COMPAQ

White Paper

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Microsoft Windows Millennium Edition on Compaq Armada E700, M700, E500, V300, and M300

Abstract: *To enhance the experience of home computer users, Microsoft launched Windows Millennium Edition (Windows Me) in September of 2000. This operating system provides enhancements geared towards improving functionality in the areas of PC health, digital media, home networking and the online experience. The focus of Windows Me is on the home user.*

Customers who prefer an operating system designed for the corporate environment should evaluate Microsoft Windows 2000, which provides a level of stability and security that is well suited for the demands of a corporate user. With enhanced ease of use, management, and security, the total cost of ownership (TCO) benefits of Windows 2000 outweigh those of other operating systems.

For customers who have standardized on a previously released Microsoft operating systems, Compaq will continue to offer Windows NT Workstation 4.0, Windows 95, and Windows 98SE preinstalled on select Armada models.

Compaq has performed testing in order to provide information for those customers who wish to install this unsupported operating system.

This white paper provides a list of software drivers and utilities that have been tested with Windows Me on Compaq Notebook 100 and Armada M300, V300, E500, E700 and M700 Computers. Anomalies that have been observed after upgrading to Windows Me are also documented. This paper does not cover issues that have been documented in the Microsoft readme.txt files and FAQs on the Windows Millennium Edition CD or on the Microsoft Web site at http://www.microsoft.com/Windowsme and http://support.microsoft.com/support/tshoot/default.asp.

This document is intended for Compaq personnel and customers needing information on installing Microsoft Windows Millennium Edition and applicable Compaq value-added drivers and applications on selected Compaq Armada portable products.

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Microsoft Windows Millennium Edition on Compaq Armada E700, M700, E500, V300, and M300
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Introduction

This white paper discusses installing Microsoft Windows Millennium Edition (Me) on selected Compaq Armada portable products. The document provides basic instructions for the installation process and observed anomalies that users may experience after upgrading. The information contained in this white paper is current as of the date of publication. Anomalies other than those documented in this white paper may be experienced. Customers who upgrade to this operating system will not receive the same level of assistance as with our supported operating systems for these Armada platforms. It is recommended that you refer to http://www.compaq.com/support/files/portables/us/index.html for the most current files. Also, since upgrading is a user data destructive process, we can't stress enough:

△ **CAUTION:** You must back up all user data prior to installing or upgrading to Microsoft Windows Millennium Edition.

Requirements and Dependencies

Before beginning the installation for any of the platforms, obtain the items listed below.

During installation of the operating system and Compaq provided deliverables, you will need one blank, high-density floppy diskette to create a startup disk (recommended) and up to three additional, blank, high-density floppy diskettes.

The following items can be obtained directly from Microsoft:

Microsoft Windows Millennium Edition CD, Certificate of Authenticity and documentation

The following items can be obtained from Compaq:

The latest Compaq Support Software CD containing all updated drivers and deliverables needed in the section, "Installation of Compaq Drivers and Enhancements." The Compaq Support Software CD is updated monthly and is available either via an annual subscription or as a one-time purchase. The user interface mirrors the Compaq Website.

Alternatively, all files may be obtained from the Compaq Website at

http://www.compaq.com/support/files/portables/us/index.html .

IMPORTANT: It is highly recommended that you obtain the latest version of the drivers and enhancements for your computer. Previous versions may not work as well or may increase the number of anomalies.

The most current available ROM for your platform. See Appendix A, "Determining your ROM Version and Upgrading if needed," for information on determining your current ROM version and how to update if necessary.

System Requirements

Refer to Microsoft's Windows Me website to ensure your system meets the minimum hardware requirements for installing Windows Me.

http://www.microsoft.com/WindowsMe/

Manual Upgrades

Clean Install

The following guidelines are provided for those customers who are installing Microsoft Windows Me on a clean hard hard drive. This is the recommended method of installation for any operating system.

Before you begin:

It is strongly recommended that the following steps be executed prior to the installation or upgrade of Microsoft Windows Me. Failure to comply with these recommendations may result in an unsuccessful or unstable installation.

1. Backup all files.

2. Make sure that the system is undocked external peripheral devices are disconnected, and there are no PC Cards in the PCMCIA slots when installing the drivers.[1]

3. Since no two-network setups are the same, it is highly recommended that you do not set up any networking components. You should contact your Network Administrators, and have them properly set up the networking portions of Microsoft Windows Me.

4. It is strongly recommended that after all of the additional software programs and drivers have been installed, you update the Emergency Repair Disk by choosing ▦**Start, Programs, Accessories, System Tools, Backup, Emergency Repair Disk.**

Installation Order:

All software must be manually installed in the following order:

1. Checking for Current BIOS.

2. Update the System BIOS ROMpaq.

3. Install the Microsoft Windows Me operating system.

4. Proceed with installation of any components or Compaq enhancements for the appropriate Armada Family and model.

5. Install any user applications that are compatible with Windows Me.

Check and Upgrade BIOS:

Note: It is important that you upgrade your BIOS before installing Windows Me.

1. Start your Armada system using the current operating system.

2. Check for Current BIOS using either;

    a. Computer Setup.

    b. Simultaneously pressing Function + ESC after the Operating System is booted.

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[1] See Appendix C, "First Time Docking" for information on docking your Armada Portable for the first time.

3. Cross check the above revision with the latest release on Compaq's WEB Site (also located in Appendix A) for your Computer model and System BIOS.

4. Download the newer version onto a floppy disk, boot from the disk, and follow the on-screen instructions to install the new System ROM BIOS.

Windows Me OS Installation:

Refer to the Microsoft provided *Quick Start Guide* and follow the instructions listed to install your new copy of the Windows Me Operating System.

Armada Drivers, Utilities and Applications:

SoftPaqs that have been tested with Microsoft Windows Me is available via the Compaq Website.

These files are available at http://www.compaq.com/support/files/portables/us/index.html.

Use the following steps to locate the proper support software:

1. Select the appropriate Armada Family (M700, M300, etc.).

2. Select the model that corresponds with your computer, if necessary.

3. Select Windows 98 from the Operating System list.

4. Select the Locate Software button.

The SoftPaqs required to support the selected family and model will be displayed.

Manual Upgrade from Windows 98:

1. Repeat the steps above listed under the *Before You Begin, Installation Order,* and *Check And Update BIOS* sections.

2. Remove the drivers, utilities and applications by following the instructions in Appendix B.

3. Install Windows Me by following the directions supplied in *Quick Start Guide*.

4. Insert the computer into the docking station, if necessary.

5. Reconnect external peripherals and PC Cards and configure each separately.

Installation of Compaq Drivers and Enhancements

Table 1 lists the Windows 98 versions of drivers and enhancements, available as of the publication of this white paper and used for testing under Windows Millennium. You should always check the Compaq Website for the complete, up-to date list of available drivers and enhancements.

TABLE 1 – COMPAQ SOFTPAQS USED FOR MICROSOFT WINDOWS ME TESTING

Family	Driver/Enhancement	Version	Profile	Install Order
Armada M700/ E700/E500/V300/ M300	System ROMPaq	See Appendix B	Basic	FIRST
	ATI Mobility Video Driver for Windows 98	1.00 A	Basic	SECOND
	M2E Audio Driver	5.12 A	Basic	THIRD
	MultiBay Plug and Play Manager	2.00 E	Basic	FOURTH
	Easy Access Button Software	1.00 B	Basic	N/A
	Hot Key Support	1.00 H	Basic	N/A
	Intel Speedstep Technology Applet	1.00 B	Basic	N/A
	Mini PCI Communications Support Software and Drivers	1.0 A	Basic	N/A
	Compaq Armada Dock Driver	1.20 C	Enhanced	N/A
	Security32	2.20 D	Enhanced	N/A
	WinDVD	1.00 D	Enhanced	N/A
	Diagnostic for Windows 98	3.00 F	Full	N/A
Notebook 100	System BIOS Update	1.12.00 A	Basic	FIRST
	Keyboard ROM Update Utility	1.14.00 A	Basic	SECOND
	Notebook 100 Video Driver	5495-58 A	Basic	THIRD
	Notebook 100 Audio Driver for Windows 98	1.11 A	Basic	FOURTH
	Hibernation Utility	1.00 A	Basic	N/A
	Notebook 100 HSP56 Modem Driver	R2.2 Build 1038	Basic	N/A
	External Keypad Numlock Utility	1.00 A	Basic	N/A
	Diagnostics for Windows	3.01 F	Full	N/A

Observed Anomalies

This sections lists the anomalies that were identified during the functional test of Windows Me on the Compaq Armada M300, V300, E500, E700 and M700 Computers.   No anomalies were observed with the Notebook 100.

ArmadaStation I and II

A faint chirping sound is emitted from the base while docked while running under Windows Me or Windows 2000. Disable the Infrared port in Control Panel to eliminate this behavior.

All models

The notebook may not successfully hot dock or undock if the latest software drivers and utilities are not installed.

When resuming from Standby or Hibernation while docked may generate unstable behavior from the notebook and/or docking station. Enabling any sleep state while docked is not recommended.

Appendices

A. System ROM Versions

To determine your Armada system ROM revision, use either Compaq's Inspect utility or Compaq Diagnostics for Windows. Table 2 shows the latest system ROM BIOS versions at the time of publication of this document.

TABLE 2 - CURRENT COMPAQ ROM VERSIONS

Portable Family	Current System ROM Version
Armada E700/M700	686H_2000.0804 B
Armada E500/V300	686N_2000.0826 A
Armada M300	686R_2000.0808 A

A. First Time Docking

Before docking, you need to ensure that all of the specific drivers and support software for your Armada notebook have been installed. Please refer to table 1 for a list of deliverables that are required. Each deliverable SoftPaq contains installation instructions.

Compaq strongly recommends a "cold dock" for the user's first docking under Microsoft Windows Millennium Edition. Properly shutdown your computer by clicking **Start → Shut Down…** Select "Shut down the computer?" and then click **Yes**. If your system requires to be manually turned off, do so now. Place the computer in the docking station or convenience base and then turn on the unit's power.

A. Removing Software

If you choose to manually upgrade to Windows Me, a number of Compaq value-added drivers, utilities, and applications must be removed from your system. It is highly recommended that these be removed before you install Windows Me. Table 3 outlines this information.

Under Windows 98, applications and utilities can be removed by going to **Start → Settings Control Panel → Add/Remove Programs …**

TABLE 3 – SOFTWARE TO REMOVE

Name
Compaq Floppy Alert (E700 only)
Easy Point IV
Insight Management Agents
Insight Management Web Agents
Netflex-3 Ethernet Drivers
Power Management
Power Management Enhancements
Remote Management
Synaptics TouchPad Driver
System Enhancements

A. SoftPaq Descriptions

These Internet resources are available for installation support for your Armada portable:

TABLE 4 – SOFTPAQ DESCRIPTIONS

Name	Description
3Com Etherlink 10/100 PCI NIC	Supports PCI NIC that is used in select Armada docking station models
3Com Global MiniPCI 56K (V.90) Modem	Enables internal Modem device on select E700 & M700 models
Compaq Check Dock Utility	Identifies supported docking stations for E500 and V300 models
Compaq Floppy Alert (E700 only)	Verifies that the floppy is installed in the correct internal MultiBay
Diagnostics	Provides tools to test hardware components
Easy Point IV	Provides added functionality for the stick pointing device
Hot Key Support	Allows users to quickly access BIOS and Operating System features
Insight Management Agents	Provides asset management, security features and alerting capabilities
Insight Management Web Agents	Provides Web based asset management, security features and alerting capabilities
M2E Audio Driver	Enables the integrated Audio hardware
Mini PCI Communications Support and Drivers	Enables internal Modem and Modem/NIC Combo devices and supports Intel PCI NIC that is used in select Armada docking station models
MultiBay Plug and Play Manager	Provides support for swapping MultiBay devices
Netflex-3 Ethernet Drivers	Enables the integrated network adapter on ArmadaStation I and II
Power Management	Allows users to customize power requirements of the PC to maximize battery life and set up hibernation functionality
Power Management Enhancements	Increases battery life by managing SMART drive data collection
Rage Video Drivers	Enables the integrated Video hardware
Remote Management	Enables system administrator to update client ROM and setup over the network
Security 32	Allows users to access Compaq security options
Synaptics TouchPad Driver	Provides added functionality for the touchpad pointing device
System Enhancements	Provides users with an easy to install compilation of hardware-enabling operating system enhancements and fixes
System ROMPaq	System Firmware
Worldport Application	Allows homologation of 3Com modems

E. Q & A

Why doesn't Compaq provide full support for Windows Me on Armada notebooks?

Microsoft Windows Me has been developed to provide enhanced features for home PCs. Compaq does not support Windows Me on our commercial products. The following Operating Systems are supported on our current Armada E700, M700, E500, M300 and V300 models: Windows 2000, Windows NT 4.0, Windows 98, and Windows 95.

If support is not provided for Windows Me on Armada notebooks, what is the purpose of this white paper?

Testing has been performed on the Armada E700, M700, E500, V300, and M300 families with Windows Me by Compaq Engineering, and it has been found that specific drivers work with some anomalies. Observed anomalies have been documented in this whitepaper for customers who choose install this unsupported OS.

What operating systems will I be able to upgrade to Windows Me?

Windows 95 and Windows 98 will be able to upgrade directly to Windows Me. The upgrade testing performed by Compaq was based on preinstalled Windows 98 SE. No testing was performed on Windows 95 upgrades. It is strongly recommended that anytime an operating system is installed, it is done on a newly formatted hard drive. This typically provides the most satisfactory results.

Is Compaq making Windows Me specific hardware device drivers available for Armada notebooks?

Not for any of our currently shipping products.

Are third-party hardware device drivers available for Windows Me?

Drivers for many devices, including most displays and printers, are included in the OS, but some additional drivers are being made available by hardware vendor. Check with Microsoft for drivers included in the OS or check with the hardware vendor for Windows Me compatible drivers.

What hardware does Windows Me require?

See http://www.microsoft.com/WindowsMe/. You may also want to check Microsoft's Hardware Compatibility List (HCL) at http://www.microsoft.com/hcl/default.asp.