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# Microsoft Windows 2000 Service Pack 2 on Compaq Deskpro, iPAQ and Armada

**Abstract:** This document focuses on the testing and support provided by Compaq for Microsoft Windows 2000 Professional and Service Pack 2 on Compaq *Deskpro*<sup>™</sup>, *iPAQ*<sup>™</sup> & *Armada*<sup>™</sup> products.

Service Pack 2 (SP2) is the latest and most comprehensive update available for Microsoft® Windows 2000®. SP2 is cumulative, featureless, and requires no previous Service Pack to execute its self-contained installation. SP2 is not considered a required upgrade; we recommend that each customer review SP2's documentation, and then determine whether to deploy SP2 based on individual company needs.

For details on Compaq's overall operating system strategy, operating system features, and the installation of additional Service Packs, please refer to the *Operating System Support for Compaq Desktop and Notebook Platforms* White Paper, available October 2001.

This document is intended for Compaq personnel and customers needing information on for Microsoft Windows 2000 Professional and Service Pack 2 on Compaq *Deskpro*<sup>™</sup>, *iPAQ*<sup>™</sup> & *Armada*<sup>™</sup> products, and applicable programs on selected Compaq products.

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## Introduction

For years, Compaq has remained committed to supporting our customer's operating system needs. As new operating systems and service packs are introduced, Compaq engineering teams perform testing to verify compatibility on Compaq products. This allows our customers the pick the operating system and service pack that best suits their computing environment.

Compaq is committed to maintaining stability and consistency across commercial product lines. Since SP2 is not a required upgrade, Compaq recommends that each customer review the SP2 documentation and decide whether to deploy SP2 based on individual company needs. Compaq is dedicated to providing customers who may choose to deploy SP2 with a smooth transition by ensuring that SP2 is tested across a variety of configurations for the Deskpro, Armada, Prosignia and Workstation systems.

This white paper provides a list of tested products and, where applicable, known anomalies when using SP2.

## Tested Products

Systems on which Windows 2000 with Service Pack 2 have been tested include:

- Workstations
  - Professional Workstation AP200
  - Professional Workstation AP250
  - Professional Workstation AP400
  - Professional Workstation AP500
  - Professional Workstation AP550
  - Professional Workstation SP700
  - Professional Workstation SP750
- Desktops
  - Deskpro 2000, 4000, 4000s, 6000 Series
  - Deskpro EP, EN, EN SFF Series (BX)
  - Deskpro EP, EN, EN SFF Series (i810)
  - Deskpro EP, EN, EN SFF, EC Series (i810e)
  - Deskpro EX, EXS Series (i815)
  - Deskpro EN, EN (sff), EN (sff-v), EN (sff-na) Series (i815e)
  - Deskpro EN, EN SFF Series (i820)
  - iPAQ, iPAQ Legacy-Free (i810e)
  - iPAQ, iPAQ Legacy-Free (i815e)
  - Deskpro EXS Series (850)

- Desktops (continued)
  - Prosignia 310, 320, 340
  - Deskpro Workstation AP240
  - Deskpro Workstation 300
- Notebooks
  - Evo Notebook N400c
  - Armada 110
  - Armada E700
  - Armada M700
  - Armada M300
  - Armada E500
  - Armada V300
  - Armada 7400/7800
  - Armada 1500c
  - Armada 1750
  - Armada 3500

## Installation tips for Service Pack 2

When installing Service Pack 2, Compaq recommends the following considerations be made:

- If you have sufficient Hard Drive space we recommend that you accept the option to “Backup files necessary to uninstall this Service Pack at a later time” during the SP2 installation.

## Known Anomalies

### Power Management

#### **Anomaly:**

System standby issues occur on certain Compaq Deskpro systems.

#### **Description:**

This issue occurs with all Nvidia cards running native Windows 2000 Nvidia drivers on systems with 686P2 & 686P3 ROM BIOS. The results vary depending on which BIOS version is used. Using BIOS version 2.08 or higher, systems will only enter S1 standby state. Using BIOS version 2.04, systems will enter S3 standby, but hang when resuming.

#### **Systems Affected:**

Deskpro EN, Deskpro EN (sff), Deskpro EN (sff-v), using the 815e chipset.

**Video Adapters Affected:**

Nvidia Synergy III, Nvidia Gloria III, Nvidia G400 Pro, NvidiaM64 32MB, Nvidia M64 TNT2 16MB, Nvidia nV10 32MB, Nvidia NV15, Nvidia Riva TNT2, Nvidia Riva TNT2 8MB, Nvidia TNT Pro, Nvidia TNT2 Pro, and Nvidia Vanta

**Resolution:**

This issue is not resolved with Windows 2000 SP1 or SP2.

This issue is not seen after upgrading the nVIDIA Video Drivers for Windows 2000. The drivers can be found on Compaq.com web site <http://www.compaq.com/support/files>.

**Anomaly:**

System Hibernation issues may occur on certain Compaq Armada docking bases.

**Description:**

Hibernation is not supported in legacy docking bases. System may hang when resuming.

**Systems Affected:**

Armada 7400, 7800, E700 and M700 models.

**Docking Bases Affected:**

ArmadaStation I and II.

**Resolution:**

Customers are advised not to hibernate when using the affected products.

## UPDATES IN SP2

This section outlines some of the Key Updates of Windows 2000 Service Pack 2.

### Summary:

Service Pack 2 (SP2) is a collection of updates that improve the performance of Windows 2000. The main areas addressed by SP2 are:

- Application and hardware compatibility
- Windows 2000 setup
- Operating system reliability
- Security, including the latest updates for known Windows 2000 security issues

For more information, reference:

<http://www.microsoft.com/windows2000/downloads/servicepacks/sp2/default.asp>

Some of the key SP2 enhancements are listed below.

### ***Application and hardware compatibility features added***

- Support for ATA 100 (Mode 5) for IDE hard disks. All ATA 100 IDE hard disks that are used with Windows 2000 default to ATA 66 (Mode 4).

### ***Operating System Reliability issues addressed***

- 16-bit PC Card devices that rely on interrupt sharing may not work with Windows 2000 when your computer resumes from Suspend mode.
- After a computer resumes from hibernation. Universal Serial Bus (USB) devices may be missing.

### ***Windows 2000 Setup issues addressed***

- When you use Remote Installation Service (RIS) to install an operating system on a legacy-free computer, RIS takes much longer to install the operating system than it takes to install the operating system on a computer that is not legacy free.

# INSTALLATION GUIDE

## SYSTEM REQUIREMENTS

- **Operating System.**  
Windows 2000 Professional, Windows 2000 Server, or Windows 2000 Advanced Server
- **Disk Space.**  
The recommended space requirements depend on whether you install the Service Pack from the CD or from Microsoft's Web site. The Web download requires additional space to store the files which are normally stored on the Service Pack CD. For details see Space Requirements for the Service Pack listed in the htm file on the Windows 2000 SP2 CD or SP2 stand alone CD.

### Installing from the Service Pack 2 CD Stand Alone.

**IMPORTANT:** Compaq recommends that the user read through the READMESP.HTM file included on the SP2 CD before installing SP2 on their system.

This method starts W2ksp2.exe from the CD by means of the autorun.

1. Insert the Service Pack 2 CD into your CD-ROM drive.
2. If a Web page opens in your browser, select from the Contents area -"Install Service Pack 2."

If a Web page does not automatically open when you insert the CD, explore the cd and click on the W2ksp.exe or from a command prompt type d:\w2ksp.exe where D:\ represents your CD-ROM drive.

If Setup prompts you to download or to save it to disk, click Run this program from its current location, and then click OK.

3. Follow the instructions that appear.

## Using the Integrated Installation Method to Install Windows 2000 and Service Pack 2

The integrated service pack includes the original Windows 2000 product integrated with the Service Pack 2 files. The Service Pack 2 files that are part of this integrated service pack are a collection of updates for Microsoft Windows 2000. So, if you use this CD to install Windows 2000, you are also automatically installing Service Pack 2 (SP2).

## Important

- After you install the integrated service pack, your system security is set to a high encryption level (128-bit) in order to offer better online and local security and bring your system on par with the new worldwide standard of 128-bit encryption. After you install the integrated service pack, you cannot revert to 56-bit encryption on your system.
- You cannot uninstall a service pack that you install as an integrated service pack.

## Important

You cannot use this Windows 2000 integrated installation to update Windows Millennium Edition, Windows 2000 Professional, Windows 2000 Server, Windows 2000 Advanced Server, Windows 2000 Datacenter Server, or Windows 2000 with Server Appliance Kit.

For more information about this issue, go to <http://www.betaplace.com>.

- The Setup.exe program supports a new installation that integrates the Service Pack with the Windows 2000 installation. You no longer need to perform separate installations of the operating system and the Service Pack.

## Software Delivery

Delivery methods for software updates available for Compaq commercial computers include:

- Compaq Support Software CD
- Compaq Worldwide Web Site and Download Facility

### Compaq Support Software CD

The Compaq Support Software CD (SSCD) includes updated drivers and utilities for Compaq commercial notebook, desktop, and workstation computers. Key drivers and utilities for Deskpro and Armada computers are included on the Compaq SSCD. The user interface is in English, French, Italian, German, Spanish, and Japanese. The Compaq SSCD is updated regularly and is available either through an annual subscription or as a one-time purchase. Subscriptions can be purchased through Compaq Customer Support or from a Compaq authorized dealer.

### Compaq Worldwide Web Site and Download Facility

Individual drivers and utilities can be downloaded, in the form of SoftPaqs, from the Compaq Download Facility or from the Compaq Web site at <http://www.compaq.com/support/files> or <ftp://ftp.compaq.com>. SoftPaqs provide a distribution method for driver and ROM updates and product software enhancements. Multiple files and bootable diskettes can be distributed conveniently and electronically through diskettes or the Web.



Table 1 lists the *SoftPaq*<sup>™</sup> files that are currently available. Refer to the Compaq Web site regularly for updates.

**Table 1. SoftPaq Descriptions**

<b>SoftPaq</b>	<b>Description</b>
3Com Etherlink 10/100 PCI NIC	Supports PCI NIC that is used in select Armada docking station models
3Com Global Mini PCI 56K (V.90) Modem	Enables the internal modem device on select E700 and M700 models
Adaptec Ultra160 SCSI Drivers	Enables Compaq/Adaptec Ultra160(29160 and 29160N) SCSI Controllers in select Deskpro models
Altiris Express Client	Enables software deployment, configuration, and migration
BioLogon Security System Drivers	Provides drivers for Fingerprint Identification hardware
CardWare (Notebooks)	Enables hot-plug capability and CardBus support under Windows NT 4.0
Compaq ActiveUpdate	Web based tool that provides early notification & delivery of software updates
Compaq Application Installer	Provides a convenient method for installing preloaded software
Compaq Check Dock Utility (Notebooks)	Identifies supported docking stations for V300 models
Compaq Internal 56K PCI Modem Driver	Enables the internal modem device on select Deskpro models
Compaq Internet Favorites	Includes Internet shortcuts for regional Compaq sites
Compaq Knowledge Center Software	Web based tool that provides on-line resolution of technical issues.
Deskpro ATA-100 Hard Drive Support	Support for ATA-100 (Mode 5) on select Deskpro models running Windows 2000 with SP1 (Note: ATA-100 support is included with SP2)
Deskpro Intel 815 Chipset Support	Support for Intel Chipsets under Windows operating systems
Diagnostics	Provides tools to test hardware components
Easy Access Buttons Software	Enables the use of integrated Easy Access buttons
Easy Point IV (Notebooks)	Provides added functionality for the pointing stick device
Hot Key Support (Notebooks)	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
Audio Driver (ADI, Creative Labs, ESS, Intel)	Enables the integrated audio hardware
Logitech MouseWare Software	Provides added functionality for the Logitech pointing devices
Lucent 56K v.90 Win Modem Driver	Enables the Lucent modem on select Deskpro models
Mini PCI Communications Support and Drivers (Notebooks)	Enables internal modem and modem/NIC combination devices and supports Intel PCI NIC that is used in select Armada docking station models
MultiBay Plug and Play Manager (Notebooks and iPAQ)	Provides support for MultiBay devices in the computer and docking base
Netflex-3 Ethernet Drivers (Notebooks)	Enables the integrated network adapter on ArmadaStation I and II
Power Management (Notebooks)	Allows users to customize power requirements of the computer to maximize battery life and set up hibernation functionality
Power Management Enhancements (Notebooks)	Increases battery life by managing SMART drive data collection
Video Drivers (ATI, Intel, Matrox, NVIDIA)	Enables the video hardware
Remote Management	Enables system administrators to update client ROM and setup over the network
Security Management (Notebooks)	Allows users to access Compaq security options
Synaptics TouchPad Driver (Notebooks)	Provides added functionality for the TouchPad pointing device
System Enhancements	Provides users with an easy-to-install compilation of operating system enhancements
System ROMPaq	Updates System ROM BIOS (Read Only Memory/Basic Input Output System)

## Frequently Asked Questions

### Should I upgrade to Service Pack 2?

Each customer's computing environment is different. While a number of enhancements have been provided with SP2, these may not improve performance for all customers. Compaq and Microsoft recommend that each customer review SP2's documentation, and then determine whether to deploy SP2 based on specific needs.

### Do I need to reinstall the Service Pack if I change system drivers?

No, unlike Windows NT you do not need to reinstall the service pack after changing system drivers or network protocols.

## References

For the Windows 2000 Service Pack 2 FAQ from Microsoft, visit:

<http://www.microsoft.com/windows2000/support/issues/sp2faq.asp>

For comprehensive online support, visit the Compaq Web site at:

<http://www.compaq.com>

For international information, visit the Compaq Web site at:

[http://www.compaq.com/corporate/overview/world\\_offices.html](http://www.compaq.com/corporate/overview/world_offices.html)

**Table 1. Departments and Telephone Numbers for Canada and the United States**

Department	Telephone Numbers
Consumer Direct	1-800-888-0220
Compaq DirectPlus	1-800-888-5858 (U.S.)
Compaq Partner Direct	1-800-888-5874
Compaq Reseller Locator	1-800-345-1518 (Option 3)
Compaq Canadian Reseller Locator and Product Literature	1-800-567-1616
Diskette Fulfillment (backup diskettes for preinstalled software)	1-800-952-7689 (U.S.) 1-800-349-8498 (Canada)
Compaq Product Information	1-800-345-1518 (U.S.) 1-800-567-1616 (Canada)
Compaq Technical Support	1-800-OK-COMPAQ (U.S. and Canada) 1-800-652-6672