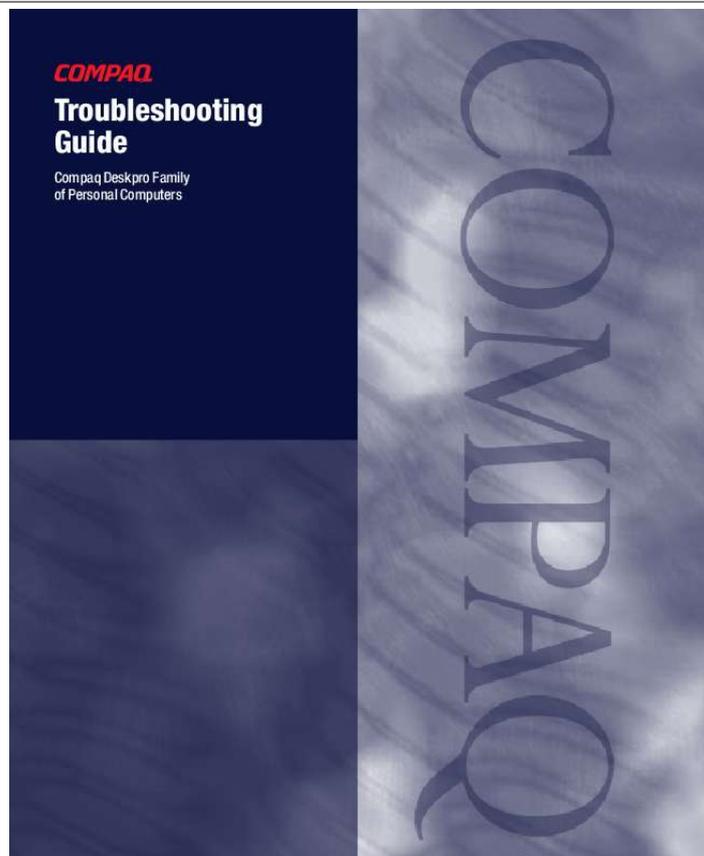# Your PDF Guides

You can read the recommendations in the user guide, the technical guide or the installation guide for COMPAQ DESKPRO FAMILY. You'll find the answers to all your questions on the COMPAQ DESKPRO FAMILY in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

User manual COMPAQ DESKPRO FAMILY
User guide COMPAQ DESKPRO FAMILY
Operating instructions COMPAQ DESKPRO FAMILY
Instructions for use COMPAQ DESKPRO FAMILY
Instruction manual COMPAQ DESKPRO FAMILY

COMPAQ
Troubleshooting Guide
Compaq Deskpro Family
of Personal Computers

COMPAQ

Manual abstract:

The software described in this guide is furnished under a license agreement or nondisclosure agreement.

The software may be used or copied only in accordance with the terms of the agreement. The following words and symbols mark special messages throughout this guide: ! 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. Troubleshooting Guide Compaq Deskpro Family of Personal Computers Second Edition (September 1999) First Edition (June 1999) Part Number 122838-002 Compaq Computer Corporation

CONTENTS chapter 1 Troubleshooting Helpful Hints ..

chapter 1 TROUBLESHOOTING 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 Making Hardware Changes guide. Troubleshooting 1-1 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: s s s s s s s 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 nonPlug 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.

s s 1-2 Troubleshooting Solving General Problems Problem Computer won't turn on 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, contact your Compaq authorized dealer or reseller. Cause Computer is not connected to an external power source. Cables to the external power source are unplugged. A defective PCI or ISA card has been installed. Drive power, data, or power supply cables may not be properly connected. Solution Connect to an external power source. Ensure that cables connecting the computer to the external power source are plugged in properly and the wall outlet is active. Remove any expansion card that was just installed. Reseat drive power, data, and power supply cables.

Press and hold the power button until the computer turns off. Computer appears locked up and won't turn off when the power button is pressed Computer date and time display is incorrect Software control of the power switch is not functional. RTC (real-time clock) battery may need to be replaced. Battery life is approximately 5 years. First, reset the date and time under Control Panel. If the problem persists, replace the RTC battery. @@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. Computer powered off automatically (Red power LED blinks four times per second.) The unit temperature was exceeded.

The fan may be blocked. The unit temperature was exceeded because the computer was functioning with the cover or access panel removed. Computer appears to pause periodically Network driver is loaded and no network connection is established. Replace cover or access panel, and let the computer cool down before attempting to turn on power to the computer. Establish a network connection, or use Computer Setup or Windows Device Manager to disable the network controller.

Continued Troubleshooting 1-3 Solving General Problems Continued Problem Cannot remove computer cover or access panel Cause Smart Cover Lock, featured on some computers, is locked. Solution 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 Num Lock key may be on. Press the Num Lock key. The Num Lock light should not be on if you want to use the arrow keys. 1-4 Troubleshooting Solving Disk Problems Common causes and solutions for disk 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 Diskette drive light stays on Cause Diskette is damaged.

Solution In Windows 95 or 98, run ScanDisk. Click Start Æ Programs Æ Accessories Æ System Tools Æ ScanDisk. In Windows NT, right click Start, click Explore, and select a drive. Select File Æ Properties Æ Tools. Under Error-checking, click Check Now. Remove diskette and reinsert. Push in drive button. Check the program diskettes. Reconnect drive cable. Format the diskette.

Use another diskette or remove the write protection. Check the drive letter in your path statement. Use another diskette. Use Computer Setup to check your storage security feature disabled settings. Continued Diskette is incorrectly inserted.

Drive button is not pushed in. Software program is damaged. Drive cable is not properly connected. Diskette drive cannot write to a diskette Diskette is not formatted. Diskette is write-protected.

Writing to the wrong drive. Not enough space is left on the diskette. Diskette write control is enabled. Troubleshooting 1-5 Solving Disk Problems Continued Problem Cannot format diskette Cause Invalid media reported. Solution 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 or 98, run ScanDisk. Click Start Æ Programs Æ Accessories Æ System Tools Æ ScanDisk. In Windows NT, right click Start, click Explore, and select a drive.

Select File Æ Properties Æ Tools. Under Error-checking, click Check Now. Format the diskette. Check the type of drive you are using and use the correct diskette type. Reseat diskette drive cable. Use Computer Setup (F10 Setup) to enable the second diskette drive. Select Diskettes from the Storage menu. Reinstall the second Ultra ATA hard drive using an 80-conductor cable. The 80-conductor cable is standard on select models. Remove the diskette from the drive.

Diskette drive cannot read a diskette Diskette is not formatted. You are using the wrong diskette type for the drive type. Drive not found Cable is loose. Computer configuration does not recognize second diskette drive. Second Ultra ATA hard drive does not perform optimally Nonsystem disk message You are using the wrong cable for the drive type.

The system is trying to start from a nonsystem diskette. 1-6 Troubleshooting Solving Graphics Problems Problem Blank screen If you encounter graphics problems, refer to the docudocumentation that came with your printer and to the common causes and solutions listed in the following table: Solution Turn the printer on and make sure it is online. Install the correct printer drivers for your application. Make the proper network connections to the printer. Cause Printer is not turned on and online.

The correct printer drivers for your application are not installed. If you are on a network, you may not have made the connection to the printer. Printer will not turn on Prints garbled information The cables may not be connected properly. The correct printer driver for your application is not installed. The cables may not be connected properly. Reconnect all cables and check the power cord and electrical outlet. Install the correct printer driver for your application. Reconnect all cables. Check the paper tray and refill it if it is empty. Select online.

Printer is offline The printer may be out of paper. Troubleshooting 1-9 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 and Windows 98 automatically recognize the device and configure the computer. If you install a nonPlug and Play device, you must reconfigure the computer after completing installation of the new hardware. In Windows 95 and Windows 98, 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. Cause The computer needs to be reconfigured to recognize the device. Cable(s) of new external device are loose or power cables are unplugged. Power switch of new external device is not turned on.

Problem A new device is not recognized as part of the computer system Solution Follow the reconfiguration instructions above. Ensure that all cables are properly and securely connected and that pins in the cable or connector are not bent down. Turn off the computer, turn on the external device, then turn on the computer to integrate the device with the computer system. 1-10 Troubleshooting Solving Network Problems Problem Remote Wakeup feature is not functioning 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.

Cause The Remote Wakeup feature is not available when using an AUI network connection. Remote Wakeup is not enabled. Solution Use an RJ-45 network connection. Use the Network control application to enable Remote Wakeup. Refer to the Desktop Management guide.

Run Computer Setup and enable network controller. Check cabling and network equipment for proper connection. Use the Network control application to verify that device is working properly. Refer to the Using Network Communications guide. No solution; link LED does not apply to AUI connections. Reinstall network drivers. Refer to the Using Network Communications guide. Disable autosensing capabilities and force the system into the correct operating mode. Refer to the Using Network Communications guide. Continued Network driver does not detect network controller Network status link light does not turn on or flashes Network controller is disabled.

No active network is detected. Network controller is not set up properly. System is configured for AUI connection. Network driver is not properly loaded. System cannot autosense the network. Troubleshooting 1-11 Solving Network Problems continued Problem Diagnostics reports a failure Cause The cable is not securely connected. Solution 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. Ensure that the cable is attached to the correct connector. Ensure that the cable and device at the other end are operating correctly. Contact your Compaq authorized service provider.

Under the Computer Setup Advanced menu, change the resource settings for the card. Make sure the network drivers are loaded and that the driver parameters match the configuration of the network controller.

Select the Network icon at the Control Panel and configure the network controller. Continued The cable is attached to the incorrect connector. There is a problem with the cable or a device at the other end of the cable.

The network controller is defective. Network controller interrupt is shared with an expansion 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. The network controller is not configured for this computer. 1-12 Troubleshooting Solving Network Problems continued Problem Network controller stopped working when an expansion board was added to the computer Cause Network controller interrupt is shared with an expansion board.

The network controller requires drivers. Solution Under the Computer Setup Advanced menu, change the resource settings for the board. Verify that the drivers were not accidentally deleted when the drivers for a new expansion board were installed. Reinstall the network drivers, using the Compaq Restore CD. Reinstall the network drivers, using the Compaq Restore CD. 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. Contact your Compaq authorized service provider. Install Compaq-compatible NIC or change boot sequence to boot from another device. Run Computer Setup (F10 Setup) and modify the NIC Settings. The files containing the network drivers are corrupted.

Network controller stopped working without apparent cause The files containing the network drivers are corrupted. The cable is not securely connected. The network controller is defective. New network card will not boot Cannot connect to network server when attempting Remote System Installation New network card may not be Compaq compatible. The network controller is not configured properly. Troubleshooting 1-13 Solving Memory Problems Problem System won't boot or does not function properly after installing additional memory modules Out of Memory error If you encounter memory problems, some common causes and solutions are listed in the following table: Cause Memory module is not the correct type or speed grade for the system or the new memory module is not seated properly. Memory configuration may not be set up correctly. You have run out of memory to run the application. Solution Replace module with the correct industrystandard device for your computer. Use the Device Manager to check memory configuration.

Check the application documentation to determine the memory requirements. Check that the memory modules have been installed correctly and that proper modules are used. Delete any TSRs that you do not need. Memory count during POST is wrong Insufficient memory error during operation The memory modules may not be installed correctly. Too many Terminate and Stay Resident programs (TSRs) are installed.

You have run out of memory for your application. Check the memory requirements for the application or add more memory to the computer. Solving SCSI Problems Problem System with IDE and SCSI drives will not boot from SCSI hard drive System without an IDE drive will not boot from a SCSI drive If you encounter SCSI device problems, refer to the common causes and solutions listed in the following table: Cause The IDE drive is not disabled through the Computer Setup utility. The SCSI drive is not configured correctly. Solution Under the Computer Setup Advanced menu, disable the primary IDE controller. Ensure that drive cabling and jumpers are set correctly. To boot a SCSI drive, the drive ID number must be set to 0. 1-14 Troubleshooting Solving CD-ROM and DVD Problems Problem System will not boot from CD-ROM or DVD drive 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. Solution Run the Computer Setup utility (F10 Setup) and set the drive priorities. Try a bootable CD in the drive. Refer to the documentation that came with the optional device. Cause The CD-ROM or DVD boot is not enabled through the Computer Setup utility. Non-bootable CD in drive. CD-ROM or DVD devices are not detected or driver is not loaded Movie will not play in the DVD drive Drive is not connected properly or not properly configured. Movie may be regionalized for a different country.

Refer to the documentation that came with the DVD drive. Solving Software Problems Most software problems occur as a result of the following: s s s 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 Intelligent Manageability guide for more information. Troubleshooting 1-15 Troubleshooting Using Compaq Intelligent Manageability Features The Local Alert Pop-Up Dialog notifies you of an impending or actual hardware failure. If the computer is connected to a network and the Compaq Insight Management Agents are installed and configured, a Simple Network Management Protocol (SNMP) trap (message) is sent to the specified SNMPcompliant management application. The Local Alert Pop-Up Dialog also tells you the steps you need to take prior to a hardware failure to avoid loss of data and damage to the computer. The system administrator can create a customized action message that might include contact telephone or pager numbers.

To close the Local Alert Pop-Up Dialog, click the Close button. To retrieve fault information after closing the dialog, run Computer Diagnostics. For more detailed information, refer to the online Intelligent Manageability guide and the Desktop Management guide. Compaq Configuration Record Utility Compaq Configuration Record Utility is an online informationgathering tool similar to other Compaq management tools. It gathers critical hardware and software information from various sources to give a complete view of the computer.

Configuration Record Utility provides a means for automatically identifying and comparing configuration changes, and has the ability to maintain a computer configuration history. The information can be saved as a history of multiple sessions. This utility was developed to allow resolution of problems without taking the computer off-line and to assist in maximizing computer availability. The information obtained by the utility is useful in troubleshooting computer problems, and streamlines the service process by enabling quick and easy identification of computer configurations, which is the first step in resolving service cases. The Compaq Configuration Record Utility is accessed via an icon in the Control Panel.

When running the utility, information is automatically gathered on such items as the operating system version number, operating system parameters, and the operating system startup files.

The utility then combines this information with information on the hardware configuration to deliver a comprehensive view of the computer. 1-16 Troubleshooting Contacting Compaq Customer Support For help and service, contact your Compaq authorized reseller or dealer. @@Verify the correct ROM 2. Flash the ROM if needed. 3. @@4. @@5. @@Clear CMOS. 2.

Remove expansion boards. 3. @@Clear CMOS. 2. Remove expansion boards. 3. @@RTC (real-time clock) battery may need to be replaced. @@Reset the date and time under Control Panel. If the problem persists, replace the RTC battery. @@Reset the date and time under Control Panel. If the problem persists, replace the RTC battery. @@Check for proper placement of the CMOS jumper (if applicable). 1. Run Computer Setup (F10 Setup) or Windows utilities. 2.

Make sure your memory module(s) are installed properly. 3. @@RTC (real-time clock) battery may need to be replaced. @@Run Computer Setup (F10 Setup) or Windows utilities. 2.

Ensure memory and continuity modules are installed correctly. 3. Verify proper memory module type. 4. @@5. Replace faulty memory module(s). 6. @@@@Single Bit ECC error. Replace memory modules with matched sets. 1.

Verify proper memory module type. 2. Try another memory socket. 3. @@Keyboard failure. 1. Verify proper memory module type. 2. Try another memory socket. 3.

Replace DIMM with a module conforming to the SPD standard. 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. @@Reconnect the keyboard with computer turned off. 2.

Ensure that none of the keys are depressed. 3. Replace the keyboard. 4. @@IRQ address conflicts with another device. @@Remove any parallel port expansion cards. 2. Clear CMOS. 3. @@IRQ address conflicts with another device.

Graphics display controller. Reset the IRQ. Reset the IRQ. 1L, 2S 1. Reseat the graphics card (if applicable). 2. Clear CMOS. 3. Verify monitor is attached and turned on. 4.

@@Run Computer Setup (F10 Setup). 2. Check and/or replace cables. 3. Clear CMOS.

4. Replace diskette drive. 5. @@Mismatch in drive type. Replace the diskette.

1. @@2. Disconnect any other diskette controller devices (tape drives). 3. Clear CMOS. 610-External Storage Device Failure 611-Primary Floppy Port Address Assignment Conflict 612-Secondary Floppy Port Address Assignment Conflict 660-Display cache is detected unreliable 912- Computer Cover Has Been Removed Since Last System Startup * L = Long, S = Short None External tape drive not connected. Configuration error. Reinstall tape drive or press F1 and allow system to reconfigure without the drive. 1. Run Computer Setup (F10 Setup).

2. Remove expansion cards. 3. Clear CMOS. 2S 2S Configuration error. 1. Run Computer Setup (F10 Setup). 2. Remove expansion cards. 3. Clear CMOS. None Integrated graphics controller display cache not working properly and will be disabled. Replace system board if minimal graphics degrading is an issue. No action required. None Continued Troubleshooting 2-5 Power-On Self-Test Messages Continued Message 914-Hood Lock Coil is not Connected Beeps* None Probable Cause Smart Cover Lock mechanism is missing or not connected.

Recommended Action 1. Reconnect or replace Smart Cover Lock. 2. Reseat or replace Smart Cover Lock cable. 916-Thermal Sensor from Processor Heatsink is not Connected 917-Expansion Riser not Detected 1151-Serial Port 1 Address Conflict Detected None Processor heatsink cable not connected to system board.

Reseat or replace the processor heatsink cable going to the system board. Install riser board if missing or remove and reseat to ensure good connection. 1. Remove any serial port expansion cards. 2. Clear CMOS. 3. Reconfigure card resources and/or run Computer Setup (F10 Setup). None 2S Riser board not seated or not installed. Both external and internal serial ports are assigned to COM1.

1152- Serial Port 2 Address Conflict Detected 2S Both external and internal serial ports are assigned to COM2. 1. Remove any serial port expansion cards. 2. Clear CMOS. 3. Reconfigure card resources and/or run Computer Setup (F10 Setup). 1155-Serial Port Address Conflict Detected 2S Both external and internal serial ports are assigned to same IRQ. 1. Remove any serial port expansion cards.

2. Clear CMOS. 3. Reconfigure card resources and/or run Computer Setup (F10 Setup). 1201-System Audio Address Conflict Detected * L = Long, S = Short 2S Device IRQ address conflicts with another device.

Reset the IRQ. Continued 2-6 POST Error Messages Power-On Self-Test Messages Continued Message 1202-MIDI Port Address Conflict Detected 1203-Game Port Address Conflict Detected 1720-SMART Hard Drive Detects Imminent Failure Beeps* 2S Probable Cause Device IRQ address conflicts with another device. Device IRQ address conflicts with another device. Hard drive is about to fail. (Some hard drives have a firmware patch that will fix an erroneous error message).

Recommended Action Reset the IRQ. 2S Reset the IRQ. 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. 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). 1. Determine if hard drive is giving correct error message. 2. Apply firmware patch if applicable. 3. Back up contents and replace hard drive. 1. Remove any serial port expansion cards. 2.

Clear CMOS. 3. Reconfigure card resources and/or run Computer Setup (F10 Setup). Continued 1771-Primary Disk Port Address Assignment Conflict 2S Internal and external hard drive controllers are both assigned to the primary address. * L = Long, S = Short Troubleshooting 2-7 Power-On Self-Test Messages Continued Message 1772-Secondary Disk Port Address Assignment Conflict Beeps* 2S Probable Cause Internal and external hard drive controllers are both assigned to the secondary address.

Recommended Action 1. Remove any serial port expansion cards. 2. Clear CMOS. 3. Reconfigure card resources and/or run Computer Setup (F10 Setup). 1. Run Computer Setup (F10 Setup). 2. Clear CMOS. 3. Check cables/jumper settings. 4. Run hard drive diagnostics. 5.

Disconnect additional drives. 6. Run the Drive Protection System test if available. 7. Replace the hard drive. 1780-Disk 0 Failure None Hard drive/format error. 1781-Disk 1 Failure None Hard drive/format error. 1. Run Computer Setup (F10 Setup). 2. Clear CMOS. 3. Check cables/jumper settings. 4. Run hard drive diagnostics.

5. Disconnect additional drives. 6. Run the Drive Protection System test if available. 7.

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Recommended Action 1. Run Computer Setup (F10 Setup). 2. Clear CMOS. 3. Check cable seating/jumper settings. 4. Run hard drive diagnostics.

5. Disconnect additional drives. 6. Run the Drive Protection System test if available. 7. Replace the hard drive. 8. Replace the system board. 1790-Disk 0 Error None Hard drive error or wrong drive type. 1.

Run Computer Setup (F10 Setup). 2. Clear CMOS. 3. Check cable seating jumper settings.

4. Run hard drive diagnostics. 5. Disconnect additional drives. 6.

Confirm drive is supported on this computer (large drive ROM support). 7. Run the Drive Protection System test if available. 8. Replace the hard drive. 9. Replace the system board. * L = Long, S = Short Continued Troubleshooting 2-9 Power-On Self-Test Messages Continued Message 1791-Disk 1 Error Beeps* None Probable Cause Hard drive error or wrong drive type. Recommended Action 1. Run Computer Setup (F10 Setup).

2. Clear CMOS. 3. Check cable seating/jumper settings. 4. Run hard drive diagnostics. 5. Disconnect additional drives. 6. Confirm drive is supported on this computer (large drive ROM support).

7. Run the Drive Protection System test if available. 8. Replace the hard drive. 9.

Replace the system board. 1792-Secondary Disk Controller Failure None Hard drive circuitry error. 1. Run Computer Setup (F10 Setup). 2.

Clear CMOS. 3. Check cable seating/jumper settings. 4. Run hard drive diagnostics. 5. Disconnect additional drives. 6. Run the Drive Protection System test if available. 7.

Replace the hard drive. 1793-Secondary Controller or Disk Failure None Hard drive circuitry error. 1. Run Computer Setup (F10 Setup). 2. Clear CMOS. 3. Check cable seating/jumper settings. 4. Run hard drive diagnostics.

5. Disconnect additional drives. 6. Run the Drive Protection System test if available. 7.

Replace the hard drive. * L = Long, S = Short Continued 2-10 POST Error Messages Power-On Self-Test Messages Continued Message 1800-Temperature Alert Beeps* None Probable Cause Internal temperature exceeds specification. Recommended Action 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 Audible None 1L, 3S Processor not supported by ROM Bios. System ROM is bad; system is running in Failsafe Boot Block mode. Power-on successful. Graphics controller not present or incorrectly initialized. Upgrade BIOS to proper version.

Reflash the ROM using a ROMPaq diskette. Refer to the "Failsafe Boot Block ROM" section of the Intelligent Manageability guide. None. 1. Following directions in Appendix A to clear CMOS. 2. If graphics card has been added, remove and reseat. 1. Check memory module (refer to the relevant section of the Making Hardware Changes guide). 2.

Remove and reseat memory module. 3. See the "Solving Memory Problems" section of this guide. Audible Flashing Caps Lock LED on Keyboard 2S 1L, 2S Flashing Num Lock LED on Keyboard 1S, 2L System memory not present. 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 Intelligent Manageability guide. Replace system board. Continued Flashing Scroll Lock LED on keyboard * L = Long, S = Short 2L, 1S System board hardware failure (prior to graphics). Troubleshooting 2-11 Power-On Self-Test Messages Continued Message Green Power LED Blinks 1x / Second.

Green Power LED On Invalid Electronic Serial Number Beeps* None None None Probable Cause Computer in normal Suspend mode. Computer on. Electronic serial number has become corrupted. Recommended Action None None 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). 1.

Remove riser board. 2. Wipe connector. 3. Reinstall (refer to the Making Hardware Changes guide for directions on removing the riser board). Flashing Power and Hard Drive Green LEDs None Unseated riser board. Red Power LED Blinks Every 2 or more Seconds. None Power supply overloaded. 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. Red Power LED Blinks Every Second None System memory error. 1. Check memory module (refer to the relevant section of the Making Hardware Changes guide). 2. Remove and reseat memory module. 3. See the "Solving Memory Problems" section of this guide. * L = Long, S = Short Continued 2-12 POST Error Messages Power-On Self-Test Messages Continued Message Red Power LED Blinks Four Times per Second Beeps* None Probable Cause Computer overheated. Recommended Action 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 * L = Long, S = Short None Processor unseated. Reseat processor in system board. 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. Troubleshooting 2-13 appendix A PASSWORD SECURITY AND CLEARING 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: s s 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. Troubleshooting A-1 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. A-2 Password Security and Cleaning and Resetting CMOS 4. Locate the header and jumper labeled E49. Location and Identification of the Password Jumper on a Compaq Deskpro EP System Board (Intel 810 Chipset) Location and Identification of the Password Jumper on a Compaq Deskpro EN System Board (Intel 810 Chipset) Troubleshooting A-3 Location and Identification of the Password Jumper on a Compaq Deskpro EN SFF, FrontMounted Audio Solution System Board (Intel 810 Chipset) 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. Repeat steps 6-8, then establish new passwords. Refer to the Making Hardware Changes guide for Computer Setup (F10 Setup) instructions. A-4 Password Security and Cleaning and Resetting CMOS 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. 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. Troubleshooting A-5 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. 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. A-6 Password Security and Cleaning and Resetting CMOS 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 use the arrow keys or the Tab key to select FileSet Defaults and Exit. Refer to the Desktop Management guide for further instructions on reestablishing passwords. For instructions on Computer Setup (F10 Setup), see Making Hardware Changes. Troubleshooting A-7 appendix B COMPUTER DIAGNOSTICS Compaq Diagnostics for Windows Compaq Diagnostics for Windows is a component of Intelligent Manageability that allows you to view: s s s s s s s s s s s System overview AssetControl information Input devices Communications ports Storage devices Graphics information Memory configuration Security management settings System health Operating system Windows version 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. Troubleshooting B-1 Using Compaq Diagnostics for Windows 1. Select the Compaq Diagnostics 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. corresponding category names appear near the cursor. 3. 4. To display more detailed information in a selected category, click More in the Information Level box. Review and print this information and, if necessary, discuss it with your authorized Compaq reseller or service provider. 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.

As you move your cursor over the toolbar icons, the To print the information, click File, then select Print. B-2 Computer Diagnostics Running Diagnostic Tests If your version of Compaq Diagnostics for Windows includes diagnostic testing utilities, four tabs will appear next to Overview: Test, Status, Log, and Error. 1. 2. Select the Test tab. 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. 3. 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. 4. Click the Begin Testing button. Test Status is displayed, showing the progress and result of each test. @@@@@@@@DPS is designed to help diagnose problems that might result in unwarranted hard drive replacement. When Compaq Deskpro Computers 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. Troubleshooting C-1 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 ComputerControl PanelCompaq Diagnostics. A choice of five possible headings appears in the Diagnostics screen: Overview, Test, Status, Log, and Error. 2.

Select TestType 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 TestStorageHard Drives. 5. Select the specific drive(s) to be testedDrive Protection System TestBegin Testing. When the test has been completed, one of three messages will be displayed for each of the drives tested: s s s 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. C-2 Drive Protection System (DPS) 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 StorageIDE 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: s s s Test Succeeded.