# Compaq Armada 6500 Family

# Reference Guide

Part Number: ER-PM1CC-UA. A01

**Compaq Computer Corporation Houston, Texas** 

#### June 1998

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## Acronyms

| Acronyms | Meaning   |
|----------|---|
| ACPI     | Advanced Configuration Power Interface                            |
| APM      | Advanced Power Management   |
| BIOS     | Basic Input/Output System   |
| CMOS     | Complementary Metal Oxide Semiconductor                           |
| DIMM     | Dual In-line Memory Module  |
| DMA      | Direct Memory Access  |
| DVD      | Digital Video/Versatile Disk                                      |
| FAT      | File Allocation Table   |
| FDD      | Floppy Disk Drive   |
| HDD      | Hard Disk Drive   |
| IDE      | Integrated Drive Electronics (internal hard disk drive interface) |
| FIR      | Fast Infrared   |
| IRQ      | Interrupt Request   |
| ISA      | Industry Standard Architecture                                    |
| KB       | 1Kilobyte=1024bytes   |
| LCD      | Liquid Crystal Display  |
| LED      | Light Emitting Diode  |
| LiIon    | Lithium Ion   |
| MB       | Megabyte = 1024KB   |
| MS-DOS   | Microsoft Disk Operating System                                   |
| MIDI     | Musical Instrument Digital Interface                              |
| NTFS     | Windows NT File System  |
| NTSC     | National Television System Committee                              |
| O/S      | Operation System  |
| PC Card  | Personal Computer Card (PCMCIA card)                              |
| POST     | Power On Self-Test  |
| ROM      | Read Only Memory  |
| SDRAM    | Synchronous Dynamic Random Access Memory                          |
| SGRAM    | Synchronous Graphics Random Access Memory                         |
| SO-DIMM  | Small Outline Dual In-line Memory Module                          |
| TFT      | Thin Film Transistor  |
| USB      | Universal Serial Bus  |
| VGA      | Video Graphics Array  |
| XGA      | Extended Graphics Adapter   |

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## **Special Notices**

Three kinds of special notices are used in this guide to emphasize specific information.

| WARNING  |   |  |
|--|---|--|
| Warning: Indicates the presence of a hazard that can cause personal injury if the hazard is not avoided. |   |  |
|  | Caution   |  |
| $\triangle$  | Caution: Indicates the presence of a hazard that might cause damage to hardware or that might corrupt data. |  |
|  | Note  |  |
| Note:  | Provides additional information.  |  |
|  |   |  |
|  |   |  |
|  |   |  |
|  |   |  |
|  |   |  |
|  | Caution   |  |
| $\triangle$  | Mobile computers contain components which can be damaged if not handled with care.                          |  |

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## **Documentation Kit**

This chapter overviews the contents of the documentation kit provided with the Compaq Armada 6500 Family notebook computer. The Compaq Armada 6500 Family documentation kit contains:

- Compaq Armada 6500 Family Quick Setup Guide
- Compaq Armada 6500 Family Reference Guide
- Compaq Armada 6500 Family HTML On-line Help

### **Quick Setup Guide**

This guide assists you in setting up your Armada 6500 Family notebook for the first time. It provides instructive illustrations covering the following topics:

- Connecting the Universal AC Adapter.
- Powering on the notebook.
- Windows Setup reminder.
- Installing software from the Compaq Software CD.

#### Reference Guide

The *Compaq Armada 6500 Family Reference Guide* provides an overview of the notebook computer's external features and controls, an overview of the Compaq Software and QuickRestore CDs, detailed System Setup configuration and troubleshooting techniques, and information on system upgrades. This guide should be used in conjunction with the *Compaq Armada 6500 HTML On-line Help*.

 Chapter 1: Documentation Kit – assists you in using the documentation provided with the Compaq Armada 6500 Family notebook computer. This chapter explains how the documentation set is organized and provides a detailed overview of the information contained in each documentation component.

- Chapter 2: Getting To Know Your Computer introduces you to the notebook's industry leader features and controls. It also describes how to use the integrated touch pad as well as how to replace the notebook computer's main battery pack.
- Chapter 3: System Software & Restoration provides an overview of the applications and utilities supplied on the Compaq Software CD. It also provides detailed instruction on how to restore your system using the Compaq QuickRestore CD.
- Chapter 4: *Configuring Your Notebook Computer* provides information on how to configure your notebook computer and its security features using the System Setup Program.
- Chapter 5: *Memory Upgrades* provides detailed step-by-step instructions on upgrading your notebook computer's system memory.
- Chapter 6: *Troubleshooting* provides you with troubleshooting solutions.
- Appendix A: *Technical Specifications* lists your notebook computer's operating specifications.
- Appendix B: *Compaq Customer Support* provides a list of worldwide support telephone numbers.
- Appendix C: Regulatory Notices provides regulatory information related to the operation of your notebook computer.

### **HTML On-line Help**

The *Compaq Armada 6500 HTML On-line Help*, which is supplied on the Compaq Software CD, provides a comprehensive tutorial style guide designed to help you achieve optimal use from your new notebook. This guide is to be used in conjunction with the *Compaq Armada 6500 Family Reference Guide* (this document). It is also available on the Compaq Software CD in .PDF format. The HTML On-line Help features the following sections:

- Features identifies and describes the features, components, controls and indicators of your Compaq Armada 6500 notebook computer. It also describes the function of the different hot keys and status display icons.
- Power designed to help you optimize your notebook computer's power savings
  capabilities. It provides basic instruction on LiIon Battery Pack use and maintenance, a
  basic understanding of the notebook computer's Power Management features, and
  helpful hints to maximize battery performance.
- Peripherals provides detailed instruction on connecting peripheral devices to your notebook computer. Where appropriate, additional information regarding notebook controls and settings is provided.

- PC Cards provides detailed instructions on using and configuring PC Cards in Windows 95, Windows 98, and Windows NT. Included in this section is an IRQ resource table showing which IRQ resources can be freed in the event of a conflict.
- Modules provides basic instruction on removing and installing your CD-ROM, Floppy, and Optional Drive Modules.
- *Options* describes how to upgrade the notebook computer's system memory, and provides complete user documentation for the Compaq Mobile 6500 Expansion Unit and the Compaq Armada 6500 Convenience Base.
- *Map* provides an overview of the Reference Guide and HTML On-line Help documentation provided with the Compaq Armada 6500 Family notebook computer.
- *Updates* provides a comprehensive list of worldwide Compaq Web Sites.

#### **Related Documentation**

This guide, *Compaq Armada 6500 Family Reference Guide*, is available on the Compaq Software CD in .PDF format. This file can be viewed from the Compaq Software CD or installed on and viewed from your hard drive. In either case, Adobe Reader 3.01 must be installed to view the .PDF version of the Reference Guide. Adobe Reader 3.01 is also provided on the Compaq Software CD.

README files come with your factory installed software. The information contained in these files can help you setup, configure, and operate your notebook computer. Additionally, these files might contain warning or caution statements. It is important to read these statements.

## **Compaq Web Sites**

Please visit the Compaq Web Site to download the latest Compaq Armada 6500 Family operating system drivers and on-line User information. A comprehensive list of country specific Compaq Web Sites has been added to your Favorites folder. To access the Compaq Web Site for your country:

- 1. Click the Start button located on the Windows Taskbar, then click Favorites.
- 2. Select the general area that applies to you:
  - Compaq Americas
  - Compaq Asia Pacific
  - Compaq Europe
- 3. Select the Compaq Web Site for your country.

| Note   |
|--|
| To successfully link to the Compaq Web Site, you must have an operational Internet connection. |

# **Getting to Know Your Computer**

This chapter identifies and describes the industry leader features, components, controls, and indicators of your Compaq Armada 6500 notebook computer. It also describes how to use the integrated touch pad as well as how to replace the system battery.

#### **Features**

The Compaq Armada 6500 is a high-performance notebook computer designed for the mobile professional. It offers the best-in-class features for a notebook computer.

- Intel Pentium II Processor 300 MHz or greater.
- 2X AGP support
- 512KB Level 2 pipelined sync-burst cache.
- 6GB or larger Hard Drive
- 64MB onboard SDRAM memory expandable to 192MB or greater using 3.3V SDRAM SO-DIMMs.
- 14.1 inch TFT XGA Color LCD Display.
- 4MB SGRAM Video memory.
- External monitor support up to 1600 x 1200.
- CardBus slots Two Type I or Type II cards or one Type III card.
- Zoomed Video support using lower CardBus slot - using Zoomed Video PC Cards in this slot enables the viewing of full motion video applications, such as MPEG playback, video capture and TV.
- Hot Swappable Expansion Bay for Diskette, CD-ROM or Optional Drive Modules.
- LCD Status display provides operating status of the computer.

- Integrated Touch Pad pointing device.
- Integrated 10/100 BaseT Ethernet/56K Data/FAX modem combo PC Card.
- 16-bit Stereo Audio internal microphone and stereo speakers with connections for an external microphone and stereo headphones, speakers, or an amplifier.
- Smart Lithium Ion (LiIon) battery.
- APM 1.2 compliant Power Management customizes system power usage based on your needs.
- Fast Infrared (FIR) Interface allows the transfer of information with devices that have an infrared or fast infrared (FIR) interface.
- Supports hot docking to Compaq Mobile 6500 Expansion Unit or Compaq Armada 6500 Convenience Base.
- Full sized 85 key Windows keyboard.
- USB support.
- Microsoft ACPI support for Windows 98

## **Components, Controls, and Indicators**

This section shows the locations and provides a description of the different components on your Compaq Armada 6500 notebook computer.

## **Front and Right Side Components**

|          | Component                         | Description   |
|----------|-----------------------------------|---|
| 0        | Power LED<br>Battery Charging LED | The green Power LED (lower) lights when the notebook is On. The amber Battery Charging LED (upper) lights when the battery is charging.   |
| 0        | Lid Release                       | One of two lid releases. Push in both releases at the same time to open the LCD panel.  |
| <b>③</b> | Speaker                           | Right stereo speaker used to hear sound files and system sounds.  |
| 4        | Expansion Bay                     | Supports CD-ROM, Diskette and Optional (DVD, LS120, and Hard Drive) Drive Modules.  |
| 0        | Microphone In                     | Input connection for external microphone.   |
| 6        | Audio Out                         | Connection for headphones or external speakers.   |
| 0        | Suspend/Power Button              | Turns the notebook computer On, and Suspends or Resumes the system. Refer to the Controlling Power section of this chapter for detailed instructions on using the Suspend/Power button. |
| 0        | Internal Microphone               | Used to record voice, music, and sound files.   |
| 0        | Status Display                    | Provides system operating status.   |

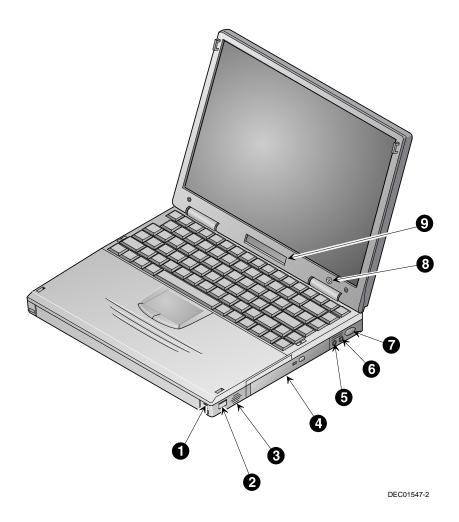


Figure 2-1 Front and Right Side View

## Front and Left Side Components

|   | Component        | Description   |
|---|------------------|---|
| 0 | Lid Release      | One of two lid releases. Push in both releases at the same time to open the LCD panel.  |
| 0 | Speaker          | Left stereo speaker used to hear sound files and system sounds.   |
| 8 | PC Card Ejectors | Ejects a PC Card. Top button releases a PC Card from the top slot; the bottom button releases a PC Card from the bottom slot. |
| 4 | PC Card Slots    | Supports two Type I or Type II cards or one Type III card. Zoomed Video cards are supported in the bottom slot only.          |
| 6 | Security Lock    | Attach a security locking device, such as a Kensington lock, to this port.  |

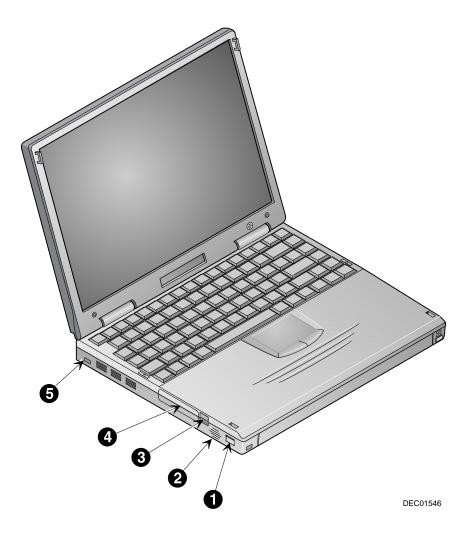


Figure 2-2 Front and Left Side View

## **Back Components**

|   | Component                                   | Description  |
|---|---|--|
| 0 | External Power In                           | Input connection for Universal AC adapter.   |
| 0 | Universal Serial Bus<br>(USB) Port          | A USB device, such as a mouse, keyboard, or digital camera connects to this port.  |
| 8 | RJ45 Ethernet Network<br>Port               | A 10 or 100BaseT Ethernet line connects to this port.  |
| 4 | RJ11 Modem Port                             | An analog telephone line connects to this port.  |
| 6 | Serial Port                                 | A serial device, such as a mouse, graphics tablet or scanner connects to this port.  |
| 6 | Parallel Port                               | A parallel device, such as a printer, connects to this port.   |
| 0 | Video Port                                  | An external monitor connects to this port.   |
| 8 | I/O Connector Cover<br>and Notebook Support | Covers I/O connectors. It can be flipped down to support the notebook to create a comfortable typing angle (Figure 2-6, step 4). |
| • | Fast IR Port                                | Fast IR interface allows wireless data transfer between the notebook and another device with an IR interface.                    |
| 0 | Reset Button                                | Resets the notebook computer. <b>All unsaved data</b> will be lost.  |
| 0 | External Keyboard/<br>Mouse Port            | An external keyboard or PS/2 mouse connects to this port.  |

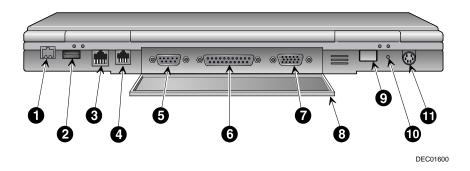


Figure 2-3 Back View

## **Bottom Components**

|   | Component                       | Description   |
|---|---------------------------------|---|
| 0 | Battery Release                 | Releases the LiIon battery from the notebook computer.  |
| 0 | LiIon Battery                   | Provides power to your notebook computer.   |
| 8 | Expansion Bay Module<br>Release | Releases the drive module installed in the Expansion Bay.   |
| 4 | Memory Door                     | Provides access to notebook computer's memory.  |
| 6 | Docking Connector<br>Door       | Provides access to the notebook's docking connector. This connector is used when connecting the notebook to the Compaq Mobile 6500 Expansion Unit or the Compaq Armada 6500 Convenience Base. |

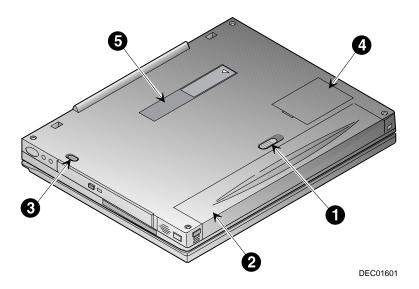


Figure 2-4 Bottom View

## **Controlling Power**

The Suspend/Power button not only enables you to take advantage of the built-in power saving features but also turns the notebook On and Off.

| Goal                               | Action  |
|------------------------------------|---|
| On/Resume                          | Press this button to turn the system On or resume normal operation from the Suspend mode.   |
| Suspend                            | Press this button to place your system in Suspend mode.   |
| Lid Switch                         | Close the LCD panel to place the system into Suspend mode. If the Lid Switch option in System Setup is set to Desktop/CRT, closing the LCD panel will turn off the LCD screen and prevent the notebook from entering Suspend mode. This allows the notebook to function as a desktop computer (notebook LCD panel closed) using an external display, keyboard, and mouse. |
| Off (Windows 95<br>and Windows NT) | Press the [fn]+[Suspend/Power] key combination to completely shut off your notebook from any state. If Windows is up and running, it is recommended that you always shut down the notebook computer as outlined in the Introducing Microsoft Windows user's guide which was packaged with your notebook computer.   |
| Off (Windows 98)                   | Press the [fn]+[Suspend/Power] key combination to initiate an Off request and allow Windows 98 to shut off your notebook.   |
| Power Button<br>Override           | Press and hold the [Suspend/Power] button <b>for four seconds</b> to completely shut Off your notebook computer from any state. If Windows is up and running, it is recommended that you always shut down the notebook computer as outlined in the Introducing Microsoft Windows user's guide which was packaged with your notebook computer.                             |

## **Using the Touch pad**

The touch pad is a touch-sensitive pointing device that provides all the features of a mouse. Although its operation differs from a mouse, its function is the same – to move the cursor around the screen.

Please refer to Figure 2-5 and the following explanation on how to use the touch pad.

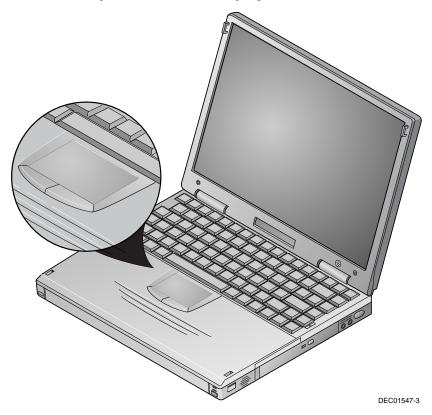


Figure 2-5 The Touch pad

#### Getting to Know Your Computer

- 1. With your fingers on the keyboard in the normal typing position, the touch pad is easily accessible by moving either your thumb or a finger down on to the touch pad.
- 2. Gently move your thumb or finger across the touch pad in the direction you want the cursor to move.
- 3. By default, the touch pad's left button is equivalent to the left button on a conventional two-button mouse. The touch pad's right button is equivalent to the right mouse button on a conventional two-button mouse.

#### Single-clicking/Single-tapping

Single-clicking is a common selection technique of a conventional mouse. The touch pad's left and right (mouse) buttons provide the same single-clicking function. A selection technique unique to the touch pad is single-tapping. Instead of single clicking on the left mouse button, single-tap on the touch sensitive touch pad to make the selection. When you tap the touch pad it is the same as clicking the touch pad's left button.

#### Double-clicking/Double-tapping

The *double-clicking* technique found on a conventional mouse is also supported by the touch pad's (mouse) buttons. Another selection technique unique to the touch pad is *Double-tapping*. *Double-tapping* allows you to select objects or execute applications. Instead of *double-clicking* on the left touch pad button, *double-tap* on the touch sensitive touch pad to make the selection. When you *double-tap* the touch pad, it is the same as double-clicking the touch pad's left button.

#### **Touch Pad On-line Help**

Your notebook computer's touch pad is equipped with many advanced features. For more detailed instructions on using and controlling the touch pad, refer to the On-line Help provided by Synaptics. To access the On-line Help, do the following:

- 1. Click the TouchPad Enhancement icon located on the Windows Taskbar.
- 2. Then click the [Help] button.

## Plugging In and Turning On

The first time you use your Compaq Armada 6500 notebook computer you should fully charge the battery. The battery is fully charged when the Universal AC Adapter is connected to the system and the Battery Charging LED (Figure 2-1, callout 1) is Off. Refer to the "Power" section of the *Compaq Armada 6500 HTML On-line Help* for more information on battery maintenance and use.

To power the notebook using the supplied Universal AC Adapter, refer to the following instructions:

- 1. Connect the Universal AC Adapter cord to the External Power input port on the notebook computer (Figure 2-6, step 1). The arrow on the connector should be on top.
- 2. Plug the power cord into the Universal AC Adapter (Figure 2-6, step 2).
- 3. Plug the power cord into a working electrical outlet (Figure 2-6, step 3).
- 4. Flip down the I/O connector cover to support the notebook to create a comfortable typing angle (Figure 2-6, step 4).
- 5. After you have plugged the notebook into its power source, press the Suspend/Power button to turn the notebook computer On (Figure 2-7).

If the notebook does not power up, check the connections between the Universal AC Adapter and the notebook computer. If the notebook computer still does not power up, please refer to the chapter on "Troubleshooting."

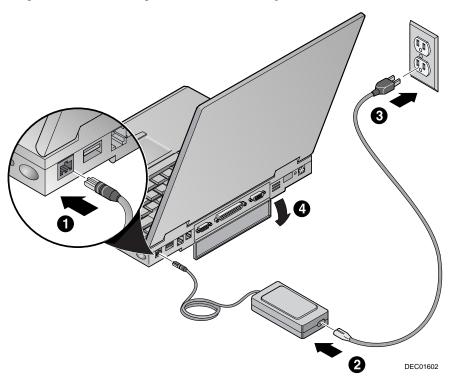


Figure 2-6 Connecting the Universal AC Adapter

#### WARNING\_



Do not use an external power adapter other than the one provided by Compaq Computer Corporation for the Compaq Armada 6500 notebook computer and options.

To avoid personal injury and/or equipment damage, do not open the case of the power adapter. There are no customer serviceable parts.

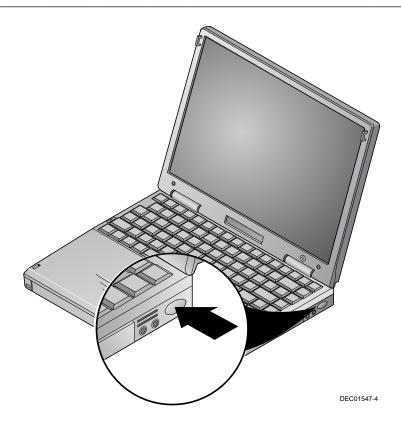


Figure 2-7 Turning on the Notebook Computer

### Using the Battery

Your Compaq Armada 6500 notebook computer has an easily removable main battery pack. This section describes how to maintain and replace the notebook computer's main battery pack.

#### **Preparing the Battery for Use**

Your Compaq Armada 6500 notebook uses a Smart Battery. The battery has circuitry that reports the amount of charge in the battery to the system.

**Initial Use** –To properly initialize the circuitry that reports the state of the battery charge, you should:

- 1. Enter System Setup and disable Power Savings. Refer to Chapter 4, Configuring Your Notebook for detailed instructions on making System Setup configuration changes.
- 2. Fully charge the battery.
- 3. Fully discharge the battery. To fully discharge the battery, use the notebook computer on battery power until the computer suspends due to low battery power. At this point the battery is in a critically low battery state.
- 4. Fully recharge the battery.
- 5. Enter System Setup and re-configure your power management options.

**Regular Use** – The circuitry that reports the state of the battery charge must be periodically re-initialized by allowing the battery to go through a full charge and discharge cycle. The frequency with which you must re-initialize the battery's circuitry is dependent on how often you use battery power. If you use your notebook computer on battery power on a daily basis, it is recommended to re-initialize the battery circuitry once a month.

#### **Battery Removal and Installation**

Your Compaq Armada 6500 is equipped with a Bridge Battery that provides power for up to four minutes when changing the notebook computer's main battery. The addition of the Bridge Battery means you do not have to waste valuable time powering off and rebooting the system in order to change the main battery. Place the notebook into Suspend, remove the drained battery and replace it with a fully charged one. Then resume normal operation.

#### \_Warning\_\_



When transporting the battery pack, make sure that the metal terminals on the battery pack do not come in contact with other metal surfaces (such as loose coins, paper clips, etc.). An electrical discharge can occur which may cause injury or damage.

#### Replacing the Battery

Please refer to the following instructions and Figures 2-8a, 2-8b, 2-9a and 2-9b for detailed instructions on changing and replacing the notebook's main battery. To remove the battery:

1. Press the [Suspend/Power] button to place the system in Suspend mode.

| Note |
|------|
|------|

The Armada 6500 Bridge Battery provides four minutes of battery power. If the Suspend Mode option in System Setup is set to Suspend to RAM and the main battery is out of the system for more than four minutes without connecting the system to external power, **all unsaved data will be lost**. If the Suspend Mode option is set to Save to Disk, the main battery can be removed for an indefinite period without loss of data.

2. Turn the notebook computer over so the bottom of the unit is facing up.

3. While depressing the battery near the latch (Figure 2-8a, step 1), slide the battery latch to the unlock position (Figure 2-8a, step 2).

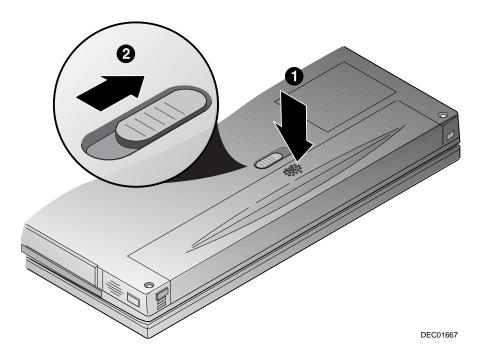


Figure 2-8a Removing Battery

4. Lift the battery up and out of the notebook computer (Figure 2-8b, step 3).

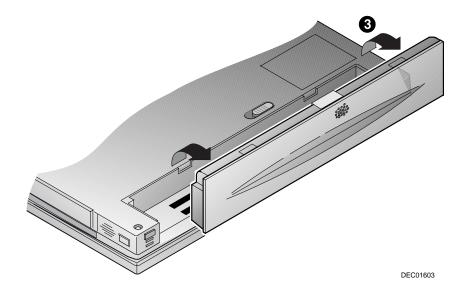


Figure 2-8b Removing Battery

### Installing the Battery

To install the battery:

- 1. Verify that the battery latch is in the unlock position (Figure 2-9a, step 1).
- 2. Place the battery in the battery compartment (Figure 2-9a, step 2).

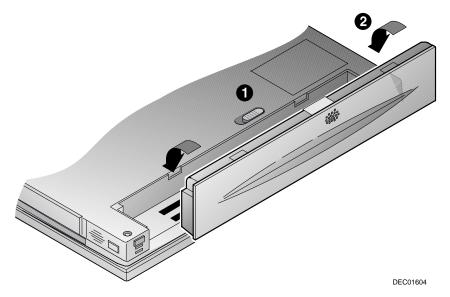


Figure 2-9a Installing the Battery

### Getting to Know Your Computer

4. While pressing down on the battery near the latch (Figure 2-9b, step 3), slide the battery latch to the lock position (Figure 2-9b, step 4).

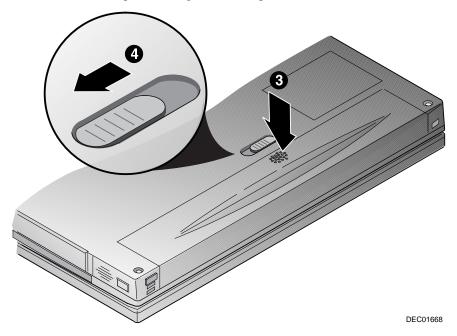


Figure 2-9b Installing the Battery

## **Using Your Modem**

Prior to using your internal modem, you must ensure the following:

- The modem is properly configured for the country in which it will be used via the Country Select Utility, and
- The appropriate adapter cable is supplied. A modem adapter cable is supplied for the country in which the notebook computer was purchased. If you wish to use the notebook's modem in a country other than the one in which the notebook was purchased, contact your authorized Compaq reseller or go to www.compaq.com (search for: Telecom Network Approvals) for more information on obtaining country specific adapter plugs.

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| USEI  | V=2          | UUIIS |    | HILLY |
| User  |              | ~~~   |    |       |

The modem installed in this system requires the user to select the correct country profile before initiating a modem dial-up connection. The preinstalled Country Select utility is used to ensure that your modem will operate as intended and in compliance with national telecommunication regulations/laws. When traveling from country to country you must use the Country Select utility to reconfigure the modem for a new location. Failure to do so may cause the modem to not function properly and invalidate the approval.

#### **Country Select Utility**

The Country Select™ utility is a Windows-based utility that enables the CreditCard Ethernet 10/100+Modem 56 user to select a "country of installation" setting for modem communications. This setting enables the modem to function in accordance with the configuration requirements of a specific country.

### **How to Use Country Select**

The Country Select utility is automatically copied to your hard drive during Windows Setup. A Country Select icon is also installed in the Windows program group so that the utility can be rerun if the country settings need to be changed.

Follow the steps below to run Country Select.

- 1. Click the [Start] button located on the Windows Taskbar, then click [Programs].
- 2. Double-click the Country Select icon in the CreditCard program group.
- The current country setting is listed at the top of the screen, and the other countries supported are listed below. To change to a different country, locate the country on the list and double-click. The application will verify that the country setting has been changed.
- 4. Click on Exit to close the program.

#### **More Information**

Your notebook computer features an integrated Xircom CreditCard Ethernet 10/100 + Modem 56 PC Card. For more information on using and troubleshooting the CreditCard Ethernet 10/100 + Modem 56, visit the Xircom web site at: http://www.xircom.com

# **System Software & Restoration**

This chapter provides an overview of the applications and utilities supplied on the Compaq Software CD as well as directions on how to restore your system using the Compaq QuickRestore CD.

## **Installing Optional Software**

The Compaq Software CD contains on-line documentation, applications, utilities, and drivers for the notebook computer. The Software CD has a menu driven program making it easy to install and access the applications and information. After you complete Windows Setup, you will want to do the following:

- Run the Software CD's Installation Program.
- Install the on-line documentation, found in the Documentation menu on the CD.
- Install the desired applications, found in the Applications menu on the CD.

#### **Application Description**

The following details the applications available on your Compaq Software CD and provides an explanation of each.

| Software Title              | Software Description   |
|-----------------------------|--|
| Adobe Acrobat Reader 3.1    | Acrobat Reader allows you to view .PDF user documentation files provided on the Compaq Software CD.  |
| Puma IntelliSync97          | IntelliSync97 for Windows is a powerful notebook-to-notebook or notebook-to-PC software solution that allows you to synchronize all your data. IntelliSync97 provides file transfer as well as file and PIM (personal information manager) synchronization between your Armada 6500 and another notebook via infrared port, parallel port or serial port. If you plan to use the infrared port, you must enter System Setup and enable the Infra-Red Port prior to installing IntelliSync97. See Chapter 4, "Configuring Your Notebook" for detailed System Setup information. |
| ESS Audio Rack32            | AudioRack allows you to playback, record, mix and edit sound files.  |
| Smithmicro QuickLink<br>III | QuickLink III is a powerful application that provides fax sending and receiving, and data transfer capabilities. Note that this software is provided for use with your internal Xircom modem (standard device on selected models) only and may or may not support modems from other vendors.   |

#### **Installing Documentation and Applications**

To install software from the Compaq Software CD:

- 1. Install the CD-ROM Drive module in the notebook computer.
- 2. Place the Compaq Software CD in the CD-ROM drive (label side up).
- 3. Click on the [Start] button located on the Windows Task bar, then click [Run].
- 4. In the open field, type: X:\CDINSTALL (where X represents the drive letter assigned to your CD-ROM) and click [OK].
- 5. When the Welcome screen appears, click [Next]. The Choose Desired Category window will appear. Follow the on-screen instructions to install the desired documents and applications.

#### **Utilities**

The following details the utilities available on your Compaq Software CD and provides explanation of each.

| Utilities                                       | Utility Description  |
|---|--|
| Make Boot Diskettes                             | This utility allows you to create a bootable diskette set. The Boot Diskette set allows you to boot directly to DOS. It provides a menu-driven interface offering options to partition and format the hard drive or run the AMI Diagnostics utility.   |
| AMI Diagnostics                                 | AMI Diagnostics is designed to help isolate hardware failures and identify important system configuration information prior to requesting on-site service, or returning your computer to a service center for repair. In addition to being able to run AMI Diagnostics from the Compaq Software CD, the AMI Diagnostics utility can also be run from the bootable diskette set created via the Make Boot Diskettes utility mentioned above. See "Using Diagnostics" for detailed information on using AMI Diagnostics. |
| Japanese 3-mode<br>Support (Windows 95<br>only) | This option provides the necessary drivers to support 1.25MB floppy diskettes which are common in the Japanese marketplace.  |

#### **Make Boot Diskettes**

To create a Boot Diskette Set:

| Note  |
|---|
| Before creating the Boot Diskette Set, obtain two blank formatted floppy diskettes. |
|   |

- 1. Boot to Windows, then insert the Compaq Software CD into the CD-ROM Drive.
- 2. Select the [Start] button located on the Windows Taskbar, then click on [Run]. In the Open field, type: X:\CDINSTALL (where X represents the drive letter assigned to your CD-ROM) and click [OK].
- 3. When the Welcome screen appears, click [Next]. The Choose Desired Category screen will appear. Click on the Utilities radio button and then click [Next].
- 4. The Utilities screen will appear. Click on the Make Boot Diskettes radio button and click [Install].
- 5. You will be informed that two formatted diskettes are required to complete this process. Obtain two formatted diskettes, then click [Yes] to continue the process.

#### System Software & Restoration

- 6. The program will prompt you to remove your CD-ROM Drive and insert the Floppy Drive. The CD-ROM and Floppy Drives are hot swappable; there is no need to power down the notebook before swapping drives. Replace the drive now. There will be a short delay as system the recognizes the new drive. When touch pad/mouse functionality returns, insert the first formatted diskette and click [OK].
- 7. When prompted to insert a second formatted diskette, remove the diskette 1 and label it Armada Boot Diskette 1. Then insert the second diskette and click [OK].
- 8. When complete remove the second diskette and label it Armada Boot Diskette 2. Write protect both diskettes.

#### **AMI Diagnostics**

Both Windows 95 and Windows NT users receive AMI Diagnostics, a DOS-based diagnostic utility, found on the Compaq Software CD. AMI Diagnostics is designed to help isolate hardware failures and identify important system configuration information prior to requesting on-site service, or returning your computer to a service center for repair. In addition to being able to run AMI Diagnostics from the Compaq Software CD, the AMI Diagnostics utility can as be run from the bootable diskette set created via the Make Boot Diskettes utility.

#### **Using AMI Diagnostics on CD**

In the event of a hardware failure, your system can be booted from the Compaq Software CD. The AMI Diagnostics can then be used to examine the computer's current configuration, locate faulty components, and troubleshoot problems. If your system fails to boot, proceed as follows:

- 1. Insert the Compaq Software CD into the CD-ROM Drive and power on the notebook. Enter the System Setup Program by pressing [fn]+[F3] key combination when the Compaq logo appears.
- 2. Ensure that the Power Savings option on the Power menu is set to Disabled. Also ensure that ATAPI CD-ROM is the first entry in the boot priority list found on the Boot menu. Then select the Exit Saving Changes option found on the Exit menu. The notebook will automatically reboot. Refer to Chapter 4, "Configuring Your Notebook" for more information on making configuration changes in System Setup.
- 3. When the Compaq Armada Boot CD screen appears, press [Y] to proceed. The Armada Boot CD menu will appear.
  - [1] FDISK to partition your Hard Drive
  - [2] Format your Hard Drive
  - [3] Run AMI System Diagnostics
  - [4] Quit

- 4. Choose option [3] Run AMI System Diagnostics.
- 5. You will be informed that the AMI Diag Program files will be extracted to a RAM drive and that the process will take approximately one minute. Press [Y] to proceed.
- 6. The utility will detect your system hardware configuration and extract the required compressed diagnostics files into RAM drive. Upon file de-compression the main menu will be displayed. Use the UP and DOWN arrow keys to scroll to the desired selection: or simply press the key corresponding to the first letter of the menu item. Compaq recommends that you first view the HELP FILE for more information on using the diagnostics and for the latest release notes.
- 7. At the end of each diagnostic run, you will be notified if the test ran successfully or if errors were encountered. If errors were encountered, you will be given a choice to view the error log file to determine the nature of the problem encountered by the diagnostic. All test results are written to a file named AMIDIAG.LOG. This file can be viewed by selecting the Display Error Log File option from the Options menu.

| Note |
|------|
| <br> |

The AMIDIAG.LOG file is saved to RAM drive by default. In this condition, if you power down, the AMIDIAG.LOG file will be lost. If you want to save the AMIDIAG.LOG file, exist to DOS and manually copy it to the diskette or hard drive. You may also save the AMIDIAG.LOG file from the Options menu Generate Report selection.

#### **Using AMI Diagnostics on Diskette**

AMI Diagnostics can also be run from the Boot Diskette Set created in Creating a Boot Diskette Set. If you would prefer to run AMI Diagnostics from diskette instead of CD, create a Boot Diskette Set now. To run AMI Diagnostics from diskette:

- 1. Insert Armada Boot Diskette 1 into the Floppy Drive and power on the notebook. Enter the System Setup Program by pressing [fn]+[F3] key combination when the Compaq logo appears.
- 2. Ensure that the Power Savings option on the Power menu is set to Disabled. Also ensure that Diskette Drive is the first entry in the boot priority list found on the Boot menu. Then select the Exit Saving Changes option found on the Exit menu. The notebook will automatically reboot. Refer to Chapter 4, "Configuring Your Notebook" for more information on making configuration changes in System Setup.
- 3. When the Compaq Armada Boot Floppy screen appears, press [Y] to proceed. The Armada Boot Floppy menu will appear.
  - [1] FDISK to partition your Hard Drive
  - [2] Format your Hard Drive
  - [3] Run AMI System Diagnostics
  - [4] Quit
- 4. Choose option [3] Run AMI System Diagnostics.
- 5. You will be informed that the AMI Diag Program files will be extracted to a RAM drive and that the process will take approximately one minute. Press [Y] to proceed.
- 6. When prompted remove Armada Boot Diskette 1 from the Floppy Drive and insert Armada Boot Diskette 2. Then press any key to continue. The utility will detect your system hardware configuration and extract the required compressed diagnostics files into RAM drive. Upon file de-compression the main menu will be displayed. Use the UP and DOWN arrow keys to scroll to the desired selection: or simply press the key corresponding to the first letter of the menu item. Compaq recommends that you first view the HELP FILE for more information on using the diagnostics and for the latest release notes.

| 7. | At the end of each diagnostic run, you will be notified if the test ran successfully or if |
|----|--|
|    | errors were encountered. If errors were encountered, you will be given a choice to view    |
|    | the error log file to determine the nature of the problem encountered by the diagnostic.   |
|    | All test results are written to a file named AMIDIAG.LOG. This file can be viewed by       |
|    | selecting the Display Error Log File option from the Options menu.                         |

| Note |
|------|
|------|

The AMIDIAG.LOG file is saved to RAM drive by default. In this condition, if you power down, the AMIDIAG.LOG file will be lost. If you want to save the AMIDIAG.LOG file, exist to DOS and manually copy it to the diskette or hard drive. You may also save the AMIDIAG.LOG file from the Options menu Generate Report selection.

### **Using the Compaq QuickRestore CD**

This QuickRestore CD allows you to fully restore your system to its original software configuration as shipped from Compaq. To complete the QuickRestore process, you must make System Setup configuration changes to the Power, Boot and Exit menu options. Refer to Chapter 4, Configuring Your Notebook Computer for detailed instructions.

| Note    |
|---------|
| _ 11010 |

The QuickRestore process will format your C: drive automatically. **All data residing on your C: drive will be erased.** Prior to beginning the QuickRestore process, backup all pertinent data onto another drive (your D: or E: drive if available) or alternate media. If you have a Windows NT 4.0 NTFS partition, backup all pertinent data to alternate media. The QuickRestore process requires you to delete all NTFS partitions.

#### **QuickRestore Preparation**

- 1. Power off the System. Insert the CD-ROM Drive module into the Expansion Bay.
- 2. Boot the system and when the Compaq logo appears press the [fn]+[F3] key combination to enter the System Setup Program.
- 3. Load factory default settings, then disable the Power Savings option in the Power menu and set ATAPI CD-ROM option as the first device in the Boot Priority list found in the Boot menu. Then choose Exit Saving Changes found in the Exit menu to exit System Setup. Please refer to Chapter 4 for detailed System Setup instructions.

#### **QuickRestore Procedures**

Before using the Compaq QuickRestore CD to restore the factory installed software on a new hard drive or a non-Windows 95/98 formatted hard drive, you must first complete steps 1 through 13. If you are using the Compaq QuickRestore CD to restore the factory installed software on a hard drive formatted for Windows 95/98, proceed to step 14.

#### CAUTION



Be sure that you have copied or transferred all pertinent data to another drive or media.

·

- 1. Insert the QuickRestore CD.
- 2. Boot your system. The system will automatically boot to the QuickRestore CD.
- 3. When the QuickRestore CD Startup Menu appears, select the desired language to view the QuickRestore instructions if prompted (English is default). This has no impact on the Operating System language to be installed.
- 4. The QuickRestore menu will appear. Choose option [1].
  - 1) Run FDISK to partition your hard drive
  - 2) Restore the system using the QuickRestore CD
  - 3) Exit to DOS
- 5. A screen will appear stating that the entire contents of the drive will be lost. Choose [Y] to continue.
- 6. When prompted whether or not to enable large disk support, choose [Y]. This applies to both Windows 95/98 and Windows NT 4.0 users alike.

| Note for Windows NT Users   |
|---|
| This partition will be converted to NTFS during Windows NT 4.0 Setup. |

- 7. The FDISK menu will appear. If using QuickRestore on a non-Windows 95/98 formatted hard drive, choose option [3]. If using QuickRestore on new hard drive, proceed to step 9.
  - 1) Create DOS partition or Logical DOS Drive
  - 2) Set active partition
  - 3) Delete partition or Logical DOS Drive
  - 4) Display partition information
- 8. A Delete menu will appear. Choose option [4] to delete a non-DOS partition. FDISK will delete the existing partitions and return you the FDISK Options menu.
- 9. Choose option [1] Create DOS partition or Logical DOS Drive.
- 10. A Create menu will appear. Choose option [1] Create Primary DOS Partition. FDISK will verify the drive's integrity then prompt you whether or not you wish to use the maximum available size for a primary DOS partition and make the partition active. Choose [Y]. When complete FDISK informs you that a primary DOS partition has been created and returns you to the FDISK Options menu.

| Note   |
|--|
| If you choose to configure the size of the partition yourself, ensure that it is at least 512 megabytes. If you are unsure of the size you need, choose the default. |

- 11. Press [ESC] to exit FDISK. When prompted to restart the system, press [ESC].
- 12. One again you will be prompted to reboot the system, press [ctrl]+[alt]+[del] to reboot the system.
- 13. Proceed to step 15.
- 14. Insert the Compaq QuickRestore CD into the CD-ROM drive and reboot the system. The system will automatically boot to the QuickRestore CD.
- 15. When the QuickRestore CD Startup Menu appears, select the desired language to view the QuickRestore instructions if prompted (English is default). This has no impact on the Operating system language to be installed.

16. Choose the option [2] Restore your system using the QuickRestore CD. You will be prompted whether or not to continue the Restore process. Press [ctrl]+[c] at any prompt to exit this process or press the space bar to continue. After the last question, the system will format and copy the system files onto your Drive C:.

#### CAUTION\_



Do **not** press any keys beyond this point. Pressing certain keys may cause QuickRestore failure.

- 17. When prompted, remove the QuickRestore CD from the CD-ROM drive and press [ctrl]+[alt]+[del] to reboot your system.
- 18. The system will boot to the C: drive. Follow the on-screen instructions to install Windows as usual.

# **Configuring Your Notebook**

This chapter provides information on how to configure your notebook computer and its security features using the System Setup Program. Your notebook computer is configured with default settings selected for typical notebook computer use.

If you are familiar with System Setup programs, refer to the appropriate sections in this chapter for information on configuring or updating your notebook computer. Otherwise, carefully read this chapter before attempting to modify your notebook computer's configuration and security settings.

Here are some instances when you might want to change your computer's System Setup. You might need to:

- Change the date and time
- Change your computer's security level
- Enable/disable and configure power management

## **Running System Setup**

The System Setup Program enables you to select and store information about the notebook computer's hardware configuration, boot sequence, security, and power management features. This information is stored in the computer's battery backed-up CMOS RAM.

#### **System Setup Utility**

To run System Setup:

- 1. Turn on or reboot your notebook computer.
- 2. During system boot, press the [fn] + [F3] key combination when the Compaq logo appears. When the logo appears you have approximately 4 seconds to enter System Setup.

# **Updating Your Notebook Computer's Configuration**

There are a number of hardware features that can be configured on your notebook computer.

| Menu     | Configurable Features   |
|----------|---|
| Main     | System Time<br>System Date<br>Lid Switch Mode   |
| Advanced | Secured Setup Configurations I/O Device Configuration Reset Configuration Data Large Disk Access Mode SMART Device Monitoring TV Format             |
| Security | Set Supervisor Password Set User Password Password on boot Password on resume Password on undock Fixed disk boot sector                             |
| Power    | Power Savings Standby Timeout Auto Suspend Timeout Suspend Mode Hard Disk Timeout Video Timeout Cooling Mode Resume On Time Resume Time Resume Date |
| Boot     | Summary Screen Quick Boot Mode Boot Device Priority   |
| Exit     | Exit Saving Changes Exit Discarding Changes Load Setup Defaults Discard Changes Save Custom Defaults Load Custom Defaults Save Changes              |

#### **Helpful Hints**

There are several keyboard keys assigned to help you select menus and sub-menus, options, and to change option values.

| Legend Key                    | Alternate Key                          | Function  |
|-------------------------------|--|---|
| F1                            | Alt + H                                | Displays the General Help window.   |
| ESC                           | Alt + X                                | Exits the current menu and returns you to the previous screen.                      |
| $\leftarrow$ or $\rightarrow$ |  | Selects a different menu bar item.  |
| $\uparrow$ or $\downarrow$    |  | Moves the cursor up and down between fields.  |
| F5                            | - (minus key)                          | Scrolls backwards through the values of the highlighted field.                      |
| F6                            | + (plus key)<br><space bar=""></space> | Scrolls forward through the values of the highlighted field.                        |
| F9                            |  | Sets the fields for the active menu to their default values.                        |
| F10                           |  | Saves the new configuration and exits the System Setup.                             |
| Press Enter                   |  | Executes commands, selects submenus, selects fields, or displays available options. |

#### **Launching Submenus**

Notice that a pointer symbol appears next to selected fields in the menu screens. For example, see the I/O Device Configuration option in the Advanced menu. The symbol indicates the existence of a submenu that can be launched for more advanced configuration options. To launch a submenu:

- 1. Move the highlighted cell to the desired Menu Bar item and press <Enter>.
- 2. Use the legend keys to navigate around the screen and make the needed configuration changes.
- 3. When you finish, press the [esc] key to exit the submenu and return to the main screen.

## Main Menu

| Feature               | Settings   | Comments  |
|-----------------------|--|---|
| System Time           | Enter current time: hour, minute, second format.   | Sets the system to specified time.  |
| System Date           | Enter current date:<br>month, day, year<br>format. | Sets the system to specified date.  |
| Diskette              | Display only field                                 | Indicates the notebook is configured to support a 1.44/1.25MB 3 ½ " floppy drive.   |
| Lid Switch            | Suspend/Resume* Desktop/CRT                        | This option allows you to configure the way the notebook computer responds when opening and closing the LCD display panel. When Suspend/Resume is selected, the system enters Suspend Mode when the lid is closed and Resumes operation when the lid is opened. When Desktop/CRT mode is selected, the external video port is enabled when the lid is closed. |
| Primary Master        | Display only field                                 | Description of hard drive.  |
| Primary Slave         | Display only field                                 | Description of IDE device installed in the notebook's Expansion Bay.  |
| Secondary<br>Master   | Display only field                                 | Description of IDE device installed in Compaq Mobile 6500 Expansion Unit.   |
| System Memory         | Display only field                                 | Indicates the amount of conventional memory used by the system.   |
| Extended<br>Memory    | Display only field                                 | Indicates the amount of RAM, minus conventional memory (640KB) and high memory (360KB), installed in the system.  |
| System BIOS version   | Display only field                                 | Indicates the current System BIOS version.  |
| Keyboard BIOS version | Display only field                                 | Indicates the current Keyboard BIOS version.  |

<sup>\*</sup>Factory default setting

### **Advanced Menu**

| Field                       | Settings         | Comments   |
|-----------------------------|------------------|--|
| Secured Setup               | No*              | Select Yes to prevent a Plug and Play Operating  |
| Configurations              | Yes              | System from changing system settings.  |
| I\O Device<br>Configuration | Submenu          | Peripheral Device Configuration: Refer to I/O Device Configuration Submenu for a description of the available settings.  |
| Reset                       | No*              | Select Yes to clear all Plug and Play configuration  |
| Configuration<br>Data       | Yes              | information stored in Extended System Configuration Data non-volatile RAM.   |
| Large Disk<br>Access Mode   | Other<br>DOS*    | Select Other if a non-Microsoft operating system is installed on your system. If you install new software and the drive fails, change this selection and try again. Different operating systems require different representations of drive geometries. |
| SMART Device<br>Monitoring  | Disabled         | Enables/Disables IDE Failure Prediction.   |
|                             | Enabled*         |  |
| TV Format                   | Selected Formats | This option allows you to specify the video output format supported by your country when using the video ports provided on the Mobile 6500 Expansion Unit.   |

<sup>\*</sup>Factory default setting

## I\O Device Configuration Submenu

| Field       | Settings | Comments  |
|-------------|----------|---|
| Floppy disk | Disabled | Disables the onboard Floppy Disk Controller.                                  |
| controller  | Enabled* | Enables the onboard Floppy Disk Controller.                                   |
|             | Auto     | Allows the BIOS or O/S to automatically configure the Floppy Disk Controller. |

<sup>\*</sup>Factory default setting Continued

### Configuring Your Notebook

#### Continued

| Field          | Settings                         | Comments  |
|----------------|----------------------------------|---|
| Serial Port    | Disabled                         | Disables the onboard Serial Port.   |
|                | Enabled                          | Enables and allows you to manually configure the I/O address and Interrupt Request (IRQ) line for the Serial Port.  |
|                | Auto*                            | Enables and automatically configures the Serial Port.   |
| Infra-Red Port | Disabled                         | Disables the onboard Infrared Port.   |
|                | Enabled                          | Enables and allows you to manually configure the operating mode, I/O address and Interrupt Request (IRQ) line, and DMA channel for the Infrared Port.                     |
|                | Auto*                            | Enables and automatically configures the Infrared Port. You must manually configure the operating mode.   |
| Parallel Port  | Disabled                         | Disables the onboard Parallel Port.   |
|                | Enabled                          | Enables and allows you to manually configure I/O address, Interrupt Request (IRQ) line and DMA channel (if ECP is selected for Parallel Port Mode) for the Infrared Port. |
|                | Auto*                            | Enables and automatically configures the Parallel Port.   |
| Parallel Port  | Output only                      | Select the mode supported by your printer. See  |
| Mode           | Bi-directional*                  | your printer's User Guide for details.  |
|                | ECP (Extended Capabilities Port) |   |
|                | EPP (Enhanced Parallel Port)     |   |

<sup>\*</sup>Factory default setting

| Note  |  |
|-------|--|
| 11010 |  |

It is highly recommended that you use the Auto configure setting. If you need to manually configure a device, it is recommended that you use the "System" application located in the Windows "Control Panel."

# **Security Menu**

| Feature                    | Settings   | Comments  |
|----------------------------|--|---|
| Supervisor<br>Password Is  | Display only field.  | When set to Clear, a Supervisor Password has not been set.  |
| User Password Is           | Display only field.  | When set to Clear, a User Password has not been set.  |
| Set Supervisor<br>Password | Enter a password of<br>up to eight<br>alphanumeric<br>characters. Password | This option allows you to set a Supervisor Password that will be required to enter the System Setup. This password can be used in place of the User Password.   |
|                            | is not case sensitive.   | <b>Caution:</b> Be sure to write the password down and store it in a safe place.  |
| Set User Password          | Enter a password of<br>up to eight<br>alphanumeric<br>characters. Password | This option allows you to set a User Password that will be required during: System Setup access and System Boot, Resume, and Undock operations if enabled.  |
|                            | is not case sensitive.   | <b>Caution:</b> Be sure to write the password down and store it in a safe place.  |
| Password on Boot           | Disabled*<br>Enabled   | When set to Enabled, you will be prompted for a password on each system boot. A User Password must be set in order to access this feature.  |
| Password on<br>Resume      | Disabled*<br>Enabled   | When set to Enabled, you will be prompted for a password each time the system resumes operation from Suspend Mode. A User Password must be set in order to access this feature.   |
| Password on<br>Undock      | Disabled*<br>Enabled   | This option allows you to enable a password to prevent unauthorized undocking of the notebook computer from the Armada 6500 Convenience Base or Mobile 6500 Expansion Unit. When a User Password is set and this option is set to Enabled, the notebook cannot be undocked unless the system is powered on and the User or Supervisor Password is supplied. |
| Fixed disk boot sector     | Normal* Write Protect  | Set this option to Write Protect to protect the hard disk boot sector from virus infection.   |

<sup>\*</sup>Factory default setting

#### **Notebook Computer Security**

Notebook Computer Security is important to avoid theft or accidental loss of your computer software and hardware. The Compaq Armada 6500 provides the following levels of protection:

- User Password Used to prevent unauthorized access to your notebook computer and
  prevent unauthorized removal of the notebook from a docking option. The User
  Password also allows access to a subset of the System Setup options.
- Supervisor Password Used to prevent unauthorized access to your notebook computer's System Setup.
- Password on Undock Used to prevent unauthorized undocking of the notebook from the Armada 6500 Convenience Base or Mobile 6500 Expansion Unit. Requires a User Password be set.

#### \_Caution\_\_\_\_\_



It is important that you remember your User and Supervisor Password after you have set them on your notebook computer. If you forget either password and want to have it reset, you must send the notebook computer along with proof of ownership to a Compaq Service Center for service.

\_\_\_\_\_

#### Setting/Changing a Supervisor Password

If you set a Supervisor Password, you need to enter it each time you want to access the System Setup. Perform the following steps to set or change the Supervisor Password:

| Note   |
|--|
| The Supervisor Password can be used in place of the User Password. |

- 1. Turn on your notebook computer.
- 2. During system boot, press the [fn] + [F3] key combination when the Compaq logo appears to enter System Setup.
- 3. If a Supervisor Password is set, enter the Supervisor Password when prompted.

  The System Setup main menu will appear on the screen.
- 4. Highlight the Security menu option.
- 5. Highlight the Set Supervisor Password field and press [Enter].

| 6. | Type in your password and press [Enter]. The password can be up to eight alphanumeric characters and is not case sensitive. Symbols and other keys are ignored.             |
|----|---|
|    | To confirm, type in your Supervisor Password a second time and press [Enter].   |
|    | Note  |
|    | If a password already exists, you will be prompted to enter the <i>old password</i> before a new one can be set.  |
| 7. | When the Notice dialog box appears notifying you that changes have been saved, press [Enter].   |
| 8. | Select the Exit menu and choose Exit Saving Changes to save your new settings and exit System Setup.  |
|    | When you access System Setup, will be prompted for the Supervisor Password.   |
|    | Note  |
|    | Passwords take effect immediately upon confirmation. The password will remain in effect if you exit the System Setup Program without saving the new configuration settings. |
|    |   |

#### Setting/Changing a User Password

The User Password prevents unauthorized access to your notebook computer and unauthorized removal of the notebook from a docking option. It also allows access to a subset of the System Setup option. Perform the following steps to set or change the User Password:

- 1. Turn on your notebook computer.
- 2. During system boot, press the [fn] + [F3] key combination when the Compaq logo appears to enter System Setup.
- 3. If a User Password is set, enter the User Password when prompted.
- 4. Highlight the Security menu.
- 5. Highlight the Set User Password field and press [Enter].
- 6. Type in your password and press [Enter]. The password can be up to eight alphanumeric characters and is not case sensitive. Symbols and other keys are ignored.

To confirm, type in your User Password a second time and press [Enter].

#### Configuring Your Notebook

|    | Note  |
|----|---|
|    | If a password already exists, you will be prompted to enter the <i>old password</i> before a new one can be set.  |
| 7. | When the Notice dialog box appears notifying you that changes have been saved, press [Enter].   |
| 8. | Select the Exit menu and choose Exit Saving Changes to save your new settings and exit System Setup.  |
|    | Note  |
|    | Passwords take effect immediately upon confirmation. The password will remain in effect if you exit the System Setup Program without saving the new configuration settings. |

#### **Deleting a Supervisor or User Password**

To delete a Supervisor or User Password:

- 1. Turn on your notebook computer.
- 2. During system boot, press the [fn] + [F3] key combination when the Compaq logo appears to enter System Setup.
- 3. When prompted, enter the password to be deleted.
- 4. Highlight the Security menu.
- 5. If deleting the Supervisor Password, highlight the Set Supervisor Password field and press [Enter]. If deleting the User Password, highlight the Set User Password field and press [Enter].
- 6. When prompted enter the old password.
- 7. With the cursor in the "Enter new password" field, press [Enter].
- 8. The cursor will move to the "Re-enter new password" field. Press [Enter].
- 9. When the Notice dialog box appears notifying you that changes have been saved, press [Enter].
- 10. Select the Exit menu and choose Exit Saving Changes to save your new settings and exit System Setup.

#### **Password on Undock**

Setting a User Password and enabling Password on Undock prevents unauthorized undocking of the notebook from the Compaq Mobile 6500 Expansion Unit and/or the Compaq Armada 6500 Convenience Base. When a request is made to undock the notebook, you will be prompted for a password. Enter either the Supervisor or User Password to complete the undock request and undock the notebook.

#### **Power Menu**

Your notebook computer is factory-configured with preset power management values. If you are not an advanced user, start by using the default (factory-configured) power management settings. If you find that the factory settings do not fit your specific needs, enter the System Setup Program and make the needed changes.

| Feature         | Settings               | Comments  |
|-----------------|------------------------|---|
| Power Savings   | Disabled               | Disables all power management features.   |
|                 | Customized*            | Allows you to customize the power management features to meet your unique operating needs.  |
|                 | Maximum Power Savings  | Use Maximum Power Savings when you want to maximize the time between battery charges.   |
|                 | Maximum<br>Performance | Use Maximum Performance when you want to maximize the performance of your notebook while retaining some power savings for extending the life of the battery.                                |
| Standby Timeout | Off<br>Selected times  | This option allows you to specify a period of time the system must be inactive before the system is placed in Standby mode.   |
|                 |                        | Standby mode shuts down power to the LCD and backlight, hard drive, Diskette Drive, and external devices.   |
|                 |                        | <b>Note:</b> The selected period for inactivity is measured from the last monitored system activity. A keystroke, mouse movement, or hard disk activity, for example, will reset the timer. |

\*Factory default setting Continued

### Configuring Your Notebook

#### Continued

| Feature           | Settings                   | Comments  |
|-------------------|----------------------------|---|
| Auto Suspend      | Off                        | This option allows you to specify a period of   |
| Timeout           | Selected times             | time the system is in Standby before entering Suspend.  |
|                   |                            | Suspend is similar to Standby except all devices are powered down (with the exception of system memory, if Suspend Mode is set to Suspend to RAM). To resume operation, press the Suspend/Power button.   |
| Suspend Mode      | Suspend to RAM*            | This option allows you select the type of   |
|                   | Save to Disk               | Suspend Mode the system will enter when the Auto Suspend Timeout timer expires. If you choose Save to Disk, the system will save all application settings, data and memory to the hard drive, then completely power off the system. If you choose Suspend to RAM, the system will save all application settings and data to system memory, then power off all other devices (except system memory). |
| Hard Disk Timeout | Disabled<br>Selected times | This option allows you to specify a period of time the hard disk drive must be inactive before it spins down.   |
| Video Timeout     | Disabled<br>Selected times | This option allows you to specify a period of time the system must be inactive before the LCD backlight is turned off.  |
| Cooling Mode      | Passive→Active*            | This option determines the order in which the   |
|                   | Active → Passive           | cooling systems are triggered as the system temperature increases. Passive Active throttles down the CPU first, then turns on the cooling fan. Active Passive turns on the cooling fan first, then throttles down the CPU.  |

\*Factory default setting Continued

#### Continued

| Feature        | Settings  | Comments   |
|----------------|---|--|
| Resume On Time | Off*<br>On  | When this option is set to On and Suspend Mode is set to Suspend to RAM, the system wakes the system up at the time defined in Resume Time. Resume on Time will not work when the Suspend Mode is set to Save to Disk. |
| Resume Time    | Enter resume time: hour, minute, second format.   | This option sets the time that the system will wake up from Suspend. Resume On Time must be set to On in order for the system to wake at the defined time.   |
| Resume Date    | Enter resume date:<br>month, day, year<br>format. | This option sets the date that the system will wake up from Suspend. Resume On Time must be set to On in order for the system to wake on the defined date.   |

<sup>\*</sup>Factory default setting

### **Boot Menu**

Enter the Boot Menu to change the order in which devices will be searched for an operating system.

| Feature                 | Settings             | Comments  |
|-------------------------|----------------------|---|
| Summary Screen          | Disabled*<br>Enabled | This option allows you to view a system configuration screen during bootup.   |
| QuickBoot Mode          | Disabled<br>Enabled* | When set to Enabled, this option reduces the time required to complete POST by allowing the system to test only the major system components.  |
| Boot Device<br>Priority | Submenu              | This option allows you to define the drive boot sequence. To change the order, move the highlighted cell to the field to be moved. Press [F5] to move the field to a lower priority. Press [F6] to move the field to a higher priority. |
|                         |                      | Default priority: 1. [Diskette Drive] 2. [Removable Devices] 3. [Hard Drive] 4. [ATAPI CD-ROM Drive] (or DVD Drive)   |

<sup>\*</sup>Factory default setting

### Configuring Your Notebook

## **Exit Menu**

Enter the Exit Menu to save changes, set factory defaults or exit the System Setup Program.

| Feature                 | Action          | Comments  |
|-------------------------|-----------------|---|
| Exit Saving<br>Changes  | <enter></enter> | Exit System Setup and save your changes to CMOS.    |
| Exit Discarding Changes | <enter></enter> | Exit System Setup without saving data to CMOS.      |
| Load Setup<br>Defaults  | <enter></enter> | Load default values for all System Setup items.     |
| Discard Changes         | <enter></enter> | Load previous values from CMOS for all Setup items. |
| Save Custom<br>Defaults | <enter></enter> | Save current settings as custom defaults.           |
| Load Custom<br>Defaults | <enter></enter> | Load previously saved values to CMOS.               |
| Save Changes            | <enter></enter> | Save Setup data to CMOS, but not exit.              |

# **Memory Upgrades**

Your Compaq Armada 6500 notebook computer comes with 64MB of onboard SDRAM memory. You can add additional memory up to a total of 192MB or greater.

The Compaq Armada 6500 supports 3.3V SDRAM 66MHz (or faster) 144-pin SO-DIMM modules. Additional memory is available in 32MB and 64MB SO-DIMMs. DIMMs can be installed as single modules.

#### CAUTION



- You must turn Off the notebook computer's power before removing or installing memory. Failure to turn off the power might damage the notebook computer or memory module.
- Static electricity can cause damage to the memory module.
   Before handling the memory module, be sure to discharge all static electricity from your body by touching the metal shielding around the ports on the rear of the notebook for approximately five seconds.
- If you frequently handle memory modules, it is recommended that you purchase a grounding strap. Contact your Compaq authorized notebook dealer for purchasing details.

## **Installing Additional Memory**

To install additional memory:

- 1. Save all data and shutdown any running applications, then turn off the notebook computer. Ensure that the notebook computer is not in suspend mode.
- 2. Turn the unit over so the bottom is facing up.
- 3. Remove the memory compartment cover using your fingernail (Figure 5-1).

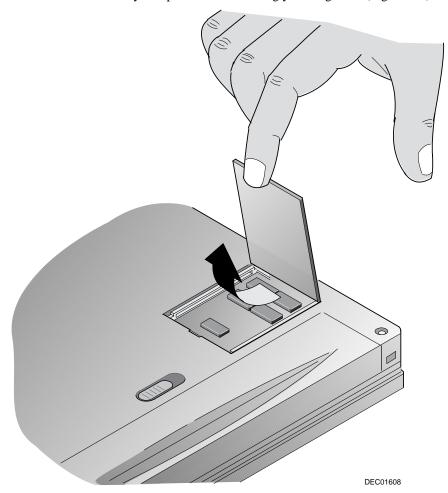


Figure 5-1 Removing Memory Compartment Cover

- 4. Align the notch in the 3.3v SDRAM memory module with the plastic tab in the memory cradle (Figure 5-2, step 1).
- 5. Install the memory module by inserting it at an angle of approximately 45 degrees into one of the two sockets (Figure 5-2, step 2).
- 6. Gently press the module down until it snaps into place (Figure 5-2, step 3).
- 7. Replace the memory compartment cover and press around the edges to make sure it is properly seated.

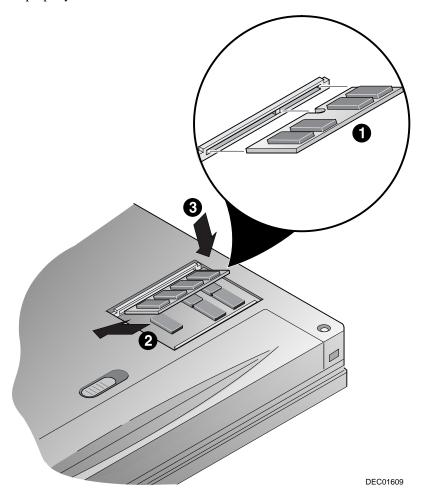


Figure 5-2 Installing Memory

#### **Removing Memory**

To remove memory:

- 1. Save all data and shutdown any running applications.
- 2. Turn off the notebook computer. Ensure that the notebook computer is not in suspend mode.
- 3. Turn the unit over so the bottom is facing up.
- 4. Remove the memory compartment cover using your fingernail (Figure 5-1).
- 5. Push the tabs away from the edge of the memory module to be removed (Figure 5-3, step 1). The memory module will pop up at an angle of approximately 45 degrees when released.
- 6. Lift the memory module out of the slot (Figure 5-3, step 2).
- 7. Replace the memory compartment cover and press around the edges to make sure it is properly seated.

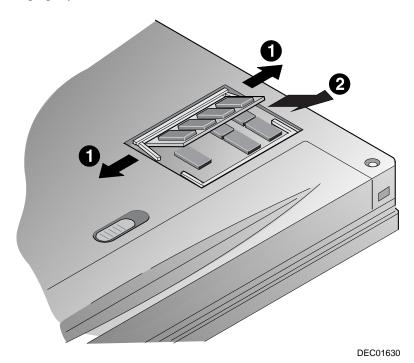


Figure 5-3: Removing Memory

# **Troubleshooting**

This chapter provides troubleshooting tables listing specific problems, probable causes, and recommended actions to take if you are experiencing difficulty with your notebook computer's hardware or software. If your notebook fails after trying the techniques described in this chapter, run the AMI Diagnostics utility as described in Chapter 2 and contact your Compaq service center representative.

This chapter has been divided into the following sections:

- Notebook Computer Troubleshooting
- PC Card Troubleshooting
- LCD Troubleshooting
- Audio and IR Troubleshooting

#### Compaq Web Site

Please visit the Compaq Web Site to download the latest Compaq Armada 6500 Family operating system drivers and on-line User information. A comprehensive list of country specific Compaq Web Sites has been added to your Favorites folder. To access the Compaq Web Site for your country:

- 1. Click the Start button located on the Windows Taskbar, then click Favorites.
- 2. Select the general area that applies to you:
  - Compaq Americas
  - Compaq Asia Pacific
  - Compaq Europe
- 3. Select the Compaq Web Site for your country.

# **Notebook Computer Troubleshooting**

| Problem   | Possible Cause                                    | Action   |
|---|---|--|
| System does   | Battery Pack is drained.                          | Charge the Battery Pack.   |
| not start when<br>the notebook  | Battery Pack is defective.                        | Replace the Battery Pack.  |
| computer is<br>turned on and<br>running on  | Main logic board failure.                         | Press the Reset Button located on the rear of the notebook computer (Figure 2-3), then restart the system.             |
| battery power.  |   | Contact your Compaq service representative.  |
| System does<br>not start when<br>the notebook                                     | AC Adapter is not connected properly.             | Make sure the adapter is properly connected to<br>the notebook computer and to its power source<br>(Figure 2-6).       |
| computer is<br>turned on<br>while<br>connected to<br>an external<br>power source. | There is no power from the external power source. | Check the external power source by connecting another device to it.  |
|   | Main logic board failure.                         | Press the Reset Button located on the rear of the notebook computer (Figure 2-3), then restart the system.             |
|   |   | Contact your Compaq service representative.  |
| Application software or   | Insufficient notebook computer memory.            | Close open applications, save your work and refresh memory by rebooting the system.                                    |
| files failing to<br>load with an<br>out of memory<br>error message.               |   | If you are using a high memory consumption application that requires 100MB+ memory, install an optional memory module. |
|   | Main logic board failure.                         | Press the Reset Button located on the rear of the notebook computer (Figure 2-3), then restart the system.             |
|   |   | Contact your Compaq service representative.  |

Continued

| Problem   | Possible Cause   | Action  |
|---|--|---|
| Notebook<br>computer<br>operates                                      | Memory module installed incorrectly.   | Power off the notebook before removing the memory door. Remove memory module and reinstall (Figures 5-1 - 5-3).                             |
| incorrectly after installing  | Memory module failed.  | Replace memory module.  |
| an optional<br>memory<br>module.                                      | Used non-qualified memory.   | Refer to the list of qualified memory DIMMs located in the Compaq Windows Enterprise Web site.  |
|   | System in locked state.  | Press the Reset Button located on the rear of the notebook computer (Figure 2-3), then restart the system.                                  |
|   |  | Contact your Compaq service representative.   |
| Notebook<br>computer does<br>not boot from<br>the hard disk<br>drive. | The Boot Priority "Diskette Drive" option in System Setup is set to higher priority than the hard drive. | Remove the diskette from drive A.   |
|   | There is no software on the requested partition.   | Install software on the requested partition.  |
|   | Operating system soft-<br>ware is not installed on<br>the hard disk drive.                               | Install the appropriate operating system using the QuickRestore CD. See Chapter 3 for details.  |
|   | Hard disk drive is not correctly formatted or the requested partition does                               | Restore your system using the QuickRestore CD. <b>Caution:</b> Partitioning and formatting the hard drive will erase all data on the drive. |
|   | not exist.   | Contact your Compaq service representative.   |

Continued

| Problem  | Possible Cause   | Action  |
|--|--|---|
| Notebook<br>computer does<br>not boot from<br>the Diskette<br>Drive. | Diskette is worn or damaged.   | Try another diskette.   |
|  | The Boot Priority "Diskette Drive" option in System Setup is set to lower priority than the other devices. | Reboot the system and press the [fn] + [F3] key combination when the Compaq logo appears to enter System Setup. Set the Boot Priority "Diskette Drive" option in System Setup to priority 1 position. |
|  | Diskette does not contain system files.  | Insert a system diskette.   |
|  | Diskette drive is empty.   | Insert a system diskette.   |
|  | Diskette drive failed.   | Contact your Compaq service representative.   |
| Target diskette drive cannot   | Diskette is not formatted or formatted incorrectly.  | Format the diskette.  |
| read or write information.   | Diskette is worn or damaged.   | Try another diskette.   |
|  | Diskette is write-<br>protected.   | Slide the write-protect switch so the hole is not visible.  |
|  | Diskette drive is empty.   | Insert a diskette.  |
|  | Diskette drive failed.   | Contact your Compaq service representative.   |

Continued

| Problem                           | Possible Cause   | Action   |
|-----------------------------------|--|--|
| An external monitor is            | Loose or incorrect cable connections.                          | Check all cable connections, including AC power.   |
| connected and is not working.     | The notebook's video mode may be in LCD Display Only mode.     | Use the [fn] + [F4] key combination to switch to Simul Scan mode (simultaneously viewing both LCD display and External Monitor display) or External Monitor Only mode.           |
|                                   | TV output is selected.   | Check the Display settings in Control Panel and ensure TV output is not selected.  |
|                                   | Monitor does not support multi-sync and/or higher resolutions. | Set the display output for External Monitor Only using the [fn] + [F4] key combination. Then set the Display settings in Control Panel to a resolution supported by the monitor. |
|                                   |  | If you attach a non-DDC compliant XGA monitor to the notebook, the system must also be set at XGA.   |
|                                   | Monitor may be broken.   | Verify that the monitor is in proper working condition by connecting it to another computer.   |
| Notebook<br>computer locks<br>up. | Software or hardware configuration problem.                    | Reset the notebook computer by pressing the Reset Button located on the rear of the notebook computer (Figure 2-3), then restart the notebook. Unsaved data will be lost.        |
|                                   |  | Check all software and hardware configurations.  |
|                                   |  | Contact your Compaq support representative.  |

# **LCD Troubleshooting**

| Problem   | Possible Cause                                      | Action   |
|---|---|--|
| Power is on,<br>but there is no<br>LCD display. | Notebook computer<br>Standby Timer expired.         | Press any key to resume operation.   |
|   | Notebook computer Video Timer expired.              | Press a key on the keyboard or move your finger across the touch pad.                                      |
|   | Notebook computer<br>Auto Suspend Timer<br>expired. | Press the [Suspend/Power] button to resume operation.  |
|   | Notebook computer running in CRT mode.              | Press [fn] + [F4] until the LCD display is active.   |
|   | Screen saver utility installed.                     | Press a keyboard key or click on the touch pad.  |
|   | System in locked state.                             | Press the Reset Button located on the rear of the notebook computer (Figure 2-3), then restart the system. |
|   | LCD failure.  | Contact your Compaq support representative.  |

#### \_WARNING\_



High voltages exist inside the Liquid Crystal Display (LCD) enclosure (notebook computer's screen display). To prevent electrical shock, do not open the LCD enclosure. If the LCD needs repair, return it to your Compaq service representative.

# **PC Card Troubleshooting**

| Problem  | Possible Cause                                  | Action  |
|--|---|---|
| PC Card does not work.   | Card improperly inserted.                       | Insert the card label-side up. When card is inserted properly, you should hear at least 1 short beep. Two beeps indicate the card has been inserted properly and recognized.    |
|  | Device drivers missing or improperly installed. | Run the troubleshooting wizard from the operating system's on-line help.  |
|  | Card not supported.                             | Refer to the Compaq Windows Enterprise Web site for a list of supported PC Cards.   |
|  | Zoomed Video Card inserted in top slot.         | Only the bottom PC Card slot supports Zoomed Video functionality. Remove the card and install it in the bottom slot.  |
| Network card<br>does not work<br>despite a<br>double beep<br>indicating the<br>network card<br>was properly<br>recognized and<br>configured by<br>your notebook<br>computer. | Network configuration problem.                  | Further adjustments might need to be made depending on your network configuration. Refer to your network documentation or request the assistance of your Network Administrator. |

## Troubleshooting

| Problem                                      | Possible Cause                   | Action  |
|--|----------------------------------|---|
| SRAM card<br>does not work<br>(single beep). | Missing device driver(s).        | Refer to the operating system's on-line help for information on configuring SRAM PC Cards.  |
| SRAM card<br>does not work                   | Incorrect drive letter assigned. | Refer to operating system's on-line help.   |
| (double beep).                               | SRAM card not formatted.         | To format the SRAM card, insert the card in a PC Card slot, then double-click My Computer, then select SRAM drive, then choose File from the menu bar, then choose the Format option, then select the Full format option and click [Run]. |
|  |                                  | If the problem persists, call your Compaq service representative.   |
| ATA card does<br>not work<br>(single beep).  | Card not supported.              | Contact your Compaq service representative.   |
| ATA card does not work                       | Missing device driver(s).        | The PC Card Wizard will detect the missing device drivers and load them.  |
| (double beep).                               | Unformatted ATA card             | Refer to the operating systems on-line help for information on troubleshooting PC Cards.  |

# **Audio and IR Troubleshooting**

| Problem                 | Possible Cause  | Action  |
|-------------------------|---|---|
| Sound is not working.   | Audio volume needs to be increased.   | Adjust audio volume by pressing the [fn]+[▲] hot key combination.   |
|                         | System audio has been turned off.   | Check the sound icon located on the Windows Taskbar. If sound is disabled/muted, press [fn] + [F7] to toggle on the internal audio feature.   |
|                         | Configuration problem.  | From the Windows Control Panel double-<br>click the System icon and verify the sound<br>device is properly configured and the drivers<br>are loaded.  |
| File does not transfer. | FIR port is disabled.   | Press [fn] + [F3] to enter the System Setup<br>and enable the Infra-Red Port. Refer to<br>Chapter 4 if you require additional<br>information about System Setup.                                |
|                         | Obstructed transmission path.   | Ensure that there is a clear, unobstructed path between the two Infrared modules.   |
|                         | Your FIR port is located too far from and out of plane with the other device's Infrared module. | Position your notebook closer to the other device's Infrared transceiver. For best results, keep transmission distances less than or equal to 1 meter and a bias angle of less than 15 degrees. |
|                         | Transmission subjected to excessive noise levels.   | Do not transmit Infrared signals near equipment with compressors, such as refrigerators or air conditioners.  |



# **Technical Specifications**

# **GTX6300MD System Specifications**

| Feature  | Specification                             |
|--|---|
| CPU Intel Pentium II   | 300 MHz MMX                               |
| LCD  | 14.1" XGA TFT                             |
| HDD  | 6 GB                                      |
| L2 Cache   | 512KB                                     |
| Base RAM   | 64MB – SDRAM 3.3v                         |
| Maximum RAM  | 192MB or greater                          |
| RAM Expansion  | Dual 144 pin SO–DIMM<br>3.3v self-refresh |
| Battery  | LiIon – 12 cell 54Whrs                    |
| Audio  | Yes                                       |
| CardBus/Zoomed Video   | Supported                                 |
| Fast IR (4 Mbps)   | Yes                                       |
| Integrated CD-ROM  | 24X                                       |
| Integrated 56K Modem and 10/100BaseT Ethernet (standard device on selected models) | Yes                                       |
| Integrated MPEG-2 Decode Assist  | Yes                                       |
| Pointing Device  | Touch pad                                 |

#### **Technical Specifications**

| Feature                          | Specification                   |
|----------------------------------|---------------------------------|
| Size                             | 9.7" x 12" x 1.4"               |
| Weight (no FDD or CD-ROM in bay) | 5.96 lbs. (approximate)         |
| Weight (FDD in bay)              | 6.27 lbs. (approximate)         |
| Weight (CD-ROM in bay)           | 6.46 lbs. (approximate)         |
| Operating System                 | Windows 95 or<br>Windows NT 4.0 |
| Warranty                         | 3 years                         |

The information in this document is subject to change without notice and should not be construed as a commitment by Compaq Computer Corporation.

#### **Environment**

Operating: 32 to 95 degrees F (0 to 35 degrees C)

Non-operating: -4 to 140 degrees F (-20 to 60 degrees C)

Relative Humidity:

Operating: 20% to 80%, non-condensing Non-operating: 5% to 95%, non-condensing

Altitude:

Operating: Sea level to 8,000ft (3,040m)

Non-operating: Sea level to 40,000ft (12,160m)

Shock:

Operating: 10G for 11ms half sine Non-operating: 100G for 11ms half sine

# **Compaq Customer Support**

### **Preparing for a Technical Support Call**

If you cannot solve a problem using the troubleshooting tips in Chapter 6, you may need to call technical support. To receive the fastest possible solution when you call, follow the instructions in Chapter 2 to run the AMI Diagnostics utility and have the following available when you call:

- The computer
- Serial number on the bottom of the computer
- Purchase date on invoice
- Conditions under which the problem occurred
- · Error messages that occurred
- Hardware configuration
- Type of printer connected
- Hardware and software you are using
- Product identification number (PIN), which you entered when you set up the computer. (Click Start → Settings → Control Panel → System → General tab. Your PIN number is below your name.)
- Printed error message log from AMI Diagnostics, or a list of the devices and error messages received

| Note  |
|---|
| If you take your computer to a Compaq authorized reseller, dealer, or service provider for service, remember to provide the power-on and setup passwords if they are set. |
|   |

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# **Worldwide Telephone Numbers**

Locate your geographical area in the following table and use one of the telephone numbers for Compaq assistance

**General Information Numbers**—Product information, technical assistance, and the location of your nearest Compaq authorized dealer, reseller, or service provider.

**Technical Support Numbers**—Hardware technical support in analyzing system configuration and diagnostic problems or troubleshooting.

**Customer Support Numbers**—Information on service and support programs including warranty, product catalogs, and white papers.

**PaqFax Numbers**—Automatic facsimile response system for technical and product-specific information that is transmitted to any fax machine. PaqFax is available 24 hours a day.

**NOTE:** Telephone numbers are subject to change without notice.

\*Indicates toll-free domestic numbers.

| Worldw                | ride Telephone N | lumbers          |  |
|-----------------------|------------------|------------------|--|
| Location              | Country Code     | Telephone Number |  |
| Argentina             |                  |                  |  |
| General Information   | +54              | -1-704-3800      |  |
| Technical Support     | +54              | -1-704-3800      |  |
| Fax                   | +54              | -1-704-3809      |  |
| Australia             |                  |                  |  |
| General Information   |                  | 61-2-9911-1999   |  |
| Technical Support     |                  | 61-2-9911-1955   |  |
| PaqFax                |                  | 61-2-9911-1982   |  |
| Austria               |                  |                  |  |
| General Information*  |                  | 0222/8 78-16-16  |  |
| Technical Support*    |                  | 0222/8 78-16-16  |  |
| Order Software Backup | +31              | -55-38-43-39     |  |
|                       |                  |                  |  |

# Worldwide Telephone Numbers Continued

| Location                        | Country<br>Code | Telephone Number                       |
|---------------------------------|-----------------|--|
| Belgium / Luxembourg            |                 |  |
| Compaq Care Center              | Bel<br>Lux      | 0903-99036 (45 BFr/min.)<br>089/89.232 |
| General Fax                     | +32             | (0)2/725 22 13                         |
| Infoline (resellers, brochures) | +32             | (0)2/716 96 96                         |
| QuickLine (BBS)                 | +32             | (0)2/716 95 92                         |
| Order Software Backup           | +32             | (0)2/716 96 78                         |
| Order Software Backup by Fax    | +32             | (0)2/716 96 79                         |
| Brazil                          |                 |  |
| General Information             | +55             | -(011) 5181-7866                       |
| Canada                          |                 |  |
| General Information             |                 | 1-905-707-1715                         |
| Technical Support*              |                 | 1-800-OKCOMPAQ<br>(1-800-652-6672)     |
| Customer Support*               |                 | 1-800-263-5868                         |
| Order Software Backup*          |                 | 1-800-952-7689                         |
| Battery Pack Recycling*         |                 | 1-800-263-5868                         |
| Caribbean                       |                 |  |
| General Information             |                 | 1-281-514-4220                         |
| Technical Support               |                 | 1-281-518-2200                         |
| Chile                           |                 |  |
| General Information             | +56             | -2-274-1911                            |
| Technical Support               | +56             | -2-274-3007                            |
| China                           |                 |  |
| General Information             | +86             | -10-6831-3399                          |
| Technical Support               | +86             | -10-6834-6721                          |
| Colombia                        |                 |  |
| General Information             | +57             | -1-312-0201                            |
| Technical Support               | +57             | -1-345-0266                            |
| Czech Republic                  |                 |  |
| General Information             | +420            | -2-232-8772                            |
| Technical Support               | +420            | -2-232-8772                            |

Continued

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Worldwide Telephone Numbers Continued

| Location                             | Country Code | Telephone Number |
|--------------------------------------|--------------|------------------|
| Denmark                              |              |                  |
| General Information                  | +45          | -45-90-45-90     |
| Technical Support                    | +45          | -45-90-45-45     |
| Eastern Europe, Middle East,         | and Africa   |                  |
| Technical Support<br>and Information | +353         | -1-402-6833      |
| Technical Support Fax                | +353         | -1-402-6855      |
| Ecuador                              |              |                  |
| General Information                  | +59          | -3-225-4343      |
| Finland                              |              |                  |
| General Information                  | +358         | (9) 615-599      |
| Technical Support*                   |              | 0203-206-720     |
| QuickLine (BBS)                      | +358         | (9) 615-559-870  |
| France                               |              |                  |
| General Information                  | +33          | -1-41-33-41-33   |
| Technical Support                    | +33          | -1-41-33-44-55   |
| Germany                              |              |                  |
|                                      | 0,48 DM/min. |                  |
| Hotline                              |              | 0180/5 21 21 11  |
| Hotline Fax                          |              | 0180/5 21 21 17  |
| Infoline                             |              | 0180/3 22 12 21  |
| Infoline Fax                         |              | 0180/3 22 12 20  |
| QuickLine                            |              | 0180/5 21 21 18  |
| FaxPaq                               |              | 0180/5 21 21 19  |
| Order Software Backup*               |              | 0130/81 10 81    |
| Hong Kong                            |              |                  |
| General Information                  |              | 852-28681382     |
| Technical Support                    |              | 852-90116633     |
| PaqFax                               |              | 852-28671648     |
| Hungary                              |              |                  |
| General Information                  | +36          | -1-457-3600      |
| Technical Support                    | +36          | -1-457-3682      |

# Worldwide Telephone Numbers Continued

| Location                | Country Code | Telephone Number |
|-------------------------|--------------|------------------|
| India                   |              |                  |
| General Information     |              | 91-80-559-6023   |
| PaqFax                  |              | 91-80-559-8989   |
| BBS                     |              | 91-80-559-8900   |
| Israel                  |              |                  |
| General Information     | +972         | -3-6363-444      |
| Technical Support       | +972         | -3-6363-444      |
| PaqFax                  | +972         | -3-6396-601      |
| Italy                   |              |                  |
| Presales Information*   |              | 167 464911       |
| Technical Support       | +39          | (02) 69633281    |
| BBS                     | +39          | (02) 89200222    |
| Order Software Backup*  |              | 167 859030       |
| Fax                     | +39          | (02) 69633282    |
| Japan                   |              |                  |
| General Information*    |              | 0120-101-589     |
| Technical Support*      |              | 0120-101-589     |
| Windows 95 Support*     |              | 0120-505-589     |
| Order Software Backup * |              | 0120-250-589     |
| FaxStation              |              | 81-3-5402-0991   |
| Korea                   |              |                  |
| Product Information     |              | 82-2-523-3575    |
| Customer Support        |              | 82-080-902-7777  |
| Malaysia                |              |                  |
| General Information     |              | 603-717-1188     |
| Technical Support       |              | 603-718-1636     |
| Mexico                  |              |                  |
| General Information     | +52          | -5-229-7900      |
| Technical Support       | +52          | -5-229-7910      |
| PaqFax                  | +52          | -5-229-7920      |

Worldwide Telephone Numbers Continued

| Location                 | Country Code | Telephone Number               |
|--------------------------|--------------|--------------------------------|
| Netherlands              |              |                                |
| General Information      |              | 0182-565805                    |
| Customer Support*        |              | 06-91681616<br>(Dfl. 0.75/min) |
| Fax*                     |              | 06-8991116<br>(Dfl. 0.40/min)  |
| QuickLine Bulletin Board |              | 0182-572366                    |
| New Zealand              |              |                                |
| General Information      |              | 64-9-307-3969                  |
| Norway                   |              |                                |
| General Information      | +47          | -22-07-20-00                   |
| Technical Support        | +47          | -22-07-20-20                   |
| Poland                   |              |                                |
| General Information      | +48          | -2-630-3535                    |
| Technical Support        | +48          | -2-630-3535                    |
| Portugal                 |              |                                |
| General Information      | +351         | -1-4128400                     |
| Technical Support        | +351         | -1-4128460                     |
| Russia                   |              |                                |
| General Information      | +7           | -095-967-1700                  |
| Technical Support        | +7           | -095-967-1700                  |
| PaqFax                   | +7           | -095-967-1701                  |
| Singapore                |              |                                |
| General Information      |              | 65-753-6688                    |
| Customer Support Center  |              | 65-750-3030                    |
| PaqFax                   |              | 65-750-4514                    |
| South Africa             |              |                                |
| General Information      |              | 27-11-728-6999                 |
| Technical Support        |              | 27-11-728-6999                 |
| Spain                    |              |                                |
| General Information      | +34          | -902.10.14.14                  |
| Technical Support        | +34          | -1-640-1302                    |

# Worldwide Telephone Numbers Continued

| Location                              | Country Code | Telephone Number                               |
|---------------------------------------|--------------|--|
| Sweden                                |              |  |
| General Information                   | +46          | -8-703-5240                                    |
| Technical Support                     | +46          | -8-703-5240                                    |
| PaqFax (hämtfax)                      | +46          | -8-703-5225                                    |
| QuickLine (BBS)                       | +46          | -8-703-5220                                    |
| Switzerland                           |              |  |
| General Information                   |              | 0844 844 111                                   |
| Technical Support                     |              | 01/838 22 22 (German)<br>01/838 22 23 (French) |
| QuickLine Bulletin Board              |              | 01/838-24 21                                   |
| Order Software Backup                 |              | 0800 556 206                                   |
| Taiwan                                |              |  |
| General Information                   |              | 886-2-7351000                                  |
| Technical Support                     |              | 886-2-3761170                                  |
| BBS                                   |              | 886-2-3761175                                  |
| Thailand                              |              |  |
| General Information                   |              | 62-2-679-6222                                  |
| United Arab Emirates (Dubai)          |              |  |
| General Information                   | +97          | 14 -818100                                     |
| United Kingdom                        |              |  |
| General Information                   |              | 0990-134456                                    |
| FaxPaq                                |              | 0181-332-3550                                  |
| QuickLine Bulletin Board              |              | 0181-332-9499                                  |
| United States                         |              |  |
| Product Information*                  |              | 1-800-345-1518                                 |
| Technical Support*                    |              | 1-800-OKCOMPAQ<br>(1-800-652-6672)             |
| PaqFax*                               |              | 1-800-345-1518, Option 1                       |
| Download Facility (modem access only) |              | 1-281-518-1418                                 |
| Order Software Backup*                |              | 1-800-952-7689                                 |
| Battery Pack Recycling*               |              | 1-800-524-9859                                 |

Continued

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# Compaq Customer Support

# Worldwide Telephone Numbers Continued

| Venezuela           |     |             |  |
|---------------------|-----|-------------|--|
| General Information | +58 | -2-953-6944 |  |

# **Regulatory Notices**

Throughout these regulatory notices, Compaq products are referred to by their regulatory agency series numbers.

# **Regulatory Agency Series Numbers**

Regulatory agencies worldwide use agency series numbers for product identification. Each approved product displays the assigned agency series number. To ensure continued safe and reliable operation, the products listed below should be used only with the Compaq PP2020 agency series of computers.

| Product          | Agency Series Number |
|------------------|----------------------|
| Battery Pack     | PP2021               |
| AC Adapter       | PP2022               |
| Convenience Base | PP2025               |
| Expansion Unit   | PP2026               |
|                  |                      |

## **Federal Communications Commission Notice**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio or television technician for help.

#### **Modifications**

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Compaq Computer Corporation may void the user's authority to operate the equipment.

#### Cables

Connections to this device must be made with shielded cables with metallic RFI/EMI connector hoods to maintain compliance with FCC Rules and Regulations.

When the Convenience Base is used, the network, serial, parallel, and monitor port connections must be made to the Convenience Base to maintain compliance with Part 15 of the FCC Rules and Regulations.

# Declaration of Conformity for Products Marked with the FCC Logo (United States only)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

For questions regarding this declaration, write

Compaq Computer Corporation P. O. Box 692000, Mail Stop 510101 Houston TX 77269-2000

or call 281-514-3333

To identify your product, refer to the part, series, or model number found on the product.

If you have questions about your product that are not related to this declaration, please write

Compaq Computer Corporation P. O. Box 692000, Mail Stop 530113 Houston TX 77269-2000

or call Compaq

Product Information Center 1-800-345-1518 Technical Support 1-800-OKCOMPAQ (1-800-652-6672).

## **Canadian Notice**

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

## **Avis Canadien**

Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

# **European Notice**

Products with the CE Marking comply with both the EMC Directive (89/336/EEC) and the Low Voltage Directive (73/23/EEC) issued by the Commission of the European Community.

Compliance with these directives implies conformity to the following European Norms:

- EN55022 (CISPR 22)—Electromagnetic Interference
- EN50082-1 (IEC801-2, IEC801-3, IEC801-4)—Electromagnetic Immunity
- EN60950 (IEC950)—Product Safety

# **Japanese Notice**

この装置は、情報処理装置等電波障害自主規制協議会(VCCI)の基準に基づくクラスB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。

## **German Ergonomics Notice**

The Compaq PP2020 agency series of computers meet the requirements of ZH 1/618 (German Safety Regulations for Display Work Places in the Office Sector) when used in conjunction with docking bases, keyboards, and monitors that bear the "GS" approval mark. The Compaq PP2020 agency series of computers in a stand-alone mode are not intended for continuous use in an office environment.

## **Airline Travel Notice**

Use of electronic equipment aboard commercial aircraft is at the discretion of the airline.

# **Energy Star Compliance**

The Compaq PP2020 agency series of computers are compliant with the U.S. Environmental Protection Agency (EPA) Energy Star Computers Program 2.0. The EPA Energy Star logo does not imply endorsement by the EPA. As an Energy Star Partner, Compaq Computer Corporation has determined the product meets the Energy Star guidelines for energy efficiency.

# **Battery Notice**

| W  | ΙΛ. | D | NI | INI |   |
|----|-----|---|----|-----|---|
| vv | A   | ĸ | N  | IIN | G |



This computer contains two internal batteries: a lithium coin cell real time clock battery and a nickel metal hydride bridge battery pack. There is a risk of explosion and injury if the batteries are incorrectly replaced or improperly handled. Do not attempt to recharge, disassemble, immerse in water, or dispose of them in fire. Replacement should be done by a Compaq authorized service provider using the Compaq spare part for this computer.

This computer contains a lithium ion battery pack. There is a risk of fire and chemical burn if the battery pack is handled improperly. Do not disassemble, crush, puncture, short external contacts, dispose in water or fire, or expose it to temperatures higher than  $60^{\circ}\text{C}$  ( $140^{\circ}\text{F}$ ). Replace only with the Compaq battery pack for this computer.

#### Battery Recycling and Disposal



In North America, dispose of nickel metal hydride or lithium ion batteries by taking advantage of the Compaq battery recycling program. You will be provided with a postage-paid battery pack mailer preaddressed to a reclamation facility where the metals are recycled. Call the telephone number listed for your location in Appendix B for more information.

In Europe, do not dispose of batteries with general household waste. Dispose of or recycle them by using the public collection system or returning them to Compaq, your authorized Compaq partners, or their agents.

#### **Power Cords**

If you were not provided with a power cord for your computer or for an AC power accessory intended for use with your computer, you should purchase a power cord that is approved for use in your country.

The power cord must be rated for the product and for the voltage and current marked on the product's electrical ratings label. The voltage and current rating of the cord should be

### **Regulatory Notices**

greater than the voltage and current rating marked on the product. In addition, the diameter of the wire must be a minimum of 0.75 mm<sup>2</sup>/18AWG, and the length of the cord must be between 5 feet (1.5 m) and 6½ feet (2 m). If you have questions about the type of power cord to use, contact your Compaq authorized service provider.

A power cord should be routed so that it is not likely to be walked on or pinched by items placed upon it or against it. Particular attention should be paid to the plug, electrical outlet, and the point where the cord exits from the product.

# Laser Safety

All Compaq systems equipped with laser products comply with appropriate safety standards, including IEC 825. With specific regard to the laser, the equipment complies with laser product performance standards set by government agencies for Class 1 laser products. It does not emit hazardous light; the beam is totally enclosed during all modes of customer operation and maintenance.

## CDRH Regulations

The Center for Devices and Radiological Health (CDRH) of the U.S. Food and Drug Administration implemented regulations for laser products on August 2, 1976. These regulations apply to laser products manufactured from August 1, 1976. Compliance is mandatory for products marketed in the United States.

#### WARNING



Use of controls or adjustments or performance of procedures other than those specified herein or in the laser product installation guide may result in hazardous radiation exposure.

CLASS 1 LASER PRODUCT

This system is classified as a Class 1 laser product. This label appears on the laser product.

## **Laser Information**

Laser Type: Semiconductor GaAlAs

Wave Length:  $780 \pm 35 \text{ nm}$ Divergence Angle:  $53.5^{\circ} \pm 1.5^{\circ}$ 

Output Power: Less than 0.2mW or 10,869 W·m<sup>-2</sup>sr<sup>-1</sup>

Polarization: Circular Numerical Aperture:  $0.45 \pm 0.04$ 

Only authorized technicians trained by Compaq should attempt to repair this equipment. All troubleshooting and repair procedures are detailed to allow only subassembly/module level repair. Because of the complexity of the individual boards and subassemblies, no one should attempt to make repairs at the component level or to make modifications to any printed wiring board. Improper repairs can create a safety hazard.

## **Modem Notices**

## FCC Regulations - Part 68

To comply with the Federal Communications Commission (FCC) Rules and Regulations, Part 68, these instructions must be followed:

- 1. Your modem must not be connected to a party line or coin-operated telephone.
- If a problem occurs on the telephone line, your modem must be disconnected from the telephone line until it has been determined that your modem is not the cause of the problem.
- All repairs to your modem must be made by Xircom, Inc. Unauthorized or unorthodox repair methods can alter the modem's radio frequency emissions and other characteristics sufficiently to void your authority to operate the modem over a public telephone network.
- 4. If requested, you must be prepared to provide the telephone company with the following information:

Equipment Manufacturer: Xircom, Inc.

2300 Corporate Center Drive

Thousand Oaks, CA 91320-1420

U.S.A.

Model: CEM56-100

FCC Registration No.: 2U6USA-31569-M5-E

Ringer Equivalency No.: 0.7B

## FCC Rules and Regulations - Part 68

This equipment complies with Part 68 of the FCC Rules. On the back of the CreditCard Ethernet 10/100+Modem 56 is a label that contains, among other information, the FCC Registration Number and Ringer Equivalency Number (REN) for this equipment. You must, upon request, provide this information to your telephone company.

The REN is useful to determine the quantity of devices you may connect to your telephone line and still have all those devices ring when your telephone number is called. In most but not all areas, the sum of the RENs of all devices connected to one line should not exceed five (5.0). To be certain of the number of devices you may connect to your line, as determined by the REN, you should contact your local telephone company to determine the maximum REN for your calling area.

If your telephone equipment causes harm to the telephone network, the telephone company may discontinue your service temporarily. If possible, they will notify you in advance. But if advance notice is not practical, you will be notified as soon as possible. You will be informed of your right to file a complaint with the FCC.

Your telephone company may make changes in its facilities, equipment, operations or procedures that could affect the proper functioning of your equipment. If they do, you will be notified in advance to give you an opportunity to maintain uninterrupted telephone service.

If you experience trouble with this telephone equipment, please contact Xircom, Inc. at (805) 376-9200 for information on obtaining service or repairs. The telephone company may ask that you disconnect this equipment from the network until the problem has been corrected or until you are sure that the equipment is not malfunctioning.

There are no user serviceable parts contained in this equipment.

This equipment may not be used on coin service provided by the telephone company. Connection to party lines is subject to state tariffs.

## **Canadian Department Of Communications**

#### **Industry Canada (IC) Notice**

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus 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.

**NOTICE:** The Industry Canada (IC) label identifies certified equipment. This certification means that the equipment meets telecommunications network protective, operational and safety requirements as prescribed in the appropriate Terminal Equipment Technical Requirements document(s). The department does not guarantee the equipment will operate to the user's satisfaction.

Before installing this equipment, users should ensure that it is permissible to be connected to the facilities of the local telecommunications company. The equipment must also be installed using an acceptable method of connection. The customer should be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment should be coordinated by a representative designated by the supplier. Any repairs or alterations made by a user to this equipment, or equipment malfunctions, may give the telephone communications company cause to request the user to disconnect the equipment.

## **Regulatory Notices**

Users should ensure for their own protection, that the electrical ground connections of the power utility, telephone lines and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

Caution: Users should not attempt to make such connections themselves, but should contact the appropriate electric inspection authority, or electrician, as appropriate.

**NOTICE:** The Ringer Equivalence Number (REN) assigned to each terminal device provides an indication of the maximum number of terminals allowed to be connected to a telephone interface. The termination on an interface may consist of any combination of devices subject only to the requirement that the sum of the Ringer Equivalence Numbers of all the devices does not exceed 5.

**REN: 0.4** 

IC Registration: 2117-8304A

#### Warranty and Repair Service Center:

Xircom, Inc.

2300 Corporate Center Drive

Thousand Oaks, CA 91320-1420

U.S.A.

Phone: (805) 376-9200

## **Safety Notices**

This card is intended for use with UL 1950/EN60950/IEC950 (or other NRTL) listed ITE computer that contains operator-accessible PCMCIA card slots.

## **British Approvals Board for Telecommunications (BABT)**

The following information is provided in compliance with requirements of the British Approvals Board for Telecommunications (BABT). It includes a sample "Application Form for Installation of Modular Telephone Sockets."

Xircom

CreditCard Ethernet 10/100+Modem 56

User's Guide

p/n 800-0161-001/Revision B September 1997

This user guide refers to:

CreditCard Ethernet 10/100+Modem 56

Manufactured by:Xircom Europe n.v

King Square, De Villermontstraat 16

2550 Kontich, Belgium

#### **Package Contents**

The following items should be included in the package:

Telephone cord and adapter (where appropriate)

Form to request installation of BT type socket (Application Form for Installation of Modular Telephone Sockets).

If any of these items are missing or damaged please contact your supplier.

## **Statutory Notices**

Please take careful note of the following regulatory information.

#### **Network Connection**

In order to connect to the UK national telephone network, the line cords provided with this product are terminated with a BT-style modular plug type 431A. If you do not have BT modular connection sockets, please contact BT Sales to arrange installation. The address and telephone number can be found in your local telephone book.

All references to RJ11 connectors in the User's Guide should be ignored.

The product features and modulation rates include V.34 at data rates up to 33.6 Kbps.

#### **Power Requirements**

All apparatus connected either directly or indirectly to a public telecommunications system requires an approval. However certain attachments (including host computers) are eligible

#### Regulatory Notices

for approval under General approval NS/G/1234/J/10003. Further details of this general approval and the conditions pertaining to it are given in OFTEL update SA29, available from:

The Librarian
OFTEL
Export House
50 Ludgate Hill
London
EC4M 7JJ

This modem is not approved for UK leased line operation.

#### Suitability for Use

If you have any doubt about the suitability, connection or use of this modem consult a suitably qualified person before continuing.

The approval of this modem for connection to British Telecomm Public Switched Telephone Network is invalidated if the modem is subject to any modification in any material way not authorised by BABT or is used with or connected to:

- 1. Internal control software that has not been formally accepted by BABT.
- 2. External control software or external control apparatus which causes the modem or associated call set-up equipment to contravene the requirements of BS6789:Section 3.2

All apparatus connected to this modem and thereby connected directly or indirectly to the public switched telephone network must be approved apparatus as defined in Section 22(10) of the British Telecommunications Act.

The modem is suitable for use on direct telephone lines operated by British Telecommunications PLC, Mercury Communications PLC, and Kingston Communications (Hull) PLC where the specific services of multi-frequency (tone) and/or loop disconnect (pulse) dialing are available;

The modems are not suitable for use as an extension to a payphone, or on shared lines.

This apparatus may be connected to direct exchange lines or Relevant Branch Systems (RBS) as defined in BS6789:Section 6.1 Clause 2.4 or compatible PABX systems. (Including PABXs which return a secondary dial tone). Please contact Xircom for an up-to-date list of compatible PABXs.

This modem may be used on two or three wire signalling systems.

This modem is not suitable for use as an extension to a payphone, or on shared lines.

This modem is intended for use in normal office, household and similar indoor use. It should not be used in damp or humid environments such as bathrooms or swimming pools.

The output power of this modem is fixed and cannot be changed by the user.

The approval mark attached to this product indicates that the modem itself carries BABT approval. No approval is conferred on the host computer or the serially connected computer and the label must not be transferred to the case of the computer. A copy of the approval label may be attached to the telephone line cable. The approval label must not be removed. The text of the approval mark is reproduced below:

APPROVED for connection to telecommunications systems specified in the instructions for use and subject to the conditions set out in them.

The modem does not incorporate circuitry to suppress bell-tinkle during pulse dialing. When used with some electronic ring type telephones and on two wire circuits that bell tinkle will occur during pulse dialing. This is not a fault and we advise you not to call the Fault repair service. This modem is not approved for use with parallel connected telephones when used in public dialing mode.

#### Ringer Equivalence Number (REN)

REN is a customer guide to indicate the maximum number of apparatus that may be connected simultaneously to a single telephone line without affecting the bell (or tone) ringing characteristics of the items connected. The REN of each line connection of the modem is 1. To calculate the maximum number of items that may be connected to a single exclusive telephone line add all the REN values of the connected equipment. The total should be 4 or less. Unmarked telephones are assumed to have a REN of 1. All other equipment must be clearly marked with it REN value. If a REN of 4 is marked on the apparatus, then only apparatus marked with a REN of 0 (zero) are permitted to be connected simultaneously. Because of the wide spread of characteristics a guarantee of successful operation in an installation of mixed types of equipment may not be given by the supplier.

This apparatus has a REN of 1.0 for each line connection.

#### **Hook Flash**

The XircomUser's Guide refers to "Hook Flash' using the "!" dial modifier. For use in the UK this modifier generates a momentary break of 95 ms (not 600 ms) in accordance with UK type approval regulations. This timing is fixed.

#### **Guard Tone**

By default the &Gn command is set to n=2 (1800 Hz).

#### Speaker Control

The Mn command controls the signal presented to the host PC. There is no speaker on the modem itself.

## **Regulatory Notices**

#### **Pulse Dialing**

The &Pn command is provided for software compatibility only. The pulse ratio is fixed at 67:33 and cannot be changed. The setting of this parameter is ignored by the internal control software.

#### **Timing**

The S-Register ranges for S6, S7, S8, and S11 are restricted and cannot be altered outside the UK permissible limits.

## **Repeat Attempts**

The modem cannot initiate repeat call attempts. Ensure that host control software cannot initiate repeat attempts which do not comply with BS6789:Section 3.1 Clause 7 call patterns A,B,C or D. Table 3 call patterns is reproduced here to assist you in ensuring that your software is correctly set.

Table 3 BS6789:Section 3.1 Repeat attempts, number of attempts, and duration between attempts

| Call Attempt       | Minimum<br>pattern | duration b | etween ca | II attempts for call |
|--------------------|--------------------|------------|-----------|----------------------|
| Attempts           | Α                  | В          | С         | D                    |
| Initial attempt    | 5S                 | 5S         | 5S        | 5S                   |
| 1st repeat attempt | 1 min              | 2 min      | 10 min    | 3 min                |
| 2nd repeat attempt | 1 min              | 2 min      | 10 min    | 3 min                |
| 3rd repeat attempt | 1 min              | 2 min      | 10 min    | 3 min                |
| 4th repeat attempt | End of seq         | uence      |           |                      |
|                    | (Note 1)           | 2 min      | 10 min    | 3 min                |
| 6th repeat attempt |                    | 2 min      | 10 min    | 3 min                |
|                    |                    | End of seq | uence     |                      |
| 7th repeat attempt |                    | (Note 1)   | 10 min    | 3 min                |
| nth repeat attempt |                    |            | 10 min    | 3 min                |
|                    |                    |            | (note 2)  | (note 2)             |

Note 1: The maximum number of calls for repeat attempt call pattern A is 5 and for call pattern B is 7.

Note 2: No limit is specified for n.

Note 3: The duration given in table 3 are from cleardown to reseizure.

Extracts from BS6789:Section 3.1:1985 are reproduced with permission of BSL. Complete copies of the standard can be obtained by mail from BSI Sales.

#### Use as an Extension on an Approved PABX

Xircom cannot guarantee that this modem will operate correctly under all possible conditions when connected to compatible PABX equipment. Any cases of difficulty should be reported directly to Xircom.

This modem may not be connected to PABX systems which do not have a BT431A compatible socket connection.

#### **Bell Noise**

This apparatus does not incorporate circuitry to suppress bell-tinkle during dialing. It has been found that when used with some electronic ring type telephones and on two wire circuits that bell tinkle will occur during dialing. This is not a fault and we advise you not to call the Fault repair service.

#### **Identification of Ports**

The modems is fitted with a multi-way connector which provides the power and digital signals to the modem. The RJ11 style connector provides the interface to PSTN.

#### **Network Connection**

The modem is supplied with a lead terminated with a BT modular plug. The connections are as follows:

(PSTN) A Wire 2 B Wire 5

#### **Dialing Modes**

BS6789:Section 3.1 defines three dialing modes. Modes 2 and 3 cover autodialing devices which play recorded messages. Mode 1 provided by this apparatus may be used for all non-emergency (non-999/non-112) calls. Mode 1 specifies that the device must drop the line (hang-up) within 1 minute if it receives the standard BT tones for Number unobtainable, Busy, Equipment engaged or special information. Calls not covered by modes 1,2 or 3 must not be made.

The modem in this unit, since it uses mode 1, cannot be, must not be, used for emergency (999/112) calls.

#### **Available Facilities**

This apparatus has been approved for the use of the following facilities:

- Data transmission speeds up to 33.6kbps and reception speeds up to 56kbps
- Operation to CCITT V21, 22, 22bis, 23, 27, 29, 32, 32bis, 34 signalling rates
- Automatic call initiation
- Detection of initial proceed indication (dialtone) and secondary dialtone
- Operation in the absence of initial proceed indication (blind dialing)
- Automatic dialing using dtmf (tone) or loop disconnect signalling (pulse dialling).
- Tone detection of Dialtone, Ring tone, Busy, Equipment busy, Number unobtainable
- Automatic answering
- Stored and Last Number dialing
- Timed break register recall

Any other usage will invalidate the approval status if as a result, the apparatus then ceases to conform to the standards against which they were tested and approved.

#### **Additional Features**

Since this modem is capable of storing telephone numbers for autodialing, you are required by BS 6789:Section 3.1 to ensure that all stores have been correctly entered. Commands are provided for this purpose.

## **Application Form For Installation Of Modular Telephone Sockets**

#### To the customer:

If your current telephone installation is not equipped with the new modular telephone socket you must have one fitted by your telephone service provider. Please complete this form and return it to your local telephone sales office. You will find the address and telephone number in the your telephone directory.

|         | Name:  |
|---------|--|
|         | Address:   |
|         |  |
|         | Postcode: Telephone Number:  |
|         | ephone Sales:<br>quote for the supply and fitting of a modular telephone socket at the above address |
| The equ | ripment to be connected is:  |
|         |  |
|         | Approval Number:   |
|         | The REN of the equipment is:   |

#### **International Notice**

Due to differing national regulations and approval requirements, certain Xircom products are designed for use only in specific countries, and may not function properly in a country other than the country of designated use. As a user of these products, you are responsible for ensuring that the products are used only in the countries for which they were intended.

For information on specific products, contact Xircom's nearest regional center:

Xircom Corporate (U.S.A.) (800) 438-4526 Xircom Europe +32/(0)3 450.08.11 Xircom Asia Pacific +65 323 1511

#### **Modem Approvals**

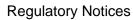
Your modem is approved in the following countries:

| Telecom Network Approvals |
|---------------------------|
|---------------------------|

The telecommunications device in your computer is approved for connection to the telephone network in the countries whose approval markings are indicated on the product label. Additional country approvals may be found on the Compaq web site. To view these approvals, visit http://www.compaq.com and perform a site search for the words "telecom network approvals." If a selection is available for your product, you may view and print the approval marks or numbers.

| Area   | Country     | Approval Number     |
|--------|-------------|---------------------|
| Europe | Austria     | 105473ZB9740        |
|        | Belgium     | BE97MA0587          |
|        | Czech Rep   | T973                |
|        | Denmark     | DK97022533          |
|        | Finland     | F197615065          |
|        | France      | 98004F              |
|        | Germany     | D132976J            |
|        | Ireland     | DOC112/97           |
|        | Italy       | 1998MDSM042         |
|        | Luxembourg  | L 1113/10348-01H    |
|        | Netherlands | NL97211383          |
|        | Norway      | N097000733-D        |
|        | Poland      | 191/98              |
|        | Portugal    | ICP.98.017          |
|        | Slovakia    | test date to be set |
|        | Spain       | 08 98 0234          |

| Area             | Country        | Approval Number                              |  |
|------------------|----------------|--|--|
| Europe           | Sweden         | 97122210                                     |  |
|                  | Switzerland    | BAKOM97.1183.D.N                             |  |
|                  | United Kingdom | 607463                                       |  |
| Asia/<br>Pacific | Australia      | △N66   |  |
|                  | China          | US approval sufficient or no approval needed |  |
|                  | Hong Kong      | See BABT                                     |  |
|                  | India          | No Approval Needed                           |  |
|                  | Indonesia      | No Approval Needed                           |  |
|                  | Japan          | S98-2319-2                                   |  |
|                  | South Korea    | 1GD-MYS-A22-978-1232                         |  |
|                  | Malaysia       | DAFG/65B/0797M                               |  |
|                  | New Zealand    | PTC 211/98/050                               |  |
|                  | Phillipines    | No Approval Needed                           |  |
|                  | Singapore      | PSTN1-FAXM-AF-0713-97                        |  |
|                  | Thailand       | No Approval Needed                           |  |



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