Maintenance and Service Guide
Compaq Presario 7300 Series Computers
Models: 7360, 7370

Product Description

Troubleshooting

Illustrated Parts Catalog

Removal & Replacement Procedures

Jumper & Switch Information

Specifications

See the Notice for copyright and trademark information, and the Preface for symbol conventions and Technician Notes.

Click to download ZIP file of complete MSG to hard drive.

This MSG will be periodically maintained and updated as needed.
To report a technical problem, contact your Regional Support Center or IM Help Center.
For content comments or questions, contact the Editor.

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Online Maintenance and Service Guide
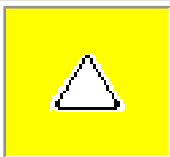**Compaq Presario 7300 Series Personal Computers**

June 1999

PREFACE

This *Maintenance and Service Guide* is a troubleshooting guide that can be used for reference when servicing the Compaq Presario 7300 Series Personal Computers.

Compaq Computer Corporation reserves the right to make changes to the Compaq Presario 7300 Series Personal Computers without notice.

Symbols

The following words and symbols mark special messages throughout this guide.

⚠	**WARNING:** Text set off in this manner indicates that failure to follow directions in the warning 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 data.
IMPORTANT:	Text set off in this manner presents clarifying information or specific instructions.
NOTE:	Text set off in this manner presents commentary, sidelights, or interesting points of information.

Technician Notes

⚠	**WARNING:** Only authorized technicians trained by Compaq should repair this equipment. All troubleshooting and repair procedures are detailed to allow only subassembly/module level repair. Because of the complexity of the individual boards and subassemblies, the user should not attempt to make repairs at the component level or to make modifications to any printed circuit board. Improper repairs can create a safety hazard. Any indications of component replacement or printed circuit board modifications may void any warranty.

Locating Additional Information

The following documentation is available to support this product:

- Compaq Presario documentation set
- *Introducing Windows 98 Guide*
- Service Training Guides
- Compaq Service Advisories and Bulletins
- *Compaq QuickFind*
- *Compaq Service Quick Reference Guide*
- *Compaq Help Center*

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Model Specific Features

CPU Controls and Lights

Keyboard Controls and Lights

Rear Connectors
connector pin assignments

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general requirements

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PRODUCT DESCRIPTION

Compaq Presario 7300 Series Standard Configuration

U.S.	Model	Processor	Hard Drive	CD-ROM	Modem
	7360	K6-II 500 MHz	10.0-GB	40x	PCI 56K
	7370	K6-II 533MHz	13.0-GB	40x	PCI-56K

CPU controls and lights

Models and Features

Keyboard controls and lights

Rear CPU connectors

Power cord set requirements

PRODUCT DESCRIPTION

CPU Controls and Lights
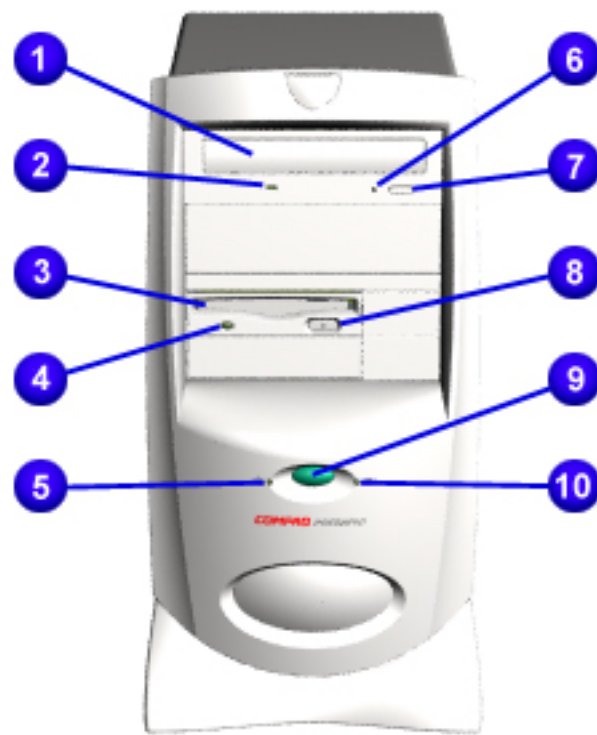
1 CD Drive Tray

2 CD Drive Activity Light

3 Diskette Drive

4 Diskette Drive Activity Light

5 Hard Drive Activity Light

6 CD Drive Manual Eject Hole

7 CD Drive Eject Button

8 Diskette Drive Eject Button

9 Standby Button

10 Power Indicator Light

PRODUCT DESCRIPTION

CPU Rear Connectors
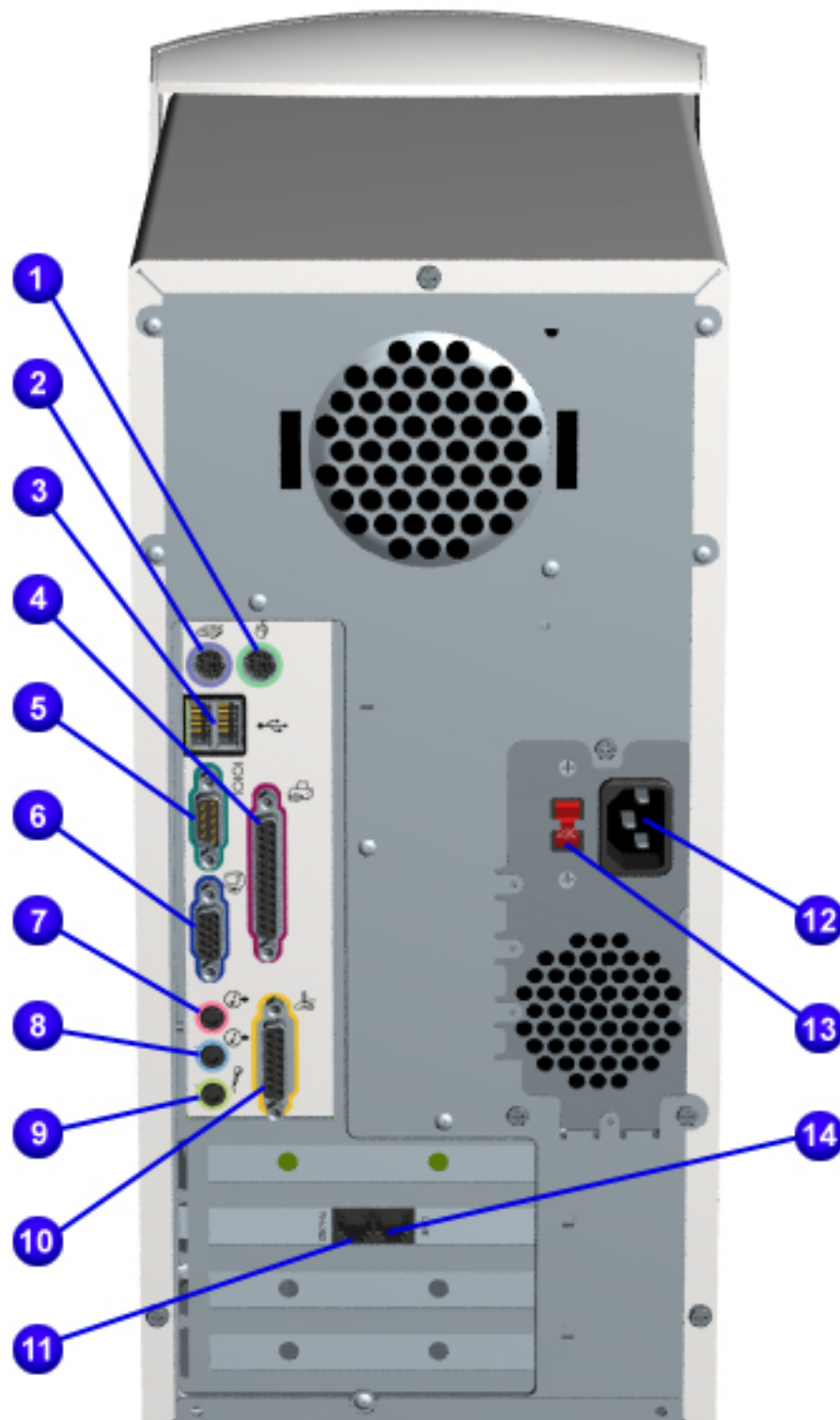
1 Mouse
2 Keyboard
3 USB Port
4 Parallel (printer) Port
5 Serial Port
6 SVGA Monitor Port
7 Audio Line Out
8 Audio Line In
9 Microphone In
10 Game Port
11 Modem (line)
12 AC Power Connector
13 Voltage Select Switch
14 Modem (phone)

PRODUCT DESCRIPTION

Power Cord Set Requirements

The power cord set (flexible cord and wall plug) received with the computer meets the requirements for use in the country where the computer was purchased.

Power cord sets for use in other countries must meet the requirements of the country where you use the computer. For more information on power cord set requirements, contact your Compaq authorized dealer, reseller, or service provider.

General Requirements

The requirements listed below are applicable to all countries:

1 The length of the power cord set must be at least 6.00 feet (1.8 m) and a maximum of 9.75 feet (3.0 m).

2 All power cord sets must be approved by an acceptable accredited agency responsible for evaluation in the country where the power cord set will be used.

3 The power cord set must have a minimum current capacity of 10A and a nominal voltage rating of 125 or 250 volts AC, as required by each country's power system.

4 The appliance coupler must meet the mechanical configuration of an EN 60 320/IEC 320 Standard Sheet C13 connector, for mating with appliance inlet on the Switch Box.

Country-Specific Requirements

	Country	Accredited Agency
	United States	UL*

* The flexible cord must be Type SJT-2 or equivalent, No. 18 AWG, 3-conductor. The wall plug must be a two-pole grounding type with a NEMA 5-15P (15A, 125V) or NEMA 6-15P (15A, 250V) configuration.

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Clearing CMOS

If the power-on password is unknown, clearing CMOS will disable the password and allow the computer to be operated.

The location of the Real-time Clock (RTC) battery is shown on the system board illustration below.

1   Complete the preparation for disassembly.

2   Remove the chassis cover .

3   Remove the fax/modem board.

4   Remove the system board.

5   Remove the RTC battery.

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Power-On Self Test (POST)

POST is a series of diagnostic tests that run automatically when the system is turned on. After the computer is turned on, **POST** checks the following assemblies to ensure that the computer system is properly functioning:

- Keyboard
- System board
- Memory modules
- Video memory
- Diskette drives
- Hard drive
- Power supply

POST also detects the type of mass storage devices installed in the computer.

If **POST** finds an error in the system, an error condition is indicated by an audible and/or visual message. The table below gives explanations of the error codes and a recommended course of action.

NOTE:	An external speaker must be installed into the speaker output connector to hear audible beeps during **POST**.

Click a link below to find the probable cause and recommended action for a given error message.

Diskette Drive A or B Error	Keyboard Controller Error	System BIOS Shadowed
Extended RAM failed at offset *nnn*	Keyboard Error	System Cache Error
Failing Bits *nnn*	Operating System Not Found	System CMOS Checksum Bad
Fixed Disk 0 or 1 Failure	Parity Check 1	System RAM Failed at Offset, *nnn*
Fixed Disk Controller Failure	Parity Check 2	System Timer Error
Incorrect Drive A Type	Real Time Clock Error	UMB Upper Limit Segment Address *nnn*
Invalid NVRAM Media Type	System Battery is Dead	Video BIOS Shadowed

POST Messages

Error message	Probable Cause	Recommended Action
Diskette Drive A or B Error	Drive A: or B: is present, but fails the BIOS POST diskette tests	1. Run Setup. 2. Replace the signal cables. 3. Replace the drive.
Extended RAM failed at offset *nnn*	Extended memory not working or not configured properly	1. Replace the memory modules. 2. Replace the system board.
Failing Bits *nnn*	*nnn* is a map of the bits at the RAM address which failed the memory test	1. Run Setup. 2. Replace the system board.
Fixed Disk 0 or 1 Failure	Hard drive is not working or not configured properly	1. Run Setup. 2. Replace the signal cable. 3. Replace the hard drive.
Fixed Disk Controller Failure	Hard drive is not working or not configured properly	1. Run Setup. 2. Replace the system board.
Incorrect Drive A Type	Type of diskette in drive A: not correctly identified	1. Run Setup. 2. Replace the diskette drive.
Invalid NVRAM Media Type	Problem with NVRAM (CMOS) access	Replace the system board.
Keyboard Controller Error	Keyboard, I/O keyboard controller (on system board), or mouse error	1. Replace the keyboard. 2. Replace the mouse. 3. Replace the system board.
Keyboard Error	Keyboard, I/O keyboard controller (on system board), or mouse error	1. Replace the keyboard. 2. Replace the mouse. 3. Replace the system board.
Operating System Not Found	Operating system cannot be located on either drive A: or C:	Run Setup.
Parity Check 1	Parity error found in the system bus	1. Run Setup. 2. Replace the memory modules. 3. Replace the system board.
Parity Check 2	Parity error found in the I/O bus	1. Run Setup. 2. Replace the ISA board (modem).
Real Time Clock Error	Real-time clock fails BIOS test	Replace the system board.
System Battery is Dead	RTC battery is dead	1. Replace the RTC battery. 2. Run Setup.
System BIOS Shadowed	System BIOS copied to Shadow RAM	Status message. No action required.
System Cache Error	RAM cache failed the BIOS test	Run Setup.
System CMOS Checksum Bad	CMOS is corrupted or modified incorrectly	Run Setup.
System RAM Failed at Offset, *nnn*	System RAM failed	Replace memory modules.
System Timer Error	DMA, timers, etc.	Replace the system board.
UMB Upper Limit Segment Address *nnn*	Displays the address *nnn* of the upper limit of Upper Memory Blocks, indicating released segments of the BIOS	Status message. No action required.
Video BIOS Shadowed	Video BIOS successfully copied to shadow RAM	Status message. No action required.

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Configuration

This section explains how to use Setup and Compaq Utilities which should be accessed in the following instances:

- When a system configuration error is detected during the Power-On Self-Test (POST)
- To change factory default settings for some of the computer features
- To change the system configuration, which is sometimes necessary when you add or remove optional hardware
- To set system configuration features

Click a link below to go to the appropriate subsection.

Preparing the Computer

Setup

Accessing Compaq Utilities Options

View System Information (INSPECT)

Preparing the Computer

If you encounter an error condition, complete the following steps before starting problem isolation procedures:

1. Ensure proper ventilation. The computer should have a 3-inch (7.6 cm) clearance at the back of the system unit.

2. Turn off the computer and peripheral devices.

> ⚠ **CAUTION:** Always ensure that the power is off before disconnecting or reconnecting the mouse, keyboard, or any other peripheral devices. Disconnecting or connecting the keyboard or mouse while the unit power is on can damage the system board.

3. Disconnect any peripheral devices other than the monitor and keyboard. Do not disconnect the printer if you want to test it or use it to log error messages.

4. Install loop-back and terminating plugs for complete testing.

Setup

The Setup utility gives a snapshot of the computer's hardware configuration, aids in troubleshooting, and sets custom features. Setup recognizes a new internal component or an external device and automatically updates the configuration screens. Use the Setup utility to:

- Modify settings for audio, storage, power management, communications, and input devices
- Get an overall picture of the computer's hardware configuration
- Verify configuration parameters in determining problems
- Set time and date

Running Setup

To access the Setup utility, turn on the computer and press the **F10** key when the Compaq logo appears. A menu will appear on your screen.

> **NOTE:** The actual menu displayed on your computer may vary slightly, depending on your configuration.

Accessing Compaq Utilities Options

This section provides information about the menu options accessible from the **Compaq Utilities** menu.

Create a Compaq Utilities Diskette

A Compaq Utilities diskette must be created to troubleshoot the system. To create a Compaq Utilities diskette, complete the following steps:

1. Insert the *QuickRestore CD* into the CD drive.
2. From the Windows desktop, click on **Start,** then **Program,** then **Windows Explorer.**
3. Click on the CD drive icon.
4. Double-click on the **PCdiags** folder.
5. Insert a diskette in the diskette drive.
6. Double-click on the **QRST5.exe** icon.
7. Press **Enter** when the QuickRestore label appears.
8. After the CD has completed copying to the diskette, eject the *QuickRestore CD.*

Running Compaq Utilities

To run Compaq Utilities, turn on or reboot the computer with the Compaq Utilities diskette in the diskette drive. A menu will appear on your screen.

View System Information (INSPECT)

The View System Information (INSPECT) utility provides information about the system once it has been configured. INSPECT operates with MS-DOS and provides information about the system operating environment including:

- Contents of the operating system startup files
- Current memory configuration
- ROM version
- Type of processor and coprocessor
- Diskette and hard drives
- Active printer and communications interfaces
- Modem

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Diagnostic Error Codes

Diagnostic error codes occur if the system recognizes a problem while running the Compaq Utilities program. These error codes help identify possibly defective subassemblies.

Tables listed on this page give possible error codes, descriptions of each error condition, and actions required to resolve the error condition.

IMPORTANT:	Retest the system after completing each step. If the problem has been resolved, do not proceed with the remaining steps.

For assistance in the removal and replacement of a particular subassembly, see *Removal and Replacement Procedures*.

100-xx	Processor	1100-xx	Serial	3200-xx	Audio
200-xx	Memory	1200-xx	Modem	3300-xx	CD Drive
300-xx	Keyboard	1700-xx	Hard drive	6600-xx	CD Drive
400-xx	Parallel (printer)	1900-xx	Tape drive	8600-xx	Pointing device interface
600-xx	Diskette drive	2400-xx	Video		

Keyboard error codes

Error Code	Description	Recommended Action
301-xx	Keyboard short test, 8042 self-test failed	The following steps apply to error codes 301-xx through 304-xx:
302-xx	Keyboard long test failed	1 Check the keyboard connection. If disconnected, turn the computer off and connect the keyboard.
303-xx	Keyboard LED test, 8042 self-test failed	2 Replace the keyboard and retest.
304-xx	Keyboard typematic test failed	3 Replace the system board and retest.

Parallel (printer) error codes

Error Code	Description	Recommended Action
401-xx	Printer failed or not connected	The following steps apply to error codes 401-xx through 498-xx:
402-xx	Printer data register failed	1 Connect the printer.
403-xx	Printer pattern test failed	2 Check power to the printer.
498-xx	Printer failed or not connected	3 Install the loop-back connector and retest. 4 Replace system board and retest.

Serial error codes

Error Code	Description	Recommended Action
1101-xx	Serial Port Test	The following steps apply to error codes 1101-xx through 1109-xx: 1 Check the switch settings on the serial/parallel device, if applicable.
1109-xx	Clock Register Test	2 Replace the system board and retest.

Modem error codes

Error Code	Description	Recommended Action
1201-xx	Modem Internal Loop-Back Test	The following steps apply to error codes 1201-xx through 1210-xx:
1202-xx	Modem Time-Out Error	1 Refer to modem documentation for correct Setup procedures.
1203-xx	Modem External Termination Test	2 Check the modem line.
1204-xx	Modem Auto Originate Test	3 Replace the modem and retest.
1206-xx	Dial Multifrequency Tone Test	
1210-xx	Modem Direct Connect Test	

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Diagnostic Error Codes (continued)

Video error codes

Error Code	Description	Recommended Action
2402-xx	Video memory test failed	The following steps apply to error codes 2402-xx through 2456-xx:
2403-xx	Video attribute test failed	
2404-xx	Video character set test failed	1 Run Setup.
2405-xx	Video 80 × 25 mode 9 × 14 character cell test failed	2 Replace the system board and retest.
2406-xx	Video 80 × 25 mode 8 × 8 character cell test failed	
2407-xx	Video 40 × 25 mode test failed	
2408-xx	Video 320 × 200 mode color set 0 test failed	
2409-xx	Video 320 × 200 mode color set 1 test failed	
2410-xx	Video 640 × 200 mode test failed	
2411-xx	Video screen memory page test failed	
2412-xx	Video gray scale test failed	
2414-xx	Video white screen test failed	
2416-xx	Video noise pattern test failed	
2418-xx	ECG/VGC memory test failed	
2419-xx	ECG/VGC ROM checksum test failed	
2420-xx	ECG/VGC attribute test failed	
2421-xx	ECG/VGC 640 × 200 graphics mode test failed	
2422-xx	ECG/VGC 640 × 350 16-color set test failed	
2423-xx	ECG/VGC 640 × 350 64-color set test failed	
2424-xx	ECG/VGC monochrome text mode test failed	
2425-xx	640 × 480 graphics test failure	
2431-xx	640 × 480 graphics test failure	
2432-xx	320 × 200 graphics (256-color mode) test failed	
2448-xx	Advanced VGA Controller test failed	
2451-xx	132-column Advance VGA test failed	
2456-xx	Advanced VGA 256-Color test failed	
2468-xx	Advanced VGA BitBLT test	The following steps apply to error codes 2468-xx through 2480-xx:
2477-xx	Advanced VGA datapath test	1 Run Setup.
2478-xx	Advanced VGA BitBLT test	2 Replace the system board and retest.
2480-xx	Advanced VGA Linedraw test	

Processor error codes

Error code	Description	Recommended action
101-xx	CPU test failed	Replace the system board and retest.
102-xx	Processor error	1. Run Setup and retest. 2. Replace the processor and retest.
103-xx	DMA controller failed	The following step applies to error codes 103-xx through 106-xx: Replace the system board and retest.
104-xx	Interrupt controller failed	
105-xx	Port error	
106-xx	Keyboard controller self-test failed	
107-xx	CMOS RAM test failed	The following steps apply to error codes 107-xx through 109-xx: 1. Replace the battery/clock module and retest. 2. Replace the system board and retest.
108-xx	CMOS interrupt test failed	
109-xx	CMOS clock test failed	
110-xx	Programmable timer test failed	The following step applies to error codes 110-xx through 113-xx: Replace the system board and retest.
111-xx	Refresh detect test failed	
112-xx	Speed test failed	
113-01	Protected mode test failed	
114-xx	Speaker test failed	1. Verify the speaker connection. 2. Replace the system board and retest.
199-xx	Installed devices test failed	1. Check system configuration. 2. Verify cable connections. 3. Check switch settings. 4. Run Compaq Utilities. 5. Replace the system board and retest.

Monitor (VGA or flat-panel) error codes

Error Code	Description	Recommended Action
501-xx	Video controller test failed	The following step applies to error codes 501-xx through 516-xx: Replace the system board and retest.
502-xx	Video memory test failed	
503-xx	Video attribute test failed	
504-xx	Video character set test failed	
505-xx	Video 80 × 25 mode 9 × 14 character cell test failed	
506-xx	Video 80 × 25 mode 9 × 14 character cell test failed	
507-xx	Video 40 × 25 mode test failed	
508-xx	Video 320 × 200 mode color set 0 test failed	
509-xx	Video 320 × 200 mode color set 1 test failed	
510-xx	Video 640 × 200 mode test failed	
511-xx	Video screen memory page test failed	
512-xx	Video gray scale test failed	
514-xx	Video white screen test failed	
516-xx	Video noise pattern test failed	

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Diagnostic Error Codes (continued)

Hard drive error codes

Error Code	Description	Recommended Action
1700-xx	Hard drive ID types test failed	The following steps apply to error codes 1700-xx through 1799-xx:
1701-xx	Hard drive format test failed	1 Run Setup and verify drive type.
1702-xx	Hard drive read test failed	2 Replace the hard drive signal and power cables and retest.
1703-xx	Hard drive write/read/compare test failed	3 Replace the hard drive and retest.
1704-xx	Hard drive random seek test failed	4 Replace the system board and retest.
1705-xx	Hard drive controller test failed	
1706-xx	Hard drive ready test failed	
1707-xx	Hard drive recalibration test failed	
1708-xx	Hard drive format bad track test failed	
1709-xx	Hard drive reset controller test failed	
1710-xx	Hard drive park head test failed	
1714-xx	Hard drive file write test failed	
1715-xx	Hard drive head select test failed	
1716-xx	Hard drive conditional format test failed	
1717-xx	Hard drive ECC* test failed	
1719-xx	Hard drive power mode test failed	
1719-x	Hard drive power mode test failed	
1730-x	Fixed Disk 0 does not support DMA Mode	
1731-x	Fixed Disk 1 does not support DMA Mode	
1740-x	Fixed Disk 0 failed Set Block Mode command	
1741-x	Fixed Disk 1 failed Set Block Mode command	
1750-x	Fixed Disk 0 failed Identify command	
1751-x	Fixed Disk 1 failed Identify command	
1760-x	Fixed Disk 0 does not support Block Mode	
1761-x	Fixed Disk 1 does not support Block Mode	
1790-x	Disk 0 Configuration Error	
1792-x	Secondary Disk Controller Failure	
1799-xx	Invalid hard drive type failed	

*Error Correction Code

Tape drive error codes

Error Code	Description	Recommended Action
1900-xx	Tape ID failed	The following steps apply to error codes 1900-xx through 1906-xx:
1901-xx	Tape servo write failed	1 Replace the tape cartridge and retest.
1902-xx	Tape format failed	2 Check and/or replace the signal cable and retest.
1903-xx	Tape drive sensor test failed	3 Replace the tape drive and retest.
1904-xx	Tape BOT/EOT test failed	4 Replace the system board and retest.
1905-xx	Tape read test failed	
1906-xx	Tape write/read/compare failed	

Pointing device interface error codes

Error Code	Description	Recommended Action
8601-xx	Pointing Device Interface test failed	1. Replace with a working pointing device and retest. 2. Replace the system board and retest.

Audio error codes

Error Code	Description	Recommended Action
3206-xx	Audio System Internal Error	Replace the system board and retest.

CD Drive error codes

Error Code	Description	Recommended Action
3301-xx 3305-xx 66XX-xx	CD drive read test failed	The following steps apply to error codes 3301-xx through 3305-xx and 66XX-xx: 1 Replace the CD disk and retest.* 2 Check the jumper settings on the CD drive. 3 Check and/or replace the power and signal cables and retest. 4 Replace the CD drive and retest. 5 Replace the backplane.

*Boot to DOS (Command Prompt only) or Windows (Not Safe Mode). Press the CD drive eject button (located on the front bezel) to eject the CD and retest.

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Troubleshooting Without Diagnostics

This section describes some simple, preliminary tests and guidelines for troubleshooting the computer.

Checklist For Solving Minor Problems

If you encounter some minor problem with the computer or software application, go through the following checklist for possible solutions before running any of the diagnostic utilities:

- Is the computer connected to a working power outlet?
- Is the computer turned on and the power light illuminated?
- Are all cables connected properly and seated?
- Are all of the necessary device drivers installed?
- Is the *CONFIG.SYS* file correct?
- Is the *AUTOEXEC.BAT* file (MS-DOS) or *STARTUP.CMD* file correct?
- Was a nonbootable diskette loaded in the diskette drive at power-up?
- Are all switch settings correct?
- Was Computer Setup run after installing options (memory, disk drives, etc.) and before installing industry standard architecture boards?

Quick checks and possible solutions for problems related to these topics:

      CD drive   Hard drive   Power

      Diskette drive   Hardware installation   USB ports

are provided in the tables below. The procedure for resolving hardware conflicts is also described.

CD drive		
Problem	**Probable cause(s)**	**Possible solution**
Cannot read compact disc.	CD is not properly seated in the drive.	Eject the CD, then re-insert it, pressing down on the CD firmly to correctly seat it in the drive.
	CD has been loaded upside down.	Eject the CD, turn it over, then reload.
	CD may be dirty or scratched.	Clean the CD or load another CD.
Cannot eject compact disc (tray-load only).	CD is not properly seated in the drive.	Turn off the computer, insert a straightened paper clip into the emergency eject hole, then push firmly. Slowly pull the tray out from the drive until the tray is fully extended, then remove the CD.
CD drive devices are not detected.	Power cycle delay.	After turning the computer off, wait 30 seconds before turning the computer on again.
	CD drive is not connected properly.	Open the computer and check to see that the drive cable is connected properly.
	Proper driver is not loaded	Restart the system and make sure the CD drive drivers are loaded.

DVD drive		
Problem	**Probable cause(s)**	**Possible solution**
Cannot read DVD disk	DVD or CD is not properly seated in the drive.	Eject the DVD or CD, press down on the DVD or CD firmly to correctly seat it in the drive, then reload.
	DVD or CD has been loaded upside down.	Eject the disk, turn it over, then reload.
	DVD or CD disk may be dirty or scratched.	Load another DVD disk.
DVD does not work in the DOS mode.	Proper drivers are not loaded.	Restart the system and make sure the DVD drive drivers are loaded.
Cannot eject DVD disk.	The system is in the Sleep mode.	Press the Power button to bring the system back to full power, then eject the DVD.
	The DVD, diskette, or hard drive was active when attempting to eject the DVD.	Wait until all drive activity ends (the CD/hard drive light and diskette drive light will go out), then try to eject the DVD.
	DVD disk is not properly seated in the drive.	Turn off the computer, insert a straightened paper clip into the emergency eject hole, then push firmly. Slowly pull the tray out from the drive until the tray is fully extended, then remove the DVD disk.
DVD drive devices are not detected.	DVD drive is not connected properly.	Open the computer and check to see that the drive cable is connected properly.
	Incorrect driver is installed.	Ensure the correct driver is installed in *CONFIG.SYS*.
	Drive has been changed.	Make sure the jumper setting is set for "Slave."
	Proper drivers are not loaded.	Restart the system and make sure the DVD drive drivers are loaded.

Resolving Hardware Conflicts

Hardware conflicts occur when two or more peripheral devices attempt to use the same hardware resources. I/O addresses, interrupts, and DMA channels are the most common hardware resources used by peripheral devices. For example, the factory default settings for the MIDI port audio interface are:

Base I/O address	220H
MIDI Port Base I/O address	330H
Interrupt	IRQ 5
8-bit DMA	Channel 1

When different peripheral devices use the same hardware resources at the same time, the devices and/or the system may not function properly. You can resolve hardware conflicts by ensuring that no devices are configured to use the same hardware resources. These resources can either be dipswitch or jumper settings on the peripheral card or software configurable resources. The Computer Setup selection of your Compaq Utilities allows you to view and modify the settings for the peripheral devices factory installed in your system. Refer to the *User's Guide* for the particular peripheral cards you wish to install for information on how to view and select their settings.

To resolve hardware conflicts:

1 Change the hardware settings of your audio card or other peripheral card in your system if the peripheral card is using any settings used by the factory-installed devices.

2 If you are unsure of the settings of the peripheral cards, you can isolate the source of the problem by temporarily removing all cards not manufactured by Compaq, or resetting the default settings and running Compaq Utilities. After that, add the cards back one at a time until the card that is causing the conflict is found.

Also see: System

Maintenance and Service Guide
Compaq Presario 7300 Series Computers

MSG index	Product Description	Troubleshooting	Illustrated Parts Catalog
Home	Removal & Replacement	Jumper & Switch Information	Specifications

Clearing CMOS

Power-On Self Test (POST)

Configuration

Diagnostic error codes

Troubleshooting without diagnostics

TROUBLESHOOTING

Troubleshooting Without Diagnostics (continued)

Hard drive		
Problem	**Probable cause(s)**	**Possible solution**
Hard drive error occurs.	Hard disk has bad sectors or has failed.	Run *Computer Setup*. Reformat the hard disk.
Drive not found.	Cable could be loose.	Check cable connections.
Disk transaction problem.	Either the directory structure is bad or there is a problem with a file.	From the desktop click on the **Start** menu. Choose *Program ⊡ Accessories ⊡ System Tools ⊡ Scandisk* to check for problems. If problems exist, run Scandisk and checkmark the "Automatically fix errors" box at the bottom to correct the problems. If a large number of lost allocation units is found, click on the **Start** menu. Choose *Program ⊡ Accessories ⊡ System Tools ⊡ Disk Defragmenter*.
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 disk has been damaged.	Insert a bootable diskette into the diskette drive and restart the computer with **Ctrl**+**Alt**+**Del**.
	Diskette boot has been disabled in Computer Setup.	Run *Computer Setup* and enable diskette boot.
Hard drive operation seems slow **OR** **Hard drive activity light is not on, or stays on without blinking.**	The hard disk files may be fragmented.	From the desktop click on the **Start** menu. Choose *Program ⊡ Accessories ⊡ System Tools ⊡ Scandisk* to check for problems. If problems exist, run Scandisk and checkmark the "Automatically fix errors" box at the bottom to correct the problems. If a large number of lost allocation units is found, click on the **Start** menu. Choose *Program ⊡ Accessories ⊡ System Tools ⊡ Disk Defragmenter*.

Hardware installation		
Problem	**Probable cause(s)**	**Possible solutions**
A new device is not recognized as part of the computer system.	When the system advised you of changes to the configuration, you did not save the changes.	Reboot the computer and follow the instructions for saving the changes.
	The system may not have automatically recognized the new device.	Run *Computer Setup* and identify the new device.
	The cables for the new external device are loose, or the power cables are unplugged.	Check all cables.
	The power switch for the new external device is not turned on.	Turn off the computer, turn on the external device, and then turn on the computer to integrate the new device with the computer.

Power	
Problem	**Possible Solution**
Computer will not turn on.	Ensure that the computer is connected to a power source.
Computer does not automatically display the date and time.	The real-time clock (RTC) battery may need to be replaced. Click here for replacement procedures.
Computer does not beep during POST.	The speaker volume may have been turned down. Select the **Volume** option from the Control Panel and adjust the volume.
Computer powered off automatically.	The unit temperature may have been exceeded. Check the fan for function and blockage.

USB		
Problem	**Probable cause(s)**	**Possible solution**
USB device does not work with the system.	The USB device and the system may use different USB architectures.	Ensure that the USB device and the system share the same USB architecture. (UHCI-compliant devices will only work with a UHCI-compliant system, and OHCI-compliant devices will only work with a OHCI-compliant system).

Diskette Drive		
Problem	**Probable cause(s)**	**Possible solution**
Diskette drive light stays on.	Diskette may be damaged.	From the desktop click on the **Start** menu. Choose **Program ⊡ Accessories ⊡ System Tools ⊡ Scandisk** to check for problems.
	Diskette may be installed incorrectly.	Remove the diskette and reinsert.
	Software program may be damaged.	Check the program diskettes.
Diskette drive cannot write to a diskette.	Diskette is not formatted.	Format the diskette.
	Diskette is write-protected.	Either use another diskette that is not write-protected or disable the write protection on the diskette.
	Writing to the wrong drive.	Check the drive letter in your path statement.
	Not enough space is left on the diskette.	Use another diskette to write the information.
Diskette drive cannot read a diskette.	Diskette is not formatted.	Format the diskette.
	Using the wrong diskette type for the drive type.	Use a diskette that is compatible with the drive.
	Reading the wrong drive.	Check the drive letter in your path statement.
	Diskette drive has been disabled by *Computer Setup.*	Run *Computer Setup* and enable the diskette drive.

Maintenance and Service Guide
Compaq Presario 7300 Series Computers

ILLUSTRATED PARTS CATALOG - INDEX PAGE

NOTE:	The computer serial number should be provided to Compaq whenever requesting information or ordering spare parts.

Mass storage devices   **Keyboard**

Cables   **Miscellaneous parts**

Standard & Optional Boards   **Return kit**

Fax/modem   **Documentation & software**

Mass storage devices
Cables
Standard & Optional Boards
Fax/modem
Keyboard
Miscellaneous
Return kits
Documentation & software

ILLUSTRATED PARTS CATALOG

Mass Storage Devices
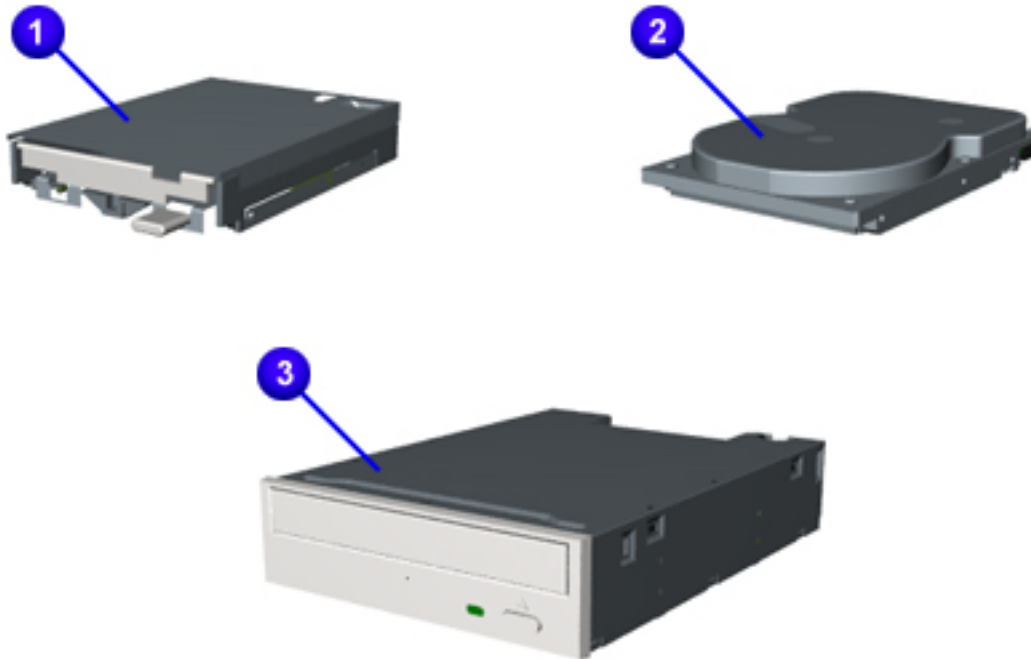
Spare Part Description	Spare Part No.
1. 1.44-MB Diskette Drive	136436-001
2. 8.0-GB Hard Drive (Model: 7370)	168027-001
10-GB Hard Drive (Model: 7360)	168028-001
3. 40x CD Drive	134125-001

Mass storage devices

Cables

Standard & Optional Boards

Fax/modem

Keyboard

Miscellaneous

Return kits

Documentation & software

ILLUSTRATED PARTS CATALOG

Miscellaneous Cables
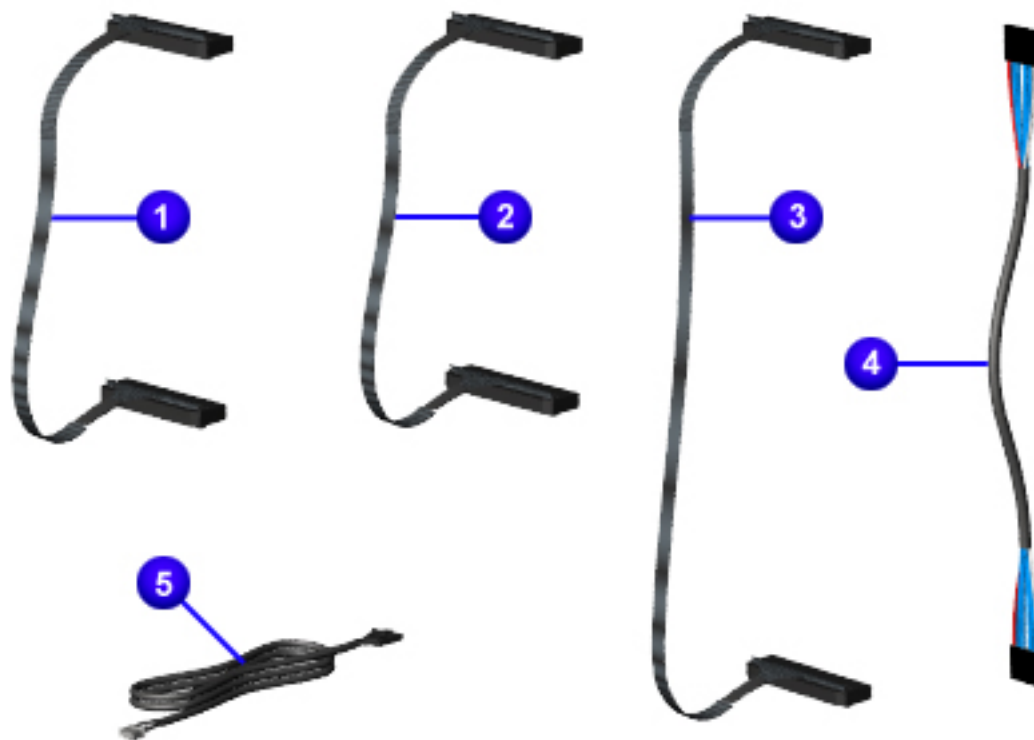
Spare Part Description	Spare Part No.
Miscellaneous Cable Kit (Content Includes)	171291-001
1. Hard Drive Cable	171289-001
2. Dual Connector IDE Cable	171290-001
3. 1.44-MB Diskette Drive Cable	327770-001

ILLUSTRATED PARTS CATALOG

Standard and Optional Boards

- **Mass storage devices**
- **Cables**
- **Standard & optional boards**
- **Fax/modem**
- **Keyboard**
- **Miscellaneous**
- **Return kits**
- **Documentation & software**
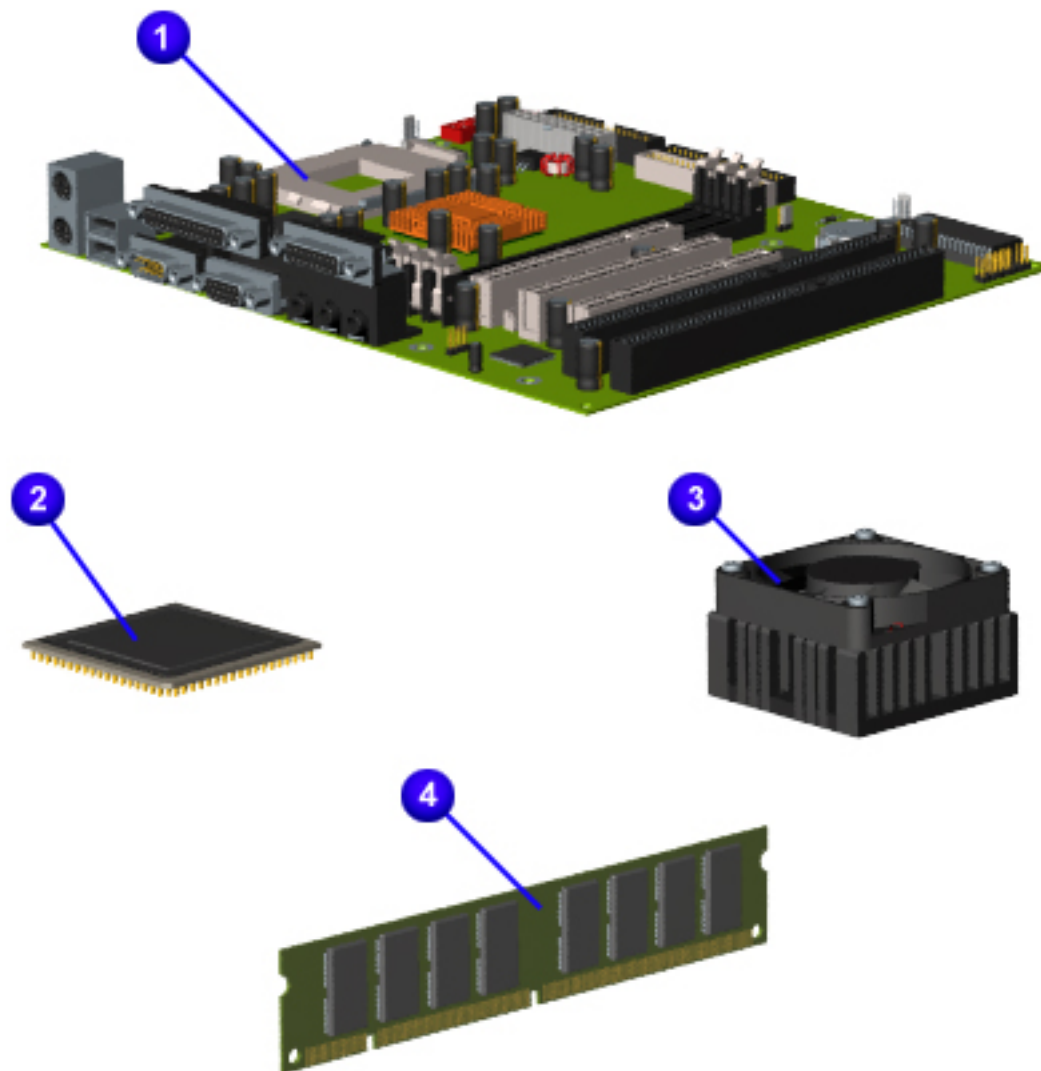
Spare Part Description	Spare Part No.
1. System Board	166050-101
2. Processor K6-2XT 500/100 MHz	171703-001
3. Fan w/Active Heatsink	
4. 64-MB 100-MHz Memory Module DIMM	174131-001
Not Shown	
Front USB I/O Board (Model: 7370)	170077-001
Button Board	141011-001

Product Description

Troubleshooting

Illustrated Parts Catalog

Home

Removal & Replacement

Jumper & Switch Information

Specifications

ILLUSTRATED PARTS CATALOG

Mass storage devices

Cables

Standard & Optional Boards

Fax/modem

Keyboard

Miscellaneous

Return kits

Documentation & software
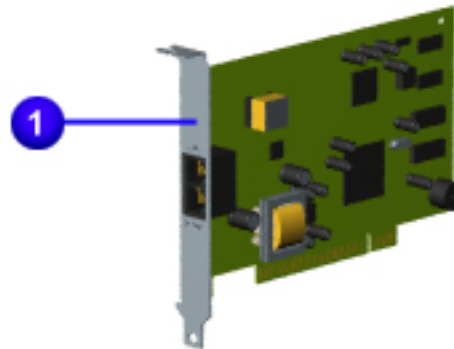
Fax/ Modem

Spare Part Description	Spare Part No.
PCI ITU V.90 Data/Fax Modem	166386-001

Product Description   **Troubleshooting**   **Illustrated Parts Catalog**

Home   **Removal & Replacement**   **Jumper & Switch Information**   **Specifications**

ILLUSTRATED PARTS CATALOG

Keyboard

| System unit |
| Mass storage devices |
| Cables |
| Standard & Optional Boards |
| Fax/modem |
| Keyboard |
| Miscellaneous |
| Return kits |
| Documentation & software |

Spare Part Description	Spare Part No.
Easy Access Internet Keyboard	

Maintenance and Service Guide
Compaq Presario 7300 Series Computers

ILLUSTRATED PARTS CATALOG

Miscellaneous Parts

Spare Part Description	Spare Part Number
Chassis Assembly	170197-001
Spare Parts (Not shown)	
RJ11 Adapter PTT/(U.K.)	158593-031
TELCO Adapter	304398-112
Power Supply 145 Watts	127999-001
Bezel Assembly	171287-001

Maintenance and Service Guide
Compaq Presario 7300 Series Computers

Product Description   **Troubleshooting**   **Illustrated Parts Catalog**

Home   **Removal & Replacement**   **Jumper & Switch Information**   **Specifications**

ILLUSTRATED PARTS CATALOG

Return Kit

Spare Part Description	Spare Part Number
Return Kit	138654-001
Logo	166183-001

Mass storage devices

Cables

Standard & Optional Boards

Fax/modem

Keyboard

Miscellaneous

Return kit

Documentation & software

ILLUSTRATED PARTS CATALOG

Documentation & Software

Description	Spare Part Number
Compaq Presario 7300 Series - User's Guide	Available online at www.Compaq.com/athome/
Quick Restore CD, Model 7360, U.S. (Windows 98)	
Quick Restore CD, Model 7370, Canada (Windows 98)	
QuickFind for Windows, North America, Latin America, Asia/Pacific	
QuickFind for Windows, Europe, Middle East, Africa	

*QuickFind is updated monthly. To complete the QuickFind part number, add the suffix from the table below for the desired month. If you do not specify the 3-digit suffix, the default is the current month in which the order is placed.

Suffix	Month	Suffix	Month	Suffix	Month	Suffix	Month
-001	January	-004	April	-007	July	-010	October
-002	February	-005	May	-008	August	-011	November
-003	March	-006	June	-009	September	-012	December

REMOVAL & REPLACEMENT PROCEDURES - INDEX PAGE

This section provides general service information for Compaq 7300 Series Personal Computers. Adherence to the procedures and precautions described in this section is essential for safe and proper service.

Electrostatic Discharge

Service Considerations

Preparation for Disassembly

Serial Number

Chassis Cover

Fax-Modem

Mass Storage Devices
Hard drive
CD drive
Diskette drive

Power Supply

System Board and Components
RTC Battery
Memory Module
Fan assembly with Heatsink
Processor

REMOVAL & REPLACEMENT

Service Considerations

Tool Requirements

- Phillips screwdriver
- Needle-nose pliers
- Flathead screwdriver
- Compaq Utilities software

Screws

The screws used in these products are not interchangeable. If an incorrect screw is used during the reassembly process, it could cause damage to the unit. Compaq strongly recommends that all screws removed during the disassembly process be kept with the part that was removed, then returned to their proper locations.

IMPORTANT:	As each subassembly is removed from the computer, it should be placed away from the work area to prevent damage.

Cables and Connectors

Most cables used throughout the unit are *ribbon cables*. These must be handled with extreme care to avoid damage. Apply only the tension required to seat or unseat the cables during insertion or removal from the connector. Handle cables by the connector whenever possible. In all cases, avoid bending, twisting, or tearing the cables, and ensure that they are placed in such a way that they cannot be caught or snagged by parts being removed or replaced.

⚠	**CAUTION:** When servicing these computers, ensure that cables are placed in their proper location during the reassembly process. Improper cable placement can cause severe damage to the unit.

Ribbon Cable Positions

CD Drive　　　　　　　　　　Hard Drive

Diskette drive　　　　　　　　Button Board

Power Supply

Product Description   **Troubleshooting**   **Illustrated Parts Catalog**

Home   **Removal & Replacement**   **Jumper & Switch Information**   **Specifications**

REMOVAL & REPLACEMENT

Serial Number

The computer serial number should be provided to Compaq whenever requesting information or ordering spare parts. The serial number is located on front (bottom of bezel) and ❶ rear of the computer.
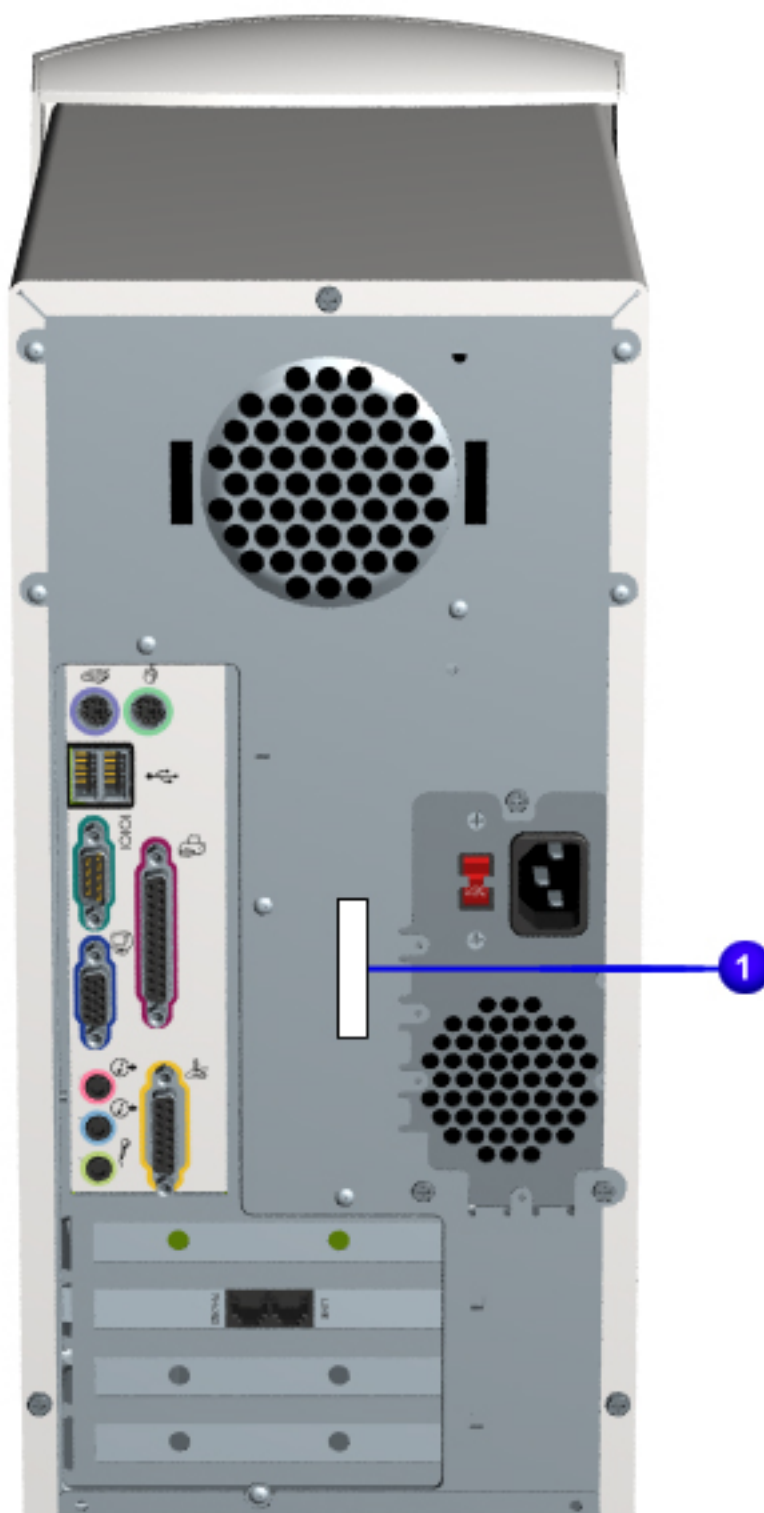
Product Description   **Troubleshooting**   **Illustrated Parts Catalog**

Home   **Removal & Replacement**   **Jumper & Switch Information**   **Specifications**

REMOVAL & REPLACEMENT

DISASSEMBLY SEQUENCE
Electrostatic Discharge
Service Considerations
Preparation for Disassembly
Serial Number
Chassis Cover
Fax-Modem
Mass Storage Devices
System Board and Components
Power Supply

Chassis Cover
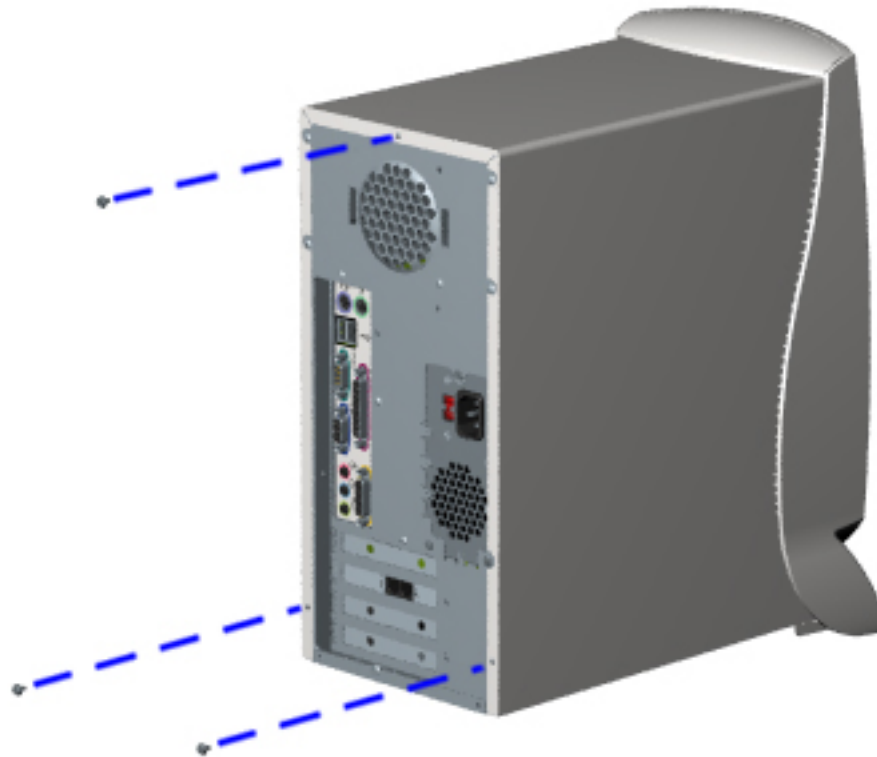
Removal

1   Perform the preparation procedures.

2   Remove the three screws from the back of the computer.

Next Step

Product Description   **Troubleshooting**   **Illustrated Parts Catalog**

Home   **Removal & Replacement**   **Jumper & Switch Information**   **Specifications**

REMOVAL & REPLACEMENT

Fax/modem
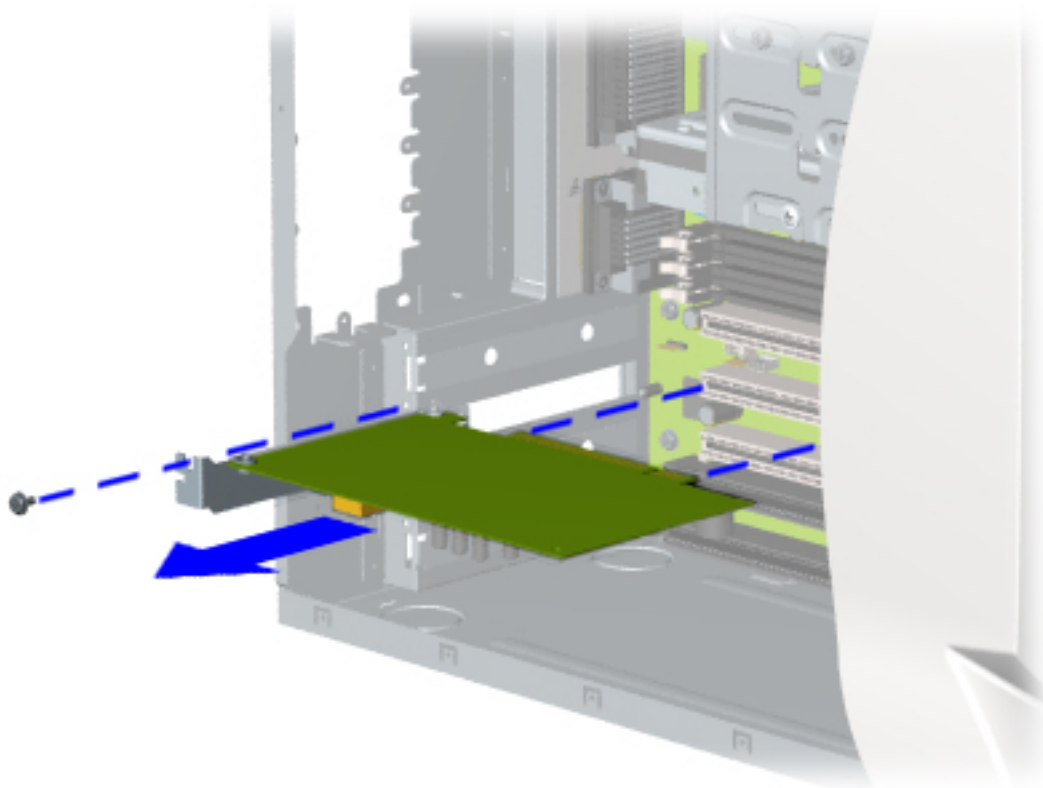
Removal

1   Perform preparation procedures.

2   Remove the chassis cover.

3   Remove screw securing the fax/modem to the chassis and pull the fax/modem out of the slot.

Replacement

To replace the fax/modem, reverse this procedures.

Maintenance and Service Guide
Compaq Presario 7300 Series Computers

REMOVAL & REPLACEMENT

Mass Storage Devices - Index Page

1   **CD Drive**

2   **4.3-MB Hard Drive**

3   **Diskette Drive**

Product Description   **Troubleshooting**   **Illustrated Parts Catalog**

Home   **Removal & Replacement**   **Jumper & Switch Information**   **Specifications**

REMOVAL & REPLACEMENT

System Board and Components - Index Page

DISASSEMBLY SEQUENCE

Electrostatic Discharge

Service Considerations

Preparation for Disassembly

Serial Number

Chassis Cover

Fax-Modem

Mass Storage Devices

System Board and Components
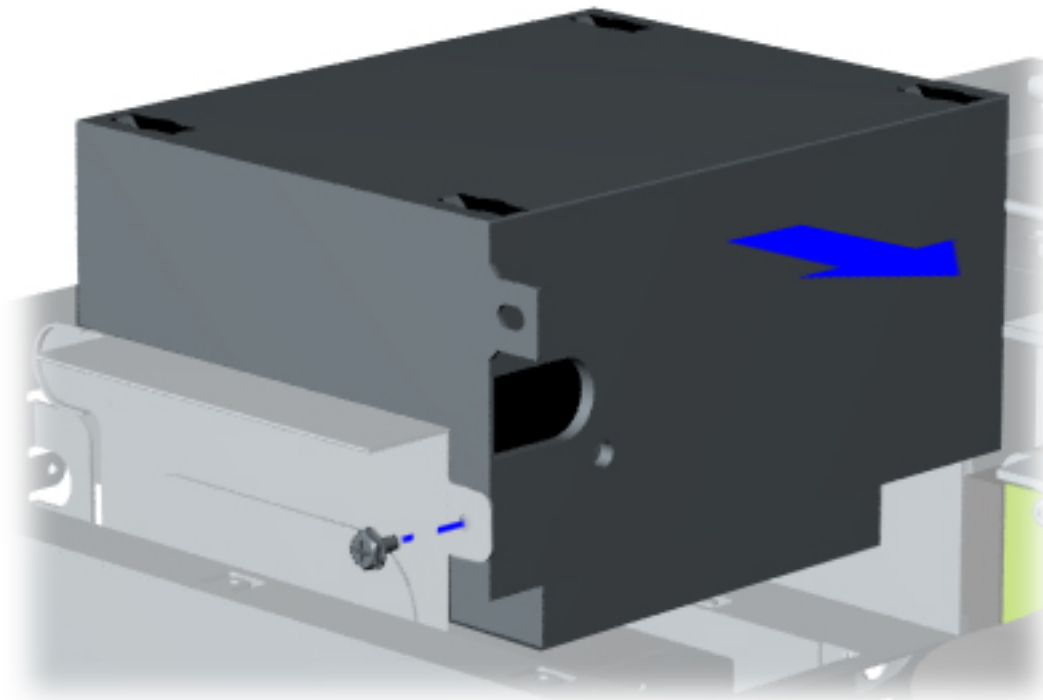
Power Supply

     System board

     Fan assembly with Heatsink

     Processor

     Memory module

     RTC battery

REMOVAL & REPLACEMENT
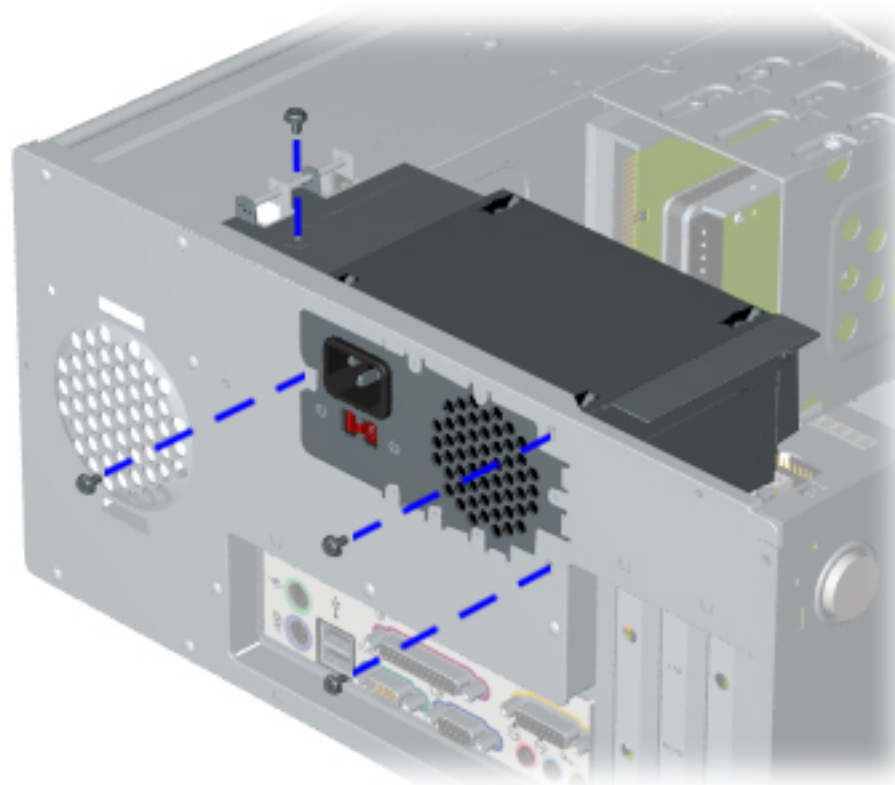
Power Supply

Removal

1   Perform preparation procedures.

2   Remove the chassis cover.

3   Disconnect all power cables from the CD, hard and diskette drive.

4   Remove three screws that secures the power supply screen to the rear of the chassis.

5   Remove screw located on the side of the power supply.

Next Step

Maintenance and Service Guide
Compaq Presario 7300 Series Computers

REMOVAL & REPLACEMENT
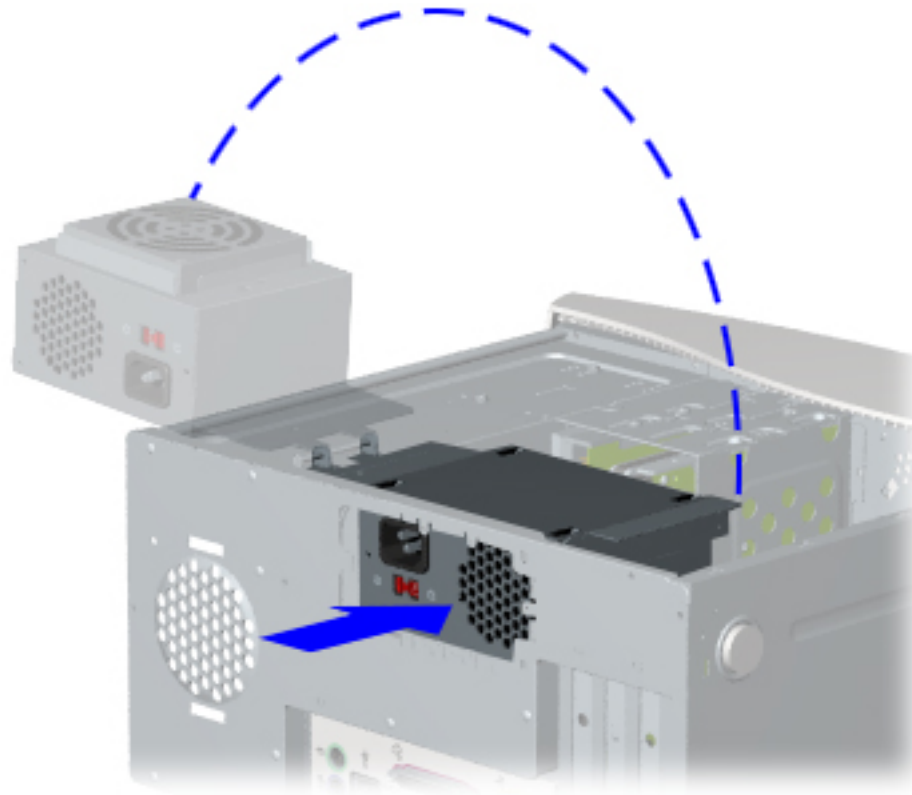
Power Supply

Removal

6 Pull up on the power supply, flip it up and away, and slide it to the right to remove it from the chassis slot.

Next Step

REMOVAL & REPLACEMENT

Power Supply

Removal

7   Disconnect the power supply cable from the system board.

8   Remove screw located near the power supply cable which secures the power supply to the cage and pull the power supply from the cage.

Replacement

To replace the power supply, reverse this procedure.

CD Drive
Hard Drive
3.5" Diskette Drive
Mass storage devices index page

REMOVAL & REPLACEMENT

Mass Storage Devices

CD Drive

> **NOTE:** Click here to see how to remove a CD that has jammed in the drive.

To remove the CD drive, complete the following steps:

Removal

1   Perform preparation procedures.

2   Remove the chassis cover.

3   Disconnect the data, signal, and power cable from the CD drive.

4   Remove two screws from each side of the CD drive.

NEXT STEP

CD Drive

Hard Drive

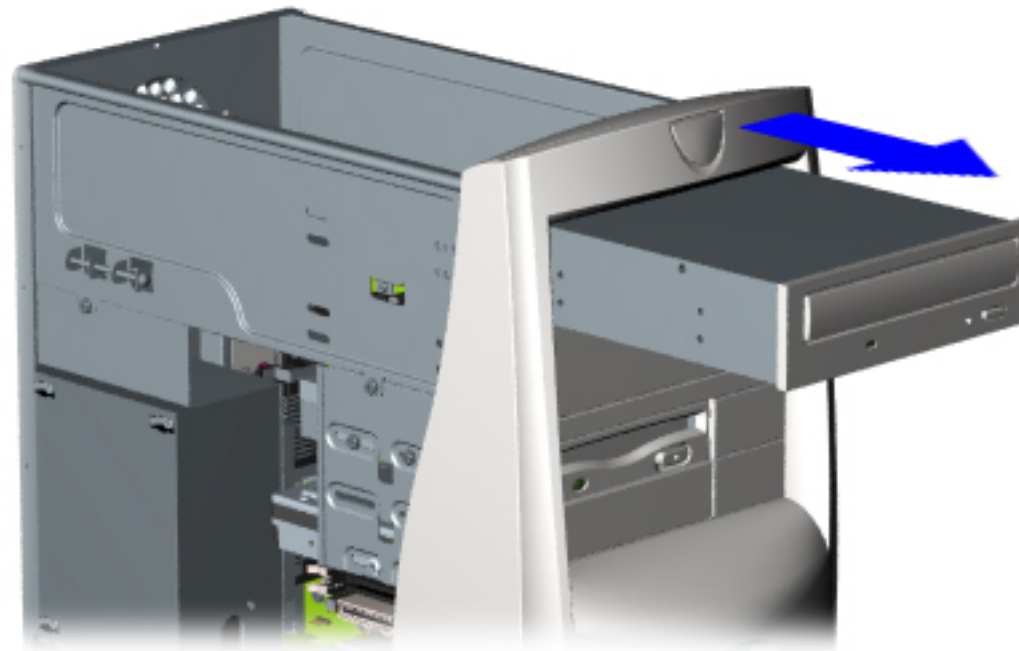3.5" Diskette Drive

Mass storage devices index page

REMOVAL & REPLACEMENT

Mass Storage Devices

CD Drive

Removal

5   Pull out the CD drive from the chassis slot.

To replace the CD drive reverse the previous procedure.

Return to section index page

REMOVAL & REPLACEMENT

Hard Drive

CD Drive

3.5" Diskette Drive

Mass storage devices index page

Mass Storage Devices

4.3-GB Hard Drive

Removal

1 Perform preparation procedures.

2 Remove the chassis cover.

3 Disconnect all cables from the diskette drive.

4 Disconnect the power and data cable from the hard drive.
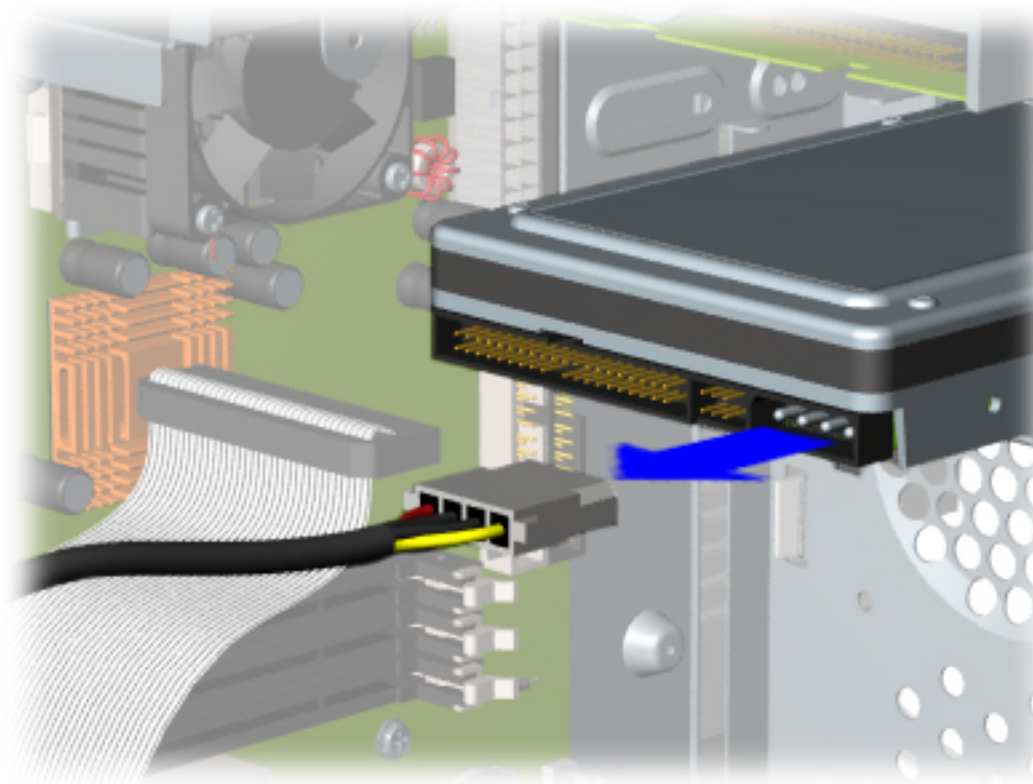
NEXT STEP

Hard Drive

CD Drive

3.5" Diskette Drive

Mass storage devices index page

REMOVAL & REPLACEMENT

Mass Storage Devices

4.3-GB Hard Drive

Removal

5 Remove two screws located at the top (side) and front of the drive cage. Slide the drive cage back from the slot in the chassis.

NEXT STEP

Maintenance and Service Guide
Compaq Presario 7300 Series Computers

Product Description   **Troubleshooting**   **Illustrated Parts Catalog**

Home   **Removal & Replacement**   **Jumper & Switch Information**   **Specifications**
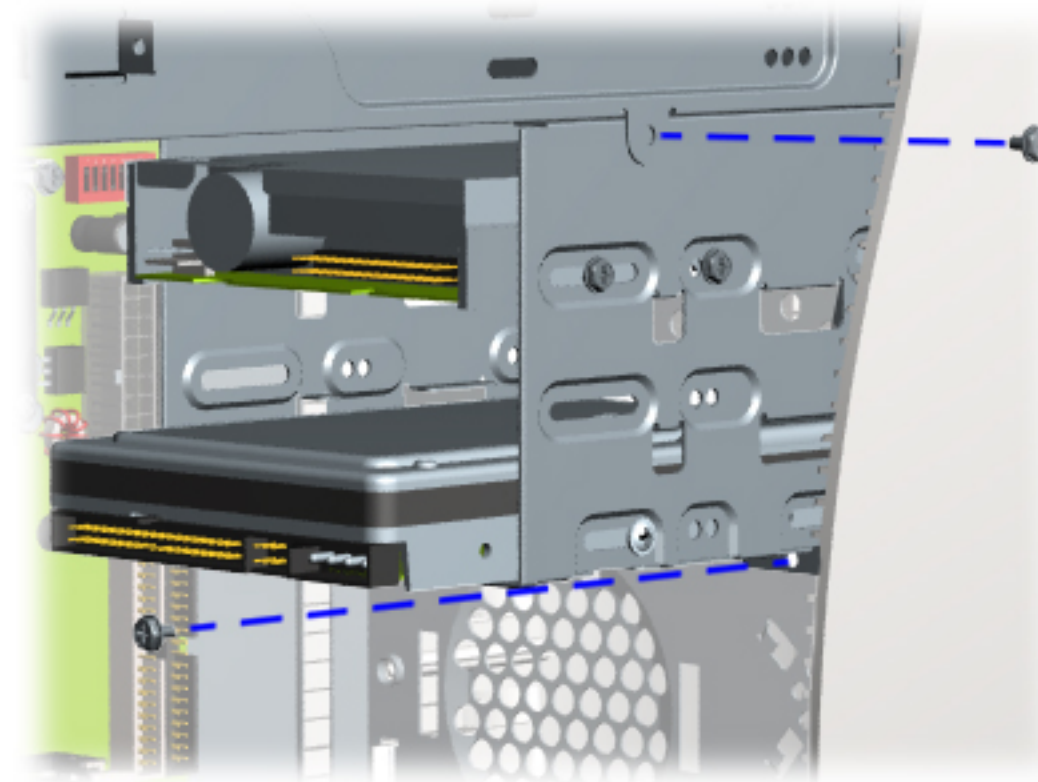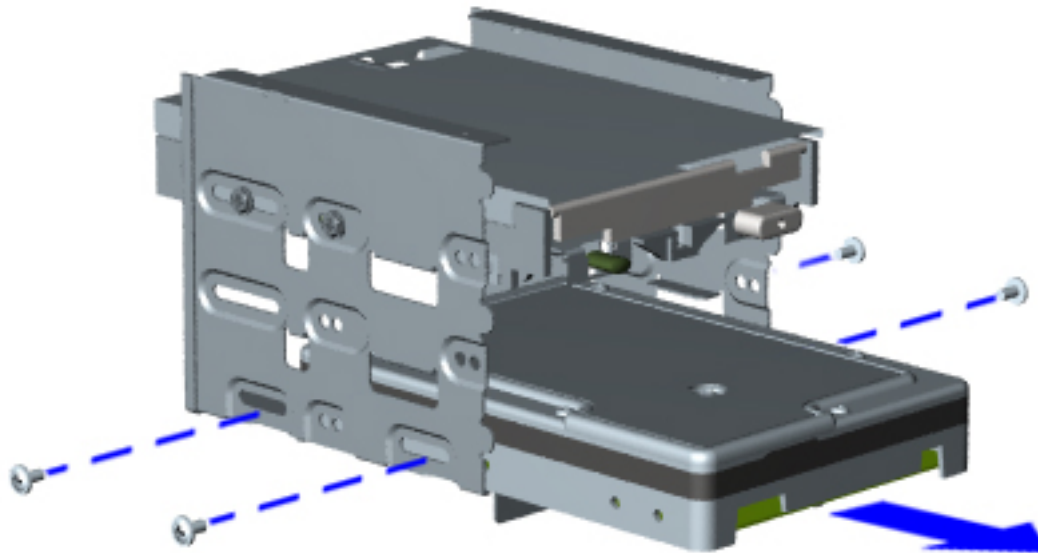

Hard Drive
CD Drive
3.5" Diskette Drive
Mass storage devices index page

REMOVAL & REPLACEMENT

Mass Storage Devices

4.3-GB Hard Drive

Removal

6 Remove two screws from each side of the drive cage and remove the hard drive.

To replace the hard drive reverse the previous procedure.

Return to section index page

Maintenance and Service Guide
Compaq Presario 7300 Series Computers

Product Description

Troubleshooting

Illustrated Parts Catalog

Home

Removal & Replacement

Jumper & Switch Information

Specifications

REMOVAL & REPLACEMENT

3.5" Diskette Drive

Hard Drive

CD Drive

Mass storage devices index page

Mass Storage Devices
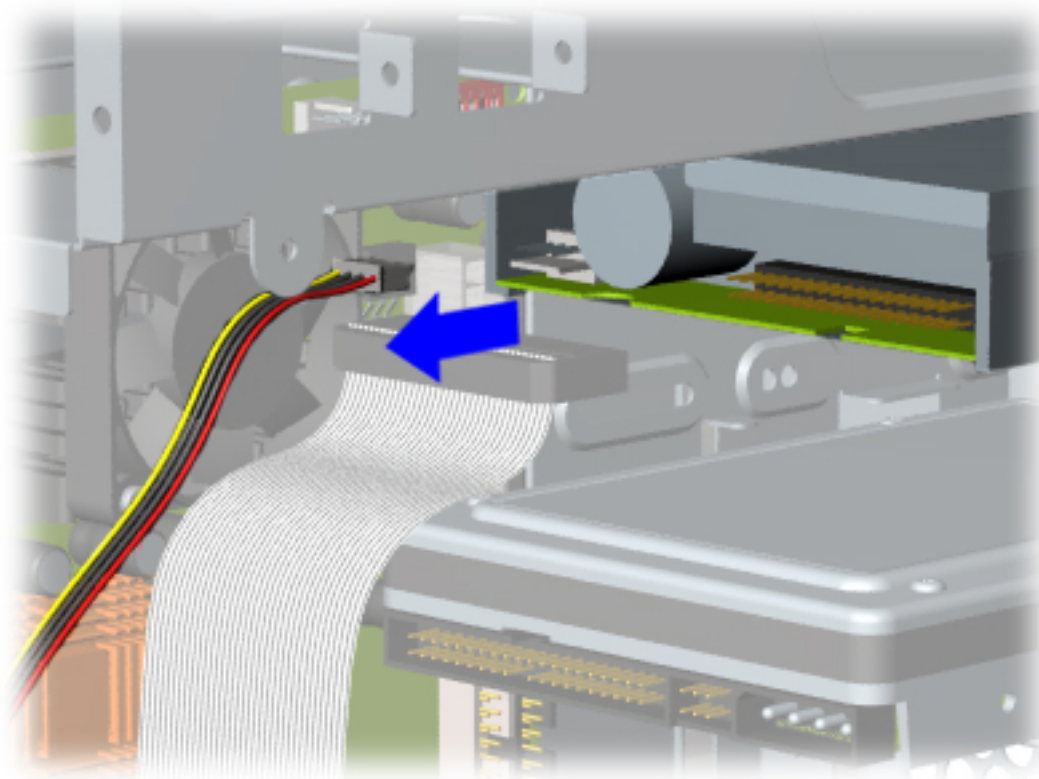
Diskette Drive

To remove the diskette drive, complete the following steps:

Removal

1   Perform the preparation procedures.

2   Remove the chassis cover.

3   Disconnect all cables to the hard drive.

4   Disconnect power and data cable from the diskette drive.

NEXT STEP

REMOVAL & REPLACEMENT

Mass Storage Devices

Diskette Drive, continued

5   Remove two screws securing diskette/hard drive cage to the chassis and remove the drive cage.

REMOVAL & REPLACEMENT

Mass Storage Devices

Diskette Drive, continued

6   Remove two screws from each side of the drive cage and remove the diskette drive from the cage.

Replacement

To replace the diskette drive, reverse this procedure.

REMOVAL & REPLACEMENT
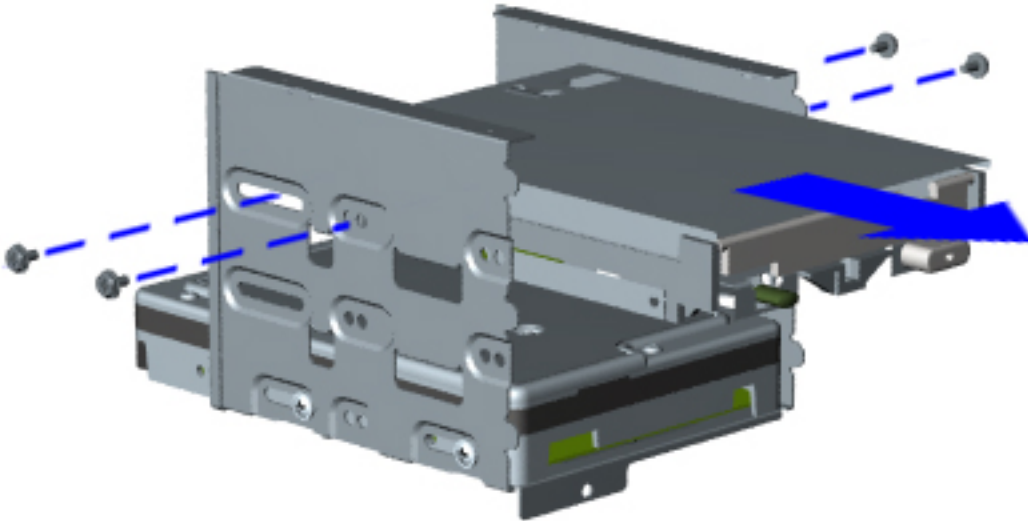
Chassis Cover

Removal

3   Grasp each side of the back of the computer cover, slide the cover back, and lift up off the chassis.

Replacement

To replace the chassis, reverse this procedure.

DISASSEMBLY SEQUENCE

Electrostatic Discharge

Service Considerations

Preparation for Disassembly

Serial Number

Chassis Cover

Fax-Modem

Mass Storage Devices

System Board and Components

Power Supply

REMOVAL & REPLACEMENT

Preparation for Disassembly

To prepare the computer for removal and replacement procedures, complete the following steps:

1   Remove any diskette, compact disc, or tape from the computer.

2   Turn off the computer and any peripheral devices that are connected to the computer.

> ⚠ **CAUTION:** The computer power switch should be turned off before you disconnect any cables.

3   Disconnect the power cord from the electrical outlet, and then from the computer.

4   Disconnect all peripheral device cables from the computer.

> **IMPORTANT:**   During disassembly, label each cable as you remove it. Be sure to note its position and routing.

CD Drive

Diskette Drive

Hard Drive

Button Board

Power Supply

Service considerations index page

REMOVAL & REPLACEMENT

Service Considerations - Cable Positions

Button Board

The cable routing for the Button Board to the system board.

Maintenance and Service Guide
Compaq Presario 7300 Series Computers

Hard Drive

Diskette Drive

CD Drive

Button Board

Power Supply

Service considerations index page

REMOVAL & REPLACEMENT

Service considerations - Cable positions

4.3-GB Hard Drive

The cable routing for the 4.3-GB Hard Drive to the system board.

Product Description   **Troubleshooting**   **Illustrated Parts Catalog**

Home   **Removal & Replacement**   **Jumper & Switch Information**   **Specifications**

Diskette Drive

CD Drive

Hard Drive

Button Board

Power Supply

Service considerations index page

REMOVAL & REPLACEMENT

Service Considerations - Cable Positions

Diskette Drive

The cable routing for the Diskette Drive to the system board.

Maintenance and Service Guide
Compaq Presario 7300 Series Computers

CD Drive

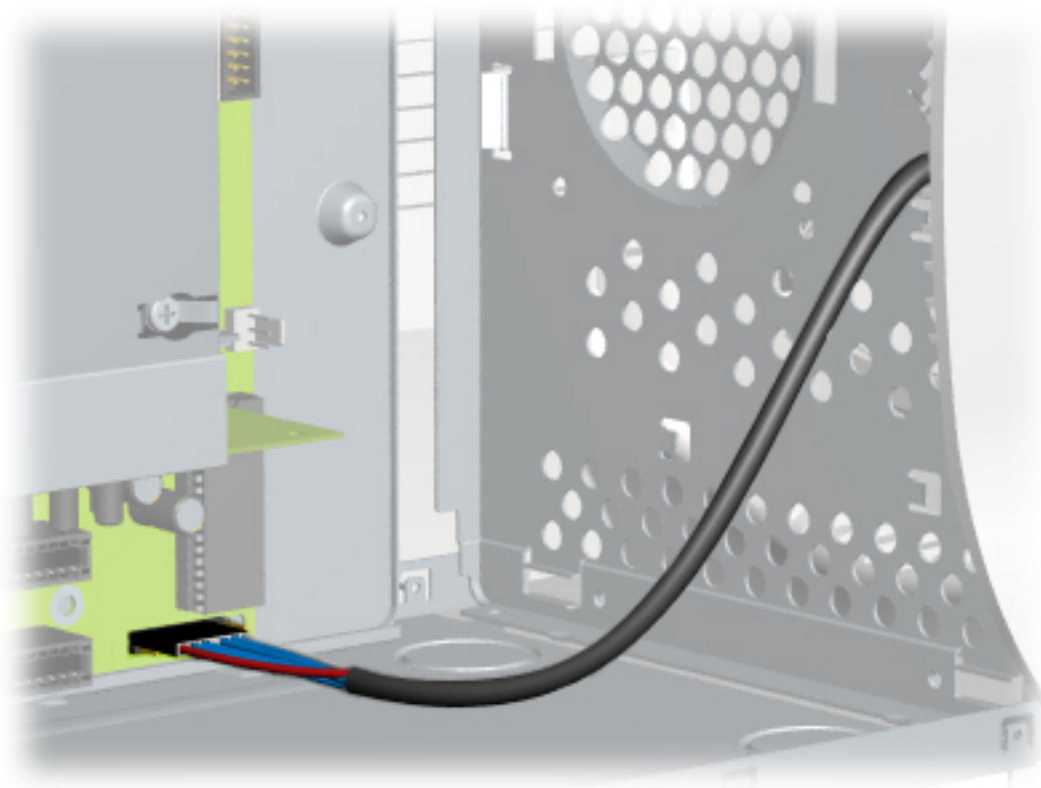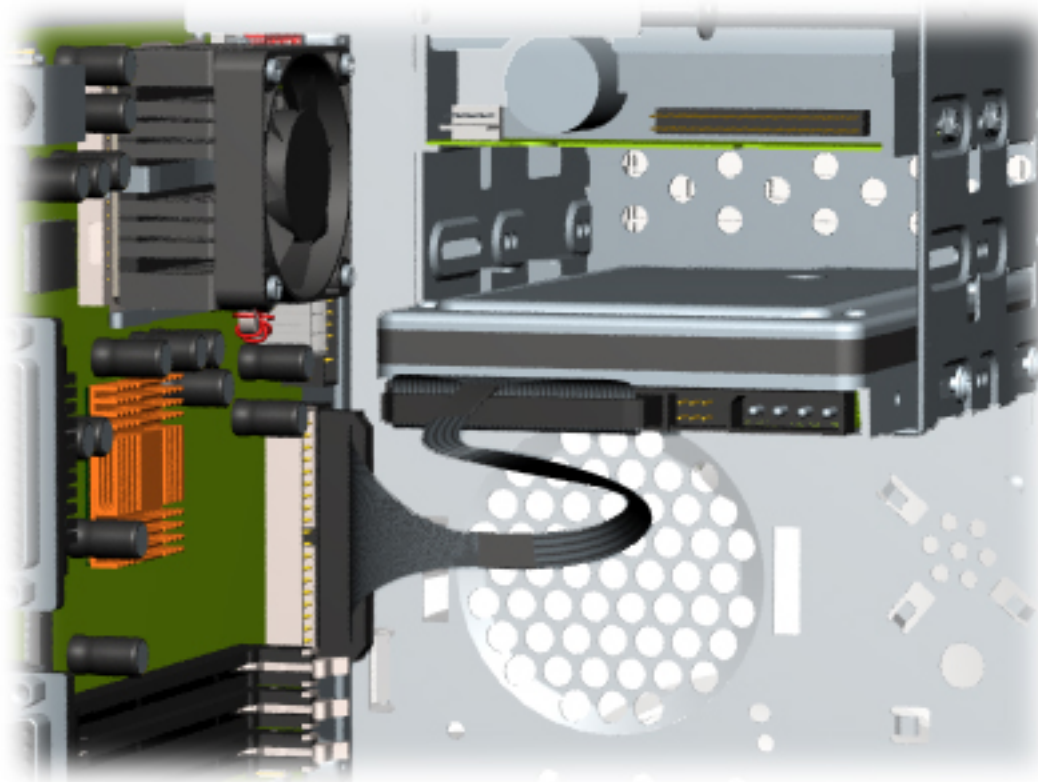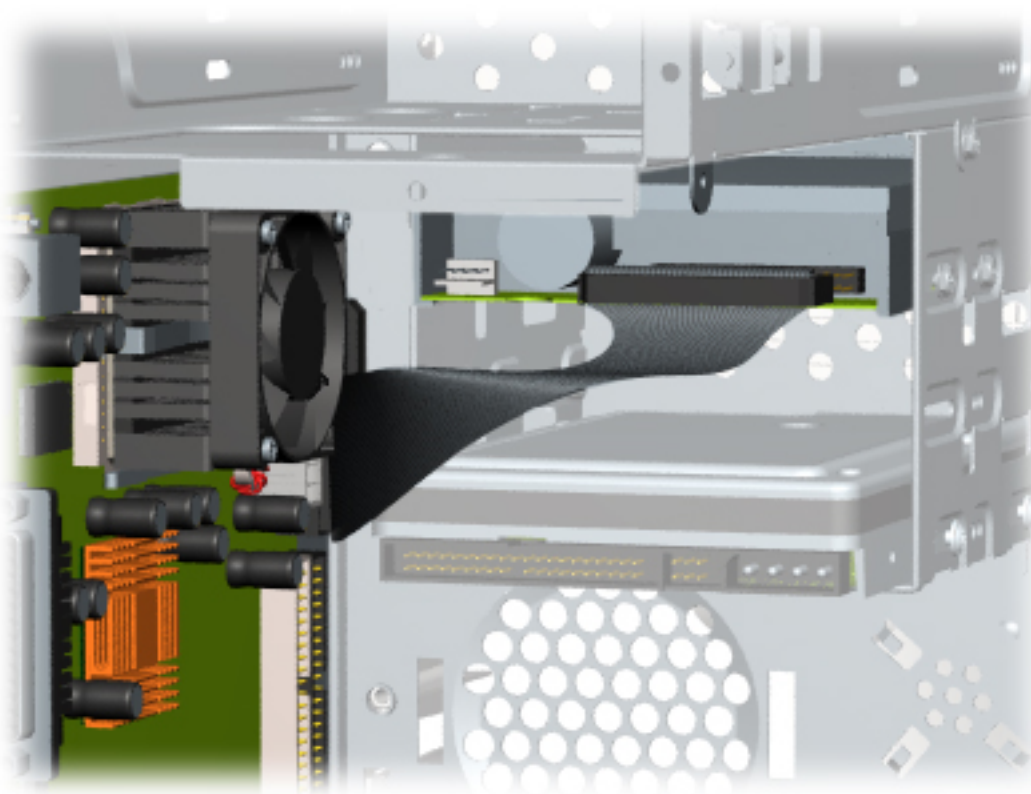**Diskette Drive**

Hard Drive

Button Board

Power Supply

Service considerations index page

REMOVAL & REPLACEMENT

Service Considerations - Cable Positions

CD Drive

The cable routing for the CD Drive to the system board.

Maintenance and Service Guide
Compaq Presario 7300 Series Computers

	Product Description	**Troubleshooting**	**Illustrated Parts Catalog**
Home	**Removal & Replacement**	**Jumper & Switch Information**	**Specifications**

REMOVAL & REPLACEMENT

Electrostatic Discharge (Return to Service Considerations)

A sudden discharge of static electricity from a finger or other conductor can destroy static-sensitive devices or microcircuitry. Often the spark is neither felt nor heard, but damage occurs. An electronic device exposed to electrostatic discharge (ESD) may not be affected at all and will work perfectly throughout a normal cycle. Or it may function normally for a while, then degrade in the internal layers, reducing its life expectancy.

Networks built into many integrated circuits provide some protection, but in many cases, the discharge contains enough power to alter device parameters or melt silicon junctions.

Generating Static

The table below shows the different amounts of static electricity generated by different activities .

	Relative Humidity		
Event	**10%**	**40%**	**55%**
Walking across carpet	35,000 V	15,000 V	7,500 V
Walking across vinyl floor	12,000 V	5,000 V	3,000 V
Motions of bench worker	6,000 V	800 V	400 V
Removing DIPS from plastic tubes	2,000 V	700 V	400 V
Removing DIPS from vinyl trays	11,500 V	4,000 V	2,000 V
Removing DIPS from Styrofoam	14,500 V	5,000 V	3,500 V
Removing bubble pack from PCBs	26,000 V	20,000 V	7,000 V
Packing PCBs in foam-lined box	21,000 V	11,000 V	5,000 V

NOTE: 700 volts can degrade a product!

Preventing Electrostatic Damage to Equipment

Many electronic components are sensitive to ESD. Circuitry design and structure determine the degree of sensitivity. The following proper packaging and grounding precautions are necessary to prevent damage:

- Protect all electrostatic parts and assemblies with conductive or approved containers or packaging.
- Keep electrostatic sensitive parts in their containers until they arrive at static-free stations.
- Place items on a grounded surface before removing them from their container.
- Always be properly grounded when touching a sensitive component or assembly.
- Place reusable electrostatic-sensitive parts from assemblies in protective packaging or conductive foam.

Use transporters and conveyors made of antistatic belts and metal roller bushings. Mechanized equipment used for moving materials must be wired to ground and proper materials selected to avoid static charging. When grounding is not possible, use an ionizer to dissipate electric charges.

Preventing Damage to Drives

To prevent static damage to hard drives, use the following precautions:

- Handle drives gently, using static-guarding techniques.
- Store drives in the original shipping containers.
- Avoid dropping drives from any height onto any surface.
- Handle drives on surfaces that have at least one inch of shock-proof foam.
- Always place drives PCB assembly side down on the foam.

Grounding Methods

The method for grounding must include a wrist strap or a foot strap at a grounded workstation. When seated, wear a wrist strap connected to a grounded system. When standing, use footstraps and a grounded floor mat.

Static-Shielding Protection Levels			
Method	Antistatic Plastic	Carbon-Loaded Plastic	Metallized Laminate
Voltages	1,500	7,500	15,000

Grounding Workstations

To prevent static damage at the workstation, use the following precautions:

- Cover the workstation with approved static-dissipative material. Provide a wrist strap connected to the work surface and properly grounded tools and equipment.
- Use static-dissipative mats, heel straps, or air ionizers to give added protection.
- Handle electrostatic sensitive components, parts, and assemblies by the case or PCB laminate. Handle them only at static-free workstations.
- Avoid contact with pins, leads, or circuitry.
- Turn off power and input signals before inserting and removing connectors or test equipment.
- Use fixtures made of static-safe materials when fixtures must directly contact dissipative surfaces.
- Keep work area free of nonconductive materials such as ordinary plastic assembly aids and Styrofoam.
- Use field service tools, such as cutters, screwdrivers, and vacuums, that are conductive.
- Use a portable field service kit with a static dissipative vinyl pouch that folds out of a work mat. Also use a wrist strap and a ground cord for the work surface. Ground the cord to the chassis of the equipment undergoing test or repair.

Grounding Equipment

Use the following equipment to prevent static electricity damage to the equipment:

Wrist Straps are flexible straps with a minimum of 1 megohm ±10% resistance to the ground cords. To provide proper ground, a strap must be worn snug against the skin. On grounded mats without banana-plug connectors, connect a wrist strap with alligator clips.

Heelstraps/Toestraps/Bootstraps can be used at standing workstations and are compatible with most types of boots and shoes. On conductive floors or dissipative floor mats, use them on both feet with a minimum of 1 megohm resistance between operator and ground. To be effective, the conductive strips must be worn in contact with the skin.

Recommended Materials and Equipment

Other materials and equipment that are recommended for use in preventing static electricity include:

- Antistatic tape
- Antistatic smocks, aprons, or sleeve protectors
- Conductive bins, and other assembly or soldering aids
- Conductive foam
- Conductive tabletop workstations with ground cord of 1 megohm of resistance
- Static dissipative table or floor mats with hard tie to ground
- Field service kits
- Static awareness labels
- Wrist straps and footwear straps providing 1 megohm ±10% resistance
- Material handling packages
- Conductive plastic bags
- Conductive plastic tubes
- Conductive tote boxes
- Metal tote boxes
- Opaque shielding bags
- Transparent metallized shielding bags
- Transparent shielding tubes

Maintenance and Service Guide
Compaq Presario 7300 Series Computers

JUMPER & SWITCH INFORMATION - INDEX PAGE

System board

CD drive

Hard drive

JUMPER & SWITCH INFORMATION

System board Index

Hard drives

CD drive

System Board Index

System Board Connectors
CPU Jumper Setting Table - Switch 1
CPU Jumper Setting Table - Switch 2

JUMPER & SWITCH INFORMATION

System Board Connectors
Models : 7360 and 7370

Function	Description
Keyboard	Miniature 6-pin
Mouse	Miniature 6-pin
Parallel port	DSUB 25-pin
Serial port	DSUB 15-pin
Video	15-pin VGA
Microphone in	Mini stereo
Speaker out/Line out	Mini stereo
(3) DIMM sockets	168-pin DIMM
PCI slots	32-bit PCI connector
ISA slots	16-bit ISA connector
Line in	Socket 7
Clock multiplier	4-pin switch
Game Port	15-pin 2mm connector
Sleep button & LEDs	connector
Battery socket	2-pin socket
CD-ROM audio	4-pin header, key 2
IDE drives	40-pin headers, key 20
Diskette drive	34-pin header
CPU core frequency/Voltage ratio	8-pin switch
Fan with active heatsink	3-pin header
Power supply	20-pin header
USB	2 port

System board

Hard drives

CD drive

Top of Page

System board

Hard drives

CD drive

JUMPER & SWITCH INFORMATION

Hard Drives

Compaq Computer Corporation uses IDE hard disk drives that conform to two different device 0/device 1 implementations. These are Conner mode and ATA-compatible mode. These two modes are incompatible with one another.

IMPORTANT:	**Seagate** jumper settings are shown on top of the hard drive.

This link is for **Quantum** hard drive jumper settings

Maintenance and Service Guide
Compaq Presario 7300 Series Computers

Product Description   **Troubleshooting**   **Illustrated Parts Catalog**

Home   **Removal & Replacement**   **Jumper & Switch Information**   **Specifications**

JUMPER & SWITCH INFORMATION

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Product Description   **Troubleshooting**   **Illustrated Parts Catalog**

Home   **Removal & Replacement**   **Jumper & Switch Information**   **Specifications**

System boards

Hard drives

CD drive

JUMPER & SWITCH INFORMATION

32x CD Drive

Information not Available

CPU Jumper Setting Table (Switch 1)

JUMPER & SWITCH INFORMATION
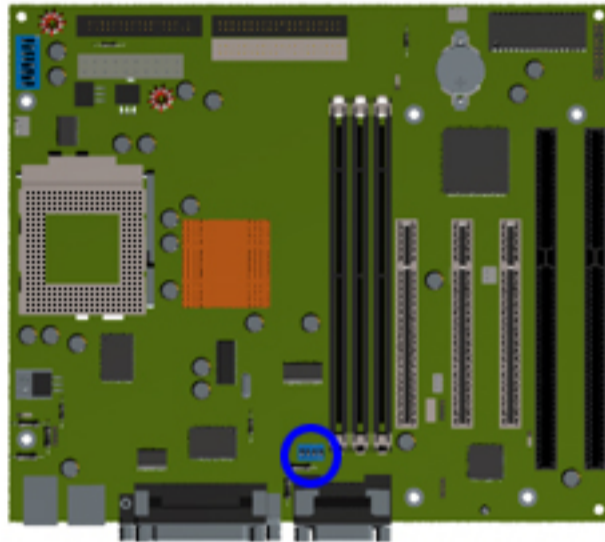
CPU	SDRAM	PCI	1	2	3	4
66.8	66.8	33.4	on	on	on	off
75	75	30	off	on	on	off
83.3	83.3	33.3	on	off	on	off
95	95	31.7	off	off	on	off
100	100	33.4	on	on	off	off
112	112	37.3	off	on	off	off
124	124	31	on	off	off	off
133	133	33.3	off	off	off	off
90	90	30	on	on	on	on
83	55.5	33.3	off	on	on	on
95	63.3	31.7	on	off	on	on
66.8	100	33.3	off	off	on	on
105	105	35	on	on	off	on
112	74.7	37.3	off	on	off	on
124	82.7	31	on	off	off	on
133.3	88.9	33.3	off	off	off	on

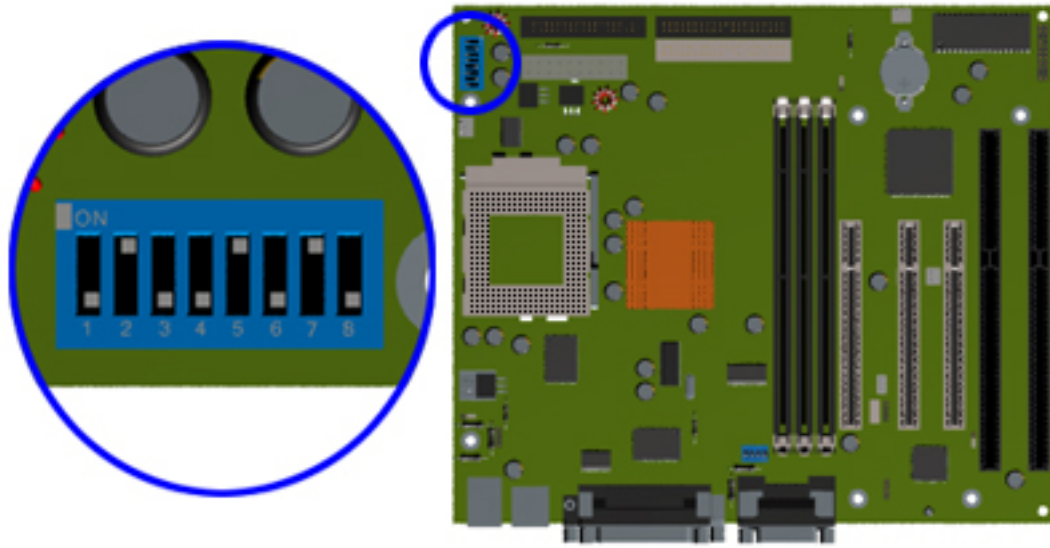⚠️ **CAUTION:** It is strongly recommended that the system speed is set according to the hardware configuration: CPU, SDRAM, Cards, etc.

JUMPER & SWITCH INFORMATION

CPU Jumper Setting Table (Switch 2)			
	1	**2**	**3**
X1.5	off	off	off
X2	on	off	off
X2.5	on	on	off
X3	off	on	off
X3.5	off	off	off
X4	on	off	on
X4.5	on	on	on
X5	off	on	on
X5.5	off	off	on

CPU Jumper Setting Table (Switch 2)					
	4	**5**	**6**	**7**	**8**
1.3V	on	on	on	on	off
1.4V	off	on	off	off	on
1.5V	off	off	on	off	on
1.6V	off	on	on	off	on
1.7V	off	off	off	on	on
1.8V	off	on	off	on	on
1.9V	off	off	on	on	on
2.0V	off	on	on	on	on
2.1V	on	off	off	off	off
2.2V	off	on	off	off	off
2.3V	on	on	off	off	off
2.4V	off	off	on	off	off
2.5V	on	off	on	Joff	off
2.6V	off	on	on	off	off
2.7V	on	on	on	off	off
2.8V	off	off	off	on	off
2.9V	on	off	off	on	off
3.0V	off	on	off	on	off
3.1V	on	on	off	on	off
3.2V	off	off	on	on	off
3.3V	on	off	on	on	off
3.4V	off	on	on	on	off
3.5V	on	on	on	on	off

Maintenance and Service Guide
Compaq Presario 7300 Series Computers

SPECIFICATIONS - INDEX PAGE

This section provides physical, environmental, and performance specifications for Compaq 7300 Series Personal Computers.

Maintenance and Service Guide
Compaq Presario 7300 Series Computers

| System |
| Power supply |
| Diskette drive |
| Hard drives |
| CD drive |
| Mouse |
| Fax/modem |

SPECIFICATIONS

CD Drive

Information for the 32x CD drive immediately follows.

32× CD Drive

Dimensions	U. S.	Metric
Width	in	cm
Height	in	cm
Depth	in	cm
Weight	lb	kg

Modes Supported

CD-ROM	Mode 1 and Mode 2
CD-DA	Audio
CD-XA	Mode 2, Form 1 and 2
Photo CD	Multiple Session
Video-CDI	Multiple Session
CD-Plus/CD-Extra/CD Enhanced	Multiple Session
CD-RW	Multiple Session

Block Size

CD-ROM Mode 1 and Mode 2 Form 1 (XA)	2048 bytes
CD-ROM Mode 2	2336 bytes
CD-DA	2324 bytes
CD-XA	2324 bytes

Center Hole	1.5 mm diameter
Diameter	120 mm / 80mm
Thickness	1.2 mm
Track Pitch	1.6 μm

Access Time

Random	< 95 ms
Full Stroke	< 190 ms

Audio Output Level

Line Out	0.7 Vrms $\pm$ 20%
Headphone	0.6 Vrms $\pm$ 20%

Cache Buffer	256 KB

Data Transfer Rate

	Mode 1	Mode 2
Sustained	4800 KB/sec KB/sec (32×)	5475 KB/sec KB/sec (32×)
Burst	MB/sec	MB/sec

Startup Time	< 5 sec
Stop Time	< 5 sec

Maintenance and Service Guide
Compaq Presario 7300 Series Computers

SPECIFICATIONS

Mouse		
Dimensions	*U. S.*	*Metric*
Height	1.34 in	3 mm
Length	4.45 in	113 mm
Width	2.36 in	60 mm
Weight w/cable	4.59 oz	130 g
Base Resolution	400 dpi	15.8 dpmm
Tracking Speed (maximum)	10 in/sec	25 cm/sec
Temperature		
Operating	0° C to + 40° C	32° F to 104° F
Non-Operating	-20° C to + 60° C	4° F to 140° F
Lifetime		
Mechanical	Exceeds 300 miles	Exceeds 483 km
Switch	Exceeds 1 million operations	Exceeds 1 million operations
Relative Humidity	10% to 90%, noncondensing at ambient.	

SPECIFICATIONS

System Specifications

General system specifications

System interrupts

System I/O

System memory

System DMA

General System Specifications

Dimensions

Height	24.51 in	
Length	20.13 in	
Width	12.13 in	

Weight

lbs.

Input Requirements

Nominal Line Voltage	Information not Available
Range Line Voltage	Information not Available
Line Frequency	Information not Available
Input Current	Information not Available

Power (watts)

	Information not Available
Steady State	Information not Available

Environmental Requirements

Temperature

Operating	50° to 95° F	10° to 35° C
Shipping	-4° to 140° F	-20° to 60° C

Humidity (noncondensing)

Operating	8% to 90%	8% to 90%
Nonoperating	5% to 95%	5% to 95%

Maximum Altitude (unpressurized)

Operating	10,000 ft	3048 m
Nonoperating	30,000 ft	9144 m

This number will increase if more bays/slots are occupied.

System Interrupts

Hardware IRQ	System Function
IRQ 0	Refresh Timer
IRQ 1	Keyboard
IRQ 2	Interrupt Controller Cascade
IRQ 3	Controllerless modem (COM 2) shared data/fax
IRQ 4	Serial Port A (COM 1)
IRQ 5	Entertainment Audio*^
IRQ 6	Diskette Drive
IRQ 7	Parallel Port (LPT 1)*
IRQ 8	Real-Time Clock
IRQ 9	Available
IRQ 10	ISDN Modem if present*
IRQ 11	PCI Bus shared with Video, USB, DVD
IRQ 12	Mouse
IRQ 13	Numeric Coprocessor
IRQ 14	Disk Drive (Primary IDE)
IRQ 15	Disk Drive (Secondary IDE)

^ Audio must use this setting for game compatibility. Used for audio, MPU-401, and volume control.
*Default configuration; other configurations are as follows:
Modem - IRQ 4, 10, 11, none
Parallel Port - IRQ 3, 4, 5, 9, 10, none
System Audio - IRQ 7, 9, 10, none
Serial Port - IRQ 3, 5, 7, 9, 10, 12, none

SPECIFICATIONS

Power Supply
U. S.

Input Specifications

Nominal Line Voltage	115 to 230 VAC
Range Input Line	90 to 180 VAC
Frequency Range	50$\underline{+}$ 3 to 60$\underline{+}$ 3 Hz
Input Current	115V 3.00 AMPS
Input Current	230V 1.50 AMPS
Output Power	110 Watts
Inrush Current	80 A at 132 VAC (cold start)
Holdup Time	16 ms from zero crossing at 120 VAC

Environment   Temperature Range

Operating	10 to +50 ° C
Storage	-20 to +60 ° C

Humidity   Non Condensing

Operating	20% to 90% RH
Storage	5% to 95% RH

Safety Standard

UL 1950;
CSA 22.2 #234, level 3;
TUV EN 60950;
NEMKO
CB

Note: Leakage current should be less than 3.5mA.

EMI Requirements

FCC part 15 subpart J class B at system load.
CISPR22 CLASS B

SPECIFICATIONS

System

Power supply

CD drive

Hard drives

Diskette drive

Mouse

Fax/modem

Diskette Drive

Diskette

    Size (in)   3.5 (8.89 cm)

    High Density (MB)   1.44

Light   Green

Height   One-third

Bytes per Sector   512

Sectors per Track

    High Density   18

Tracks per Side

    High Density   80

    Low Density   80

Rotational Speed   300 RPM

Read/Write Heads   2

Average Seek Time (ms)

    Track-to-Track   3

    Settling Time   15 (Max)

SPECIFICATIONS

| System |
| Power supply |
| Diskette drive |
| CD drive |
| Hard drives |
| Mouse |
| Fax/modem |

Click link for specifications on Seagate hard drive.

Quantum Hard Drive

	4.3-GB
Formatted Capacity	
Sectors	8,452,080
Bytes per Sector	512
I/O Data Transfer Rate (Mbits/sec Max)	66.6
Typical Seek Time (including settling)	
Single Track (ms)	1.5
Average (ms)	11.0 (13.0 Max)
Full Stroke (ms)	18.0 (22.0 Max)
Disk Rotational Speed (RPM)	5400
Cylinders	
Physical	8944
Logical	
Data Heads	
Physical	2
Logical	16
Sectors per Track	
Physical	63
Logical	
Buffer Size (kB)	512

Seagate Hard Drive

	4.3-GB	
Formatted Capacity		
Sectors	8,452,080	
Bytes per Sector	512	
I/O Data Transfer Rate (Mbits/sec Max)	66.6	
Typical Seek Time (including settling)	Read	Write
Single Track (ms)	2.0	2.75
Average (ms)	10.5	11.5
Full Stroke (ms)	24.0	26.0
Average latency (msec)	5.56	
Disk Rotational Speed (RPM)	5400	
Cylinders		
Physical	8944	
Logical		
Data Heads		
Physical	2	
Logical		
Sectors per Track		
Physical	63	
Logical		
Buffer Size (kB)	256	

SPECIFICATIONS

System

Power supply

Diskette drive

Hard drives

Fax/modem

Mouse

CD drive

Fax/Modem	
General Description	Lucent
Support	Supports K56flex and/or ITU-T V.90 14400bps send and receive fax modem with automatic fallback to 12000, 9600, 7200, 4800, and 2400bps.
	Support fax service Class 1 (EIA/TIA 578). Support V.80 video ready modem. Built-in DTE interface with speed up to 115.2kbps or 57.6kbps, parallel 16550a UART-compatible interface. Power Management Registers to PCI Interface.
Data Mode	K56flex and/or ITU-T V.90 56kbits/s for highest Internet connection rates Ultrahigh compression throughput due to parallel access directly to the host PC. ITU-T V.34 extended rates 33600bps to 2400bps. V.32terbo, V.32bis and fallbacks. TIA/EIA 602 standard for AT command set. V.42 error correction (LAM and MNP). V.42bis and MNP Class 5 data compression.
Fax Mode	Fax modem send and receive rates up to 14400bps * V.17, V.29, V.27ter, and V.21 channel 2 * TIA/EIA 578 Class 1 FAX
Error Correction	ITU-T recommended V.42 error correction. V.42 error correction (LAM and MNP).

Maintenance and Service Guide
Compaq Presario 7300 Series Computers

PRODUCT DESCRIPTION

Keyboard Controls and Lights

Easy Access Internet Keyboard

Top left and right controls (click here for **keyboard top right corner** assignments)

1 Play/pause
2 Previous track
3 Next track
4 Stop
5 Load/Eject CD
6 Print
7 Application launch
8 Volume down
9 Mute
10 Volume up
11 Sleep button

PRODUCT DESCRIPTION

Keyboard Controls and Lights

Easy Access Internet Keyboard (Back to Easy Access Internet Keyboard)

Center controls and upper right corner lights

1   Instant e-mail

2   Community

3   My Presario

4   Instant Internet

5   Instant search

6   Instant answer

7   Secure e-commerce/Featured Web site

8   Num lock light

9   Caps lock light

10 Scroll lock light