

iPaq Family of Internet Devices

Reference Guide



COMPAQ

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WARNING: Text set off in this manner indicates that failure to follow directions could result in bodily harm or loss of life.



CAUTION: Text set off in this manner indicates that failure to follow directions could result in damage to equipment or loss of information.

Reference Guide

Compaq iPaq Family of Internet Devices

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chapter 1

USING THE MULTIBAY

Using a Drive in the MultiBay

The MultiBay is located on the left side of the Internet Device. It is a special drive bay that supports a variety of optional 12.7-mm removable drives, including:

- CD-ROM drive
- DVD-ROM drive
- LS-120 drive
- Hard drive



CAUTION: To prevent loss of work and damage to the Internet Device or a drive:

- If you are inserting or removing a hard drive, turn off the Internet Device. Do not remove a hard drive while the Internet Device is on or in standby mode.
 - Before handling a drive, ensure that you are discharged of static electricity. While handling a drive, avoid touching the connector. For more information about preventing electrostatic damage, see the *Reference Guide*.
 - Before traveling with, shipping, storing, or removing a drive other than a hard drive, make sure that no media, such as a diskette, CD-ROM, or DVD-ROM, is in the drive and that the media tray is closed.
 - Handle a drive carefully; do not drop it.
 - Do not use excessive force when inserting a drive.
 - Avoid exposing a hard drive to liquids, temperature extremes, or products that have magnetic fields such as monitors or speakers.
 - If a drive must be mailed, place the drive in a bubble-pack mailer or other suitable protective packaging and label the package “Fragile: Handle With Care.”
-

“Hot-Plugging” or “Hot-Swapping” MultiBay Drives



CAUTION: To prevent damage to the Internet Device, the drive, and any data stored on the drive:

- If you are inserting or removing a **hard drive**, shut down the Internet Device. **Never** remove a hard drive while the Internet Device is on or in Standby. To ensure that the Internet Device is not in Standby, turn the Internet Device on, then shut it down.
 - If the Internet Device is running a retail version of Windows 95, Windows 98, or Windows NT 4.0 without software enhancements from Compaq, shut down the Internet Device before inserting or removing any drive.
-

If the Internet Device is running a preinstalled operating system supplied by Compaq, you can insert or remove any drive *except a hard drive* while the Internet Device is on, off, or in Standby.

If the Internet Device is running a retail version of Windows 95, Windows 98, or Windows NT 4.0, you can obtain software enhancements from Compaq that will enable you to insert or remove any drive *except a hard drive* without first shutting down the Internet Device.



The retail version of Windows 2000 supports this feature without additional software enhancements.

To obtain these enhancements, go to the Compaq Internet site at <http://www.compaq.com>.

Partitioning and Formatting a MultiBay Hard Drive

1. Shut down Windows and turn off the Internet Device.
2. Insert the hard drive into the MultiBay as shown in the following section.
3. Turn on the Internet Device. Follow directions for your operating system, below:

Windows 95 and Windows 98 (FDISK)

1. From MS-DOS command prompt, type FDISK and press the Enter key.
2. Select Y to enable large drive support (FAT32).
3. Select option 5, then select drive 2.
4. Select 1-Create Dos Partition.
5. Select 1-Create Primary Dos Partition.
6. Select Y for maximum size, then restart the Internet Device.
7. From Windows, double-click the My computer icon, then right click on the drive letter designating the Multibay drive.
8. Select format and perform a full format.

Windows 2000 and Windows NT 4.0 (Disk Administrator)

1. Run Disk Administrator.
 - ❑ Under Windows 2000, right-click the My Computer icon, then click Manage → Disk Management.
 - ❑ Under Windows NT, click Start → Programs → Administrative Tools → Disk Administrator.
2. Select the MultiBay hard drive.
3. On the Partition menu, click Create. Carefully read and respond to any prompts that appear on the screen.

Refer to the Disk Administrator online Help for additional information.

Inserting a Drive into the MultiBay

1. Shut down Windows and turn off the Internet Device if
 - ❑ You are inserting or removing a hard drive.
 - ❑ The Internet Device is running a retail version of Window 95, Windows 98, or Windows NT 4.0 without software enhancements from Compaq.
2. Remove any removable media, such as a compact disc, from the drive.
3. With the top of the drive facing left and the drive connector facing the Internet Device, slide the drive into the MultiBay and push firmly to ensure that the electrical connector is properly seated.

If the device does not start, ensure that the proper drivers are installed on the system. If they are not available, they may be downloaded, at no cost, from the Compaq Web site at www.compaq.com.



Inserting a Drive into the MultiBay

Removing a Drive from the MultiBay

Press the eject button at the rear of the Internet Device to eject the device from the MultiBay.



Removing a Drive from the MultiBay

 If the Internet Device did not ship with a MultiBay drive, there will be a drive blank in the MultiBay. Follow the above procedure to remove it before inserting a MultiBay drive.

chapter 2

USING NETWORK COMMUNICATIONS

The Compaq iPaq Internet Device comes with an integrated network interface controller (NIC) and network device drivers.

NIC-Based Alerts

NIC-based alert support allows a system administrator to remotely monitor personal computers and Internet Devices over the network. The Internet Device can send hardware and operating system failure alerts over the network before the operating system is loaded or when the Internet Device is powered off. Alerts may include:

- system BIOS hang
- operating system hang
- processor missing
- operating temperature exceeded

Remote Wakeup Support

Remote Wakeup support allows the system administrator to turn on power to a client computer or Internet Device from a remote location, through the use of supported PC LAN management tools.

 Remote Wakeup support is available only when using an RJ-45 network connection.

For more information on Remote Wakeup, refer to the *Desktop Management Guide*, or to the online *Remote Management Administrators Guide*. The *Remote Management Administrators Guide* is included with the Remote Management Setup Utilities, and is available on the *Support Software CD for Compaq Desktop, Portable, and Workstation Products* or at the Compaq Web Site at www.compaq.com.

Interpreting the Network Status Lights

The integrated NIC includes network status lights:

- The link/activity light illuminates when the system is physically connected to an active network light and blinks when the Internet Device detects network activity. When the system is connected to a highly used network, the activity light will remain on almost constantly.
- The 100TX light illuminates during 100-Mbs operation.

If Remote Wakeup is enabled, the link/activity light will remain functional even when power to the Internet Device is turned off.

Disabling the Autosensing Capabilities

Autosensing NICs automatically determine the maximum network operating speed of the attached network and configure themselves accordingly. The Internet Device begins autosensing whenever it loses a valid network link, for example, if the cable is disconnected.

In addition to determining the network operating speed, the Internet Device determines if full-duplex is supported. Full-duplex systems can transmit and receive information on the network simultaneously. Half-duplex systems cannot transmit and receive simultaneously.

If necessary, you can disable the autosensing capabilities and force the system to operate in one mode only.

1. Select the Network icon, located in the Control Panel.
2. Select the appropriate NIC in the list box and click Properties.
3. Change the Speed and Duplex values from Automatic/Auto Duplex to the appropriate values, depending on the capabilities of your network.
4. Exit the Network control application. You will be prompted to restart Internet Device in order for the changes to take effect.

 100Base-TX operation requires the use of Category 5 UTP cable with an RJ-45 network connection.

Installing Network Drivers

The device drivers in the network software enable the Internet Device to communicate with the network.

 Device drivers are supplied for the Microsoft Windows NT version 4.0 and Windows 95, Windows 98, or Windows 2000 operating systems, depending on which system was preinstalled on the Internet Device. If you are using another operating system, device drivers may be installed from diskettes included with the network operating system or are available from Compaq. If reinstallation of the operating system ever becomes necessary, use the *Compaq Restore CD*.

chapter 3

UPGRADING THE INTERNET DEVICE

General Precautions

Before adding system memory, upgrading the hard drive, or using MultiBay drives, be sure to carefully read all of the applicable instructions, cautions, and warnings in this guide.



WARNING: To reduce the risk of personal injury from electrical shock and/or hot surfaces, be sure to disconnect the power cord from the wall outlet, and allow the internal system components to cool before touching.



WARNING: To reduce the risk of electrical shock, fire, or damage to the equipment, do not plug telecommunications/telephone connectors into the network interface controller (NIC) receptacles.

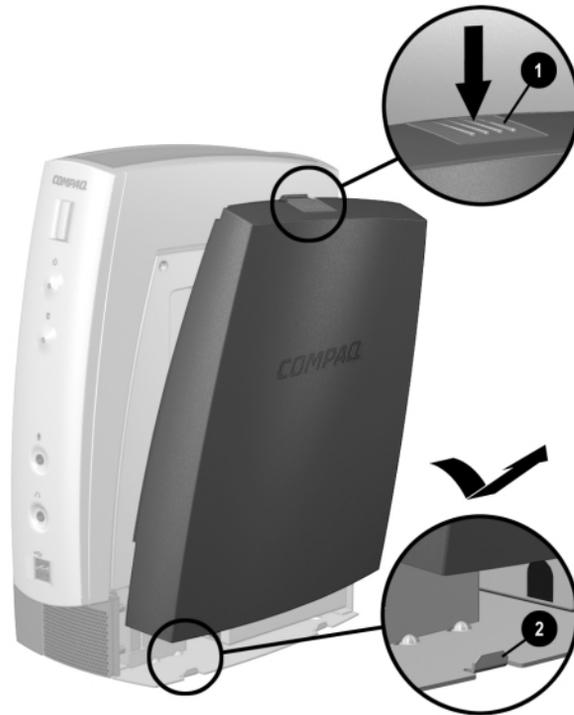


CAUTION: Static electricity can damage the electronic components of the Internet Device or optional equipment. Before beginning these procedures, ensure that you are discharged of static electricity by briefly touching a grounded metal object. Refer to “Electrostatic Discharge” in this guide for more information.

Removing and Replacing the Right Side Access Panel

To access system memory or the internal hard drive, you must remove the right side access panel as shown below:

1. Press down on the ribbed middle section at the top of the right access panel ❶, then pivot and lift the access panel from the Internet Device.
2. To replace the access panel, ensure that it is aligned on the two tabs on the base of the Compaq iPaq ❷, then pivot it up and toward the Internet Device until it locks into place.



Removing the Right Side Access Panel

Adding System Memory

The memory sockets on the Compaq iPaq Internet Device can be populated with industry-standard DIMMs. These memory module slots are populated with at least one preinstalled memory module. To achieve the maximum memory support, you may be required to replace the preinstalled DIMM with a higher capacity DIMM.

For proper system operation, the DIMMs must be industry-standard 168-pin, 100 MHz, unbuffered, PC100-compliant SDRAM DIMMs, depending on the model. The SDRAM DIMMs must support CAS Latency 2 or 3 (CL = 2 or CL = 3). They must also contain the mandatory Joint Electronic Device Engineering Council (JEDEC) Serial Presence Detect (SPD) information. DIMMs constructed with x4 SDRAM are not supported; the system will not start using unsupported DIMMs.

Installing a Memory Module



CAUTION: Your memory module sockets have gold metal contacts. When upgrading your memory, it is important to use memory modules with gold metal contacts to prevent corrosion and/or oxidation resulting from having incompatible metals in contact with each other.

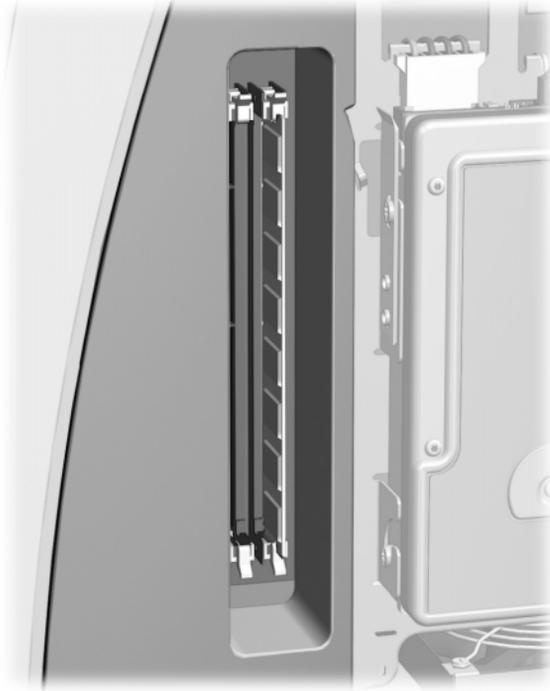


CAUTION: Static electricity can damage the electronic components of the Internet Device. Before beginning these procedures, ensure that you are discharged of static electricity by briefly touching a grounded metal object. Refer to Appendix F, "Electrostatic Discharge," for more information.



CAUTION: When handling a memory module, be careful not to touch any of the contacts. Doing so may damage the module.

1. Shut down the operating system properly, turn off the Internet Device and any external devices, then disconnect the power cord from the power outlet.
2. Remove the right access panel.

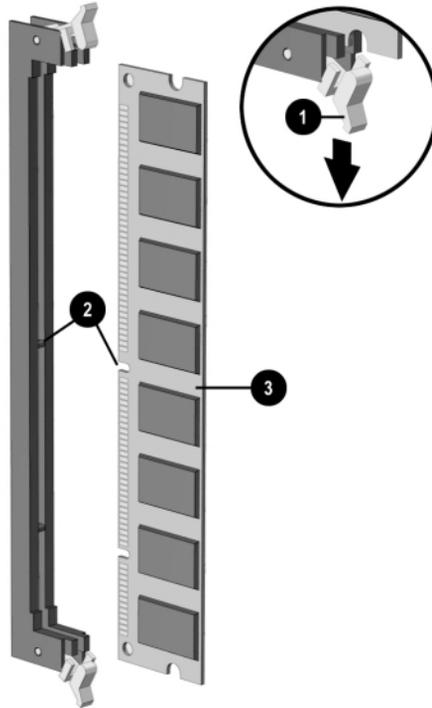


Accessing the DIMM Slots



WARNING: To reduce risk of personal injury from hot surfaces, allow the internal system components to cool before touching.

3. To remove a module, press out on both latches of the DIMM socket at the same time ❶. This releases the module and partially pushes it out of the socket.
4. Lift the module from the socket.



Adding or Removing Memory Modules

5. To install a memory module, press out on both latches of the DIMM socket at the same time ❶. Match the notch on the module with the tab on the memory socket ❷. Push the module down into the socket, ensuring that the module is fully inserted and properly seated ❸.



If only one memory module is used in the system, it must be installed in the same socket that held the preinstalled memory module.

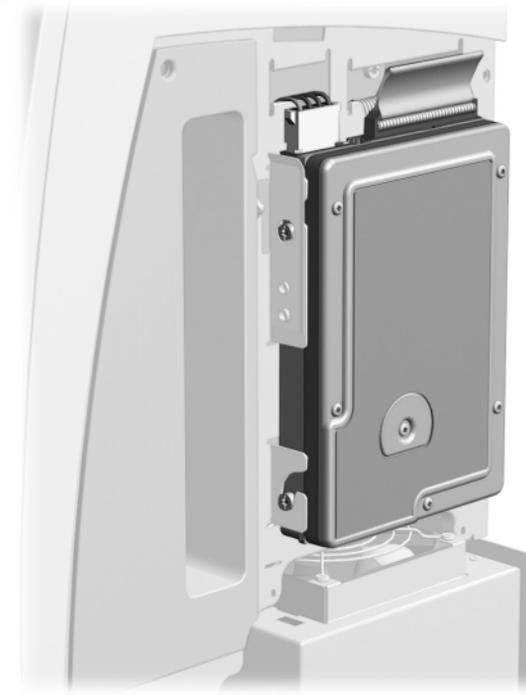
6. Replace the right access panel.



When the Internet Device starts up, it will recognize the system memory upgrade and automatically reconfigure the system.

Upgrading the Primary Hard Drive

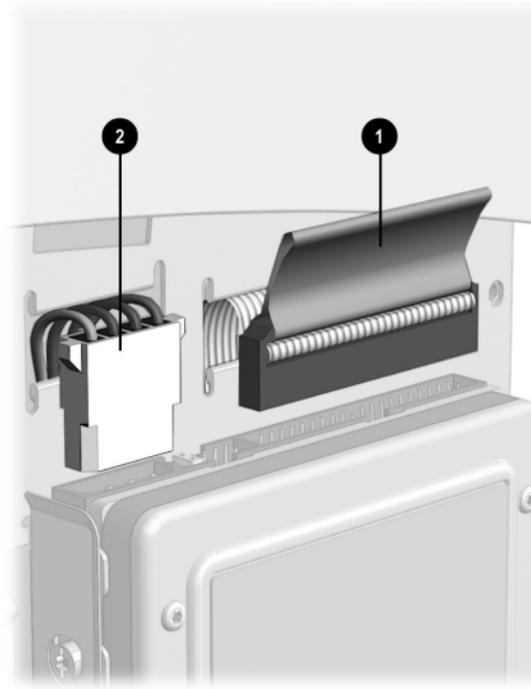
The primary hard drive is a 3.5-inch hard drive located on the right side of the Internet Device. The hard drive access panel lets you upgrade the hard drive easily.



Location of the Primary Hard Drive in the Compaq iPaq

1. Shut down the operating system properly, turn off the Internet Device and any external devices, then disconnect the power cord from the power outlet.
2. Remove the right access panel.

3. Disconnect the signal cable ❶ and the power cable ❷ from the back (top) of the drive.



Disconnecting Cables from the Hard Drive

-  When removing the signal cable, pull on the tab instead of the cable itself. This will help prevent cable damage.

4. Pull the locking lever on the front edge of the drive ③ forward to release the drive, then slide the drive up and out of the bay.



Removing the Hard Drive

- ✎ When replacing the hard drive, transfer the four screws from the old drive to the new one, making sure that each screw is transferred to the corresponding location on the new drive. The screws take the place of drive rails and ensure the stability of the drive.

Compaq Configuration Record Utility

The Compaq Configuration Record Utility is an online information-gathering tool similar to other Compaq management tools that run on Internet Devices. It gathers critical hardware and software information from various sources to give a complete view of the Internet Device configuration. The Configuration Record Utility delivers a comprehensive configuration record, provides a means for automatically identifying and comparing configuration changes, and has the ability to maintain an Internet Device configuration history. The information can be saved as a history of multiple sessions.

The Compaq Configuration Record Utility is accessed via an icon in the Control Panel. When running the utility, information is automatically gathered on such items as the operating system version number, operating system parameters, and the operating system startup files. The utility then combines this information with information on the hardware configuration to deliver a comprehensive view of the Internet Device.

This utility allows resolution of problems without taking the Internet Device off-line and assists in maximizing Internet Device availability. The information obtained by the utility is useful in troubleshooting Internet Device problems, and streamlines the service process by enabling quick and easy identification of Internet Device configurations, which is the first step in resolving service cases.

Computer Setup Utilities (F10)

Use Computer Setup to do the following:

- Change factory default settings.
- Set the system date and time.
- Set, view, change, or verify the system configuration, including settings for processor, graphics, memory, audio, storage, communications, and input devices.
- Modify the boot order of bootable devices such as hard drives, diskette drives, CD-ROM drives, DVD-ROM drives, or LS-120 drives.

- Enable Quick Boot, which is faster than Full Boot but does not run all of the diagnostic tests run during a Full Boot. You can set your system to:
 - ❑ always Quick Boot (default);
 - ❑ periodically Full Boot (from every 1 to 30 days); or
 - ❑ always Full Boot.
- Enable or disable Network Server Mode, which allows the Internet Device to boot the operating system when the power-on password is enabled, with or without a keyboard or mouse attached. When attached to the system, the keyboard and mouse remain locked until the power-on password is entered.
- Select Post Messages Enabled or Disabled to change the display status of Power-On Self-Test (POST) messages. Post Messages Disabled suppresses most POST messages, such as memory count, product name, and other non-error text messages. If a POST error occurs, the error is displayed regardless of the mode selected. To manually switch to Post Messages Enabled during POST, press any key (except F10 or F12).
- Establish an Ownership Tag, the text of which is displayed each time the system is turned on or restarted.
- Enter the Asset Tag or property identification number assigned by your company to this Internet Device.
- Enable power-on password prompting during system restarts (warm boots) as well as during power-on.
- Establish a setup password that controls access to Computer Setup (F10) and the settings described in this section.
- To secure serial, USB, or parallel ports so that they cannot be used until they are unsecured.
- Enable or disable removable media boot ability.
- Enable or disable removable media write ability.
- Enable or disable DriveLock security for MultiBay drives.

- Solve system configuration errors detected but not automatically fixed during the Power-On Self-Test (POST).
- Execute self-tests on a specified IDE hard drive.
- Configure various energy-saving features including energy saver mode, system and hard drive timeouts, power button mode, power LED behavior, and fan speed selection.

Using Computer Setup Utilities

To access the Computer Setup Utilities menu, complete the following steps:

1. Turn on or restart the Internet Device. If you are in Windows, click Start → Shut Down → Restart the Computer.
2. When the F10=Setup message appears in the lower-right corner of the screen, press the F10 key.

 If you do not press the F10 key while the message is displayed, you must turn the Internet Device off, then on again, to access the utility.

3. Select your language from the list and press the Enter key.

A choice of five headings appears in the Computer Setup Utilities menu: File, Storage, Security, Power, and Advanced.

4. Using the arrow keys or the Tab key, select the option you want and press the Enter key. To return to the Computer Setup Utilities menu, press the Esc key.
5. To apply and save changes, select File → Save Changes and Exit.
 - ❑ If you selected an option that automatically restarted the Internet Device, changes were applied at that time.
 - ❑ If you have made changes that you do not want applied, select Ignore Changes and Exit.
 - ❑ If you have already applied changes you now want to eliminate, select Set Defaults and Exit. This option will restore the original factory system defaults.

Computer Setup

Heading	Option	Description
File	System Information	Lists: <ul style="list-style-type: none">• product name• processor type/speed/stepping• cache size (L1/L2)• installed memory size• system ROM (includes family name and version)• system board revision• chassis serial number• asset tracking number
	Set Time and Date	Allows you to set system time and date.
	Set Defaults and Exit	Restores factory default settings, which includes clearing any established passwords.
	Ignore Changes and Exit	Exits Computer Setup without applying or saving any changes.
	Save Changes and Exit	Saves changes to system configuration and exits Computer Setup.
Storage	Removable Media	Enables/disables removable media booting and removable media writing. Note: After saving changes to Removable Media, the Internet Device will restart. Turn the Internet Device off, then on, manually.
	IDE Devices	Lists information about IDE devices connected to the system. ATAPI devices (CD-ROM, DVD-ROM, LS-120, tape) are listed as ATAPI devices.
	IDE Drive Timing	Allows you to set hard drive to Ultra DMA (Ultra-ATA), Enhanced DMA, or PIO mode operation. Note: The configuration of your Internet Device determines which selections appear under this option.

Continued

Computer Setup *Continued*

Heading	Option	Description
Storage	IDE Options	Allows you to enable or disable IDE drive translation and/or the secondary IDE controller.
	IDE DPS Self-Test	Allows you to execute self-tests on an IDE hard drive capable of performing the Drive Protection System (DPS) self-tests. Note: This selection will only appear when at least one drive capable of performing the IDE DPS self-tests is attached to the system.
	Boot Order	Allows you to specify boot order of installed peripheral devices (such as hard drive, CD-ROM drive, or DVD-ROM drive).
Security	Setup Password	Sets and enables setup (administrator) password. See the <i>Troubleshooting Guide</i> for more information.
	Power-On Password	Sets and enables power-on password; specifies prompting for Power-On Password. See the <i>Troubleshooting Guide</i> for more information.
	Password Options	Enables/disables network server mode. See the <i>Desktop Management</i> guide for more information. Note: This selection will appear only if a power-on password is set.
	DriveLock Security	Allows a MultiBay hard drive to be locked, preventing unauthorized access to data stored on the drive.
	Device Security	Enables/disables serial, parallel, and USB ports and audio security.
	Network Service Boot	Enables/disables network service boot. (Feature available on NIC models only.)

Continued

Computer Setup *Continued*

Heading	Option	Description
Security <i>(continued)</i>	System IDs	Allows you to set: <ul style="list-style-type: none">asset tag and ownership tag See the <i>Desktop Management</i> guide for more informationUniversal Unique Identifier (UUID) number if current number is invalidkeyboard locale setting (e.g., English or German) for System ID entry
Power	Energy Saver	Allows you to set: <ul style="list-style-type: none">energy saver mode (advanced, disable, or minimal)system fan speed (low, medium, high, or automatic) <p>Note: In the minimal energy saver mode setting, the hard drive and system do not go into energy saver mode, but the setting allows you to press the power button to suspend the system.</p> <p>This option is not available under ACPI-enabled operating systems.</p>
	Timeouts	Allows you to disable or manually select timeout values for the system and/or all attached IDE hard drives. <p>Note: This option is not available under ACPI-enabled operating systems. This selection will only appear when energy saver mode is set to advanced.</p>
	Energy Saver Options	Allows you to set: <ul style="list-style-type: none">power button configuration (on/off or sleep/wakeup) under APM-enabled operating systemspower LED blink in suspend mode (enable/disable). This option is not available under ACPI-enabled operating systems. <p>Note: Energy Saver Options will not appear if the energy saver mode is disabled.</p>

Continued

Computer Setup *Continued*

Heading	Option	Description
Advanced*	Power-On Options	<p>Allows you to set:</p> <ul style="list-style-type: none">• POST mode (QuickBoot, FullBoot, or FullBoot every 1-30 days)• POST messages (enable/disable)• Safe POST (enable/disable)• F10 prompt (enable/disable)• F12 prompt (enable/disable)• Option ROM prompt (enable/disable)• Remote wakeup boot sequence (remote server/local hard drive)• After power loss (off/on) If you connect your Internet Device to an electric power strip, and would like to turn on power to the Internet Device using the switch on the power strip, set this option to on. Note: If you turn off power to your Internet Device using the switch on a power strip, you will not be able to use the suspend/sleep feature or the Remote Management features.• UUID (Universal Unique Identifier) (enable/disable)
	Onboard Devices	<p>Allows you to set resources for or disable onboard system devices (serial port, parallel port).</p>
	PCI Devices	<ul style="list-style-type: none">• Lists currently installed PCI devices and their IRQ settings.• Allows you to reconfigure IRQ settings for these devices or to disable them entirely.

* These options should be used by advanced users only.

Continued

Computer Setup *Continued*

Heading	Option	Description
Advanced* (continued)	Bus Options	Allows you to set: <ul style="list-style-type: none">• PCI bus mastering, which allows a PCI device to take control of the PCI bus (enable/disable)• PCI reset on warm boot, which asserts the PCI signal RST# during a warm reboot (enable/disable)• PCI VGA palette snooping, which sets the VGA palette snooping bit in PCI configuration space; this is only needed with more than one graphics controller installed (enable/disable)• PCI bus mastering, which allows a PCI device to take control of the PCI bus (enable/disable)• PCI reset on warm boot, which asserts the PCI signal RST# during a warm reboot (enable/disable)• PCI VGA palette snooping, which sets the VGA palette snooping bit in PCI configuration space; this is only needed with more than one graphics controller installed (enable/disable)
	Device Options	Allows you to set: <ul style="list-style-type: none">• Printer mode (bi-directional, EPP & ECP, output only)• Num Lock state at power-on (off/on)• PME (power management event) wakeup events (enable/disable)• Processor cache (enable/disable)

* These options should be used by advanced users only.

chapter 4

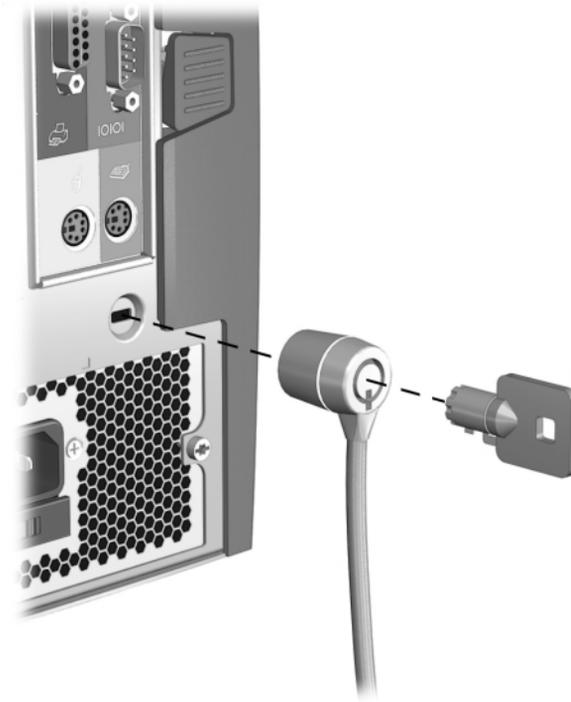
INSTALLING A CABLE LOCK

Installing a Kensington Cable Lock

The cable lock can be purchased from Kensington Microwave Limited or from Compaq DirectPlus at www.directplus.compaq.com. Ask for the Kensington MicroSaver Security System, Model 64068.

Depending on the model, the rear panel of the computer accommodates a cable lock so that the computer can be physically secured to a work area.

1. Loop the cable around a heavy, fixed object to which you want to secure the computer.
2. Insert the cable lock end of the cable through the loop end of the cable.
3. Insert the lock into the appropriate slot on the rear of the computer and lock with the key.



Installing a Cable Lock

appendix **A**

SPECIFICATIONS

Compaq iPaq Internet Device		
Desktop Dimensions		
Height	11.8 in	30.0 cm
Width	5.7 in	14.4 cm
Depth	9.4 in	24.0 cm
Approximate Weight	10.7 lb	4.8 kg
Temperature Range		
Operating	50° to 95°F	10° to 35°C
Nonoperating	-4° to 140°F	-20° to 60°C
Relative Humidity (noncondensing)		
Operating	8-90%	8-90%
Nonoperating	5-95%	5-95%
Maximum Altitude (unpressurized)		
Operating	10,000 ft	3048 m
Nonoperating	30,000 ft	9144 m
Power Supply		
Operating Voltage Range	90-132 VAC	180-264 VAC
Rated Voltage Range	100-127 VAC	200-240 VAC
Rated Line Frequency	50-60 Hz	50-60 Hz
Power Output	90 W	90 W
Rated Input Current (maximum)	2.5 A	1.25 A
Heat Dissipation		
Maximum	470 Btu/hr	118 kg-cal/hr
Nominal	232 Btu/hr	59 kg-cal/hr

appendix *B*

ELECTROSTATIC DISCHARGE

A discharge of static electricity from a finger or other conductor may damage system boards or other static-sensitive devices. This type of damage may reduce the life expectancy of the device.

Preventing Electrostatic Damage

To prevent electrostatic damage, observe the following precautions:

- Avoid hand contact by transporting and storing products in static-safe containers.
- Keep electrostatic-sensitive parts in their containers until they arrive at static-free workstations.
- Place parts on a grounded surface before removing them from their containers.
- Avoid touching pins, leads, or circuitry.
- Always be properly grounded when touching a static-sensitive component or assembly.

Grounding Methods

There are several methods for grounding. Use one or more of the following methods when handling or installing electrostatic-sensitive parts:

- Use a wrist strap connected by a ground cord to a grounded workstation or Internet Device chassis. Wrist straps are flexible straps with a minimum of 1 Mohm +/- 10 percent resistance in the ground cords. To provide proper ground, wear the strap snug against the skin.
- Use heelstraps, toestraps, or bootstraps at standing workstations. Wear the straps on both feet when standing on conductive floors or dissipating floor mats.
- Use conductive field service tools.
- Use a portable field service kit with a folding static-dissipating work mat.

If you do not have any of the suggested equipment for proper grounding, contact your Compaq authorized service provider.

 For more information on static electricity, contact your Compaq authorized service provider.

appendix C

ROUTINE CARE AND SHIPPING PREPARATION

Routine Care

Follow these suggestions to take care of your Internet Device and monitor:

- Operate the Internet Device on a sturdy, level surface. Leave a 3-inch (7.6-cm) clearance at the back of the system unit and above the monitor to permit the required airflow.
- Never operate the Internet Device with the cover or side panel removed.
- Never restrict the airflow into the Internet Device by blocking the air intake or exhaust vents.
- Keep the Internet Device away from excessive moisture, direct sunlight, and extremes of heat and cold. For information about the recommended temperature and humidity ranges for your Internet Device, refer to Appendix A, “Specifications,” in this guide.
- Keep liquids away from the Internet Device and keyboard.
- Never cover the ventilation slots on the monitor with any type of material.
- Turn off the Internet Device before you do either of the following:
 - Wipe the exterior of the Internet Device with a soft, damp cloth as needed. Using cleaning products may discolor or damage the finish.
 - Occasionally clean the air intake and exhaust vents on the Internet Device. Lint and other foreign matter can block the vents and limit the airflow.

CD-ROM Drive Precautions

Be sure to observe the following guidelines while operating or cleaning your CD-ROM drive.

Operation

- Do not move the drive during operation. This may cause it to malfunction during reading.
- Avoid exposing the drive to sudden changes in temperature, as condensation may form inside the unit. If the temperature suddenly changes while the drive is on, wait at least one hour before you turn off the power. If you operate the unit immediately, it may malfunction while reading.
- Avoid placing the drive in a location that is subject to high humidity, extreme temperatures, mechanical vibration, or direct sunlight.

Cleaning

- Clean the panel and controls with a soft, dry cloth or a soft cloth lightly moistened with a mild detergent solution. Never spray cleaning fluids directly on the unit.
- Avoid using any type of solvent, such as alcohol or benzene, which may damage the finish.

Safety

If any object or liquid falls into the drive, immediately unplug the Internet Device and have it checked by an authorized Compaq service provider.

Shipping Preparation

Follow these suggestions when preparing to ship your Internet Device:

1. Back up the hard drive files onto the network or removable media. Be sure that the backup media is not exposed to electrical or magnetic impulses while stored or in transit.
 -  The hard drive locks automatically when the system power is turned off.
2. Remove and store separately any removable media and MultiBay drives.
3. Turn off the Internet Device and external devices.
4. Disconnect the power cord from the electrical outlet, then from the Internet Device.
5. Disconnect the system components and external devices from their power sources, then from the Internet Device.
6. Pack the system components, MultiBay drives, and external devices in their original packing boxes or similar packaging with sufficient packing material to protect them.
 -  For environmental nonoperating ranges, refer to Appendix A, “Specifications,” in this guide.

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