Computer Setup (F10) Utility Guide

HP Compaq dx2200 Microtower Business PC

Document Part Number: 413759-001

January 2006

This guide provides instructions on how to use Computer Setup. This tool is used to reconfigure and modify computer default settings when new hardware is installed and for maintenance purposes.

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Computer Setup (F10) Utilities

Use Computer Setup (F10) Utility to do the following:

- Change factory default settings.
- Set the system date and time.
- Set, view, change, or verify the system configuration, including settings for processor, graphics, memory, audio, storage, communications, and input devices.
- Modify the boot order of bootable devices such as hard drives, diskette drives, optical drives, or USB flash media devices.
- Restrict a device from booting the unit.
- Run hard drive self-tests.
- View CPU and system temperatures.
- Enter the Asset Tag or property identification number assigned by the company to this computer.
- Establish a supervisor password that controls access to Computer Setup (F10) Utility and the settings described in this section.
- To secure integrated I/O functionality, including the serial, USB, or parallel ports, audio, or embedded NIC, so that they cannot be used until they are unsecured.
- Enable or disable removable media boot ability.
- Enable or disable legacy diskette write ability (when supported by hardware).

Using Computer Setup (F10) Utilities

Computer Setup can be accessed only by turning the computer on or restarting the system. To access the Computer Setup Utility menu, complete the following steps:

1. Turn on or restart the computer. If you are in Microsoft Windows, click **Start > Shut Down > Restart**.
2. As soon as the computer is turned on, press and hold the **F10** key until you enter Computer Setup.

If you do not press the **F10** key at the appropriate time, you must restart the computer and press and hold the **F10** key again to access the utility.

3. The Computer Setup Utility screen is divided into menu headings and actions.

   Eight menu headings appear on the Computer Setup Utility screen:

   - ❏ System Information
   - ❏ Standard CMOS Features
   - ❏ Advanced BIOS Features
   - ❏ Advanced Chipset Features
   - ❏ Integrated Peripherals
   - ❏ Power Management Setup
   - ❏ PnP/PCI Configurations
   - ❏ PC Health Status

Four action choices are listed on the Computer Setup Utility screen:

- ❏ Load Optimized Defaults
- ❏ Set Supervisor Password
- ❏ Set User Password
- ❏ Save & Exit Setup
- ❏ Exit Without Saving

Use the arrow keys to select the appropriate heading, then press **Enter**. Use the arrow (up and down) keys to select the option you want, then press **Enter**. To return to the previous screen, press **Esc**.

4. To apply and save changes, press **F10** or select **Save & Exit Setup** on the Computer Setup Utility screen and press **Enter**.

   If you have made changes that you do not want applied, select **Exit Without Saving** and press **Enter**.

CAUTION: Do NOT turn the computer power OFF while the ROM is saving the F10 Computer Setup changes because the CMOS could become corrupted. It is safe to turn off the computer only after exiting the F10 Setup screen.

Computer Setup		
Heading	**Option**	**Description**
System Information	Product Name	(view only)
	SKU Number	(view only)
	Processor Type	(view only)
	Processor Speed	(view only)
	CPUID/Patch ID	(view only)
	Cache Size	(view only)
	Memory Size	(view only)
	System ROM	(view only)
	Integrated MAC	(view only)
	UUID	(view only)
	System Serial #	(view only)
	Asset Tracking Number	(view only)
	Enter Asset Tag No.	Enter asset tag number assigned by the company (maximum 18 characters).
	CPU Clock Ratio	(view only)
Standard CMOS Features	Date (mm:dd:yy)	Allows you to set system date.
	Time (hh:mm:ss)	Allows you to set system time.

✎ Support for specific Computer Setup options may vary depending on the hardware configuration.

Computer Setup *(Continued)*

Heading	Option	Description
Standard CMOS Features *(continued)*	PATA Controller	Disables/enables PATA Controller

	PATA Ch 0 Master
	PATA Ch 0 Slave
		For each, if PATA HDD is used, allows you to:
		• run HDD self-test for selected channel:
		  • SMART Status Check
		  – Target Disk
		  – SMART
		  – SMART Status Check
		  • HDD Short Self-Test
		  – Target Disk
		  – Estimated Test Time
		  – Start Test
		  • HDD Extended Self-Test
		  – Target Disk
		  – Estimated Test Time
		  – Start Test
		• set device details on selected channel to:
		  • None
		  • Auto
		  • Manual
		• set access mode on selected channel to:
		  • CHS (Cylinder-Head-Sector)
		  • LBA (Logical Block Addressing)
		  • Large
		  • Auto
		• view:
		  • Firmware Version
		  • Capacity
		  • Cylinder
		  • Head
		  • Precomp
		  • Landing Zone
		  • Sector

✎ Support for specific Computer Setup options may vary depending on the hardware configuration.

Computer Setup *(Continued)*

Heading	Option	Description
Standard CMOS Features *(continued)*	SATA Controller	Disables/enables onboard SATA controller.

	SATA Ch 1 Master
	SATA Ch 2 Master
		For each, allows you to:
		• run HDD self-test for selected channel:
		  • SMART Status Check
		  – Target Disk
		  – SMART
		  – SMART Status Check
		  • HDD Short Self-Test
		  – Target Disk
		  – Estimated Test Time
		  – Start Test
		  • HDD Extended Self-Test
		  – Target Disk
		  – Estimated Test Time
		  – Start Test
		• set extended IDE drive on selected channel to:
		  • None
		  • Auto
		• set access mode on selected channel to:
		  • Large
		  • Auto
		• view:
		  • Firmware Version
		  • Capacity
		  • Cylinder
		  • Head
		  • Precomp
		  • Landing Zone
		  • Sector

	Floppy Controller	Disables/enables the floppy disk controller.

✎ Support for specific Computer Setup options may vary depending on the hardware configuration.

Computer Setup *(Continued)*

Heading	Option	Description
Standard CMOS Features *(continued)*	Drive A	Allows you to set Drive A to None or 1.44M, 3.5 in. (Used to disable/enable Drive A in legacy operating systems).
	Halt On	Allows you to set POST error behavior to: • All Errors • No Errors • All but Keyboard • All but Diskette • All but Diskette/Keyboard
	POST Delay	Allows you to set a POST delay to: • 0 seconds • 5 seconds • 10 seconds • 15 seconds • 30 seconds
Advanced BIOS Features	Device Boot Disabling	Allows you to restrict a device from booting the unit. You can disable as a bootable device: • None • USB • Internal ODD • Internal FDD • USB + ODD + FDD
	F9 Boot Menu	Disables/enables F9 Boot Menu.
	Removable Device Boot Seq.	Allows you to specify the order of attached removable devices (such as Legacy Floppy or USB FDD). The first drive in the order has priority in the boot sequence and is recognized as drive A.

✎ Support for specific Computer Setup options may vary depending on the hardware configuration.

Computer Setup *(Continued)*

Heading	Option	Description
Advanced BIOS Features *(continued)*	Hard Disk Boot Seq.	Allows you to specify the order of attached hard drive devices (such as USB HDD storage, USB2 Drive Key, or USB flash media). The first drive in the order has priority in the boot sequence and is recognized as drive C (if any devices are attached).
	Optical Drive Boot Seq.	Allows you to specify the order in which attached optical drives (including USB ODD) are checked for a bootable operating system image.
	Network Boot Seq.	Allows you to specify the order in which network devices (including UP NIC cards) are checked for a bootable operating system image.
	First Boot Device Second Boot Device Third Boot Device Fourth Boot Device	Allows you to specify which devices will boot first, second, third, and fourth or to disable any of the four: • Removable • Hard Disk • Optical Drive • Network • Disabled ✎ MS-DOS drive lettering assignments may not apply after a non-MS-DOS operating system has started.
	Boot Up NumLock Status	Allows you to set the default NumLock status to off or on.
	Security Option	Allows you to set the security option to Setup or Always so that the password is required every time the system boots or only when entering Computer Setup.

✎ Support for specific Computer Setup options may vary depending on the hardware configuration.

Computer Setup *(Continued)*

Heading	Option	Description
Advanced BIOS Features *(continued)*	APIC Mode	Disables/enables the Advanced-PIC mode.
	MPS Version Control for OS	Allows you to set the MPS table version to: • 1.1 • 1.4
	BIOS Write Protection	Disables/enables BIOS upgrading.
	Execute Disable Bit	Disables/enables Execute Disable Bit (XD) functionality, which prevents malicious buffer overflow attacks.
	E.I.S.T.	Disables/enables Enhanced Intel SpeedStep Technology, which reduces processor power consumption.
Advanced Chipset Features	UMA Frame Buffer	Select the UMA (Unified Memory Architecture) frame buffer size: • 32MB • 64MB • 128MB • Auto
	Init Display First (VGA Setting)	Allows you to select the primary display device: • PCI Slot • OnChipVGA • PCIEx
	SURROUNDVIEW	Disables/enables SURROUNDVIEW (available when an ATI PCIEx video card is installed).
	Auto Detect PCI Clk (VGA Setting)	Disables/enables PCI clock auto-detection.

✎ Support for specific Computer Setup options may vary depending on the hardware configuration.

Computer Setup *(Continued)*

Heading	Option	Description
Integrated Peripherals	Onboard HD Audio	Disables/enables onboard HD audio.
	OnChip USB Controller	Disables/enables USB controller.
	USB Legacy Support	Disables/enables USB legacy support function (USB keyboard, USB mouse, and DiskOnKey).
	Onboard LAN	Disables/enables onboard LAN controller.
	Onboard LAN Boot ROM	Disables/enables the boot ROM of the onboard LAN chip.
	Onboard Serial Port	Allows you to select a setting for the onboard serial port: • Disabled • 3F8/IRQ4 • 2F8/IRQ3 • 3E8/IRQ4 • 2E8/IRQ3
	Onboard Parallel Port	Allows you to select a setting for the onboard parallel port: • Disabled • 378/IRQ7 • 278/IRQ5 • 3BC/IRQ7
	Parallel Port Mode	Allows you to select parallel port mode: • SPP • EPP • ECP • ECP+EPP • Normal

✎ Support for specific Computer Setup options may vary depending on the hardware configuration.

Computer Setup *(Continued)*

Heading	Option	Description
Integrated Peripherals *(continued)*	ECP Mode Use DMA	If Parallel Port Mode is set to ECP or ECP+EPP, allows you to set the DMA channel for ECP Mode to 1 or 3.
Power Management Setup	ACPI Suspend Type	Allows you to set type of ACPI sleep mode: • S1 (Power On Suspend) • S3 (Suspend To RAM) • S1 & S3
	After AC Power Loss	Allows you to select system power loss behavior: • On • Off • Last State
	External Modem S5 Wake-Up	Disables/enables wake-up modem from S5.
	RTC Alarm Resume	Disables/enables RTC alarm.
	Date (of Month)	If RTC Alarm Resume is enabled, allows you to select the day of the month for resumption of RTC alarm. (Set to 0 for every day.)
	Resume Time (hh:mm:ss)	If RTC Alarm Resume is enabled, allows you to select what time the RTC alarm will resume.
PnP/PCI Configurations	Reset Configuration Data	Disables/enables automatic reconfiguration. The default is Disabled. Select Enabled to reset Extended System Configuration Data (ESCD) when you exit Setup, if you have installed a new add-on and the system reconfiguration has caused such a serious conflict that the OS cannot boot.

✎ Support for specific Computer Setup options may vary depending on the hardware configuration.

Computer Setup *(Continued)*

Heading	Option	Description
PnP/PCI Configurations *(continued)*	Resources Controlled By	Allows you to select whether resources are controlled automatically or manually: • Auto (ESCD–Extended Storage Configuration Data) • Manual BIOS can automatically configure all the bootable and Plug-and-Play-compatible devices. If you choose Auto, you cannot select IRQ, DMA and memory base address fields since BIOS automatically assigns them.
	IRQ Resources • IRQ-3 assigned to • IRQ-4 assigned to • IRQ-5 assigned to • IRQ-7 assigned to • IRQ-10 assigned to • IRQ-11assigned to • IRQ-14 assigned to • IRQ-15 assigned to	When resources are controlled manually, allows you to assign each system interrupt a type, depending on the type of device using the interrupt. Legacy ISA for devices compliant with the original PC AT bus specification, PCI/ISA PnP for devices compliant with the Plug-and-Play standard whether designed for PCI or ISA bus architecture.
	Maximum Payload Size	Allows you to set TLP payload size for the PCI Express Devices to (in bytes): • 128 • 256 • 512 • 1024 • 2048 • 4096

✎ Support for specific Computer Setup options may vary depending on the hardware configuration.

Computer Setup *(Continued)*

Heading	Option	Description
PC Health Status	System Fan Fail Check	Disables/enables system fan detection during POST.
	Smart Fan Function	Disables/enables smart fan functionality.
	Current CPU Temperature	(view only)
	Current System Temperature	(view only)
	Current CPU Fan Speed	(view only)
	Current System Fan Speed	(view only)
	Vcore	(view only)
	+12V	(view only)
	VCC5	(view only)
	+3.3V	(view only)
	VBAT (V)	(view only)
	3VSB (V)	(view only)
Load Optimized Defaults		Allows you to reset Computer Setup to factory defaults.
Set Supervisor Password		Allows you to establish a password to control access to Computer Setup.
Set User Password		Allows you to establish a password to control access to the computer. (Supervisor password must be set before you can set a User password.)
Save & Exit Setup		Allows you to save current settings and exit Computer Setup.
Exit Without Saving		Allows you to exit Computer Setup without saving changes.

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Recovering the Configuration Settings

Recovering the configuration settings established in the Computer Setup (F10) Utility requires that you first back up the settings before a recovery is needed.

The CMOS Save/Load utility can be found at http://www.hp.com under the Software & Driver Downloads for your specific model. Download the firmware files into a folder on a removable storage device. It is recommended that you save any modified computer configuration settings to a diskette, a USB flash media device, or a diskette-like device (a storage device set to emulate a diskette drive) and save the diskette or device for possible future use.

Backing up the CMOS

1. Make sure the computer to be backed up is turned on. Connect the removable storage to the computer.
2. Boot to DOS.
3. Type ***N*:\folder\BIOS.exe SAVE:ABC001.DAT** (where ***N*** is the drive letter of the removable storage) to save the CMOS setting to the removable storage device.

Restoring the CMOS

1. Make sure the target computer is turned on. Connect the removable storage to the target computer.
2. Boot to DOS.
3. Type ***N*:\folder\BIOS.exe LOAD:ABC001.DAT** (where ***N*** is the drive letter of the removable storage) to load the custom CMOS setting onto the target system.