

Troubleshooting Guide



COMPAQ



Troubleshooting Guide

Compaq Deskpro EN Series
of Personal Computers

Convertible Minitower Models
Slim Desktop Models
Small Form Factor Models

Compaq Professional Workstations

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chapter 1

COMPUTER DIAGNOSTIC FEATURES

Computer Diagnostics



The following section applies only to computers equipped with a diskette drive.

Compaq strongly recommends that you create a diagnostics diskette as soon as you begin to use the computer. This is a bootable diskette that allows you to test and inspect the hardware outside of the operating system by running the Computer Checkup (TEST) or View System Information (INSPECT) diagnostic programs. The diskette will play an important role in the restoration process if you ever experience a major system failure.

Another Compaq diagnostic feature is Compaq Diagnostics for Windows, described later in this guide.

Create a Diagnostics Diskette

Windows-Based

Not all Compaq computers equipped with Windows NT support this feature.

Using the Windows or Windows NT operating system:

Click Start → Compaq Information Center → Create Diagnostics Disk. Insert a diskette into the diskette drive and follow the instructions on the screen.

Computer Checkup (TEST)

Use Computer Checkup (TEST) in the following instances to:

- Determine if all the devices installed on the computer are recognized by the system and functioning properly. Running TEST is optional but recommended after installing or connecting a new device.



Third party devices not supported by Compaq may not be detected.

- Save, print, or display the information generated by TEST. You should run TEST and have the printed report available before placing a call to the Compaq Customer Support Center.
- Reproduce the same environment on another computer for testing.



Before you run TEST, you must create a diagnostics diskette. See the “Create a Diagnostics Diskette” section of this chapter for instructions.

1. Turn off the computer.
2. Disconnect all peripheral devices other than the keyboard and monitor. Do not disconnect the printer if you want to test it or use it to log error messages.
3. Install loop-back and terminating plugs to test external ports if desired.
4. Cold boot your computer from the diagnostics diskette you have created. At the title screen, select the Advanced mode (Ctrl+a).
5. Select Computer Checkup (TEST)
6. Select the option to view the device list. A list of the installed hardware devices appears.
7. Verify that TEST correctly detected the devices installed. This utility will detect all devices manufactured or supported by Compaq; devices from other manufacturers may not be detected.
 - ☐ If the list is correct, select OK and go on to step 8.
 - ☐ If the list is incorrect, be sure that any new devices are installed properly.

8. Select one of the following from the test option menu:
 - ☐ **Quick Check Diagnostics**—This option runs a quick, general test on each device with a minimal number of prompts. If errors occur, they are displayed when the testing is complete. This option will only test the first 16-MB of memory.
 - ☐ **Automatic Diagnostics**—This option runs unattended, maximum testing of each device with minimal prompts. You can choose how many times to run the tests, to stop on errors, or to print or file a log of errors.
 - ☐ **Prompted Diagnostics**—This option allows maximum control over the device testing process. You can choose attended or unattended testing, decide to stop on errors, or choose to print or file a log of errors.



If attended testing is selected, the test itself may result in data loss.

Follow the instructions on the screen as the diagnostic tests are run on the devices. When the testing is complete, the TEST option menu is displayed again.

9. To exit TEST, press the Esc key to reach the Exit option. Then press Enter.

View System Information (INSPECT)

Use View System Information (INSPECT) to:

- View information about the system once it has been configured.
- Save, print, or display the information generated by INSPECT. You should run INSPECT and have the printed report available before placing a call to the Compaq Customer Support Center.
- Assist your Compaq authorized dealer, reseller, or service provider in analyzing the system by allowing the service provider to reproduce the same environment on another computer for testing.

The information provided by INSPECT includes:

- Contents of the operating system startup files
- Current memory configuration
- ROM versions
- Type of processor and coprocessor
- Diskette, CD-ROM, DVD-ROM tape, or hard drives installed
- Active printer and communications interfaces
- Graphics settings
- Windows *WIN.INI* file details



Before you run INSPECT, you must create a diagnostics diskette. Refer to the “Create a Diagnostics Diskette” section of this chapter for instructions.

1. Cold boot your computer from the diagnostics diskette you have created. Press Enter to bypass the title screen, if necessary.
2. Select View System Information (INSPECT).
3. Select one of the available options using the Esc key:
 - ☐ Print the INSPECT status.
 - ☐ Save the INSPECT status to a file.
 - ☐ Add comments to a parameter status.
 - ☐ Exit the utility.
4. To exit INSPECT, press the Esc key to reach the Exit option. Then press Enter.

Compaq Diagnostics for Windows

Compaq Diagnostics for Windows is a component of Desktop Management that allows you to view:

- System overview
- AssetControl information
- Input devices
- Communications ports
- Storage devices
- Graphics information

- Memory configuration
- System health
- Operating system
- Windows version
- Resources
- Multimedia information
- Architecture

Depending on the version, Compaq Diagnostics for Windows may include diagnostic tests to determine if all the devices installed on the computer are recognized by the system and are functioning properly.

Installing Compaq Diagnostics for Windows

This operation is required only if the diagnostics program has been loaded but not installed.

1. Close any Windows applications.
2. Double-click the Compaq Diagnostics for Windows icon, located on the Windows Desktop.
3. Click Next to install Compaq Diagnostics for Windows.
4. After the program has finished installing, you may be prompted to restart the computer, or it may automatically restart. If prompted, click Finish to restart the computer or Cancel to exit the program. You must restart the computer to complete the installation of Compaq Diagnostics for Windows.

Using Compaq Diagnostics for Windows

1. Select the Compaq Diagnostics for Windows icon, located in the Control Panel.

The screen displays an overview of the computer hardware and software.

2. For specific hardware and software information, select a category from the Categories menu or from the toolbar.



As you move your cursor over the toolbar icons, the corresponding category names appear near the cursor.

3. To display more detailed information in a selected category, click More in the Information Level box.



Categories or items of information displayed by Compaq Diagnostics for Windows are similar to but may vary slightly from the information presented in View System Information (INSPECT).

4. Review and print this information.



To print the information, click File, then select Print. Select one of the following options: Detailed Report (All Categories), Summary Report (All Categories), or Current Category. Click OK to print the report you selected.

5. To exit Compaq Diagnostics for Windows, click File, then click Exit.

Running Diagnostic Tests

1. Select the Compaq Diagnostics icon, located on the Control Panel.

The screen displays an overview of the computer hardware and software. If your version of Compaq Diagnostics for Windows includes diagnostic testing utilities, four tabs will appear next to Overview: Test, Status, Log, and Error.

2. Select the Test tab.
3. Select one of the following options:
 - ☐ **Quick Test**—Runs a quick, general test on each device with a minimal number of prompts.
 - ☐ **Complete Test**—Runs maximum testing of each device with minimal prompts.
 - ☐ **Custom Test**—Runs only the tests you select. To select specific devices or tests, find the device in the list, then click the box beside each test to select or deselect it. When selected, a red check mark appears in the box.
4. Select Interactive Mode or Unattended Mode.

In Interactive Mode, the diagnostic software will prompt you for input during tests that require it. Some tests require interaction and will display errors or halt testing if selected in conjunction with Unattended Mode.

5. Click the Begin Testing button.

Test Status is displayed, showing the progress and result of each test.

6. If errors are found, click the Error tab to display more detailed information and recommended actions. By following the recommended actions, you may be able to solve some problems yourself.
7. Click Print or Save the error information in case you need to contact your Compaq authorized dealer, reseller, or service provider for assistance.

To exit Compaq Diagnostics for Windows, click File, then click Exit.

Protecting Your Software

To protect software from loss or damage, you should keep a backup copy of all system software, applications, and related files stored on the hard drive. Refer to the operating system or backup utility documentation for instructions on making backup copies of data files. Another option is the *Compaq Deskpro Supplement CD* or the *Compaq Restore CD* which accompany many desktop and workstation models and enables the user to selectively restore the original system software.

Compaq Restore CD

The *Compaq Restore CD* that is shipped with select computers offers easy recovery of the critical system software. Along with the Microsoft operating system CD, the *Compaq Restore CD* enables the user to restore the original base system software. This can be extremely helpful in the event of hard drive failure or corruption.

The *Compaq Restore CD* is specific to each desktop and workstation model and accompanies many computers along with the Microsoft operating system CD.

chapter 2

TROUBLESHOOTING WITHOUT DIAGNOSTICS

This guide provides information on how to identify and correct minor disk, graphics, memory, and software problems. It also explains many of the messages that may be displayed on the screen, including specific error messages that may appear during the Power-On Self-Test (POST) at startup.

POST Message Disabled suppresses most system messages during POST, such as memory count and non-error text messages. In this mode, the Compaq Logo and Web address appear on the computer monitor. If a POST error occurs, the screen will display the error message. To manually switch to the POST Messages Enabled mode during POST, press any key (except F10 or F12). The default mode is POST Message Disabled.

The speed at which the computer loads the operating system and the extent to which it is tested are determined by the POST mode selection.

Quick Boot is a fast startup process that does not run all of the system level tests, such as the memory test. Full Boot runs all of the ROM-based system tests and takes longer to complete.

Full Boot may also be enabled to run every 1 to 30 days on a regularly scheduled basis. To establish the schedule, reconfigure your computer to the Full Boot Every xx Days mode, using Computer Setup.



For more information on Computer Setup, refer to the *Hardware Reference Guide*.

Helpful Hints

If you encounter some minor problem with your computer, monitor, or software, refer to the following list of general suggestions before taking further action:

- Check that the computer and monitor are plugged into a working electrical outlet.
- Check to see that the computer is turned on and the green power light is on.
- Check to see that the monitor is turned on and the green monitor light is on.
- Turn up the brightness and contrast controls of the monitor if the monitor is dim.
- Press and hold any key. If the system beeps, then your keyboard should be operating correctly.
- Check all cable connections for loose connections or incorrect connections.
- Reconfigure your computer after installing a non-Plug and Play expansion card or other option. See “Solving Hardware Installation Problems” for instructions.
- Be sure that all the needed device drivers have been installed. For example, if you are using a printer, you need a printer driver.
- Take out all diskettes from the diskette drives when you turn on your system.



CAUTION: When the computer is plugged into an AC power source there is always voltage applied to the system board. You must disconnect the power cord from the power source before opening the computer to prevent system board or component damage.

Solving Minor Problems

You may be able to easily resolve the minor problems described in this section. If a problem persists and you are unable to resolve it yourself or if you feel uncomfortable about performing the operation, contact your Compaq authorized dealer or reseller.

Problem	Cause	Solution
Computer won't turn on.	Computer is not connected to an external power source.	Connect to an external power source.
	Cables to the external power source are unplugged.	Ensure that cables connecting the computer to the external power source are plugged in properly and the wall outlet is active.
	A defective PCI or ISA card has been installed.	Remove any expansion card that was just installed.
	Drive power, data, or power supply cables may not be properly connected.	Reseat drive power, data, and power supply cables.
Computer appears locked up and won't turn off when the power button is pressed.	Software control of the power switch is not functional.	Press and hold the power button for at least 4 seconds until the computer turns off.
Computer date and time display is incorrect.	RTC (real-time clock) battery may need to be replaced. Battery life is approximately 3 years.	First, reset the date and time under Control Panel. If the problem persists, replace the RTC battery. Refer to the <i>Hardware Reference Guide</i> for instructions on installing a new battery, or contact your Compaq authorized dealer or reseller for RTC battery replacement.
Computer powered off automatically (Red power LED blinks four times per second).	The unit temperature was exceeded. The fan may be blocked.	<ol style="list-style-type: none">1. Unit is in an exceedingly hot environment. Let it cool down.2. Ensure computer air vents are not blocked and internal fan is running.3. Contact your Compaq authorized reseller or service provider.
	The unit temperature was exceeded because the computer was functioning with the cover or access panel removed.	Replace cover or access panel, and let the computer cool down before attempting to turn on power to the computer.

Continued

Solving Minor Problems *Continued*

Problem	Cause	Solution
Computer appears to pause periodically.	Network driver is loaded and no network connection is established.	Establish a network connection, or use Computer Setup or Windows Device Manager to disable the network controller.
Poor performance.	Insufficient power to the components.	Ensure both power supply cables are connected to the system board (some workstations).
Cannot remove computer cover or access panel.	Smart Cover Lock, featured on some computers, is locked.	Unlock the Smart Cover Lock using Computer Setup (F10 Setup). The Smart Cover FailSafe Key, a device for manually disabling the Smart Cover Lock, is available from Compaq. You'll need the FailSafe Key in case of forgotten password, power loss, or computer malfunction.
Cursor will not move using the arrow keys on the keypad.	The NumLock key may be on.	Press the NumLock key. The NumLock light should not be on if you want to use the arrow keys.

Solving Power Supply Problems

Problem	Cause	Solution
Computer won't turn on (Power LED on front of computer not on).	Computer is not connected to an external power source.	Connect to an external power source.
	Cables to the external power source are unplugged.	Ensure that cables connecting the computer to the external power source are plugged in properly and the wall outlet is active.
	Power switch not connected to the system board.	Plug the power switch cable into the system board.
	Power line selector switch on rear of computer chassis not switched to correct line voltage (115V or 230V).	Select the proper AC voltage using the slide switch.
Power LED blinks RED 1 time per 2 seconds.	Power supply overloaded or short was detected.	Unplug computer from AC power. Unplug internal power cables from all devices and unplug all PCI cards. Reconnect devices one at a time and turn power on to identify the cause.
	Diskette drive power cable not properly connected.	When installing power cable to diskette drive, ensure that all 4 pins on the drive are connected to the power cable connector.
	Power supply shuts down after system warms up. Thermal overload caused by bad fan.	Replace power supply.
	Power supply will not turn on because of internal power supply fault.	Replace power supply.
Power supply shuts down intermittently.	Power line selector switch on rear of computer chassis not switched to correct line voltage (115V or 230V).	Select the proper AC voltage using the slide switch.
	Power supply will not turn on because of internal power supply fault.	Replace power supply.

Solving Diskette Problems

Common causes and solutions for diskette problems are listed in the following table:



You may need to reconfigure the computer when you add or remove hardware, such as an additional diskette drive. See “Solving Hardware Installation Problems” for instructions.

Problem	Cause	Solution
Diskette drive light stays on.	Diskette is damaged.	In Windows 95, 98, or 2000, run ScanDisk. Click Start → Programs → Accessories → System Tools → ScanDisk. In Windows NT, right click Start, click Explore, and select a drive. Select File → Properties → Tools. Under Error-checking, click Check Now.
	Diskette is incorrectly inserted.	Remove diskette and reinsert.
	Drive button is not pushed in.	Push in drive button.
	Software program is damaged.	Check the program diskettes.
	Drive cable is not properly connected.	Reconnect drive cable.
Drive not found.	Cable is loose.	Reseat diskette drive cable.
Diskette drive cannot write to a diskette.	Diskette is not formatted.	Format the diskette.
	Diskette is write-protected.	Use another diskette or remove the write protection.
	Writing to the wrong drive.	Check the drive letter in your path statement.
	Not enough space is left on the diskette.	Use another diskette.
	Diskette write control is enabled.	Use Computer Setup to check your storage security feature disabled settings.

Continued

Solving Disk Problems *Continued*

Problem	Cause	Solution
Cannot format diskette.	Invalid media reported.	When formatting a disk in DOS, you may need to specify diskette capacity. For example, to format a 1.44-MB diskette, type the following command at the DOS prompt: FORMAT A: /F:1440
A problem has occurred with a disk transaction.	The directory structure is bad, or there is a problem with a file.	In Windows 95, 98, or 2000, run ScanDisk. Click Start → Programs → Accessories → System Tools → ScanDisk. In Windows NT, right click Start, click Explore, and select a drive. Select File → Properties → Tools. Under Error-checking, click Check Now.
Diskette drive cannot read a diskette.	Diskette is not formatted.	Format the diskette.
	You are using the wrong diskette type for the drive type.	Check the type of drive you are using and use the correct diskette type.
	You are reading the wrong drive.	Check the drive letter in the path statement.
Nonsystem disk message.	The system is trying to start from a nonsystem diskette.	Remove the diskette from the drive.
	Diskette MBR validation enabled.	Disable the MBR validation option.
	Diskette boot has been disabled in Computer Setup.	Run Computer Setup and enable diskette boot.

Solving Hard Drive Problems

Problem	Cause	Solution
Hard drive error occurs.	Hard disk has bad sectors or has failed.	Use a utility to locate and block usage of bad sectors. If necessary, reformat the hard disk.
Disk transaction problem.	Either the directory structure is bad or there is a problem with a file.	<p>In Windows 95, 98, or 2000, run ScanDisk. Click Start → Programs → Accessories → System Tools → ScanDisk.</p> <p>In Windows NT, right click Start, click Explore, and select a drive. Select File → Properties → Tools. Under Error-checking, click Check Now.</p>
Drive not found (identified).	Cable could be loose.	Check cable connections.
	The system may not have automatically recognized a newly installed device.	<p>See reconfiguration directions in the “Hardware Installation Problems” section. If system still does not recognize the new device, check to see if the device is listed within Computer Setup. If it is listed, the probable cause is a driver problem. If it is not listed, the probable cause is a hardware problem.</p> <p>If this is a newly installed drive, enter Setup and try adding a POST delay under Advanced>Power-On Options>POST Delay.</p>
	Drive jumper settings may be incorrect.	If the drive is a secondary drive that has just been installed on the same controller as the primary drive, verify that the jumpers for both drives are set correctly.
	SCSI ID may be incorrect.	Check SCSI IDs to ensure none are duplicated.

Continued

Solving Hard Drive Problems *Continued*

Problem	Cause	Solution
Nonsystem disk message.	The system is trying to start from a diskette that is not bootable.	Remove the diskette from the diskette drive.
	The system is trying to start from the hard drive but the hard drive may have been damaged.	Insert a bootable diskette into the diskette drive and restart the computer. If the hard drive is still inaccessible after booting to a diskette and MBR Security is enabled, you may try restoring the previously saved MBR image. To do so, enter Setup and select Security>Restore Master Boot Record.
	Diskette boot has been disabled in Computer Setup.	Run Computer Setup and enable diskette boot.
	System files missing or not properly installed.	Insert a bootable system diskette and restart. Verify hard drive is partitioned and formatted. Install system files for the appropriate operating system if necessary.
	Hard drive boot has been disabled in Computer Setup.	Run Computer Setup and enable the Hard drive entry in the Storage>Boot Order list.
Second Ultra ATA hard drive does not perform optimally.	You are using the wrong cable for the drive type.	Reinstall the second Ultra ATA hard drive using an 80-conductor cable. The 80-conductor cable is standard on select models.

Solving Display Problems

If you encounter display problems, refer to the documentation that came with your monitor and to the common causes and solutions listed in the following table:

Problem	Cause	Solution
Blank screen.	Monitor is not turned on and the monitor light is not on.	Turn on the monitor and check that the monitor light is on.
	The cable connections are not correct.	Check the cable connection from the monitor to the computer and to the electrical outlet.
	The energy saver feature has been enabled.	Press any key or click the mouse button and, if set, type your password.
	The RGB (Red, Green, Blue) input switch on the monitor is incorrectly set.	Set the monitor's RGB input switch to 75 ohms and, if there is a sync switch, set it to External.
	System ROM is bad; system is running in Failsafe Boot Block mode (indicated by one long beep and three short beeps).	Reflash the ROM using a ROMPaq diskette. Refer to the "Failsafe Boot Block ROM" section of the <i>Desktop Management</i> guide for more information.
	You are using a fixed-sync monitor and it won't sync at the resolution chosen.	Be sure that the monitor can accept the same sweep rate as the resolution chosen.
	The VGA/BNC selector switch is not properly set.	Set the selector switch to agree with the cable connection.
Monitor does not function properly when used with energy saver features.	Monitor without energy saver capabilities is being used with energy saver features enabled.	Disable monitor energy saver feature.

Continued

Solving Display Problems *Continued*

Problem	Cause	Solution
Graphics colors are wrong.	The cabling or monitor impedance is incorrect.	<ol style="list-style-type: none">1. If you are using BNC cables, be sure that the Red, Green, and Blue BNC cables are connected to the corresponding monitor connectors.2. Be sure your monitor's RGB inputs are set to 75 ohms.
Dim characters.	The brightness and contrast controls are not set properly.	Adjust the monitor brightness and contrast controls.
	Cables are not properly connected.	Check that the graphics cable is securely connected to the graphics card and the monitor.
	The RGB switch on the back of the monitor is incorrectly set.	Set the RGB switch (and sync options, if this option is available) to 75 ohms, with the sync set to external. Refer to the documentation included with the monitor.
Blurry video or requested resolution cannot be set.	If the graphics controller was upgraded, the correct graphics drivers may not be loaded.	Install the video drivers on the diskette included in the upgrade kit.
Screen goes blank.	You may have a screen blanking utility installed or energy saver features are enabled.	Press any key or type password.
The picture is broken up, or it rolls, jitters, or blinks.	The monitor connections may be incomplete or the monitor may be incorrectly adjusted.	<ol style="list-style-type: none">1. Be sure the monitor cable is securely connected to the computer.2. In a 2-monitor system or if another monitor is in close proximity, be sure the monitors are not interfering with each other's electromagnetic field by moving them apart.3. Fluorescent lights or fans may be too close to the monitor.
Monitor overheats.	There is not enough ventilation space for proper airflow.	Leave at least 3 inches (7.6 cm) of ventilation space. Be sure there is nothing sitting on top of the monitor obstructing the air flow.

Solving Audio Problems

If your computer has audio features and you encounter audio problems, refer to the common causes and solutions listed in the following table:

Problem	Cause	Solution
Sound does not come out of the speaker or headphones.	Software volume control is turned down.	Double click on the speaker icon on the taskbar, then set volume by adjusting the volume slider.
	CD-ROM or DVD volume control on the front of the computer is turned down.	Turn the volume control knob on front of computer to increase the volume.
	External speakers turned off.	Turn external speakers on.
	External speakers plugged into the wrong audio jack.	Refer to the Computer User's Guide or Sound card documentation for proper speaker connection.

Solving Printer Problems

If you encounter printer problems, refer to the documentation that came with your printer and to the common causes and solutions listed in the following table:

Problem	Cause	Solution
Printer will not print.	Printer is not turned on and online.	Turn the printer on and make sure it is online.
	The correct printer drivers for your application are not installed.	1. Install the correct printer driver for your application. 2. Try printing using the DOS command DIR C:\ > [printer port] where [printer port] is the address of the printer being used. If printer works, reload printer driver.
	If you are on a network, you may not have made the connection to the printer.	Make the proper network connections to the printer.
	Printer may have failed.	Run printer self-test.
Printer will not turn on.	The cables may not be connected properly.	Reconnect all cables and check the power cord and electrical outlet.
Prints garbled information.	The correct printer driver for your application is not installed.	Install the correct printer driver for your application.
	The cables may not be connected properly.	Reconnect all cables.
Printer is offline.	The printer may be out of paper.	Check the paper tray and refill it if it is empty. Select online.

Solving Hardware Installation Problems

You may need to reconfigure the computer when you add or remove hardware, such as an additional diskette drive. If you install a Plug and Play device, Windows 95, 98, and 2000 automatically recognize the device and configure the computer. If you install a non-Plug and Play device, you must reconfigure the computer after completing installation of the new hardware. In Windows 95, 98, and 2000, select the Add New Hardware icon in the Control Panel and follow the instructions that appear on the screen. To reconfigure the computer in Windows NT 4.0 after installing new hardware, use the utility provided with the hardware.

Problem	Cause	Solution
A new device is not recognized as part of the computer system.	The computer needs to be reconfigured to recognize the device.	Follow the reconfiguration instructions above.
	Cable(s) of new external device are loose or power cables are unplugged.	Ensure that all cables are properly and securely connected and that pins in the cable or connector are not bent down.
	Power switch of new external device is not turned on.	Turn off the computer, turn on the external device, then turn on the computer to integrate the device with the computer system.
	When the system advised you of changes to the configuration, you did not accept them.	Reboot the computer and follow the instructions for accepting the changes.
	A Plug and Play board may not automatically configure when added if the default configuration conflicts with other devices.	Use Windows 95, 98, or 2000 Device Manager to deselect the automatic settings for the board and choose a basic configuration that doesn't cause a resource conflict. You can also use Computer Setup to reconfigure or disable devices to resolve the resource conflict.

Solving Network Problems

Some common causes and solutions for network problems are listed in the following table. These guidelines do not discuss the process of debugging the network cabling.

Problem	Cause	Solution
Remote Wakeup feature is not functioning.	The Remote Wakeup feature is not available when using an AUI network connection.	Use an RJ-45 network connection.
	Remote Wakeup is not enabled.	Use the Network control application to enable Remote Wakeup. Refer to the <i>Desktop Management</i> guide.
Network driver does not detect network controller.	Network controller is disabled.	Run Computer Setup and enable network controller.
	Incorrect Network Driver.	Check the network controller documentation for the correct driver or obtain the latest driver from the manufacturers Web site.
Network status link light does not turn on or flashes.	No active network is detected.	Check cabling and network equipment for proper connection.
	Network controller is not set up properly.	Use the Network control application to verify that device is working properly. Refer to the <i>Using Network Communications</i> guide.
	System is configured for AUI connection.	No solution; link LED does not apply to AUI connections.
	Network driver is not properly loaded.	Reinstall network drivers. Refer to the <i>Using Network Communications</i> guide.
	System cannot autosense the network.	Disable autosensing capabilities and force the system into the correct operating mode. Refer to the <i>Using Network Communications</i> guide.

Continued

Solving Network Problems *continued*

Problem	Cause	Solution
Diagnostics reports a failure.	The cable is not securely connected.	Ensure that the cable is securely attached to the network connector and that the other end of the cable is securely attached to the correct device.
	The cable is attached to the incorrect connector.	Ensure that the cable is attached to the correct connector.
	There is a problem with the cable or a device at the other end of the cable.	Ensure that the cable and device at the other end are operating correctly.
	The network controller is defective.	Contact your Compaq authorized service provider.
	Network controller interrupt is shared with an expansion card.	Under the Computer Setup Advanced menu, change the resource settings for the card.
Diagnostics passes, but the computer does not communicate with the network.	Network drivers are not loaded, or driver parameters do not match current configuration.	Make sure the network drivers are loaded and that the driver parameters match the configuration of the network controller. Make sure the correct network client and protocol is installed.
	The network controller is not configured for this computer.	Select the Network icon at the Control Panel and configure the network controller.

Continued

Solving Network Problems *continued*

Problem	Cause	Solution
Network controller stopped working when an expansion board was added to the computer.	Network controller interrupt is shared with an expansion board.	Under the Computer Setup Advanced menu, change the resource settings for the board.
	The network controller requires drivers.	Verify that the drivers were not accidentally deleted when the drivers for a new expansion board were installed.
	The files containing the network drivers are corrupted.	Reinstall the network drivers, using the <i>Compaq Restore CD</i> .
Network controller stopped working without apparent cause.	The files containing the network drivers are corrupted.	Reinstall the network drivers, using the <i>Compaq Restore CD</i> .
	The cable is not securely connected.	Ensure that the cable is securely attached to the network connector and that the other end of the cable is securely attached to the correct device.
	The network controller is defective.	Contact your Compaq authorized service provider.
New network card will not boot.	New network card may not be Compaq compatible.	Install Compaq-compatible NIC or change boot sequence to boot from another device.
Cannot connect to network server when attempting Remote System Installation.	The network controller is not configured properly.	Run Computer Setup (F10 Setup) and modify the NIC Settings.
System setup utility reports unprogrammed EEPROM.	Unprogrammed EEPROM.	Contact your Compaq authorized service provider.

Solving Memory Problems

If you encounter memory problems, some common causes and solutions are listed in the following table:

Problem	Cause	Solution
System won't boot or does not function properly after installing additional memory modules.	Memory module is not the correct type or speed grade for the system or the new memory module is not seated properly.	Replace module with the correct industry-standard device for your computer.
Out of Memory error.	Memory configuration may not be set up correctly.	Use the Device Manager to check memory configuration.
	You have run out of memory to run the application.	Check the application documentation to determine the memory requirements.
Memory count during POST is wrong.	The memory modules may not be installed correctly.	Check that the memory modules have been installed correctly and that proper modules are used.
Insufficient memory error during operation.	Too many Terminate and Stay Resident programs (TSRs) are installed.	Delete any TSRs that you do not need.
	You have run out of memory for your application.	Check the memory requirements for the application or add more memory to the computer.
Unit is on but there is no video and the power LED is blinking red.	Memory is not installed correctly and system is not booting.	Reinstall memory modules.

Solving SCSI Problems

If you encounter SCSI device problems, refer to the common causes and solutions listed in the following table:

Problem	Cause	Solution
System with IDE and SCSI drives will not boot from SCSI hard drive.	The IDE drive is not disabled through the Computer Setup utility.	Under the Computer Setup Advanced menu, disable the primary IDE controller. Note: Computers configured with both SCSI and IDE hard drives will boot to the IDE drive.
	An IDE drive is attached, the IDE controller is enabled, and the Integrated IDE controller is listed before the SCSI adapter in Setup's Storage>Controller Order menu.	Under Computer Setup, select Storage>Controller Order, and move the Integrated IDE controller to the end of the list.
System without an IDE drive will not boot from a SCSI drive.	The SCSI drive is not configured correctly.	Ensure that drive cabling and jumpers are set correctly. To boot a SCSI drive, the drive ID number must be set to 0.
	Hard drive boot has been disabled in Computer Setup.	Under Computer Setup, select Storage>Boot Order, and enable the Hard Drive entry.

Solving CD-ROM and DVD Problems

If you encounter CD-ROM or DVD problems, refer to the common causes and solutions listed in the following table or to the documentation that came with the optional device.

Problem	Cause	Solution
System will not boot from CD-ROM or DVD drive.	The CD-ROM or DVD boot is not enabled through the Computer Setup utility.	Run the Computer Setup utility (F10 Setup) and enable booting to removable media and verify boot order settings.
	Non-bootable CD in drive.	Try a bootable CD in the drive.
CD-ROM or DVD device is not detected or driver is not loaded.	Drive is not connected properly or not properly configured.	Refer to the documentation that came with the optional device.
Movie will not play in the DVD drive.	Movie may be regionalized for a different country.	Refer to the documentation that came with the DVD drive.
Cannot eject compact disc (tray-load unit).	Disc not properly seated in the drive.	Turn off computer and insert a thin metal rod into the emergency eject hole and push firmly. Slowly pull the tray out from the drive until the tray is fully extended, then remove the disc.

Solving Software Problems

Most software problems occur as a result of the following:

- The application was not installed or configured correctly.
- There is insufficient memory available to run the application.
- There is a conflict between applications.

Where available, run the Compaq Configuration Utility to determine if any changes have been made to the software which may be causing a problem. Refer to the online *Desktop Management* guide for more information.

Troubleshooting Using Compaq Desktop Management Features

Compaq Insight Manager LC with Compaq Insight Manager XE produces a full suite of applications ranging from hardware, fault, and asset management, to desktop software management, to intelligent Windows NT cluster monitoring and administration. The browser-based user interface for Compaq Insight Manager LC and Compaq Insight Manager XE maintain a consistent look and feel with many shared elements, including color coded status indicators and consistent actions and controls whether managing a small workgroup or the most complex network that manages devices across the enterprise.

Compaq Insight Manager LC can automatically discover, view system information and receive alerts from any DMI 2.0 PC on a specified domain or workgroup. With the use of Compaq Management Agents, an administrator can change security settings, run diagnostic tests remotely and even update system software such as BIOS and drivers.

Contacting Compaq Customer Support

For help and service, contact your Compaq authorized reseller or dealer.



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

appendix **A**

POST ERROR MESSAGES

Error Codes

This chapter lists the error codes that you may encounter during the Power-On Self-Test (POST) or computer restart, the probable source of the problem, and what steps you can take to resolve the error condition.

Power-On Self-Test Messages			
Message	Beeps*	Probable Cause	Recommended Action
101-Option ROM Error	1L, 1S	System ROM checksum.	<ol style="list-style-type: none">1. Verify the correct ROM2. Flash the ROM if needed.3. If an expansion card was recently added, remove it and see if the problem remains.4. Clear CMOS.5. If the message disappears, there may be a problem with the expansion card.6. Replace the system board.
102-System Board Failure	None	DMA, timers, etc.	<ol style="list-style-type: none">1. Clear CMOS.2. Remove expansion boards.3. Replace the system board.
103-System Board Failure	None	DMA, timers, etc.	<ol style="list-style-type: none">1. Clear CMOS.2. Remove expansion boards.3. Replace the system board.
150-SafePost Active	None	A PCI expansion card is not responding.	<ol style="list-style-type: none">1. Restart the computer.2. Disable SafePost.3. If the expansion card does not respond, replace the card.

* L = Long, S = Short

Continued

Power-On Self-Test Messages *Continued*

Message	Beeps*	Probable Cause	Recommended Action
162-System Options Not Set	2S	Configuration incorrect. RTC (real-time clock) battery may need to be replaced. Battery life is approximately 3 years.	Run Computer Setup (F10 Setup). Reset the date and time under Control Panel. If the problem persists, replace the RTC battery. Refer to the <i>Hardware Reference Guide</i> for instructions on installing a new battery, or contact your Compaq authorized dealer or reseller for RTC battery replacement.
163-Time & Date Not Set	2S	Invalid time or date in configuration memory. RTC (real-time clock) battery may need to be replaced. Battery life is approximately 3 years. CMOS jumper may not be properly installed	Reset the date and time under Control Panel. If the problem persists, replace the RTC battery. Refer to the <i>Hardware Reference Guide</i> for instructions on installing a new battery, or contact your Compaq authorized dealer or reseller for RTC battery replacement. Check for proper placement of the CMOS jumper (if applicable).
164-Memory Size Error	2S	Memory configuration incorrect.	<ol style="list-style-type: none">1. Run Computer Setup (F10 Setup) or Windows utilities.2. Make sure your memory module(s) are installed properly.3. If third party memory has been added, test using Compaq-only memory.4. Verify proper memory module type.
183-Invalid Processor Jumper Setting	2S	System board jumper improperly set.	Reset system board jumpers to match processor and bus speeds (select models).

* L = Long, S = Short

Continued

Power-On Self-Test Messages *Continued*

Message	Beeps*	Probable Cause	Recommended Action
201-Memory Error	None	RAM failure.	<ol style="list-style-type: none">1. Run Computer Setup (F10 Setup) or Windows utilities.2. Ensure memory and continuity modules are installed correctly.3. Verify proper memory module type.4. Remove and replace the memory module(s) one at a time to isolate faulty module.5. Replace faulty memory module(s).6. If error persists after replacing memory modules, replace the system board.
202-Memory Type Mismatch	None	Memory modules do not match each other.	Replace memory modules with matched sets.
207-ECC Corrected Single Bit Errors in Memory Module Socket(s) y,y,...	2S	Single Bit ECC error.	<ol style="list-style-type: none">1. Verify proper memory module type.2. Try another memory socket.3. Replace memory module if problem persists.
212-Failed Processor	None	Processor has failed to initialize.	<ol style="list-style-type: none">1. Reseat the processor in its socket.2. If the processor does not respond, replace it.
213-Incompatible memory Module in memory Socket(s) X, X, ...	2S	A memory module in memory socket identified in the error message is missing critical SPD information, or is incompatible with the chipset.	<ol style="list-style-type: none">1. Verify proper memory module type.2. Try another memory socket.3. Replace DIMM with a module conforming to the SPD standard.
214-Memory Device Failure. Error code:XX, Memory Module Socket(s):XX	None	A specific error has occurred in a memory device installed in the identified socket.	<ol style="list-style-type: none">1. Verify proper memory module type,2. Try another memory socket.3. Replace memory module if problem persists.

* L = Long, S = Short

Continued

Power-On Self-Test Messages *Continued*

Message	Beeps*	Probable Cause	Recommended Action
301-Keyboard Error	None	Keyboard failure.	<ol style="list-style-type: none">1. Reconnect keyboard with computer turned off.2. Check connector for bent or missing pins.3. Ensure that none of the keys are depressed.4. Replace keyboard.
304-Keyboard or System Unit Error	None	Keyboard failure.	<ol style="list-style-type: none">1. Reconnect the keyboard with computer turned off.2. Ensure that none of the keys are depressed.3. Replace the keyboard.4. Replace the system board.
401-Parallel Port 1 Address Assignment Conflict	2S	IRQ address conflicts with another device.	Reset the IRQ.
403-Parallel Port 3 Address Conflict Detected	2S	IRQ address conflicts with another device.	Reset the IRQ.
404-Parallel Port Address Conflict Detected	2S	Both external and internal ports are assigned to parallel port X.	<ol style="list-style-type: none">1. Remove any parallel port expansion cards.2. Clear CMOS.3. Reconfigure card resources and/or run Computer Setup (F10 Setup).
410-Audio Interrupt Conflict	2S	IRQ address conflicts with another device.	Reset the IRQ.
411-Network Interface Card Interrupt Conflict	2S	IRQ address conflicts with another device.	Reset the IRQ.

* L = Long, S = Short

Continued

Power-On Self-Test Messages *Continued*

Message	Beeps*	Probable Cause	Recommended Action
501-Display Adapter Failure	1L, 2S	Graphics display controller.	<ol style="list-style-type: none">1. Reseat the graphics card (if applicable).2. Clear CMOS.3. Verify monitor is attached and turned on.4. Replace the graphics controller.
601-Diskette Controller Error	None	Diskette controller circuitry or floppy drive circuitry incorrect.	<ol style="list-style-type: none">1. Run Computer Setup (F10 Setup).2. Check and/or replace cables.3. Clear CMOS.4. Replace diskette drive.5. Replace the system board.
602-Diskette Boot Record Error	None	Diskette in Drive A not bootable.	Replace the diskette.
605-Diskette Drive Type Error	2S	Mismatch in drive type.	<ol style="list-style-type: none">1. Run Computer Setup (F10 Setup) or Windows NT, Windows 95, or Windows 98 utilities.2. Disconnect any other diskette controller devices (tape drives).3. Clear CMOS.
610-External Storage Device Failure	None	External tape drive not connected.	Reinstall tape drive or press F1 and allow system to reconfigure without the drive.
612-Secondary Floppy Port Address Assignment Conflict	2S	Configuration error.	<ol style="list-style-type: none">1. Run Computer Setup (F10 Setup).2. Remove expansion cards.3. Clear CMOS.
660-Display cache is detected unreliable	None	Integrated graphics controller display cache not working properly and will be disabled.	Replace system board if minimal graphics degrading is an issue.

* L = Long, S = Short

Continued

Power-On Self-Test Messages *Continued*

Message	Beeps*	Probable Cause	Recommended Action
912- Computer Cover Has Been Removed Since Last System Startup	None		No action required.
914-Hood Lock Coil is not Connected	None	Smart Cover Lock mechanism is missing or not connected.	<ol style="list-style-type: none">1. Reconnect or replace hood locking mechanism.2. Reseat or replace hood locking mechanism cable.
916-Thermal Sensor from Processor Heatsink is not Connected	None	Processor heatsink cable not connected to system board.	Reseat or replace the processor heatsink cable going to the system board.
917-Expansion Riser not Detected	None	Riser board not seated or not installed.	Install riser board if missing or remove and reseat to ensure good connection.
1151-Serial Port 1 Address Conflict Detected	2S	Both external and internal serial ports are assigned to COM1.	<ol style="list-style-type: none">1. Remove any serial port expansion cards.2. Clear CMOS.3. Reconfigure card resources and/or run Computer Setup (F10 Setup) or Windows utilities.
1152- Serial Port 2 Address Conflict Detected	2S	Both external and internal serial ports are assigned to COM2.	<ol style="list-style-type: none">1. Remove any serial port expansion cards.2. Clear CMOS.3. Reconfigure card resources and/or run Computer Setup (F10 Setup) or Windows utilities.
1155-Serial Port Address Conflict Detected	2S	Both external and internal serial ports are assigned to same IRQ.	<ol style="list-style-type: none">1. Remove any serial port expansion cards.2. Clear CMOS.3. Reconfigure card resources and/or run Computer Setup (F10 Setup) or Windows utilities.
1201-System Audio Address Conflict Detected	2S	Device IRQ address conflicts with another device.	Reset the IRQ.

* L = Long, S = Short

Continued

Power-On Self-Test Messages *Continued*

Message	Beeps*	Probable Cause	Recommended Action
1202-MIDI Port Address Conflict Detected	2S	Device IRQ address conflicts with another device.	Reset the IRQ.
1203-Game Port Address Conflict Detected	2S	Device IRQ address conflicts with another device.	Reset the IRQ.
1611-Fan failure detected	None	Chassis fan not connected to the system board.	<ol style="list-style-type: none">1. Reconnect the fan.2. Replace the fan.3. Replace the system board.
1720-SMART Hard Drive Detects Imminent Failure	None	Hard drive is about to fail. (Some hard drives have a firmware patch that will fix an erroneous error message).	<ol style="list-style-type: none">1. Determine if hard drive is giving correct error message. Run the Drive Protection System test if available.2. Apply firmware patch if applicable. (See www.compaq.com/support/techpubs/customer_advisories)3. Back up contents and replace hard drive.
1721-SMART SCSI Hard Drive Detects Imminent Failure	None	Hard drive is about to fail. (Some hard drives have a firmware patch that will fix an erroneous error message).	<ol style="list-style-type: none">1. Determine if hard drive is giving correct error message.2. Apply firmware patch if applicable.3. Back up contents and replace hard drive.

* L = Long, S = Short

Continued

Power-On Self-Test Messages *Continued*

Message	Beeps*	Probable Cause	Recommended Action
1800-Temperature Alert	None	Internal temperature exceeds specification.	<ol style="list-style-type: none">1. Check that computer air vents are not blocked and cooling fan is running.2. Verify processor speed selection.3. Replace the processor.4. Replace the system board.
1801	None	Processor not supported by ROM Bios.	Upgrade BIOS to proper version.
Audible	1L, 3S	System ROM is bad; system is running in Failsafe Boot Block mode.	Reflash the ROM using a ROMPaq diskette. Refer to the "Failsafe Boot Block ROM" section of the <i>Desktop Management</i> guide.
Audible	2S	Power-on successful.	None.
Flashing Caps Lock LED on Keyboard	1L, 2S	Graphics controller not present or incorrectly initialized.	<ol style="list-style-type: none">1. Clear CMOS.2. If graphics card has been added, remove and reseal.3. Reseat riser board if applicable.
Flashing Num Lock LED on Keyboard	1S, 2L	System memory not present.	<ol style="list-style-type: none">1. Check memory module (refer to the relevant section of the <i>Hardware Reference Guide</i> guide).2. Remove and reseal memory module.3. See the "Solving Memory Problems" section of this guide.
Num Lock LED ON (keyboard)	None	Failed Boot Block.	Reflash the ROM using a ROMPaq diskette. Refer to the "Failsafe Boot Block ROM" section of the <i>Desktop Management</i> guide.
Flashing Scroll Lock LED on keyboard	2L, 1S	System board hardware failure (prior to graphics).	Replace system board.

* L = Long, S = Short

Continued

Power-On Self-Test Messages *Continued*

Message	Beeps*	Probable Cause	Recommended Action
Green Power LED Blinks 1x / Second.	None	Computer in normal Suspend mode.	None
Green Power LED On	None	Computer on.	None
Invalid Electronic Serial Number	None	Electronic serial number has become corrupted.	<ol style="list-style-type: none">1. Run Computer Setup. If Setup already has data in the field or will not allow the serial number to be entered, download from www.compaq.com and run SP5572.EXE (SNZERO.EXE).2. Run F10 Setup and try to enter serial number under Security, System ID, then save changes.
Flashing Power and Hard Drive Green LEDs	None	Unseated riser board.	<ol style="list-style-type: none">1. Remove riser board.2. Wipe connector.3. Reinstall riser board (refer to the <i>Hardware Reference Guide</i> guide for directions on removing the riser board).
Red Power LED Blinks Every 2 or more Seconds.	None	Power supply overloaded.	<ol style="list-style-type: none">1. Push in power button. LED should be green.2. Remove all AC power from computer, wait 30 seconds, then apply power.3. Remove load from power supply by removing options one at a time until computer runs.4. Check for damage to system board.5. Replace system board.6. Replace power supply.

* L = Long, S = Short

Continued

Power-On Self-Test Messages *Continued*

Message	Beeps*	Probable Cause	Recommended Action
Red Power LED Blinks Every Second	None	System memory error.	<ol style="list-style-type: none">1. Check memory module (refer to the relevant section of the Hardware Reference Guide guide).2. Remove and reseat memory module.3. See the "Solving Memory Problems" section of this guide.
Red Power LED Blinks Four Times per Second	None	Computer overheated.	<ol style="list-style-type: none">1. Install computer cover or access panel if necessary.2. Ensure that computer air vents are not blocked and internal fan is running.
Red Power LED On	None	Processor unseated.	Reseat processor in system board.
XXXOOOYZZ Parity Check 2	None	Parity RAM failure.	Run Computer Setup and Diagnostic Utilities.
Invalid Electronic Serial Number	None	Electronic serial number has become corrupted.	<ol style="list-style-type: none">1. Run F10 Setup, try to enter serial number under Security, System ID, and save changes.2. Run Computer Setup. If Setup already has data in the field or will not allow the serial number to be entered, download and run SP5572.EXE (SNZERO.EXE) from www.compaq.com.

* L = Long, S = Short



If you have replaced the standard keyboard with a Universal Serial Bus (USB) keyboard, you will hear the beep sequences for these error codes but will not see the flashing keyboard lights.

appendix **B**

PASSWORD SECURITY AND RESETTING CMOS

This computer supports security password features, which can be established through the Computer Setup Utilities menu.

This computer supports two security password features that are established through the Computer Setup (F10 Setup) Utilities menu: setup password and power-on password. When you establish only a setup password, any user can access all the information on the computer except Computer Setup (F10 Setup). When you establish only a power-on password, the power-on password is required to access Computer Setup (F10 Setup) and any other information on the computer. When you establish both passwords, only the setup password will give you access to Computer Setup (F10 Setup).

When both passwords are set, the setup password can also be used in place of the power-on password as an override to log into the computer. This is a useful feature for a network administrator.

If you forget the password for your computer, there are two methods for clearing that password so you may gain access to the information on the computer:

- Resetting the password jumper
- Using the Clear CMOS button



CAUTION: Pushing the CMOS button will reset CMOS values to factory defaults and will erase any customized information including passwords, asset numbers, and special settings.

Resetting the Password Jumper

To disable the power-on or setup password features, or to clear the power-on or setup passwords, complete the following steps:

1. Turn off the computer and any external devices, and disconnect the power cord from the power outlet.
2. Disconnect the keyboard, monitor, and any other external devices connected to the computer.



WARNING: To reduce the risk of personal injury from electrical shock and/or hot surfaces, be sure to disconnect the power cord from the wall outlet, and allow the internal system components to cool before touching.



CAUTION: When the computer is plugged in, the power supply always has voltage applied to the system board even when the unit is turned off. Failure to disconnect the power cord can result in damage to the system.



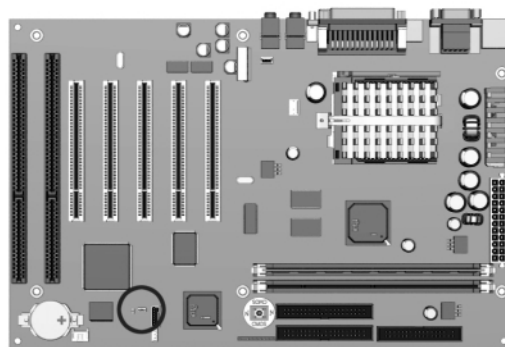
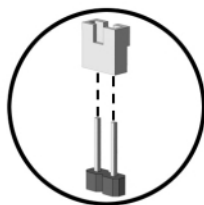
CAUTION: Static electricity can damage the electronic components of the computer or optional equipment. Before beginning these procedures, ensure that you are discharged of static electricity by briefly touching a grounded metal object. Refer to the *Safety & Regulatory Information* guide for more information.

3. Remove the computer cover or access panel.

4. Locate the header and jumper



On most system boards, the header is labeled E49.



Location and Identification of the Password Jumper on a Compaq Deskpro EN Configurable Minitor System Board (Intel 810 Chipset)



Your system board may differ from the sample shown,

5. Remove the jumper from pins 1 and 2. Place the jumper over pin 2 only, in order to avoid losing it.
6. Replace the computer cover or access panel.
7. Reconnect the external equipment.
8. Plug in the computer and turn on power. Allow the operating system to start. This clears the current passwords and disables the password features.
9. To re-enable the password features, repeat steps 1-4, then replace the jumper on pins 1 and 2.
10. Repeat steps 6-8, then establish new passwords. Refer to the *Hardware Reference Guide* for Computer Setup (F10 Setup) instructions.

Clearing and Resetting the CMOS

The computer's configuration memory (CMOS) stores password information as well information about the computer's configuration.

Using the CMOS Button

1. Turn off the computer and any external devices, and disconnect the power cord from the power outlet.
2. Disconnect the keyboard, monitor, and any other external equipment connected to the computer.



WARNING: To reduce the risk of personal injury from electrical shock and/or hot surfaces, be sure to disconnect the power cord from the wall outlet, and allow the internal system components to cool before touching.



When the computer is plugged in, the power supply always has voltage applied to the system board even when the unit is turned off. Failure to disconnect the power cord can result in damage to the system.



CAUTION: Static electricity can damage the electronic components of the computer or optional equipment. Before beginning these procedures, ensure that you are discharged of static electricity by briefly touching a grounded metal object. Refer to the *Safety & Regulatory Information* guide for more information.

3. Remove the computer cover or access panel.

4. Locate, press, and hold the CMOS button in for 5 seconds.



CAUTION: Pushing the CMOS button will reset CMOS values to factory defaults and will erase any customized information including passwords, asset numbers, and special settings.



CMOS Pushbutton

5. Replace the computer cover or access panel.
6. Reconnect the external devices.
7. Plug in the computer and turn on power.



You will need to reset your passwords and any special system setups along with the date and time. Refer to the “Using Computer Setup” section below for further instructions

Using Computer Setup to Reset CMOS

To reset CMOS, you must first access the Computer Setup (F10 Setup) Utilities menu.

When the Computer Setup (F10 Setup) message appears in the lower-right corner of the screen, press the F10 key. Press Enter to bypass the title screen, if necessary.



If you do not press the F10 key while the message is displayed, you must turn the computer off, then on again, to access the utility.

A choice of five headings appears in the Computer Setup (F10 Setup) Utilities menu: File, Storage, Security, Power, and Advanced.

To reset CMOS to the factory default settings first set time and date, then use the arrow keys or the Tab key to select File→Set Defaults and Exit.

Refer to the *Desktop Management* guide for further instructions on reestablishing passwords. For instructions on Computer Setup (F10 Setup), see *Hardware Reference Guide*.

appendix **C**

DRIVE PROTECTION SYSTEM (DPS)

Introducing the Drive Protection System

The Compaq Drive Protection System (DPS) is a diagnostic tool built into the hard drives installed in select Compaq Deskpro computers and Workstations. DPS is designed to help diagnose problems that might result in unwarranted hard drive replacement.

When Compaq Deskpro Computers and Workstations are built, each installed hard drive is tested using DPS and a permanent record of key information is written onto the drive. Each time DPS is run, test results are written to the hard drive. Your service provider can use this information to help diagnose conditions that caused you to run the DPS software.

Running DPS will not affect any programs or data stored on the hard drive. The test resides in the hard drive firmware and can be executed even if the computer will not boot to an operating system. The time required to execute the test depends on the manufacturer and size of the hard drive; in most cases, the test will take approximately 2 minutes per gigabyte.

Use DPS when you suspect a hard drive problem. If the computer reports a SMART Hard Drive Detect Imminent Failure message, there is no need to run DPS; instead, back up the information on the hard drive and contact your Compaq service provider for a replacement hard drive.

Accessing DPS Through Compaq Diagnostics for Windows

To access DPS through Compaq Diagnostics for Windows, perform the following steps:

1. Turn on the computer and select My Computer→Control Panel→Compaq Diagnostics.
A choice of five possible headings appears in the Diagnostics screen: Overview, Test, Status, Log, and Error.
2. Select Test→Type of Test
A choice of three tests appear: Quick Test, Complete Test, and Custom Test.
3. Select Custom Test.
A choice of two test modes is offered: Interactive Mode and Unattended Mode.
4. Select Interactive Test→Storage→Hard Drives.
5. Select the specific drive(s) to be tested→Drive Protection System Test→Begin Testing.

When the test has been completed, one of three messages will be displayed for each of the drives tested:

- Test Succeeded. Completion Code 0.
- Test Aborted. Completion Code 1 or 2.
- Test Failed. Drive Replacement Recommended. Completion Code 3 through 14.

If the test failed, the completion code should be recorded and reported to your service provider for help in diagnosing the computer problem.

Accessing DPS Through Computer Setup

When the computer does not power-on properly you should use Computer Setup (F10 Setup) to access the DPS program. To access DPS, perform the following steps:

1. Turn on or restart the computer.
2. When the F10 Setup message appears 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 turn the computer off, then on again, to access the utility.

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

3. Select Storage→IDE DPS Self-Test.
The computer screen will display the list of DPS-capable hard drives that are installed on the computer.



If no DPS capable hard drives are installed, the IDE DPS Self-Test option will not appear on the screen.

4. Select the hard drive to be tested and follow the screen prompts to complete the testing process.

When the test has been completed, one of three messages will be displayed:

- Test Succeeded. Completion Code 0.
- Test Aborted. Completion Code 1 or 2.
- Test Failed. Drive Replacement Recommended. Completion Code 3 through 14.

If the test failed, the completion code should be recorded and reported to your service provider for help in diagnosing the computer problem.

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