the Sound. These drivers is located on the hard drive in the C:\OMNIBOOK\DRIVERS\OS2\SOUND subdirectory. These files are available after finishing the selection of Windows 95 or Windows for Workgroups. These drivers is also located on the HP OmniBook Recovery CD.

Note: You must install the Sound drivers from floppy disk. To create an OS/2 OmniBook 800 Sound drivers disk do the following: Copy the contents of C:\OMNIBOOK\DRIVERS\OS2\SOUND to the root directory of a blank floppy disk. Label the Diskette OS/2 OmniBook 800 Sound Drivers Disk.

Procedure

1. Open an OS/2 full screen or windowed session.
2. Insert the OS/2 OmniBook 800 Sound Drivers Disk.
3. Type A:EINSTALL 1888
4. From the IBM Multimedia Presentation Manager/2 - Installation Windows, Select ES1888 WinOS2/Windows Audio if you installed OS/2 WinOS2 support and click Install.
5. Click Yes to Change the CONFIG.SYS
6. Click OK to Specify 1 AudioDrive ES1888.
7. Set the following values and click OK.

I/O Address	220
DMA Channel	1
DMA 2	5
Interrupt Level	5
Interrupt 2	11

8. Set the following values for MIDI and click OK.

DMA Transfer Mode	4
MPU-401 I/O Address	330
MPU-401 Interrupt Level	7

9. Set the following values for Windows Audio Options and click OK.

I/O Address	220

Interrupt Level	5
Interrupt 2	11
DMA Channel	1
DMA 2	5

10. Click OK to accept changes to the SYSTEM.INI.
11. Click OK twice.
12. Type Exit and remove the diskette from drive A.
13. Restart by selecting the Shut down button on the LaunchPad, and press Ctrl-Alt-Delete to reboot when prompted.

Installing SCSI Support

If you are using the OmniBook Docking station use the following procedure to install SCSI Support. This procedure is not necessary if you installed OS/2 Warp from a SCSI CD-ROM drive because the SCSI drivers are already installed.

Requirements

- HP OmniBook 800 with OS/2 Warp or Warp Connect Installed.
- HP OmniBook 800drivers for the SCSI. This driver is located on the hard drive in the C:\OMNIBOOK\DRIVERS\OS2\SCSI subdirectory. These files are available after finishing the selection of Windows 95 or Windows for Workgroups. This driver is also located on the HP OmniBook Recovery.

Note: You must install these drivers from floppy disk. Copy the contents of C:\OMNIBOOK\DRIVERS\OS2\SCSI to a blank floppy disk.

Procedure

1. Insert the Floppy disk with the SCSI drivers in the A: drive.
2. Open the System Setup icon in the OS/2 System and double-click on Device Driver Install.
3. Change the Drive to A:\ if necessary and click Install.
4. Select NCR SDMS ™ V3.0 OS/2 2.x ADD Driver, Copyright 1993
5. Click OK
6. Click Exit and click Yes to confirm.
7. Click OK.
8. Shutdown by selecting the Shut down button on the LaunchPad, and press Ctrl-Alt-Delete to reboot when prompted.

Installing OS/2 Warp Connect Networking

Requirements

- OS/2 Warp Connect
- Network Adapter and Driver (if not included or updated in Warp Connect)
- Application Note associated with Network Adapter
- If installing IBM Peer or IBM LAN Requester:
  Unique Computer Name, and Domain Name
- If installing TCPIP:
  Host name, IP address, Subnet Mask, router (or gateway) address, Domain Name & Domain Name Service address
- If installing LAN Distance:
  Modem name, COM port, Phone Number of LAN Distance Server & Type of Network

Procedure

1. Open the OS/2 System Folder
2. Open the OS/2 Warp Connect Install/Remove folder
3. Open Warp Connect Selective Install for Networking
4. Choose On this workstation and click OK. (Warp Connect allows you to install networking remotely!)
5. Click on Easy or Advanced Installation and click OK. (Easy Installation installs IBM Peer, Novell Client for OS/2 and the Internet Access Kit - Modem only)
6. Highlight Desired Network Clients
7. Select Network Adapter
8. If your adapter is not listed, click Other adapter.. and insert the Drivers disk. Change the directory to A:\ and click OK.
9. Click Settings and configure card as described in the Application Note.
10. If installing IBM Peer or IBM LAN Requester enter your Computer Name, Description (IBM Peer only), and Domain Name.

11. Nothing is required if installing Novell Client for OS/2
12. If installing TCP/IP enter your Host name (i.e. msmith), IP address, subnet mask, router and (or gateway) address. Go to page 2 of 2 and enter your TCP/IP domain name and Name server.
13. Click Install.

Note: If your network adapter requires you to make a change to the PROTOCOL.INI (described in specific Application Note). Allow The Network install to finish then make changes. The install process reboots the OmniBook multiple times. You will see a network error at each reboot. Press Enter to continue. The error will not affect the install.

Installing the Xircom Ethernet IIps PCMCIA Adapter

Requirements

- HP OmniBook 800 installed with OS/2 Warp or OS/2 Warp Connect
- Driver: XPSNDIS.OS2 12-04-95 v1.51
- Network Info File: XPSOS2.NIF 12-11-95 v1.51

Configuration

- Interrupt 9

Procedure

1. Open MPTS
2. Click OK on the logo screen
3. Click Configure
4. Select LAN adapters and protocols and click Configure
5. In the LAPS Configuration window, select Other Adapters.
6. Change the directory to where the Xircom driver is (A:\NDIS on Xircom Driver Disk 2) and click OK.
7. Scroll through the list of Network Adapters and select Xircom Performance Series Adapter.
8. Select the Xircom Performance Series Adapter in the Current Configuration section and click Edit.
9. Change the System Interrupt Level to 9
10. Click OK
11. Add your protocols and click OK when you are finished.
12. Click Close.
13. Click Exit
14. Confirm Update CONFIG.SYS is checked then click Exit

15. Click OK on the CONFIG.SYS Updated message
16. Click Exit to close MPTS.
17. Shutdown and restart the OmniBook.

Installing the IBM Auto 16/4 Token Ring ISA Adapter

Requirements

- HP OmniBook 800 installed with OS/2 Warp or OS/2 Warp Connect
- IBM LANAID Disk 1
- Driver: IBMTOK.OS2 2/20/95 v1.0
- Network Information File: IBMTOK.NIF 1/6/95 v1.0
- OmniBook 800 Docking Station

Configuration

- Interrupt: 9
- IO Base Address: A20-A23
- ROM Address: DA00-DBFF
- RAM Address: DC00-DFFF
- RAM size: 16kb
- Auto Sense: Enabled
- Remote IPL: Disabled

Procedure

1. Confirm that the HP OmniBook 800 external CD-ROM and floppy are connected to the docking station ports. Ensure that the IBM Token-Ring ISA adapter is properly installed into the docking station. Ensure that the HP OmniBook 800 is properly docked into the docking station. For information on docking and undocking or, installing adapter cards into the HP OmniBook 800 docking station, please refer to your docking station manual.
2. Insert the IBM Auto 16/4 Token-Ring driver disk 1 labeled LANAID into the floppy disk drive and then power up the HP OmniBook 800—this will allow a boot off of the floppy drive.

3. At the first prompt, choose option 2—to configure the IBM 16/4 Auto Token-Ring adapter. Hit the space bar to continue with the LANAID program. LANAID will take a few minutes to load the program. At the next window, choose 'Continue' to continue with the procedure. Choose the 'Standard Install' button at the next window. Now choose 'Configuration' to confirm the configuration of the card. Choose Plug-n-play then check Lock System Resources. The previous settings should be used to ensure proper function. After confirming these settings choose the 'Store' button to save the configuration. Now choose the 'Done' button. To test the configuration, choose 'Quick Test' at the next window. The test should reply with a pass result. Choose 'OK'' then 'Exit' to exit the configuration utility. Remove the floppy disk from the floppy drive and reboot the HP OmniBook 800 into OS/2 Warp
4. Open MPTS
5. Click OK on the logo screen
6. Click Configure
7. Select LAN adapters and protocols and click Configure
8. In the LAPS Configuration window, select IBM Token Ring Network Adapter.
9. Add your protocols and click OK when you are finished.

Note: If you are using the Netware Client for OS/2 you must set the Network Adapter Address for the IBM Token-Ring Card and the IBM Netware Requester Support Protocol the same. Select each in the Current Configuration Section and click Edit then enter a Network Adapter Address in the correct field. You can use the IBM diagnostic program to find out the MAC address or enter a locally administered address.

10. Click Close.
11. Click Exit
12. Confirm Update CONFIG.SYS is checked then click Exit
13. Click OK on the CONFIG.SYS Updated message
14. Click Exit to close MPTS.
15. Shutdown and restart the OmniBook.

Using OS/2 Warp

Using PCMCIA Cards

PCMCIA is currently not supported in OS/2 Warp on the OmniBook 800. We are currently working with IBM to write a PCMCIA Driver which should be available soon. This driver when available will be posted to the HP Electronic Support Services. Refer to the OmniBook Support chapter for more information.

Instant-On

OS/2 Warp does not contain Plug-n-Play networking. It also does not use the latest Advanced Power Management standard APM 1.1. OS/2 Warp is using APM 1.0. Please Note the following limitations.

- If you are using OS/2 Warp and you are connected to a network make sure you are connected to AC Power. If you are not on AC Power, the OmniBook will automatically time out after three minutes when idle, the system will power down and you will lose your network connection.
- If you are using OS/2 Warp on a network, it is recommended you totally power off the OmniBook when connecting or disconnecting from the network. If you disconnect from the network before shutting down OS/2 you will receive multiple network errors and your OmniBook may lock up. You must reboot when connecting to a network to reactivate your network connection. When you are not connected to the network the Instant-on feature works perfectly. To totally power off the system when connecting or disconnecting from the network do the following:

  1. Click the right mouse button on the OS/2 Desktop and choose Shutdown. Click OK to confirm.
  2. Press Ctrl-Alt-Blue button to totally power down the OmniBook. (This will not save your current status like Instant-on.)

- OS/2 Warp has a Battery Power indicator. Open the System Setup folder and double-click on the Power Icon. You can also use the Power Icon's menu to suspend the OmniBook.

Using the OmniBook Docking Station

- You should always shutdown OS/2 before docking or undocking the OmniBook 800. If you have any ISA or PCI Cards or any SCSI devices attached to the OmniBook Docking Station you must restart OS/2 to activate them.

Setting up Multiple Configurations

OS/2 Warp allows you to setup multiple configurations through the Recovery Choices screen. This can be very useful on a notebook computer when you are frequently starting the OmniBook while not connected to the network. Do the following to setup multiple configurations:

1. Right mouse click on the OS/2 Desktop
2. Choose Settings
3. Go to the Archive page
4. Activate Archiving and set the Recovery Screen to show at startup. (Alt-f2 does not work when this is on)
5. Set the number of seconds for the Recovery Screen to display. If you leave it at zero it will not go away until you choose an option or press Esc.
6. Close Settings
7. Create multiple Configuration files in the C:\OS2\BOOT directory. Files should be named CONFIG.k - where k is the key you press to activate the configuration. To create a configuration that does not load networking copy the C:\CONFIG.SYS to C:\OS2\BOOT\CONFIG.R. Edit the new file and REMark out any lines that contain the directories: IBMCOM,IBMLAN,NOVELL,CMLIB,TCPIP except for SET and PATH commands.
8. Change the file ALTF1TOP.SCR to read/write typing ATTRIB -R ALTF1TOP.SCR
9. Edit the file ALTF1TOP.SCR to add your configurations
10. Change the file ALTF1TOP.SCR to read only typing ATTRIB +R ALTF1TOP.SCR
11. Reboot
12. Choose configuration on Recovery Choice screen or press escape to skip

Note: Refer to the OS/2 documentation for more information about setting up multiple configurations.

Using OS/2 2.1x

Note: OS/2 2.1x is not supported by IBM or Hewlett-Packard as of February 9, 1996. The previous section on Using OS/2 Warp applies to OS/2 2.1x except for the following limitations.

- There is no support for multiple configurations in OS/2 2.1x.
- There is no Desktop Recovery in OS/2 2.1x. If you press Alt-F1 when OS/2 is starting it installs the original configuration files when you first installed. Often you must reinstall your applications. This is a last resort before reinstalling OS/2. These original configuration files are stored in the C:\OS2\INSTALL directory. You can force OS/2 to use your configuration files instead by doing the following:
  1. Setup OS/2 exactly how you want it.
  2. Rename CONFIG.SYS, OS2.INI and OS2SYS.INI in the C:\OS2\INSTALL directory to *.ORG
  3. Copy the C:\CONFIG.SYS, C:\OS2\OS2.INI and C:\OS2\OS2SYS.INI into the C:\OS2\INSTALL directory.
  4. Next time you press Alt-f1 you will copy these files over the corrupted ones.
- There is no easy network install you must install each network product separately.

Troubleshooting

Starting the OmniBook

If the OmniBook turns off immediately after it turns on

- Battery power is probably extremely low. Plug in the ac adapter—or turn off the OmniBook and insert a fresh battery.

If the OmniBook stops responding

- Try waiting a few moments, then try turning it off and on.
- Press CTRL+ALT+DEL to reboot.
- If nothing happens, insert a ball-point pen tip or other slender object into the reset-button hole in the right side of the case. Push in momentarily—the system should reset and reboot.

If the OmniBook doesn't turn on

- Connect the AC adapter in case the battery is low.
- Press On/Off to try turning on the unit.
- Try adjusting the display—press the ∧ or ∨ buttons above the keyboard several times or hold one of them down. Try holding the FN key at the same time.
- Insert a ball-point pen tip or other slender object into the reset-button hole in the right side of the case. Push in momentarily—the system should reset and reboot.
- If you get no response, remove the battery, ac adapter, and all external devices, and wait 1 minute—then plug in the ac adapter and try resetting again. If you still get no response, the unit requires service.

Keyboard

Why after using my OmniBook 800 for a while does the keyboard feel warm?

- In spite of being one of the fastest notebook computers on the market, the OmniBook 800 usually remains cool due to its advanced power management feedback systems. In certain heavy duty computational applications, in combination with rapid battery charging, the OmniBook may become slightly warm to the touch on both the case bottom and on the keyboard. Both of these areas are designed to safely dissipate excess heat from the computer.

If the computer seems slow

- Check that cache is enabled (in the System Configuration Utility, open the System menu and check Enable Cache).
- You might need to install more RAM. The memory-expansion boards are listed in the Technical Specification chapter.

Video

If the screen is dim

- Try adjusting the display—press the ∧ and ∨ buttons above the keyboard. Try holding FN and pressing one of the buttons.

If the screen is difficult to read

- The HP OmniBook 800 includes a 800x600 LCD display. LCD display's use fixed pixels. When running at 640x480 a single pixel must be streched to cover several pixels. This enlarging causes the quality of the image to appear grainy. A highly graphical screen may be difficult to read, but text screens are clearly legible. This does not affect external monitors. Set the display resolution to its default setting: 800×600 (SVGA) and 256 colors. For Windows for Workgroups, use Display in OmniBook Tools. For Windows 95, use the Settings tab under Display in the Control Panel (under HP User Tools or under Settings).

If an external display won't turn on

- If the external display is unrecognized by the OmniBook, the computer will not send it video signals. However, you can force the computer to send these signals anyway. Open the OmniBook External Devices screen (Start, Settings, Control Panel, then OmniBook External Devices). Check the box that reads **Force video signal to external display**. You can also use Fn+PrtSc to switch between displays.

Video Cards in the Docking Station

If you use a video card with the docking system, keep in mind the following conditions:

- You must reboot the computer whenever docking and undocking. The video card's BIOS cannot be reinitialized without rebooting the OmniBook.
- Do not use a password—if you have one on the OmniBook, turn it off before docking. Also no docking prompting messages will be displayed (telling you when you're docked and what to do, for example). These message are all generated from the onboard video BIOS.
- There will be no status panel on the computer screen.

Using Removable Media

This section describes certain situations that could cause serious loss of data.

- Do not remove a data storage PC card while it is actively reading or writing—its data could become corrupted.
- Certain applications such as Intuit's Quicken™ keep their working files open, and they update the files as you make changes. For such applications, you should open only files that reside on drive C, not on a removable disk. An open file on a removable disk (such as a floppy disk or PC card) is susceptible to corruption in certain situations.
- If you try to read or write to a floppy disk when there's no floppy drive connected, the OmniBook continues to look for the floppy drive for 10 seconds or more. During this time, the OmniBook doesn't respond to other input.

Sound

If you get a GPF when turning off the OmniBook while a WAV file is playing

- If you want to turn off the OmniBook on battery power (ac adapter not connected), make sure a WAV file is not playing. Either stop the WAV file or wait for it to finish before you press the blue On/Off button.

User's Guide

If you need to recover the online User's Guide

- If you have deleted the online User's Guide but would like to re-gain access to it, you can re-install it from the *Recovery* CD ROM. Run the following executable: OMNIBOOK\HPUTIL\DISK1\SETUP.EXE.

Power

Using the OmniBook Power Supply

- The OmniBook Power Supply F1044B can power two devices. Never Connect more than two devices to the OmniBook Power Supply. Do not connect the OmniBook 800, OmniBook Docking Station and OmniBook CD-ROM to the same power supply. Use a second power supply for the OmniBook CD-ROM

If the OmniBook doesn't turn on with a fresh battery

- If you replaced the battery after the OmniBook turned off due to a low battery, either plug in the AC adapter—or turn off the OmniBook, then hold F4 and press the On/Off key (F4+ON) to turn it on.

If the OmniBook beeps repeatedly

- If two beeps occur every 10 seconds or so, battery power is critically low and less than 2 minutes of operation remain. Save your work immediately. Plug in the ac adapter—or turn off the OmniBook and insert a fresh battery.

Passwords

If your password doesn't work

- Check whether Num Lock (Nm Lk) is off. Try toggling it off or hold down the Fn key while typing your password.
- If you've forgotten your password, have your OmniBook at hand and call Hewlett-Packard at the phone number in the OmniBook Support Chapter.

Why do I get a blue screen when trying to undock?

- If you have a undock password set, your OmniBook is shutdown and you try to undock the OmniBook 800, then only a blue screen is displayed instead of a password prompt. Enter your password to undock or press the On/Off button and start the OmniBook then undock.

PCI Board problems

- You cannot use boot ROMs to boot off the server with a PCI network board. (You can do so with an ISA board.)

Infrared

If the infrared connection does not work

- Try re-aligning the two devices to align their infrared ports. Make sure the two devices are no more than 1 meter apart.
- Check the settings in your communications software and in the OmniBook's IR Monitor. IrDA must be enabled.

Using Parallel Port Devices

➢ The OmniBook 800 utilizes advanced technologies in many of its systems. It is currently capable of outperforming some of today's parallel devices such as tape backups and network adapters. Manufacturers, such as Iomega, are modifying their drivers to take advantage of the improvements in performance. Check the manufacture's BBS or web page for the latest information. If you are trying to use a parallel device and are having difficulty getting it to work correctly, you can slow down the OmniBook's Bus Speed to 33Mhz. To slow down the OmniBook's Bus Speed hold down the Fn key and press the - (minus) key. The Bus speed can be returned to normal by holding down the Fn key and pressing the + (plus) key. Each time the OmniBook is rebooted the speed is returned to normal.

OmniBook Support

Electronic Support Services

The following is a guide to electronic services, which are available 24 hours per day, 7 days per week.

Hewlett-Packard Internet (FTP Library Service, World Wide Web Site)

This library service is available to anyone in the world who has FTP access to the Internet, or who has World Wide Web access through a hyper-media viewer such as Mosaic. Internet Access Information:
Internet IP Address - 192.6.71.2
Alias - ftp-boi.external.hp.com
Name - Anonymous
Password - Send User Identification
World Wide Web URL - http://www.hp.com/go/omnibook/

America Online

The HP Forum on America Online is an electronic information and communication service. To access the HP Forum, select keyword search from the menu, type HP, and press ENTER.
If you need Membership information in the U.S., call
(800) 827-6364 (preferred customer #1118).

CompuServe Information Services

To access the HP Forum, use "GO HP". From the HP Forum, you can choose a specific forum to leave messages, ask (or answer) questions about HP products, or download drivers, software application notes, or utilities for HP products.
If you need membership information in the U.S., call
(800) 524-3388 (ask for representative #231).

Hewlett-Packard BBS (Electronic Library Service)

The HP Bulletin Board Library Service telephone number is (208) 344-1691. The following modem settings are available: Baud Rates=300-14400, Data Bits=8, Parity=N, Stop Bits=1

HP First (HP Automated Fax System)

HP First is an automated information fax retrieval service. It contains HP product information, popular software help notes, printer driver request forms, material safety data sheets, and many other documents. Use the following telephone numbers:

U.S. and Canada Only:	(800) 333-1917
Outside the U.S. and Canada:	(208) 344-4809
Reseller Support Number:	(800) 544-9976 (Enter Outlet ID #)

Telephone Support Assistance

If you encounter a problem or question, we need you to do a few things before you call. It will keep the cost of the call to a minimum and will help us help you better.

1. Record your OmniBook serial number, model number, and purchase date.
2. Review your manuals. We realize you may not always have your manuals with you, but whenever possible, please review your manuals before you call.
3. Have your HP OmniBook and accessories ready to use. Your support specialist will likely ask you to turn the unit on and run tests and other operations.
4. Organize your questions or problem. The more complete picture you can provide, the quicker your support specialist can help you. You will need to provide the following:
   - HP OmniBook model and serial number.
   - Operating system(s) version.
   - Description of software loaded and accessories being used.

U.S.A. and Canada:

(970) 346-8682 (English language) - located in the U.S.
(5:00 am to 5:00 p.m. U.S. Pacific time, weekdays)

Europe

Authorized Dealer or (31) 20 581 33 30 (English language) - Amsterdam
(8:30 am to 5:00 p.m. central European time, weekdays)

Eastern Europe, Middle East

Local HP Sales and Service Office or Authorized Dealer

Central and South America:

Local HP Sales and Service Office or Authorized Dealer

Asia Pacific and Australia:

Local HP Sales and Service Office or Authorized Dealer

HP OmniBook Password Removal Guide

If you forget your password, Hewlett-Packard has a procedure to allow you to remove it. You must give acceptable proof-of-Ownership of your OmniBook. The acceptable Proofs-of-Ownership for Hewlett Packard OmniBook password removals are:

A Proof-of-Ownership (sales receipt, purchase order, etc.), with the following minimum information:

- The OmniBook's serial number
- The owners name
- Who purchased from
- Date of purchase

A formal password removal request with the following information:

- The date of request.
- The requesters name.
- The requesters address.
- The requesters phone number.
- From whom was the OmniBook acquired. (company, store, gift, etc.)
- The formal request in writing to remove the password.
- The OmniBook model number. (i.e.: OmniBook 300, OmniBook 5000CTS...)
- The OmniBook's serial number.
- The requesters signature. (no typed or electronic signatures)

The above Proof-of-Ownership information must be faxed to any of the following locations listed below. If you have further questions or concerns do not hesitate to call Hewlett Packard at the numbers listed below.

HP OmniBook Password Removal Contact Locations Menu

US, Canada & Worldwide Backup
Phone: (970) 346-8682
Fax: (970) 346-2269
Hrs of Operation: 9:00am - 5:00pm Pacific Time
Days of Operation: Monday - Friday

Europe, Eastern Europe, Russia, Africa, Middle East
Phone: ++31 20 581 3330 (English)
Fax: ++31 20 606 3536 (no faxes pleas, customer must call!)
Hrs of Operation: Monday, Tuesday, Thursday, Friday 8:30am - 6:00pm (CET)
Wednesday 8:30am - 4:00pm (CET)
Days of Operation: Monday - Friday

Mexico, Latin America
Phone: ++52 (525) 326-4591, ++52 (525) 326-4527
Fax: ++52 (525) 326-4525, ++52 (525) 326-4362
Hrs of Operation: 9:00 - 13:00 & 14:30 - 17:00
(USA Central Time = Mexico City Time)
Days of Operation: Monday - Friday

Asia, and Asia Pacific
Phone: 65-2713337
Fax: 65-2789225
Hrs of Operation: 9:00am - 5:00pm Pacific Time
Days of Operation: Monday - Friday

Japan
Phone: +81-3-3335-8333
Fax: +31-3-3335-8338
Hrs of Operation: 9:00 - 12:00, 13:00 - 17:00
Days of Operation: Monday - Friday except national holiday

Australia

For Password Removals in Australia please contact the authorized Hewlett-Packard dealer or reseller, where you purchased your HP OmniBook

OmniBook 800

Technical Specifications

Description: The smallest, lightest color Pentium notebook with uncompromised performance for the professional on the go.

Models: This is a complete list of all the standard OmniBook models available. Factory special options are not included in this listing.

Product	Description	HP Part #
HP OmniBook 800CS	Pentium 100 MHz; 810-MB HDD; 16-MB RAM	F1171A
HP OmniBook 800CS	Pentium 100 MHz; 1.44-GB HDD; 16-MB RAM	F1172A**
HP OmniBook 800CT*	Pentium 100 MHz; 810-MB HDD; 16-MB RAM	F1173A***
HP OmniBook 800CT*	Pentium 100 MHz; 1.44-GB HDD; 16-MB RAM	F1174A***
HP OmniBook 800CT*	Pentium 133 MHz; 1.44-GB HDD; 16-MB RAM	F1175A

* indicates TFT display
** Build to order option for North America Region
*** Models are not available in North America Region

Accessories

Description	Part Number
8-MB RAM expansion card	F1167A
16-MB RAM expansion card	F1168B
32-MB RAM expansion card	F1169A
810-MB Hard Disk Drive	F1164A
1.44-GB Hard Disk Drive	F1166A
3.5-inch 3-Mode Floppy Drive Module	F1059C
External Quad-Speed CD-ROM Drive	F1196A
Replacement CD-ROM Drive Power Cable	F1118A
AC Adapter	F1044B
Lithium Ion Battery Pack	F1121A
PowerClip (TM) External Battery Charger	F1063B
Automobile Adapter	F1064A
Docking System	F1177A

Docking-Connector-to-SCSI Cable	F1182A
Serial Cable	F1080A
Pop-up Mouse	F1049A

What comes in the box

OmniBook 800 mainframe
Lithium Ion Battery pack
User hard copy documentation: Quick Start Guide and support material pamphlet.
Electronic documentation: User's Guides. Includes two User guides, one with specifics relating to Windows 95 and the other Windows for Workgroups
AC adapter (P//N: F1044B), localized power cord
Brochures for OmniBook accessories and Deskjet 340
External 3.5" 3-Mode Floppy Drive
Recovery CD ROM and 3.5" utility disk (boot disk). The recovery CD ROM also includes electronic copies of the User Guides that are accessible from any PC with a CD ROM drive. Note: The recovery CD from Hewlett-Packard is for recovering the OmniBook 800 Windows 95 version only. It does not include Windows for Workgroups.
Windows 95 manual and Certificate of Authenticity
Windows 95 CD ROM
User Information Placemat: Highlights the product layout, contents of the box, power management features, instruction on choosing an operating system.

Microprocessor

Intel Pentium 100-MHz
Intel Pentium 133-MHz
Processor cache: 256K external (L2)
16K internal cache
2.9 volt processors

Bus Architecture

32-bit PCI bus
The OmniBook 800 does have DMA capability

Memory (all models)

Standard	Maximum
16-MB EDO DRAM (Standard 16MB DRAM is located on the Motherboard)	48-MB EDO DRAM. Optional memory expansion cards come in 8MB, 16MB, 32MB

Possible Memory Configurations:

On board memory	Memory Slot (slot located in front of the OmniBook 800)	Total RAM
16MB	--	16MB
16MB	8MB	24MB
16MB	16MB	32MB
16MB	32MB	48MB

Type of memory	Extended Data Output (EDO) DRAM (EDO is a significantly faster DRAM that utilizes a pipelining operation, getting the next requested data ready while the first data is being handed off.)
Cycle time	60 ns

Mass storage

The hard disk drive can be removed by the user to upgrade. Please refer to the OmniBook Quick Start Guide for instructions on removing and replacing the hard drive. Hard drive removal does require the removal of approx. 5 screws.
Hard drive manufacturer: Toshiba for the 810-MB; IBM for the 1.44-GB (Subject to change.)
Enhanced-IDE hard drive on the PCI bus

2.5" Hard Drive	810 MB	1.44 GB
	ATA-2 Interface	ATA-3 Interface
Recording Method	Peek Detect	PRML (Partial Response Maximum likelihood)
Heads	Thin Film	MR (Magneto Resistive)
Average seek (read)	13 ms	13 ms
Track to track seek	3 ms	4 ms
Full Track	25 ms	23 ms (read) 24 ms (write)
Average latency	7.14 ms	7.5 ms
Rotational speed	4200 +- 0.1% rpm	4200 rev/m
Media Transfer rate	24.7 (inner), 44.9 (outer) Mbits/sec	40 (inner), 61 (outer) Mbits/sec
Buffer to host	16.6Mbytes/sec	16.6Mbytes/sec
Buffer size	128 KB	96 KB
Spindle start time	5 sec	2.3 sec
Reliability:		

MTBF: Power-on Hours	300,000 hours	300,000 hours
Unrecoverable errors	1.0E-14 bits transfer	1.0E-14 bits transfer
Configuration:		
Sector Size	512 Bytes	512 Bytes
User Cylinders	1,579	2,800
Data Heads	6	4
Disks	3	2

Flexible disk drive

External ultra-thin 3.5 inch, 1.44-MB flexible disk drive standard
Powered by HP OmniBook 800
Dedicated floppy port does not take up the parallel port
Three-mode drive supports 1.44 MB, 1.2 MB and 724 KB MS DOS formats
Hot connect and removal
Automatic detection
Configured as drive A
Bootable
Dimensions: .55 inches (H) x 4.2 inches (W) x 5.7 inches (D)
Manufacturer: TEAC (subject to addition or deletion of vendors)
Floppy drive is included in the box with the OmniBook 800

Optional external CD-ROM

External 4X CD ROM, SCSI-2 standard interface.
Manufacturer: Panasonic
Specs:
Transfer Rate: 150 KB/s Normal Speed
300 KB/s Double Speed
600 KB/s Quad Speed
Buffer: 128K
Access: 350 ms (1/3 stroke; ac adapter)
600 ms (full stroke; ac adapter)
990 ms (1/3 stroke; alkaline battery)
1500 ms (full stroke; alkaline battery)
Start up time: < 30 sec
Modes: CD-DA, CD-ROM, CD-ROM XA (except for ADPCM), Photo CD, CD Plus, CDXA, CD-I, Multisession
Power: Alkaline batteries or OmniBook ac adapter. The OmniBook 800 and CD ROM drive both operate off the AC adapter by using the unique CD ROM power cable that plugs into the OmniBook 800 and allows the AC adapter to plug into the back of it allowing the user to only need one adapter . The CD ROM Drive has a SCSI 2 connector and is connected to the OmniBook 8ook 800 via a cable that plugs in to the docking system connector and has a SCSI-2 connector on the other end. This cable can be used to connect other SCSI devices to the OmniBook 800. The cable is included in the CD ROM Drive Box. Can be purchased separately, p/n F1182A.

Built-in I/O

9-pin, 115,000-b/s RS-232 port, UART 16550

25 pin EPP/ECP parallel port

SVGA out (up to 1024 x 768 x 256 colors) with simultaneous viewing

4-MBS IrDA-2 infrared port. Also supports 115,000-b/s IrDA Fast-IR

Expansion Bus Connector for connecting to optional docking system. Also functions as SCSI-2 port with docking connector-to-SCSI cable.

Dedicated Floppy drive port for external floppy

Display

Size: 10.0 inch diagonal DSTN (800CS); 10.4 inch diagonal Active Matrix (800CT)

Display type:
- DSTN (Dual Scan Twisted Nematic) display 256-color, 800x600 backlit SVGA
- TFT (Thin Film Transistor) Active Matrix display. 256 colors from a 262K

Video

- High performance video: Accelerated 128-bit PCI UVGA video controller.
- Supports software MPEG.

Memory: 1-MB display RAM - not upgradeable

Video Graphics Controller: Neo-Magic NM2070

External video resolution : Supports SVGA external monitors with up to 1024 x 768 x 256 colors in noninterlaced mode. Resolution options:

Resolution	Maximum Colors	Refresh Rate
640 X 480	64,000	up to 85-Hz
800 X 600	256	up to 85-Hz
1024 X 768	256	60-Hz

Auto detection of external monitor without rebooting
Note: Includes option to simultaneously display external video and notebook display.

TFT Display Quality

TFT display manufacturing is a high precision but imperfect technology and manufacturers cannot currently produce large displays that are cosmetically perfect. Most if not all TFT displays will exhibit some level of cosmetic imperfection. These cosmetic imperfections may be visible to the customer under varying display conditions and can appear as bright, dim or dark spots.

This issue is common across all vendors supplying TFT displays in their products and is not specific to the HP OmniBook display.

The HP OmniBook TFT displays meet or exceed all TFT manufacturer's standards for cosmetic quality of TFT displays. HP does not warrant that the displays will be free of cosmetic imperfections.

TFT displays may have a small number of cosmetic imperfections and still conform to the display manufacturers cosmetic quality specifications.

Here are some guidelines to use in determining what action to take on a customer complaint of cosmetic imperfection in their TFT display:

1. The unit should be viewed in the customer's normal operating condition.

This means if the customer uses the unit predominately in DOS, or Windows, or in some other application or combination of applications, that is where the determination shall be made. Self test is not a normal operating condition and is not a sufficient tool to interpret display quality.

2. In the customer's normal operating mode:

a. If 4 or more variant pixels appear clustered in the area approximated by a thumbprint on the display surface, then the display should be considered for replacement.

b. On OmniBook 4000CT models, if more than 30 total pixels anywhere on the display are bad, then the display should be considered for replacement. On OmniBook 600CT and OmniBook 5000CT models, if more than 15 total pixels anywhere on the display are bad, then the display should be considered for replacement.

These are the only conditions in this guideline that may call for a replacement due to a defect in material or workmanship based on the HP Limited Warranty Statement.

3. If a display is considered for replacement, it should be clear to the customer that cosmetic variations on the replacement display may also exist, and may require the customer to use a work-around to obscure the cosmetic imperfection.

4. Customers with cosmetic-based complaints only, that do not conform to the above conditions and tests will not normally be considered for display replacement. It will be left to the judgment of the HP-responsible person who, in working with the customer, to identify work-arounds that are reasonable and appropriate for the individual customer. Customers who must have a more perfect display solution should consider switching to an OmniBook with a DSTN display.

We expect over time that the industry will continue to improve in their ability to produce displays with fewer inherent cosmetic imperfections and will adjust our HP guidelines as the improvements are implemented.

User interface

Keyboard: 85-key, touch-type keyboard; industry standard, full sized key spacing with embedded numeric keypad. Includes 12 function [Fn] keys located on the top key row above the numeric keys.

Microsoft mouse compatible, 2 button pop out mouse emulates desktop mouse operation. Located in the upper right corner of the unit, accessible by a clearly marked push button.

Optional pointing device: Serial mouse or with the enhanced port replicator a PS/2 mouse port.

Power

Battery type: 7.2 Vdc rechargeable LiIon. LiIon battery does not require complete discharge before recharging. There is no "memory" effect that reduces battery life.

Recharge time: Lithium Ion quick charges in less than 2.5 hours with unit off or in use.

Battery life: up to 3.0 hours depending on screen brightness and I/O usage.

Battery signals: 2-minute low battery warning followed by controlled shutdown to preserve data for several days prior to recharge.

AC adapter: 100 to 240 Vac (50 to 60 Hz) input; 12 Vdc, 3.3A output. Use only an HP F1044B AC adapter (the type shipped with the OmniBook). Using any other adapter could damage the OmniBook and void the warranty. Always plug it into a grounded outlet.

Instant on: Maintains OmniBook in ready-to-work state for weeks on a full charge; when turned on it returns instantly to previous state. No waiting for restoring from disk. Accomplished by the use of self refreshed DRAM technology.

	Power management: Advanced Power Management 1.1 Computer: Period of inactivity after which the OmniBook turns off. Hard Disk: Period of inactivity for the hard disk after which the hard disk turns off Four pre-configured power management settings: 1) Emphasis on Power Savings : Provides full power management capabilities provided. This setting yields the longest battery life. Settings: computer - 3 minutes; hard drive - 1 minute. 2) Balance Power Savings/Performance : Optimizing performance while maintaining longest possible battery life. Settings: computer - 10 minutes; hard drive - 5 minutes. 3) Emphasis on Performance : Maximizing performance, forgoing battery life. Settings: computer - 20 minutes; hard drive - no turn off. 4) Custom: User definable. Settings: computer - min: no turn off, max: 30 minutes; hard drive - min: no turn off, max 15 minutes. Energy S.T.A.R. compliant
Optional power accessories from HP:	
HP PowerClip external battery charger.	Very compact recharger that slips around the battery pack. Up to four chargers can be linked together and quick charged at the same time. The OmniBook battery and one external battery can be linked together and quick charged at the same time. HP# F1063B Size: 18.0 x 5.5 x 2.7cm, weight: 108g (estimated)
Automobile adapter	HP # F1064A
Extra battery pack	HP # F1121A - LiIon (Note: the NiMH battery packs, HP # F1058A, will not function properly in the 800 Series OmniBooks.)
Extra AC adapter	HP # F1044B
Accessory Slots	User available PCMCIA Slots: 2 Type II or 1 Type III (version Two) The PCMCIA slots are fully industry compatible and supports SystemSoft Card Services and Socket Service (2.1). The system will support a wide variety of PCMCIA cards (see latest listing). PCMCIA controller is a TI PCI1130, 16-bit/CardBus PC Card compatible controller.
Audio Systems for the OmniBook 800CS/CT	Sound Chip: ESS1888, Manufacturer: ESS 16-bit SoundBlaster Pro stereo compatible Single or multiple, mixed-signal, high performance VLSI chip set Record, compress, and playback sound and music 5 channel mixer Stereo inputs for line-in, CD-ROM, and music synthesis and a mono input for microphone Audio mixer controls inputs and outputs Windows compatible and OLE compliant
Operating and Storage Environment	Operating temperature: 41 to 104 degrees F (5 to 40 degrees C) Storage temperature with data retention: 32 to 131 degrees F (0 to 55 degrees C). Operating and storage humidity: 90% relative humidity at 104 degrees F (40 degrees C) maximum.

Environmental Testing	ESD as per IEC-801-2, EN 55024-2 Drop testing: 1 drop flat onto all six faces from .75 meter Also tests for altitude, magnetic & radiated susceptibility & interference, shock & vibration. Note: These are the tests that HP designs notebook computers to meet. Due to normal variations in the components of individual machines, some machines will perform better and some won't perform as well. HP does not guarantee that every notebook computer will meet these specifications.
BIOS	PC AT core BIOS from SystemSoft Windows 95-compatible Plug-and-Play BIOS stored in EEPROM, VLSI Eagle II User upgradable via floppy drive. Instructions for how to upgrade the BIOS come with the BIOS in a readme.txt file. BIOS comes in 5 languages (English, French, German, Italian, and Spanish). When upgrading/replacing a BIOS, ensure that the BIOS language matches the software on the hard drive. Always check to make sure the correct BIOS is installed after replacing the motherboard. A corrupt BIOS that prevents the machine from booting requires either a special BIOS recovery tool (check your Product Support Plan to see if this tool is available to you) or a motherboard replacement. The BIOS can be corrupted by interrupting a BIOS upgrade in the middle of the process.
Operating System	Microsoft Windows for Workgroups 3.11 and DOS 6.22 dual-loaded with Microsoft Windows 95 (user must make a one-time selection). Will be submitted for certification for Windows NT and OS/2 Warp.
Software	HP PIM: Appointment Book, Phone Book, and HP Financial Calculator. SystemSoft CardLite and Monarch PC Card software. IRDA drivers. Applications can be assigned to any of the 12 function keys for hot-key access. Automatic printing utility for function key labels.
Supported Operating Systems	Customer support for Windows for Workgroups and Windows 95 is at the application level. Support for Windows NT and OS/2 Warp consists of setup and configuration.
Security	Physical security from Kensington Lock Serial number on bottom case. User and Administrator password: If the user forgets a password, there is a master password that will unlock the OmniBook. The user must call the Mobile Computing Division Technical Support to follow a process to unlock the OmniBook. PC ID (96 characters at boot) Optional, hardware-based hard drive password (drive lock) available from HP BBS and Internet sources on approx. November 1, 1996.

Password Decode

If the user forgets the system password, there is a master password that will unlock the OmniBook. The user calls Technical Support to determine this master password as follows:

1. Support will tell the user the keys to type at the password entry screen: [alt][shft][f10]
2. The OmniBook generates and displays an encoded master password. This is displayed under the normal password entry area. At this point, this is the only password that will unlock the OmniBook unless the user presses [ESC] to remove the encoded master from the password entry screen. Then the user's stored password can be entered.
3. The user reads the encoded master password to Support.
4. Support runs a program that decodes the encoded password, and reads the decoded password (alphanumeric) to the user.
5. The user types in the decoded password.
6. OmniBook decodes the encoded master password it generated and compares it to the decoded password typed in by the user.
7. If the two passwords match, the OmniBook is unlocked. The forgotten password is automatically erased. Support can then guide the user through the process of entering a new password.
8. If the two passwords do not match, the previous sequence must be repeated until the user correctly enters a master password.

The encoded master password is an eight-character alphanumeric sequence that the OmniBook generates at random every time the appropriate keys are pressed in the password entry screen. Because it is generated randomly, a master password can only be used to unlock the OmniBook once. If the user forgets the password at another time, it will require another call to Support. (If the user presses the appropriate keys by mistake, pressing [ESC] will allow entering the stored password.)

Password Decode Policy

The password descramble programs for the HP OmniBook PCs are protected as HP Company Private information. They may not be copied, backed-up, printed or distributed. There are only six official copies of each program.

In addition to protecting the program itself, it's use is also controlled. Hewlett-Packard and authorized support providers must ensure with written evidence that the OmniBook that is being "descrambled" is actually in the hands of the unit's actual and current owner. This requires a sales receipt showing the unit serial number and owner's name, or a written statement from the owner attesting that they are the owner of the unit. The statement can be a FAX copy of the document. The fact that the unit is in the hands of an HP representative on the behalf of the customer is not evidence of ownership. In addition, HP will not descramble a unit for any non-owner, even if it involves law enforcement agencies. If you receive such a request, you should notify management and HP Corporate Legal immediately. (These requests may require a court order prior to our participation.)

Further, you must log the name, serial number and date of the running of the descramble program, and file the written backup with the log. The log and backup is subject to standard record's retention process and review.

The final issue relating to descramble of passwords is that HP cannot provide information to users that would assist them in improperly descrambling a password and opening a unit.

Optional Docking System

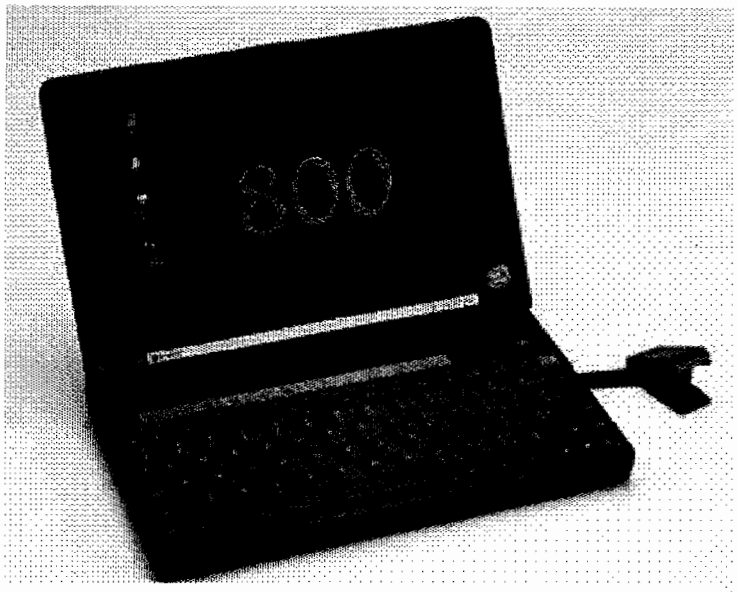
Replicated Ports	w 15-pin SVGA-out w 25-pin bi-directional parallel w 9-pin 115,000-bps RS-232 w PS/2 keyboard and mouse w Stereo out w Fast SCSI-2 w External Floppy w Power
Expandability	w One industry standard, half length slot for use with one 16-bit ISA or one 32-bit PCI card
Hot Docking	w Supported under docking-enabled operating systems such as Windows 95
Convenience	w Indicators - Power adapter attached - Unit docked w Controls - Power - Undock
Security	w Robust, reliable mechanical locking mechanism w Kensington MicroSaver lock slot w Manual undock lock override when Kennsington Microsaver lock is not attached w Optional, user-defined password to prevent unauthorized removal of notebook from the dock.
Power	w Powered by HP 800 AC adapter (F1044B) w Passes power through to HP OmniBook for operation and simultaneous internal battery charging
Warranty	w Free one year worldwide limited warranty on accessories

Computer Museum

OmniBook Product Comparisons

	HP OmniBook 800	HP OmniBook 5500
Size Closed	18.49 × 28.24 × 3.99 cm (7.28 × 11.12 × 1.57 in)	•29.5 x 22.5 x 5.2 cm (11.6 x 8.8 x 2.05 in)
Weight	1.70 kg (3.75 lb)	•3.4 kg (7.5 lb)
Processor	100-, 133-MHz Intel Pentium	•100-, 120-, and 133-MHz Intel Pentium
Bus Architecture	32-bit PCI bus	32-bit PCI bus
Cache	256-KB external L2 cache	256-KB external L2 cache
Display Size	10.0-inch DSTN SVGA; 256 colors, 800 x 600 10.4-inch TFT SVGA; 256 colors, 800 x 600	11.3-inch DSTN SVGA; 256 colors 10.4-inch TFT SVGA; 64k colors 12.1-inch TFT SVGA; 64k colors 800 x 600
Pointing Device	pop-up mouse	TrackPoint III
Video Out	VGA-out supports VGA and SVGA monitors (up to 1024×768×256 colors) MPEG software support	SVGA-out supports VGA & SVGA monitors (up to 1024 x 768 x 256 colors) MPEG software support NTSC/PAL composite and S-video ports
Video Controller	Accelerated 128-bit PCI bus; Neo-Magic	Accelerated 32-bit PCI bus; C&T #65548
Video RAM	1MB	1MB
Power	AC adapter 100 to 240 Vac (50 to 60 Hz) input; 12 Vdc, 3.3 A output	AC adapter 100 to 240 Vac (50 to 60 Hz) input; 12 Vdc, 3.3 A output
Battery Type	7.2 Vdc rechargeable Lithium Ion battery	14.4 Vdc rechargeable Lithium-Ion battery
Battery Life	Battery life up to 3.0 hours.	Battery life (approximate with one battery LiIon): 2 to 3 hrs
Recharge Rate	Battery pack recharges to high level in less than 2.5 hours using AC adapter	Battery (LiIon) recharges to high level in 4 hrs using AC adapter while PC is on or off
Advanced Power Management	Instant-on maintains computer in ready-to-work state for months on a charge. Turn it on again, and you're instantly back where you were. 2-minute low-battery warning	Instant-on maintains computer in ready-to-work state for weeks on a full charge; returns you to your application or file instantly 2-minute low-battery warning
Removable Modules	Hard disk drive RAM Battery	Floppy disk drive internal/external (can be replaced with a second battery or CD ROM drive) Hard disk drive RAM Standard Battery
Hard Disk Drive	810 MB, 1.44 GB enhanced-IDE, mode-4, PCI-bus, 12.7 mm.	810 MB, 1.35 GB, 2.0 GB IDE

Floppy Disk Drive	External ultra-thin, three-mode floppy disk drive (included with product)	internal, standard; swaps with CD-ROM or battery; usable externally
CD-ROM Drive	Optional, external quadspeed	Optional, internal quadspeed
RAM	16 MB standard EDO DRAM; 60 ns upgradable to 48 MB 8-, 16-, 32-MB RAM expansion cards	8 or 16-MB RAM models self-refreshed DRAM upgradable to 64 MB
Audio	16-bit Sound Blaster Pro stereo compatible. Two built-in speakers (not stereo sound)	16-bit with Sound Blaster Pro compatible and MIDI support Stereo sound via two built-in speakers
IO Ports	9-pin, 115,200 - b/s, RS-232 port 25-pin EPP/ECP parallel port SVGA-out (up to 1024 × 768 × 256) 4 Mbps Fast IRDA Optional docking system connector SCSI-2 port available with accessory cable (fits in docking port) Floppy drive port Headphone/stereo-out port Stereo-in and microphone ports	9-pin, 115,200 - b/s, RS-232 port 25-pin EPP and ECP parallel port SVGA-out (up to 1024 x 768 x 256); VGA-out (640 x 480 x 16M colors) Fast-IR-IRDA compliant @ 4Mbps Expansion bus connector NTSC/PAL video-out port (RCA and SVideo) Keyboard/mouse port Headphone/stereo-out port Stereo-in and microphone ports MIDI/joystick port
PCMCIA	One Type III PCMCIA slot (or use as two Type II slots) CardBus-ready	One Type III PCMCIA slot (or use as two Type II slots) with 3.3-V or 5-V support
Docking	Optional docking system with EPP/ECP parallel, serial, VGA-out (up to 1024 × 768), keyboard, PS/2 or Microsoft® mouse, and SCSI-2 ports; external floppy connector; stereo out; and standard half-length ISA/PCI slot.	Optional docking system with two ISA-based slots, or one ISA and one PCI slot, parallel, serial, SVGA-out (up to 1024 x 768 x 256), keyboard, PS/2 mouse, MIDI/joystick, audio, and game port.
Pre-installed Software	Microsoft Windows for Workgroups 3.11 and MS-DOS 6.22 dual-loaded with Windows 95 User upgradable Plug and Play BIOS in EEPROM HP PIM SystemSoft CardLite and Monarch PC card software diagnostic tools	Microsoft Windows for Workgroups 3.11 and MS-DOS 6.22 duel-loaded with Windows 95 Plug and Play BIOS HP PIM
Security Features	User password Kensington lock slots System administrator password PC tattoo Optional "Drive Lock" hardware-based hard drive password	2-level password protection PC ID (tattooing) and serialization Drive lock Kensington lock slots
Warranty	Free three-year world-wide warranty	Free world-wide warranty; 3-year on Premium, 1-year on Value Line



HP OmniBook 800 Series

Lightest, Top-performance, Desktop-to-go Notebook PC

Technical Specifications

ize Closed
v28.24 x 18.47 x 3.99 cm
(11.12 x 7.27 x 1.57 in)

Weight
v1.70 kg (3.75 lbs)
vTraveling weight with adapter and power cord: 2.11 kg (4.66 lb)

Processor and Bus Architecture
v133- or 100-MHz Intel Pentium®
v256-KB SRAM pipelined burst-synchronous L2 cache
v32-bit PCI bus

Display
v10-inch SVGA CSTN (800 x 600)
v10.4-inch SVGA TFT (800 x 600)
v256 colors from a 262K-color palette
v128-bit accelerated PCI-bus video controller
vSupports software MPEG

Power
vInstant-on with up to 3-month standby life
vBattery life: up to 3 hrs
vLithium Ion battery recharges to high level in less than 2.5 hrs using AC adapter while PC is on or off
v2-minute low-battery warning
vAC adapter 100 to 240 Vac (50 to 60 Hz) input; 12 Vdc, 3.3 A output

Environment
vOperating temperature:
1 to 35° C (34 to 95° F)
vStorage temperature with data retention:
0 to 55° C (32 to 131° F)
vOperating and storage humidity:
90% relative humidity at
40° C (104° F) max

Mass Storage
vIndustry-standard 1.44-billion-byte or 810-million-byte 12.7-mm hard drives (before optional compression)
vEnhanced-IDE mode-4 PCI bus hard disk controller

RAM
v60-nanosecond EDO DRAM
v16 MB expandable to 48 MB

Audio
vSoundBlaster Pro-compatible stereo
vBuilt-in microphone and two speakers

Keyboard and Pointing Device
v85-key full-sized QWERTY keyboard
vEmbedded numeric keypad
v12 function (Fn) keys
vBuilt-in pop-up mouse
vHot keys for setup, VGA-out, volume, and system status window

Input/Output
vSVGA-out (up to 1024 x 768 x 256)
vUp to 72-Hz refresh rate for 800 x 600
vUp to 60-Hz refresh rate for 1024 x 768
v9-pin, 115,200 bps serial (16550 UART)
v25-pin bidirectional ECP/EPP parallel
v4-Mbps IrDA-2 infrared
vStereo-in, stereo-out, microphone-in
vConnector for docking (PCI/ISA bus)
vSCSI-2 (fast SCSI) on PCI bus (optional F1182A cable required)
vFloppy disk drive

HEWLETT® PACKARD

Expandability
vOne Type III PC Card slot (or use as two Type II slots); CardBus-ready
vExternal ultrathin floppy disk drive included with product
vOptional docking system has industry-standard half-length PCI/ISA slot, and SCSI-2, keyboard, PS/2 mouse ports

Pre-installed Software
vMicrosoft® Windows® for Workgroups 3.11 and MS-DOS® 6.22 co-loaded with Microsoft Windows 95 *
vWindows 95-compatible Plug and Play
vAdvanced Power Management 1.1
vHP PIM and HP Financial Calculator
vOn-line documentation

Security Features
v2-level password protection
vPC ID (tattooing--96 characters at boot)
vKensington Microsaver lock slot
vOptional hardware-based hard drive password

Warranty
v3-year return-to-HP for repair (1-year on battery and accessories)
vOmniBook Support and Recovery CD-ROM included
vCentralized worldwide BIOS and driver update service

Ordering Information
(CS is a CSTN display and CT is a TFT display)
F1171A HP OmniBook 800CS 5/100, 810
F1172A HP OmniBook 800CS 5/100, 1440
F1173A HP OmniBook 800CT 5/100, 810 **
F1174A HP OmniBook 800CT 5/100, 1440 **
F1175A HP OmniBook 800CT 5/133, 1440

Accessories:
F1177A Docking system
F1196A External quad-speed CD-ROM drive (includes F1182A and F1118A cables)
F1167A 8-MB RAM expansion card
F1168A 16-MB RAM expansion card
F1169A 32-MB RAM expansion card
F1044B AC adapter (40 W)
F1121A Lithium Ion battery pack
F1063B PowerClip external battery charger
F1064A Automobile adapter
F1059C External floppy disk drive
F1164A 810-million-byte hard disk drive
F1166A 1.44-billion-byte hard disk drive
F1182A Docking-connector-to-SCSI cable
F1118A Replacement CD-ROM-drive power cable
F1049A Replacement mouse

Designed for Microsoft Windows 95

Genuine Microsoft Products

Upon first boot, the end user must make a ONE-TIME selection between Windows 95 and Windows for Workgroups. Later, if the end user desires the rejected operating system, the end user will need to acquire and pay for such product as a separate transaction.

** These products are not available in North America.

Technical information and product availability are subject to change without notice. Pentium is a U.S. registered trademark of Intel Corporation. Microsoft, Windows, and MS-DOS are U.S. registered trademarks of Microsoft Corporation.

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Version 08/08/1996 (ds800.sam)
5965-3369E

Accessories for the HP OmniBook 800

Docking System

A small-footprint, full-feature dock delivering desktop expandability and connectivity to HP OmniBook 800 users

Key Benefits

- Easy integration into corporate networks using standard PCI or ISA LAN cards
- Full desktop expandability
- Easy docking and undocking

Key Features

- Industry-standard, full-height, half-length PCI-card/ISA-card slot
- Mechanical lock and Kensington lock slot to secure OmniBook 800 and dock
- Uses same AC adapter as HP OmniBook notebook and automatically charges notebook's internal battery while docked
- Warranty: 1-year return-to-HP for repair

Specifications

- Ports:
  - PS/2 keyboard and mouse ports
  - 25-pin ECP parallel
  - 9-pin serial
  - 15-pin SVGA-out
  - Fast SCSI-2 port
  - External floppy connector
  - Stereo-headphone-out jack
  - Power connector
- Docked/Undocked status lights
- Undock Request and On/Off buttons (On/Off eliminates need to open the notebook to turn it on or off while using an external keyboard)
- Security:
  - Kensington lock slot
  - Mechanical/password-secured interlock
  - Manual-undock override if dock is not secured with Kensington lock
- Slot (one slot with two connectors) can be used as one half-length 32-bit PCI slot or as one half-length 16-bit ISA slot
- 35.9 x 22.2 x 4.6 cm (14.13 x 8.74 x 1.81 in)

CD-ROM Drive

A lightweight, portable drive providing convenient access to CD-ROM software and databases for HP OmniBook 800 users

Key Benefits

- Small size to complement the exceptional portability of the HP OmniBook 800
- Quad-speed (4x) to complement the HP OmniBook's Pentium/PCI performance
- Leading-edge specifications for multimedia and graphics
- Powered from the same AC adapter used with the HP OmniBook 800 so user need carry only one adapter

Key Features

- Quad-speed performance
- Powered from the HP OmniBook 800's AC adapter using a power-splitter cable (included with drive), or powered from 6 AA batteries (not included with drive)
- Meets MPC-2 requirements
- Photo CD (multi-session) capable
- Convenient audio disk controls
- Warranty: 1-year return-to-HP for repair

Specifications

- 13.8 x 19.6 x 3.7 cm (5.43 x 7.72 x 1.46 in)
- 0.43 kg (15.17 oz) without batteries or cables
- 600-KBps (quad-speed) transfer rate
- 128-KB buffer memory
- 350-ms (AC-powered) access speed
- SCSI-2 interface
- CD-ROM drivers included on HP OmniBook 800's hard disk drive for Microsoft® Windows® 3.1, Windows for Workgroups 3.11, Windows 95, and MS-DOS®

Ordering Information

F1177A	Docking system
F1196A	External quad-speed CD-ROM drive (includes F1182A and F1118A cables)
F1167A	8-MB RAM expansion card
F1168A	16-MB RAM expansion card
F1169A	32-MB RAM expansion card
F1164A	810-million-byte hard disk drive
F1166A	1.44-billion-byte hard disk drive
F1044B	AC adapter (40 W)
F1064A	Automobile adapter
F1121A	Lithium ion battery pack
F1063B	PowerClip external battery charger
F1059C	Replacement external floppy disk drive
F1182A	Replacement docking-connector-to-SCSI cable
F1118A	Replacement CD-ROM-drive power cable
F1049A	Replacement mouse

Other Accessories

A collection of small, lightweight accessories to enhance the portability and power of the HP OmniBook 800 notebook PC

RAM Expansion Cards

- 8-, 16-, and 32-MB RAM expansion cards expand built-in RAM from 16 MB (on motherboard) up to 48 MB
- Easy user installation.

Hard Drives

- 810 million bytes (772 MB) and 1.44 billion bytes (1.34 GB)
- Industry-standard, 12.7-mm hard drives
- User installable by removing Phillips-head screws

Power Accessories

- AC adapter
  100 to 240 Vac (50 to 60 Hz) input; 12 Vdc, 3.3 A output; 0.39 kg (13.9 oz) including power cord; note that the HP OmniBook 800 and any one accessory can be powered from a single AC adapter
- Automobile adapter
  0.50 kg (17.6 oz)
- Lithium ion battery pack
  0.204 kg (7.2 oz)
- PowerClip external battery charger
  0.12 kg (4.2 oz)