COMPAQ

Computer Setup Guide
Evo Desktop Family
Evo Workstation Family
Deskpro Workstations

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This guide provides instructions on how to use Computer Setup utilities, a software tool installed on the hard drive. This tool is used to reconfigure and modify computer default settings when new hardware is installed and for maintenance purposes.

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

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

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Computer Setup Utilities (F10)

Use Computer Setup to do the following:

- Change factory default settings.

- Set the system date and time.

- Set, view, change, or verify the system configuration, including settings for processor, graphics, memory, audio, storage, communications, and input devices.

- Modify the boot order of bootable devices such as hard drives, diskette drives, CD-ROM drives, DVD-ROM drives, or LS-120 drives.

- Configure the boot priority of IDE and SCSI hard drives controllers.

- Configure Quiet Drive options (for drives that support this feature).

- Enable Quick Boot, which is faster than Full Boot but does not run all of the diagnostic tests run during a Full Boot. You can set your system to:

  ❏ always Quick Boot (default);

  ❏ periodically Full Boot (from every 1 to 30 days); or

  ❏ always Full Boot.

- Enable or disable Network Server Mode, which allows the computer to boot the operating system when the power-on password is enabled, with or without a keyboard or mouse attached. When attached to the system, the keyboard and mouse remain locked until the power-on password is entered.

- Select Post Messages Enabled or Disabled to change the display status of Power-On Self-Test (POST) messages. Post Messages Disabled suppresses most POST messages, such as memory count, product name, and other non-error text messages. If a POST error occurs, the error is displayed regardless of the mode selected. To manually switch to Post Messages Enabled during POST, press any key (except **F1** through **F12**).

- Establish an Ownership Tag, the text of which is displayed each time the system is turned on or restarted.

- Enter the Asset Tag or property identification number assigned by your company to this computer.

- Enable the power-on password prompt during system restarts (warm boots) as well as during power-on.

- Establish a setup password that controls access to Computer Setup (**F10**) and the settings described in this section.

- To secure 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 Master Boot Record (MBR) Security.

- Enable or disable removable media boot ability.

- Enable or disable removable media write ability.

- Solve system configuration errors detected but not automatically fixed during the Power-On Self-Test (POST).

- Replicate your system setup by saving system configuration information on diskette and restoring it on one or more computers.

- Execute self-tests on a specified IDE hard drive.

- Configure various energy-saving features including energy saver mode, system and hard drive timeouts, power button mode, and power LED behavior.

- Enable or disable DriveLock security.

Using Computer Setup Utilities

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

1. Turn on or restart the computer. If you are in Windows, click Start > Shut Down > Restart the Computer.

2. When the F10 = Setup message is displayed in the lower-right corner of the screen, press the **F10** key.

✎ If you do not press the **F10** key while the message is displayed, you must restart the computer again to access the utility.

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

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

5. Use the Tab key to select the appropriate heading. Use the arrow keys to select the option you want, then press the **Enter** key. To return to the Computer Setup Utilities menu, press the **Esc** key.

6. To apply and save changes, select File > Save Changes and Exit.

   ❏ If you selected an option that automatically restarted the computer, changes were applied at that time.

   ❏ If you have made changes that you do not want applied, select Ignore Changes and Exit.

   ❏ If you have already applied changes you now want to eliminate, select Set Defaults and Exit. This option will restore the original factory system defaults.

Computer Setup

Heading	Option	Description
File	System Information	Lists: • Product name • Processor type/speed/stepping • Cache size (L1/L2) • Installed memory size • System ROM (includes family name and version) • System board revision • Chassis serial number • Asset tracking number • Integrated MAC address for embedded, enabled NIC (if applicable)
	About	Displays copyright notice.
	Set Time and Date	Allows you to set system time and date.
	Save to Diskette	Saves system configuration, including CMOS, to a blank, formatted 1.44-MB diskette.
	Restore from Diskette	Restores system configuration, including CMOS, from a diskette.
	Set Defaults and Exit	Restores factory default settings, which includes clearing any established passwords.
	Ignore Changes and Exit	Exits Computer Setup without applying or saving any changes.
	Save Changes and Exit	Saves changes to system configuration and exits Computer Setup.

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

Computer Setup *(Continued)*

Heading	Option	Description
Storage	Device Configuration	Lists all installed storage devices. When a device is selected, detailed information and options are displayed. The following options may be presented:
		Diskette Type
		Identifies the highest capacity media type accepted by the diskette drive.
		Legacy Diskette Drives
		Options are 3.5" 1.44 MB, 3.5" 720 KB, 5.25" 1.2 MB, 5.25" 360 KB, and Not Installed.
		Multibay Superdisk Drives
		Options are LS-120 and LS-260.
		Drive Emulation
		Allows you to select a drive emulation type for a storage device. (For example, a Zip drive can be made bootable by selecting diskette emulation.)
		LS-120 and ATAPI Zip Drives

Drive Type	Emulation Options
IDE LS-120	None (treated as diskette drive)
	Disk (treated as hard drive)
ATAPI Zip drive	None (treated as Other)
	Diskette (treated as diskette drive)
	Disk (treated as hard drive)

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

Computer Setup *(Continued)*

Heading	Option	Description
Storage *(continued)*	Device Configuration *(continued)*	**Drive Emulation** *(continued)*

		IDE Devices	
		Drive Type	**Emulation Options**
		Hard Disk	No emulation options available.
		Diskette	None (treated as diskette drive)
			Disk (treated as hard drive)
		CD-ROM	None (treated as CD-ROM drive)
			Diskette (treated as diskette drive)
			Disk (treated as hard drive)

Transfer Mode *(IDE devices only)*
Specifies the active data transfer mode.
Options (subject to device capabilities) are
PIO 0, Max PIO, Enhanced DMA,
Ultra DMA 0, and Max UDMA.

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

Computer Setup *(Continued)*

Heading	Option	Description
Storage *(continued)*	Device Configuration *(continued)*	**Translation Mode** *(IDE disks only)* Lets you select the translation mode to be used for the device. This enables the BIOS to access disks partitioned and formatted on other systems and may be necessary for users of older versions of UNIX (e.g., SCO UNIX version 3.2). Options are Bit-Shift, LBA Assisted, User, and None. ⚠ **CAUTION:** Ordinarily, the translation mode selected automatically by the BIOS should not be changed. If the selected translation mode is not compatible with the translation mode that was active when the disk was partitioned and formatted, the data on the disk will be inaccessible.
		Translation Parameters *(IDE Disks only)* Allows you to specify the parameters (logical cylinders, heads, and sectors per track) used by the BIOS to translate disk I/O requests (from the operating system or an application) into terms the hard drive can accept. Logical cylinders may not exceed 1024. The number of heads may not exceed 256. The number of sectors per track may not exceed 63. These fields are only visible and changeable when the drive translation mode is set to User.

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

Computer Setup *(Continued)*

Heading	Option	Description
Storage *(continued)*	Device Configuration *(continued)*	**Multisector Transfers** *(IDE ATA devices only)* Specifies how many sectors are transferred per multi-sector PIO operation. Options (subject to device capabilities) are Disabled, 8, and 16.
		Quiet Drive *(This feature is supported on select models only.)* • Performance—Allows the drive to operate at maximum performance. • Quiet—Reduces noise from the drive during operation. When set to Quiet, the drive will not operate at maximum performance. ✎ If the drive does not support Quiet mode, the Quiet Drive option will not be displayed.
	Options	**Removable Media Boot** Enables/disables ability to boot the system from removable media.
		Removable Media Write Enables/disables ability to write data to removable media. ✎ This feature applies only to legacy diskette, IDE LS-120 Superdisk, IDE LS-260 Superdisk and IDE PD-CD drives. ✎ After saving changes to Removable Media Write, the computer will restart. Turn the computer off, then on, manually.

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

Computer Setup *(Continued)*

Heading	Option	Description
Storage *(continued)*	Options *(continued)*	**Primary IDE Controller** Allows you to enable or disable the primary IDE controller.
		Secondary IDE Controller Allows you to enable or disable the secondary IDE controller.
		Diskette MBR Validation Allows you to enable or disable strict validation of the diskette Master Boot Record (MBR). ✎ If you use a bootable diskette image that you know to be valid, and it does not boot with Diskette MBR Validation enabled, you may need to disable this option in order to use the diskette.
	IDE DPS Self-Test	Allows you to execute self-tests on IDE hard drives capable of performing the Drive Protection System (DPS) self-tests. ✎ This selection will only appear when at least one drive capable of performing the IDE DPS self-tests is attached to the system.
	Controller Order (This feature is supported on select models only.)	Allows you to specify the order of attached hard drive controllers. The first hard drive controller in the order will have priority in the boot sequence and will be recognized as drive C (if any devices are attached). ✎ This selection will not appear if all of the hard drives are attached to the embedded IDE controllers.

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

Computer Setup *(Continued)*

Heading	Option	Description
Storage *(continued)*	SCSI Narrow Termination (This feature is supported on select models only.)	Allows you to configure SCSI termination on the external SCSI connector for narrow SCSI drives. This feature should only be enabled if you are using a narrow SCSI drive to terminate the external SCSI channel.
	Boot Order	Allows you to specify the order in which attached peripheral devices (such as a diskette drive, hard drive, CD-ROM, or network interface card) are checked for a bootable operating system image. Each device on the list may be individually excluded from or included for consideration as a bootable operating system source. ✎ MS-DOS drive lettering assignments may not apply after a non-MS-DOS operating system has started. To boot **one time** from a device other than the default device specified in Boot Order, restart the computer and press **F9** when the F10 = Setup message appears on the screen. When POST is completed, a list of bootable devices is displayed. Use the arrow keys to select a device and press the **Enter** key.

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

Computer Setup *(Continued)*

Heading	Option	Description
Security	Setup Password	Allows you to set and enable setup (administrator) password.
		✎ If the setup password is set, it is required to change Computer Setup options, flash the ROM, and make changes to certain plug and play settings under Windows. Also, this password must be set in order to use some Compaq remote security tools.
		See the *Troubleshooting Guide* for more information.
	Power-On Password	Allows you to set and enable power-on password.
		See the *Troubleshooting Guide* for more information.
	Password Options (This selection will appear only if a power-on password is set.)	Allows you to:
		• Enable/disable network server mode.
		• Specify whether the password is required for warm boot (**CTRL+ALT+DEL**).
		✎ This selection is available only when Network Server Mode is disabled.
		See the *Desktop Management Guide* for more information.

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

Computer Setup *(Continued)*

Heading	Option	Description
Security *(continued)*	Smart Cover	Allows you to: • Enable/disable the Smart Cover Lock. ✎ *Notify User* alerts the user that the sensor has detected that the cover has been removed. *Setup Password* requires that the setup password be entered to boot the computer if the sensor detects that the cover has been removed. This feature is supported on select models only. See the *Desktop Management Guide* for more information.
	DriveLock*	Allows you to assign or modify a master or user password for certain hard drives. When this feature is enabled, the user is prompted to provide one of the DriveLock passwords during POST. If neither is successfully entered, the hard drive will remain inaccessible until one of the passwords is successfully provided during a subsequent cold-boot sequence. ✎ This selection will only appear when at least one drive that supports the DriveLock feature is attached to the system.

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

*Option not supported on all products.

Computer Setup *(Continued)*

Heading	Option	Description
Security *(continued)*	Master Boot Record Security*	Allows you to enable or disable Master Boot Record (MBR) Security.
		When enabled, the BIOS rejects all requests to write to the MBR on the current bootable disk. Each time the computer is powered on or rebooted, the BIOS compares the MBR of the current bootable disk to the previously-saved MBR. If changes are detected, you are given the option of saving the MBR on the current bootable disk, restoring the previously-saved MBR, or disabling MBR Security. You must know the setup password, if one is set.
		✎ Disable MBR Security before intentionally changing the formatting or partitioning of the current bootable disk. Several disk utilities (such as FDISK and FORMAT) attempt to update the MBR. If MBR Security is enabled and disk accesses are being serviced by the BIOS, write requests to the MBR are rejected, causing the utilities to report errors. If MBR Security is enabled and disk accesses are being serviced by the operating system, any MBR change will be detected by the BIOS during the next reboot, and an MBR Security warning message will be displayed.

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

*Option not supported on all products.

Computer Setup *(Continued)*

Heading	Option	Description
Security *(continued)*	Save Master Boot Record*	Saves a backup copy of the Master Boot Record of the current bootable disk. ✎ Only appears if MBR Security is enabled.
	Restore Master Boot Record*	Restores the backup Master Boot Record to the current bootable disk. ✎ Only appears if all of the following conditions are true: • MBR Security is enabled. • A backup copy of the MBR has been previously saved. • The current bootable disk is the same disk from which the backup copy of the MBR was saved. ⚠ **CAUTION**: Restoring a previously saved MBR after a disk utility or the operating system has modified the MBR may cause the data on the disk to become inaccessible. Only restore a previously saved MBR if you are confident that the current bootable disk's MBR has been corrupted or infected with a virus.
	Device Security	Enables/disables Serial ports A and B, parallel ports, USB ports, system audio security, network controllers (some models), and SCSI controllers.

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

*Option not supported on all products.

Computer Setup *(Continued)*

Heading	Option	Description
Security (continued)	Network Service Boot	Enables/disables the computer's ability to boot from an operating system installed on a network server. (Feature available on NIC models only; the network controller must reside on the PCI bus or be embedded on the system board.)
	System IDs	Allows you to set: • Asset tag (16-byte identifier) and ownership Tag (80-byte identifier displayed during POST) See the *Desktop Management Guide* for more information. • Chassis serial number or Universal Unique Identifier (UUID) number if the current number is invalid (These ID numbers are normally set in the factory and are used to uniquely identify the system.) • Keyboard locale setting (for example, English or German) for System ID entry

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

Computer Setup *(Continued)*

Heading	Option	Description
Power	Energy Saver	Allows you to set the energy saver mode (advanced, disable or minimal).
		✎ In the minimal energy saver mode setting, the hard drive and system do not go into energy saver mode, but the setting allows you to press the power button to suspend the system.
		This option does not affect power management for the ACPI-enabled operating systems.
	Timeouts	Allows you to disable or manually select timeout values for the system and/or all attached IDE hard drives.
		✎ This option does not affect power management for the ACPI-enabled operating systems. This selection will only appear when energy saver mode is set to advanced.
	Energy Saver Options	Allows you to set:
		• Power button configuration (on/off or sleep/wake) under APM-enabled operating systems
		• Power LED blink in suspend mode (enable/disable).
		✎ Energy Saver Options will appear only if the energy saver mode is enabled. This option does not apply under ACPI-enabled operating systems.

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

Computer Setup *(Continued)*

Heading	Option	Description
Advanced*	Power-On Options	Allows you to set:
		• POST mode (QuickBoot, FullBoot, or FullBoot every 1-30 days)
		• POST messages (enable/disable)
		• Safe POST (enable/disable) Enabling this feature allows the ROM to monitor add-in cards during boot. If an add-in card does not work or initialize correctly, then on the next boot the offending card will be skipped during POST. (This feature is supported on select models only.)
		• F9 prompt (enable/disable) Enabling this feature will display the text "F9 = Boot Menu" during POST. Disabling this feature prevents the text from being displayed. However, pressing the F9 key will still access the Boot Menu screen.
		• F10 prompt (enable/disable) Enabling this feature will display the text "F10 = Setup" during POST. Disabling this feature prevents the text from being displayed. However, pressing the F10 key will still access the Setup screen.
		• F12 prompt (enable/disable) Enabling this feature will display the text "F12 = Network Service Boot" during POST. Disabling this feature prevents the text from being displayed. However, pressing the **F12** key will still force the system to attempt booting from the network.

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

* These options should be used by advanced users only.

Computer Setup *(Continued)*

Heading	Option	Description
Advanced* *(continued)*	Power-On Options *(continued)*	• Option ROM prompt (enable/disable) Enabling this feature will cause the system to prompt the user before loading options ROMs. (This feature is supported on select models only.)
		• Remote wakeup boot source (remote server/local hard drive)
		• UUID (Universal Unique Identifier) (enable/disable) Every Compaq computer has a unique identifier (serial number, date/time of manufacture, etc). Enabling this feature allows software (drivers, network, etc) to read the computer's unique number.
		• POST Delay (in seconds) (enable/disable) Enabling this feature will add a user specified delay to the POST process. This delay is sometimes needed for hard disks that spin up very slowly; so slowly that they are not ready to boot by the time POST is finished.

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

* These options should be used by advanced users only.

Computer Setup *(Continued)*

Heading	Option	Description
Advanced* *(continued)*	Power-On Options *(continued)*	• After Power Loss (off/on): After power loss, if you connect your computer to an electric power strip and would like to turn on power to the computer using the switch on the power strip, set this option to "on."
		✎ If you turn off power to your computer using the switch on a power strip, you will not be able to use the suspend/sleep feature or the Remote Management features.
		• I/O APIC Mode (enable/disable). Enabling this feature will allow Microsoft Windows Operating Systems to run optimally. This feature must be disabled for certain non-Microsoft Operating Systems to work properly.
		• USB Buffer @ Top of Memory (enable/disable) Enabling this feature places USB memory buffers at the top of memory. The advantage is that some amount of memory below 1MB is freed up for use by option ROMs. The disadvantage is that a popular memory manager, HIMEM.SYS, does not work properly when USB buffers are at top of memory AND the system has 64MB or less of RAM.

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

* These options should be used by advanced users only.

Computer Setup *(Continued)*

Heading	Option	Description
Advanced* *(continued)*	Power-On Options *(continued)*	• Hot-Pluggable MB Floppy (enable/disable) Enabling this feature allows the user to hot-plug a MB floppy into a system running Windows 2000. This feature has no effect for other Operating Systems. (This feature is supported on select models only.)
	Onboard Devices	Allows you to set resources for or disable onboard system devices (diskette controller, serial port or parallel port).
	PCI Devices	• Lists currently installed PCI devices and their IRQ settings. • Allows you to reconfigure IRQ settings for these devices or to disable them entirely. These settings have no effect under an APIC-based operating system.
	Bus Options	On select models, allows you to enable or disable: • PCI bus mastering, which allows a PCI device to take control of the PCI bus • PCI VGA palette snooping, which sets the VGA palette snooping bit in PCI configuration space; only needed when more than one graphics controller is installed • PCI SERR# Generation • ECC support allows hardware based error correction for ECC-capable memories

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

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Computer Setup *(Continued)*

Heading	Option	Description
Advanced* *(continued)*	Device Options	Allows you to set: • Printer mode (bi-directional, EPP & ECP, output only). • Num Lock state at power-on (off/on). • PME (power management event) wakeup events (enable/disable). • Processor cache (enable/disable). • Accessibility of Unique Processor Number for Pentium III processors (enable/disable) Every Pentium III processor has a unique number hard-coded into it by Intel. Enabling this feature allows software (through the network, internet, etc) to read the processor's unique number. • ACPI S3 support (enable/disable). S3 is an ACPI (advanced configuration and power interface) sleep state that some add-in hardware options may not support. This feature is supported on select models only. • ACPI S3 Video REPOST (enable/disable). This feature reruns the video option ROM on a boot from the S3 state.

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

* These options should be used by advanced users only.

Computer Setup *(Continued)*

Heading	Option	Description
Advanced* *(continued)*	Device Options *(continued)*	Allows you to set: • ACPI S3 Hard Disk Reset (enable/disable). Resets the hard disk on a boot from the S3 sleep state. • ACPI S3 PS2 Mouse Wakeup (enable/disable). Allows the mouse to wake the system from the S3 sleep state. • AGP Aperture size (options vary depending on platform) Allows you to specify the amount of system memory reserved for use by your graphics controller. • Monitor Tracking (enable/disable). Allows ROM to save monitor asset information.
	PCI VGA Configuration	Displayed only if there are multiple PCI video adapters in the system. Allows users to specify which VGA controller will be the "boot" or primary VGA controller.

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

* These options should be used by advanced users only.