
CD-ROM Drive F1197A
for the HP OmniBook

User's Guide

Notice

This manual and any examples contained herein are provided “as is” and are subject to change without notice. Hewlett-Packard Company makes no warranty of any kind with regard to this manual, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose Hewlett-Packard Co. shall not be liable for any errors or for incidental or consequential damages in connection with the furnishing, performance, or use of this manual or the examples herein.

Consumer transactions in Australia and the United Kingdom: The above disclaimers and limitations shall not apply to Consumer transactions in Australia and the United Kingdom and shall not affect the statutory rights of Consumers.

© Copyright Hewlett-Packard Company 1996. All rights reserved. Reproduction, adaptation, or translation of this manual is prohibited without prior written permission of Hewlett-Packard Company, except as allowed under the copyright laws.

Microsoft, MS, and MS-DOS are registered trademarks and Windows is a trademark of Microsoft Corporation (U.S. patent numbers 4955066 and 4974159).

The programs that control this product are copyrighted and all rights are reserved. Reproduction, adaptation, or translation of those programs without prior written permission of Hewlett-Packard Company is also prohibited.

For warranty information, see the *Support and Service* booklet that comes with the OmniBook.

Hewlett-Packard Company
Mobile Computing Division
1000 N.E. Circle Blvd.
Corvallis, OR 97330, U.S.A.

Edition History

Edition 1 October 1996



This manual is printed on recycled paper

Contents

Overview	14
Features	14
Precautions	14
Accessories	14
Setting Up Your CD-ROM Drive	15
To connect the power cable	15
To use batteries in your CD-ROM drive	16
To connect the CD-ROM drive to your OmniBook	17
To disconnect and reconnect the CD-ROM drive	1-11
To insert a CD into the CD-ROM drive	1-12
To remove a CD from the CD-ROM drive	1-13
About Audio CDs	1-13
To play an audio CD	1-14
Maintenance	1-15
To clean the CD-ROM drive	1-15
To clean compact disks	1-15
Troubleshooting	1-16
Specifications	1-17
Regulatory Information	1-18
U.S.A.	1-18
Canada	1-18
Japan	1-19
Laser Safety	1-19
Europe	1-20

Overview

The lists below summarize important information about your CD-ROM drive.

Features

The CD-ROM drive for the HP OmniBook:

- Connects to your OmniBook with the supplied SCSI adapter cable.
 - Plays both data and audio CDs while attached to your OmniBook.
 - Plays audio CDs as a stand-alone CD player.
 - Can be powered by either a power cable or batteries.
 - Is MPC1 and MPC2 compatible.
-

Precautions

- Use only the HP power cable and an HP-approved ac adapter with the CD-ROM drive.
 - Do not smudge or scratch the surface of a CD.
 - Do not place heavy objects on the CD-ROM drive.
 - Do not shake or subject the CD-ROM drive to vibration.
 - Keep the disk cover closed to protect the disk compartment from dust.
 - Do not disassemble the CD-ROM drive.
 - Do not spill liquid on the CD-ROM drive.
 - Do not touch the lens (see “Maintenance”).
 - Do not expose the CD-ROM drive to direct sunlight or heat. (The interior of an automobile on a sunny day can be hot enough to damage the CD-ROM drive.)
 - Do not operate the CD-ROM drive while moving it.
-

Accessories

The following accessories are included with the CD-ROM drive:

- Power cable for the CD-ROM drive (HP part number F1118A).
 - OmniBook SCSI adapter cable (HP part number F1182A).
-

Setting Up Your CD-ROM Drive

WARNING

To prevent fire or shock hazard, do not expose this product to rain or any other type of moisture.

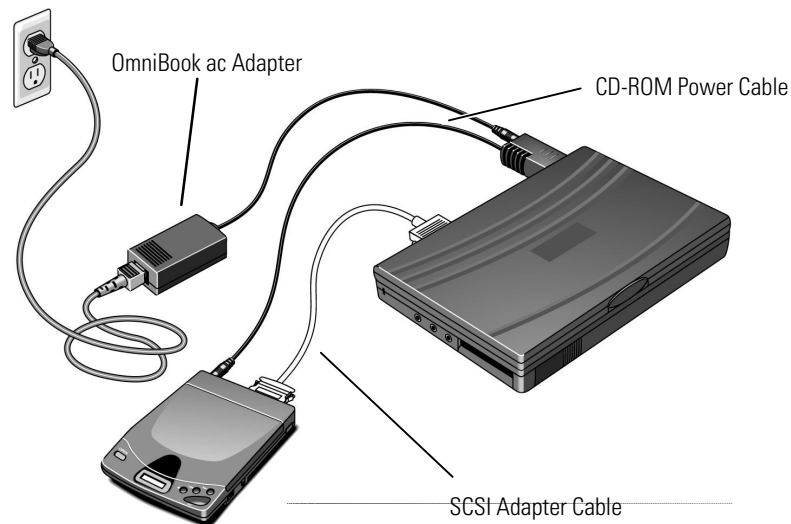
This CD-ROM drive can be used with a power cable or batteries (batteries not supplied). Because of high power demands when accessing data CDs, batteries are not recommended. For audio CDs, batteries work well.

To connect the power cable

Connect one end of the CD-ROM power cable to the DC IN jack on the CD-ROM drive and the other end to the OmniBook, then connect the OmniBook ac adapter.

CAUTION

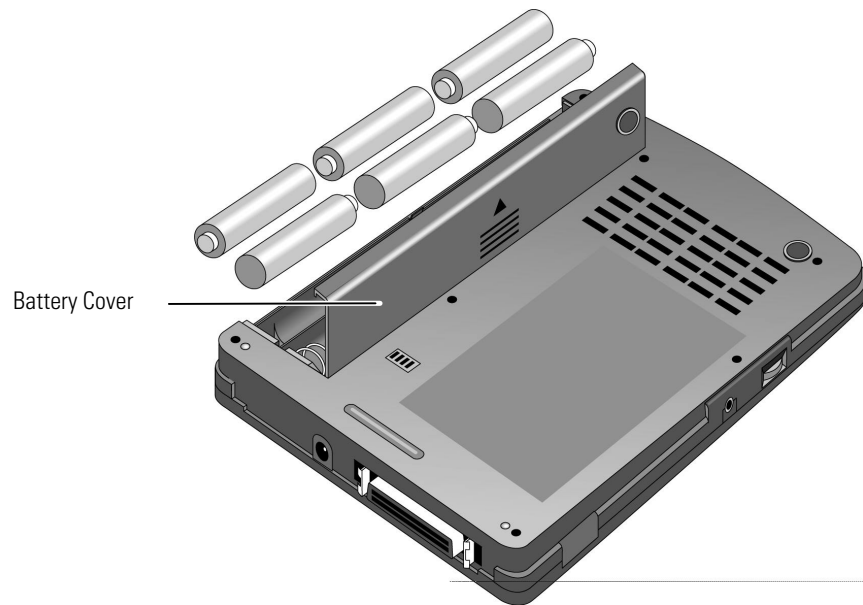
The OmniBook's F1044B ac adapter can power the OmniBook with the CD-ROM drive *only*, and *not* the docking system or the Power Clip battery charger at the same time. Attempting to power more than one of these peripheral devices with this adapter can cause data loss or hardware damage to your systems. To use more than one of these peripheral devices at a time, you must *either* give each additional device its own ac adapter *or* acquire an HP F1140A ac adapter instead, which can power all these devices simultaneously.



To use batteries in your CD-ROM drive

Alkaline batteries are recommended.

1. Open the battery cover by sliding it out and lifting it up.
2. Insert six “AA” size batteries, making sure to match the polarities to the diagram in the battery compartment.
3. Replace the battery cover.



Replace the batteries when you see the flashing low-battery indicator appear on the CD-ROM display. Normal battery life while accessing data CDs is 30 to 45 minutes. While playing audio CDs, it is approximately 4 hours.

CAUTION

Batteries contain corrosive materials, which can damage equipment and cause injury.

- Install batteries according to the diagram in the battery compartment.
- Do not mix old and new batteries, or alkaline batteries with any other battery type.
- Remove all batteries when not using the CD-ROM drive for extended periods.
- Do not charge, short circuit, disassemble, heat, or burn batteries.

To connect the CD-ROM drive to your OmniBook

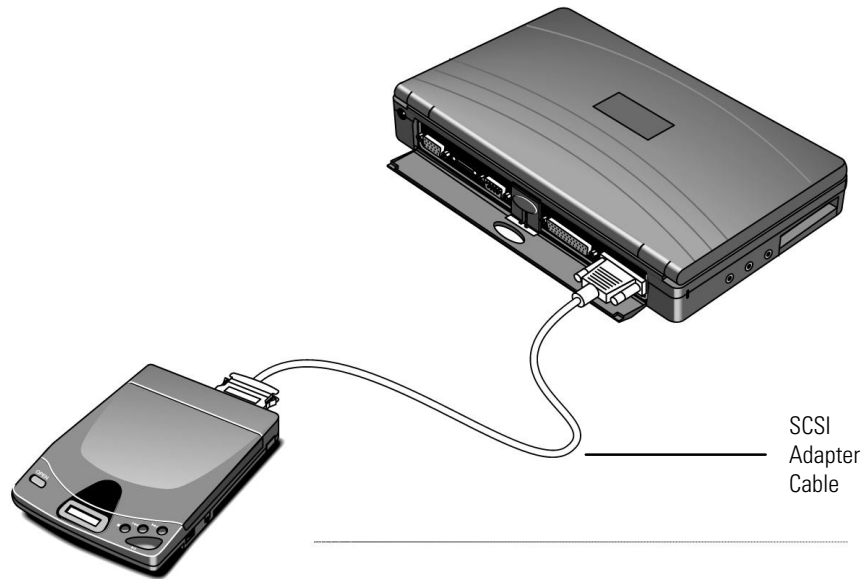
CAUTION

Before you turn on the CD-ROM drive for the first time, remove the cardboard shipping insert from inside the CD compartment.

1. Make sure the CD-ROM drive has power—see “To use the power cable” or “To use batteries in your CD-ROM drive” earlier in this section.
2. Turn on the CD-ROM drive by pressing the POWER switch. A blinking “on” appears on the display of the CD-ROM drive.



3. Connect the 50-pin end of the SCSI adapter cable to the CD-ROM drive's SCSI connector. (If you're also connecting other SCSI devices, see “Connecting Several SCSI Devices” farther below.)



4. Important : the CD-ROM drive must be on when the cable connects the drive and the computer in order for the computer to register the presence of the CD-ROM drive. After the CD-ROM drive is turned on and connected to the SCSI cable, connect the 80-pin end of the cable to the OmniBook's docking/SCSI connector.

The new connection at the docking/SCSI connector causes a "docking event" on the OmniBook. Your response depends on your operating system:

- For Windows 95, the computer automatically detects the new configuration with the CD-ROM drive. The first time you connect the CD-ROM drive, the OmniBook will take several minutes to set up this new SCSI configuration. It will name this configuration "Dock1" or "Dock2".
 - For Windows for Workgroups, exit Windows and press CTRL+ALT+DEL to restart your OmniBook and set up the CD-ROM drive for access—you may be prompted to do this.
5. For Windows 95, remove the SCSI device from the Undocked configuration as follows. If you do not do this, the OmniBook might stop responding (lock up) when the CD-ROM drive is removed (undocked).

Right-click My Computer, select Properties, and click the Device Manager tab. Double-click SCSI controllers, then select Symbios Logic 8100S PCI SCSI Host Adapter, and click the Remove button.



In the Confirm Device Removal box, enable
Remove from specific configuration.

Under Configuration, select Undocked, then click the OK button.

To turn off or disconnect the CD-ROM drive, see “To turn off the CD-ROM drive,” the next topic below.

Entering Power Save Mode

During periods of inactivity, the CD-ROM drive saves power by turning off the laser and stopping the drive motor. This occurs under the following conditions:

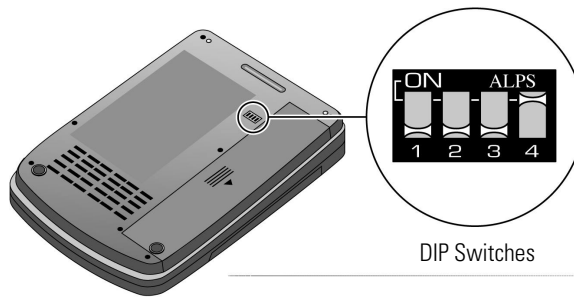
- When the CD-ROM drive receives no commands from the OmniBook for 4 minutes (if they're connected), and
- When you don't press any buttons for 4 minutes.

Connecting Several SCSI Devices

Because the CD-ROM drive is a SCSI device, it is possible to connect it to your OmniBook in series with other SCSI devices—this is called a “daisy chain” connection. Follow these guidelines for connecting your CD-ROM drive with other SCSI devices:

- The CD-ROM drive must be the last device in the daisy chain (the furthest from the OmniBook).
- The CD-ROM drive terminator DIP switch (switch 4) must be set to ON.
- Each device in the daisy chain must have a unique SCSI ID number that is not zero.
- All SCSI cables must use shielded cable with the proper connector ends. The cable should be shorter than 5 feet (1.5 meters).

The SCSI terminator and ID number DIP switches are located on the bottom of the CD-ROM drive. Each switch is numbered: 1 through 3 are the ID number switches, and 4 is the terminator switch.



The table below shows how to set the ID switches for different SCSI ID numbers.

SCSI ID Number	ID Switch Number		
	1	2	3
0	off	off	off
1	on	off	off
2	off	on	off
3	on	on	off
4	off	off	on
5	on	off	on
6	off	on	on

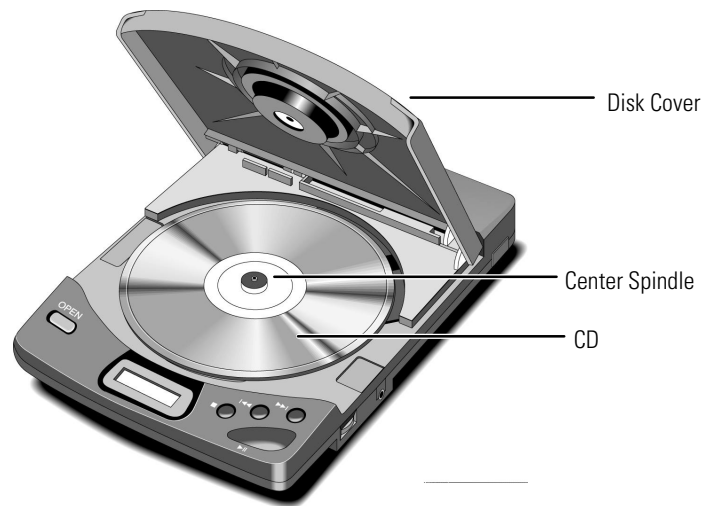
To disconnect and reconnect the CD-ROM drive

1. If you are using Windows 95, click Start, Eject PC. (This removes the OmniBook from its “docked” configuration with the CD-ROM drive.)
2. Unplug the SCSI adapter cable from the OmniBook’s docking/SCSI connector. This causes an “undocking event” on the OmniBook.
If you’re using Windows for Workgroups, you should then restart your computer: exit Windows and press CTRL+ALT+DEL, or follow the displayed “UNDOCKED” prompt and press ENTER to restart.
3. Turn off the CD-ROM drive. The “on” message disappears from the CD-ROM display.
4. When reconnecting the CD-ROM drive, make sure the drive is on before you connect the cable. If you are using Windows for Workgroups, you will need to restart the computer. (You may see a “DOCKED” message prompting this.)

You can turn off the OmniBook and/or CD-ROM drive (such as to save power if you are using batteries) without affecting the “docking” configuration of the CD-ROM drive. If you are using Windows for Workgroups, you might see a “DOCKED” message when you turn the OmniBook back on, but you actually do *not* need to restart the computer (unless you have changed a peripheral connection).

To insert a CD into the CD-ROM drive

1. Press OPEN to open the disk cover.
2. Place a CD (with the label facing up) on the center spindle, and press down firmly on the center of the CD until it seats on the spindle.
3. Close the disk cover.



The following messages appear on the display readout.

Message/Indication	Description
-AUDIO DISC ONLY-	Displayed when you press an audio control button while a data CD is in the CD-ROM drive.
BATTERY	Displayed to indicate low battery power.
BUSY	Displayed when CD-ROM drive is transferring data to the OmniBook.
no DISC	Displayed when there is no disk in the CD-ROM drive.
on	Displayed if a data CD is present. During inspection of a new disk (data or audio), the "on" message blinks.
OPEN	Displayed when the disk cover is open.

To remove a CD from the CD-ROM drive

1. Make sure the blinking “Busy” message does not appear on the CD-ROM drive display. If “Busy” appears, stop the CD using either the OmniBook software or the CD-ROM drive control buttons.
 2. Press OPEN to open the disk cover.
 3. Press down on the center of the CD and gently lift the outside edge until the CD is free.
 4. Close the disk cover and return the CD to its storage case.
-

About Audio CDs

There are three ways to play audio CDs. In all three methods, the CD-ROM drive can remain connected to your OmniBook, although the first two do not require it.

- Connect the CD-ROM drive PHONES jack to your sound system LINE-IN jack with an audio connecting cable (cable not supplied). In this case the CD-ROM drive functions as a conventional audio CD player.
- Connect headphones (not supplied) or amplified speakers (not supplied) to the CD-ROM drive and use it as a stand-alone audio CD player. Make sure the CD-ROM drive is stable and vibration-free; carrying it while jogging or walking is not recommended.
- Connect the CD-ROM drive PHONES jack to the OmniBook’s line-in jack with an audio connecting cable (cable not supplied). Use audio CD software of your choice to control the CD-ROM drive.

Note

When you use the OmniBook to control the CD-ROM drive, the CD-ROM drive audio control buttons are deactivated. To reactivate the control buttons, stop the CD-ROM drive using the CD audio software, then open and close the disk cover.

To play an audio CD

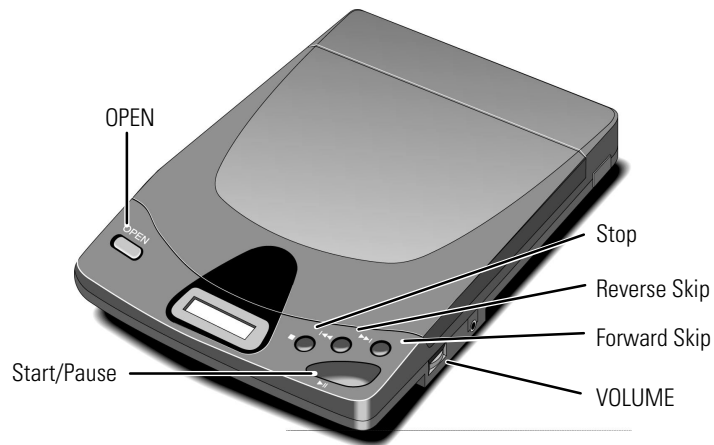
Before playing an audio CD, make sure the volume control is set to below 4 to avoid overly loud output.

1. Insert the CD into the CD-ROM drive, label side up.
2. Close the disk cover.
3. Press the Start/Pause button.

The display indicates both the current track number and how long that track has been playing (elapsed time).

The table below describes the CD-ROM drive audio control buttons.

Button	Function
Start/Pause	Press and release to start playing or pause a CD.
Forward Skip	Press and release to skip to the next track. Press and hold to continue skipping tracks.
Reverse Skip	Press and release to return to the beginning of the current track or to the previous track if the elapsed time readout is at 00:00. Press and hold to continue skipping tracks in reverse.
Stop	Press and release to stop playing a CD.



Maintenance

To clean the CD-ROM drive

You should periodically clean your CD-ROM drive, inside and out. Do not use solvents or commercial lens cleaners.

- Clean the outside of the CD-ROM drive with a soft, dry cloth.
- Clean the lens with a dry cotton swab or a camera lens blower.



To clean compact disks

Wipe from the center of the disk to the edge, using a soft, dry cloth. Do not touch the shiny, blank side of the disk with anything else or attach any labels to the disk.

Troubleshooting

Trouble	Possible Cause s/Solutions
The POWER switch is ON, but nothing appears on the CD-ROM display.	The power cable is not plugged into the OmniBook connector or the DC IN jack. The batteries are not installed correctly or are dead.
The CD-ROM drive is not accessible from the OmniBook.	For Windows 95, the CD-ROM drive was not turned on when you plugged it into the OmniBook. Turn on the drive, then click Start, Eject PC. Unplug and then reconnect the SCSI adapter cable to the OmniBook. For Windows for Workgroups, the CD-ROM drive was not turned on when you rebooted the OmniBook. Turn on the drive and reboot the computer.
The data from the CD is not properly transmitted to the OmniBook.	The SCSI adapter cable is not connected properly. Devices with duplicate SCSI ID numbers are connected to the OmniBook. SCSI termination on the CD-ROM drive is OFF. Change the terminator switch (switch 4) on the CD-ROM drive from OFF to ON. There is a problem with the OmniBook software. See the OmniBook <i>User's Guide</i> .
A "no dISC" message appears on the display after inserting a CD, the sound skips, or data can not be read.	The CD is upside down. The CD is dirty. Clean it with a soft, dry cloth. The CD is damaged. There is moisture on the CD-ROM drive or the CD, possibly due to temperature change condensation. Remove the CD from the CD-ROM drive and do not use it for 1 hour.
The CD-ROM drive does not play sound.	Headphones or amplified speakers are not connected to the CD-ROM drive PHONES jack. VOLUME control is set to "0".
The control buttons do not function.	CD-ROM drive has been playing audio CD controlled by OmniBook software. Open and close the disk cover.
The control buttons and POWER switch do not function.	Disconnect the CD-ROM power cable and remove the batteries, then reconnect the power cable and reinstall the batteries.
The OmniBook has stopped responding (locked up).	For Windows 95: The SCSI adapter device was not removed from the Undocked configuration. Reset the computer and see the last step under "To connect the CD-ROM drive to your OmniBook," in this manual. For Windows 95: You did not use Eject PC to disconnect the CD-ROM drive. Plug the cable back in. Reset the computer and click Start, Eject PC before unplugging the cable.
DOCKED and UNDOCKED messages appear (with Windows for Workgroups).	The SCSI connection is considered a "docked" connection; therefore, connecting and disconnecting the CD-ROM drive to the SCSI port is "docking" and "undocking" it. In Windows for Workgroups you must then restart the computer, except when the computer has merely timed out or been turned off and on.

Specifications

Power Source:	See the nameplate on the bottom of the unit.
Interface:	SCSI I, II.
Buffer Size:	128 KB.
Operating Temperature:	5 °C (41 °F) to 40 °C (104 °F).
Operating Humidity:	20% to 80% RH.
Storage Temperature:	-20 °C (-4 °F) to 55 °C (131 °F).
Storage Humidity:	15% to 90% RH.
Dimensions:	138W x 196D x 38H mm (5.43 x 7.72 x 1.5 inches).
Mass (Weight) without batteries:	0.43 kg (0.95 lb).
Battery Life (alkaline "AA" batteries):	Data CD: approximately 30–45 minutes. Audio CD: approximately 4 hours.
Power Consumption:	Data CD: 12 W on ac, 4.2 W on batteries. Audio CD: 6.5 W on ac, 2.8 W on batteries. Off when connected to ac: 1.0 W.
Data Transfer Rate:	150 KB/sec (normal speed). 1200 KB/sec (8X speed).
Access Time (8X speed):	1/3 stroke: 180 ms typical on ac; 350 ms typical on batteries. Full stroke: 300 ms typical on ac; 500 ms typical on batteries. (Data is based on test results measured using internal test software.)
Output Connector:	PHONES jack.
Compatible CD Formats:	CD-DA (CD), CD-R, Video CD*, CD-i*, CD-ROM (Mode 1 and Mode 2 Form 1), Photo CD Multi-session, CD-ROM XA (Mode 2 Form 2).
Error Rates:	Soft read errors: less than 10^{-9} . Hard read errors: less than 10^{-12} .
Audio Performance (Stereo headphones):	Frequency response: 20 Hz – 20 kHz. Signal to noise ratio: >75 dB (A range). Output level: 0.6 VMS. Audio CD operations: Play/Pause, Stop, Forward/Reverse Skip. Volume control: rotary (0-10).
Data Connection:	SCSI connector: high density 50 pin.

*These require MPEG software (not included).

Regulatory Information

This section presents information that shows how the CD-ROM drive complies with regulations in certain regions. Any modifications to the CD-ROM drive not expressly approved by Hewlett-Packard could void the authority to operate the CD-ROM drive in these regions.

U.S.A.

The CD-ROM drive generates and uses radio frequency energy and may interfere with radio and television reception. The CD-ROM drive complies with the limits for a Class B computing device as specified in Part 15 of FCC Rules, which provide reasonable protection against such interference in a residential installation. The "FCC ID" number for this product is listed on the bottom of the unit. In the unlikely event that there is interference to radio or television reception (which can be determined by removing the batteries and power cable), try the following:

- Reorienting or relocating the receiving antenna.
- Relocating the CD-ROM drive with respect to the receiver.
- Connecting the OmniBook ac adapter to another power outlet.

To maintain compliance with FCC Rules and Regulations, use properly shielded cables with this device.

For more information, consult your dealer, an experienced radio/television technician, or the following booklet, prepared by the Federal Communications Commission: *How to Identify and Resolve Radio-TV Interference Problems*. This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock Number 004-000-00345-4. At the first printing of this manual, the telephone number was (202) 512-1800.

Canada

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the radio interference regulations of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de Classe B prescrites dans le règlement sur le brouillage radioélectrique édicté par le Ministère des Communications du Canada.

Japan

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づく第二種情報技術装置です。この装置は、家庭環境で使用することを目的としていますが、この装置がラジオやテレビジョン受信機に近接して使用されると、受信障害を引き起こすことがあります。

取扱説明書に従って正しい取り扱いをして下さい。

Laser Safety

This CD-ROM drive is certified as a Class 1 laser device according to the U.S. Department of Health and Human Services (DHHS) Radiation Performance Standard and International Standards IEC 825 / IEC 825-1 (EN60825 / EN60825-1). This device is not considered harmful, but the following precautions are recommended:

- Ensure proper use by reading and following the instructions carefully.
- If the unit requires service, contact an authorized HP service center—see the *OmniBook Support and Service* booklet that comes with the OmniBook.
- Do not attempt to make any adjustment of the unit.
- Avoid direct exposure to the laser beam—do not disassemble the unit.

CLASS 1 LASER PRODUCT LASER KLASSE 1

Laser diode properties

(measured at a distance of 200 mm from the objective lens surface)

Material:	GaAlAs
Laser output:	Less than 52.65 μ W
Wavelength:	790 nm
Emission duration:	Continuous

Europe

Products sold in Europe by Hewlett-Packard and its authorized dealers meet the specifications listed below.

Declaration of Conformity (according to ISO/IEC Guide 22 and EN 45014)

Manufacturer: Hewlett-Packard Company
Address: Hewlett-Packard Co.
Mobile Computing Division
1000 NE Circle Blvd.
Corvallis, OR 97330

declares that the following product

Product name: HP F1197A
Options: All

conforms to the following product specifications

Safety: IEC 950:1991+A1,A2 / EN 60950 (1992)+A1,A2
IEC 825-1:1993 / EN 60825-1 (1994)

EMC: CISPR 22:1993 / EN 55022 (1994): Class B [1]
EN 50082-1:1992
IEC 801-2:1991 / prEN 55024-2 (1992): 4kV CD, 8kVAD
IEC 801-3:1984 / prEN 55024-3 (1991): 3V/m
IEC 801-4:1988 / prEN 55024-4 (1992): 0.5 kV signal lines,
1.0 kV power lines

Supplementary information: The product herewith complies with the requirements of the EMC Directive 89/336/EEC.

The HP F1044B/F1140A ac adapter used with this product is disconnected from the power by unplugging it from the power outlet. Therefore, the power outlet should be located close to the product and be easily accessible.

[1] The product was tested in a typical configuration with a Hewlett-Packard personal computer.

Quality Department
Hewlett-Packard Company
Mobile Computing Division

