Maintenance and Service Guide

Compaq Presario 5300 Series Computers



Specifications

See the <u>Notice</u> for copyright and trademark information, and the <u>Preface</u> for symbol conventions and Technician Notes.

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 <u>Editor</u>.



The information in this guide is subject to change without notice.

COMPAQ COMPUTER CORPORATION SHALL NOT BE LIABLE FOR TECHNICAL OR EDITORIAL ERRORS OR OMISSIONS CONTAINED HEREIN, NOR FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE FURNISHING, PERFORMANCE, OR USE OF THIS MATERIAL.

This guide contains information protected by copyright. No part of this guide may be photocopied or reproduced in any form without prior written consent from Compaq Computer Corporation. © 1999 Compaq Computer Corporation. All rights reserved. Compaq, Presario Registered U. S. Patent and Trademark Office.

Microsoft, MS-DOS, and Windows are registered trademarks of Microsoft Corporation. Windows 95 and Windows 98 are trademarks of Microsoft Corporation. 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. Product names mentioned herein may be trademarks and/or registered trademarks of their respective companies.

Online Maintenance and Service Guide Compaq Presario 5300 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 5300 Series Personal Computers.

Compaq Computer Corporation reserves the right to make changes to the Compaq Presario 5300 Series Personal Computers without notice.

Symbols

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

			NING: Text set off in this manner indicates that failure to directions in the warning could result in bodily harm or loss .	
			TON: Text set off in this manner indicates that failure to directions could result in damage to equipment or loss of	
	IMPOR	TANT:	Text set off in this manner presents clarifying information or sp instructions.	ecific
NOTE: Text set off in this manner presents commentary, sidelights information.		et off in this manner presents commentary, sidelights, or interest ation.	ing points of	

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.

Serial Number

When requesting information or ordering spare parts, the computer serial number should be provided to Compaq. The serial number can be found on the front right side of the chassis (between the CD/DVD/Zip drives and the drive door hinge), and on the rear of the computer above the power supply.

SHOW ME

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

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

REMOVAL & REPLACEMENT

Electrostatic discharge

DISASSEMBLY **SEQUENCE**

Service **considerations**

Preparation for **disassembly**

Serial number

Chassis

Power supply

Mass storage **devices**

Fax-modem

Parallel port **assembly**

PCI bracket

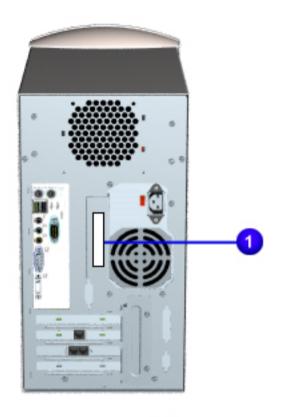
System board **components**

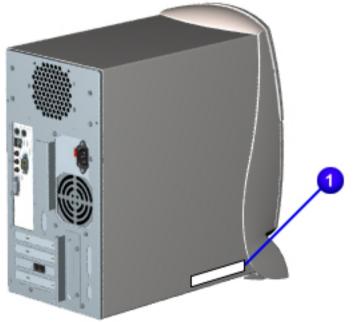
Instant On button board

Creativity Action Center



The computer serial number should be provided to Compaq whenever requesting information or ordering spare parts. The serial number is located on the rear of the computer above the power supply, and also on the cover next to the bezel.





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

PRODUCT DESCRIPTION - INDEX PAGE

Models and model-specific features

<u>CPU controls and lights</u>

Keyboard controls and lights

Creativity Action Center

Back components

connector pin assignments

Power cord set

<u>requirements</u>

general requirements country-specific requirements

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

PRODUCT DESCRIPTION

Models and features

CPU controls and lights

Compaq Presario 5300 Series Standard Configurations

Ĺ	Models	Processor MHz	Hard drive GB	RAM MB	CD/DVD	Modem
	5330, 5333	K6-2 (380)	4.3	64	32X CD	56K
	5340	K6-2 (400)	4.3	96	32X CD	56K
	5345	K6-2 (400)	10.0	96	32X CD	56K
	5346 (APD)	Celeron (400)	4.3	32	32X CD	PCI 56K
	5346 (EMEA)	Celeron (400)	4.3	64	32X CD	PCI 56K
	5352	Celeron (433)	8.0	64	6X DVD	56K
	5354	Celeron (433)	4.3	64	32X CD	PCI 56K
	5356 (APD)	Celeron (433)	4.3	32	32X CD	PCI 56K
	5356 (EMEA)	Celeron (433)	6.0	64	32X CD	PCI 56K
	5358	Celeron (433)	6.0	64	6X DVD	PCI 56K
	5359	Celeron (433)	8.0	64	6X DVD	PCI 56K
	5360	K6-2 (450)	10.0	64	32X CD	56K
	5363	K6-2 (450)	8.0	64	32X CD	56K
	5365	K6-2 (450)	12.0	64	32X CD	56K
	5373	Celeron (466)	15.0	96	32X CD	56K
	5376 (EMEA)	Celeron (466)	6.0	64	32X CD	PCI 56K
	5376 (APD)	Celeron (466)	8.0	64	32X CD	PCI 56K
	5378	Celeron (466)	6.0	64	6X DVD	PCI 56K
	5396 (EMEA)	Celeron (500)	8.0	64	6X DVD	PCI 56K
	5396 (APD)	Celeron (500)	8.0	64	32X CD	PCI 56K
	5398	Celeron (500)	10.0	64	6X DVD	PCI 56K

<u>Keyboard</u> controls and lights

Creativity Action Center

Back CPU connectors

Power cord set requirements

MSG index	Product Description	Troubleshooting	<u>Illustrated Parts</u> <u>Catalog</u>
<u>Home</u>	<u>Removal &</u> <u>Replacement</u>	Jumper & Switch Information	Specifications
Models and featuresCPU controls and lightsKeyboard controls and lightsCreativity Action CenterBack CPU connectorsPower cord set requirements			 CPU Controls and Lights 1 Emergency eject slot 2 CD/DVD drive activity light (on some models this light is displayed to the left of the manual eject slot)

3 CD/DVD load/eject button

4 Floppy drive eject button

5 Zip drive eject button & activity light

6 Drive activity light

7 Instant on button

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

Available on select models. Top left and right controls (click here for keyboard top right corner assignments)

<u>Models and</u> features

PRODUCT DESCRIPTION

CPU controls

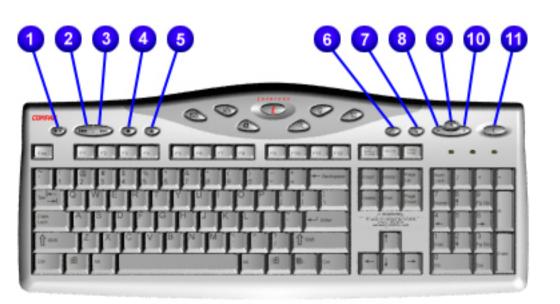
and lights

Keyboard controls and lights

Creativity Action Center

<u>Back CPU</u> connectors

Power cord set requirements



Keyboard Controls and Lights

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

Product Description Troubleshooting Illustrated Parts Catalog Home **Removal &** Jumper & Switch **Specifications** Information **Replacement PRODUCT DESCRIPTION** Models and features **Center controls and upper right corner lights CPU controls** and lights **Keyboard Controls Keyboard** controls and and lights

Creativity Action Center

Back CPU connectors

Power cord set **requirements**

		\square		
CONTRAL	0	5 62	6	
				PI
		- Integer		
	T P P	T		Part Barra
		· · · ·	- Carton Contra	
	T	1) () (m		

Lights

Easy Access Internet **Keyboard**

1 Instant e-mail

2 Daily destination

3 My presario

4 Instant internet

5 Instant search

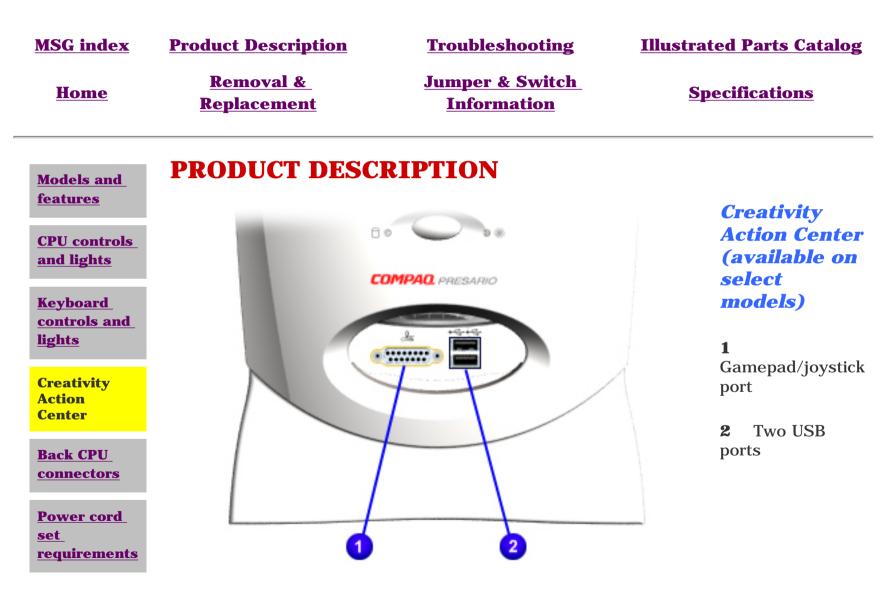
6 Online Marketplace

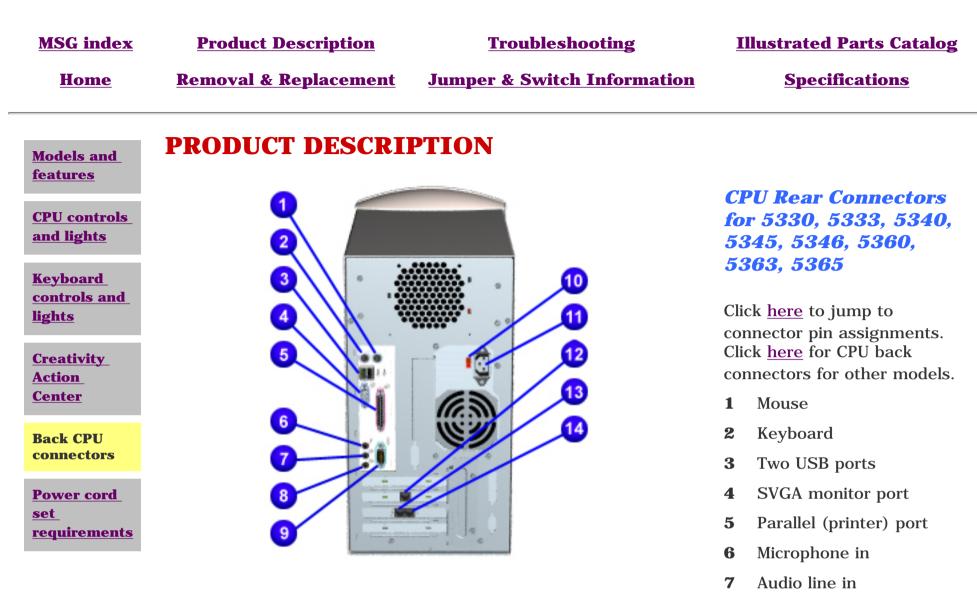
7 Retail central

8 Num lock light

9 Caps lock light

10 Scroll lock light





- Audio line out 8
- 9 Serial port
- **10** Voltage select switch
- **11** AC power connector
- **12** Ethernet network card \triangle
- **13** Telephone line to wall outlet (select models)
- **14** Telephone line to telephone \triangle

CAUTION: Do not plug a phone line into the network connector or you may damage the computer.

<u>MSG index</u>	Product Description	Troubleshooting	Illustrated Parts Catalog				
<u>Home</u>	<u>Removal &</u> <u>Replacement</u>	<u>Jumper & Switch</u> <u>Information</u>	<u>Specifications</u>				
<u>Models and</u> <u>features</u>	PRODUCT DES						
<u>CPU controls</u> and lights	Power Cord Set R	equirements					
<u>Keyboard</u> controls and lights	The power supply need	The power supply needs to be set to 115 Volts AC.					
Creativity Action Center	meets the requirement	exible cord and wall plug) re is for use in the country wh					
Back CPU connectors	nectors the country where you use the computer. For more information on p						
Power cord set requirements	cord set requirements, contact your Compaq authorized dealer, reseller, or service provider. General Requirements						
	-	d below are applicable to al	l countries:				

- 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	Country	Accredited Agency
Australia	EANSW*	Italy	IMQ*

Austria	OVE*	Japan	JIS***
Belgium	CEBC*	Norway	NEMKO*
Canada	CSA**	Sweden	SEMKO*
Denmark	DEMKO*	Switzerland	SEV*
Finland	SETI*	United Kingdom	BSI*
France	UTE*	United States	UL**
Germany	VDE*		

* The flexible cord must be <HAR> Type HO3VV-F, 3conductor, 1.0 mm2 conductor size. Power cord set fittings (appliance coupler and wall plug) must bear the certification mark of the agency responsible for evaluation in the country where it will be used.

** 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.

*** The appliance coupler, flexible cord, and wall plug must bear a "T" mark and registration number in accordance with the Japanese Dentori Law. Flexible cord must be Type VCT or VCTF, 3-conductor, 0.75mm2 conductor size. The wall plug must be a two-pole type with a Japanese Industrial Standard C8303 (15A, 125V) configuration.

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

TROUBLESHOOTING - INDEX PAGE

Clearing CMOS

Power-On Self Test (POST)

Configuration

Preparing the computer Setup Accessing Compaq utilities options

Diagnostic error codes

<u>Troubleshooting without</u> <u>diagnostics</u>

Checklist for minor problems Hardware installation Power USB Monitor Diskette drive or SuperDisk drive Hard drive CD drive DVD drive Resolving hardware conflicts

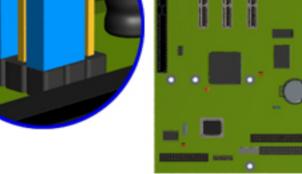
MSG index	Product Description	Troubleshooting	Illustrated Parts Catalog
<u>Home</u>	<u>Removal & Replacement</u>	Jumper & Switch Information	Specifications
Clearing CMOS	TROUBLESHOOTI	ING	
Power-On Self Test (POST)	Clearing CMOS		
<u>Configuration</u>	For models 5346, 5352, 5	354, 5356, 5358, 5373, 5376, 537	78, 5396, 5398
Diagnostic error codes	If the power-on password is computer to be operated.	unknown, clearing CMOS will disable	the password and allow the
Troubleshooting without diagnostics	The board shown is an exam	ple of one used; your board may diffe	er slightlysee Note below.
			1 Complete the preparation for

2 <u>Remove the</u> <u>chassis</u>.

disassembly.

NOTE:	If your
	board is
	different
	from the
	one
	shown,
	click links
	to see
	alternative
	boards for
	<u>other</u>
	models.

- 3 To disable the password, move the jumper 1 (J3) from pins 1-2 to pins 2-3 for 10 seconds, then return to pins 1-2.
- **4** Perform the desired troubleshooting.



CMOS jumper location

	Product Description	n <u>Troubleshooting</u>	Illustrated Parts Catalog
<u>Home</u>	Removal & Replaceme	ent Jumper & Switch Informa	tion <u>Specifications</u>
aring CMOS	TROUBLESHOO	DTING	
er-On Self (POST)	Power-On Self Tes	t (POST)	
figuration			
nostic error <u>s</u>			en the system is turned on. After the s to ensure that the computer system i
<u>bleshooting</u> out nostics	 Keyboard System boa Memory ma Video mem Diskette dr Hard drive Power supp 	odules nory rives	in the computer.
		n the system, an error condition is ind w gives explanations of the error code	licated by an audible and/or visual es and a recommended course of actio
	message. The table belo		es and a recommended course of actio
	message. The table below NOTE: An exhear a	w gives explanations of the error code	es and a recommended course of action the speaker output connector to
	message. The table below NOTE: An exhear a	w gives explanations of the error code atternal speaker must be installed into audible beeps during POST .	es and a recommended course of action the speaker output connector to
	message. The table below NOTE: An exchear a Click a link below to find	w gives explanations of the error code sternal speaker must be installed into audible beeps during POST .	es and a recommended course of action the speaker output connector to ed action for a given error message.
	NOTE: An exhear a Click a link below to find Diskette Drive A or B I Extended RAM failed a	w gives explanations of the error code sternal speaker must be installed into audible beeps during POST .	es and a recommended course of action the speaker output connector to ed action for a given error message. <u>System BIOS Shadowed</u>
	NOTE: An exhear a Click a link below to find Diskette Drive A or B I Extended RAM failed a offset nnn	ow gives explanations of the error code audible seeps during POST . I the probable cause and recommende Error Keyboard Controller Error at Keyboard Error Operating System Not Found	es and a recommended course of action the speaker output connector to ed action for a given error message. <u>System BIOS Shadowed</u> <u>System Cache Error</u>
	message. The table below NOTE: An exhear a hear a Click a link below to find Diskette Drive A or B I Extended RAM failed a offset nnn Failing Bits nnn	ow gives explanations of the error code aternal speaker must be installed into audible beeps during POST . I the probable cause and recommende Error Keyboard Controller Error at Keyboard Error Operating System Not Found ure Parity Check 1	es and a recommended course of action the speaker output connector to ed action for a given error message. <u>System BIOS Shadowed</u> <u>System Cache Error</u> <u>System CMOS Checksum Bad</u>

POST Messages

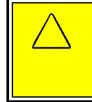
Error message	Probable Cause	Recommended Action
Diskette Drive A or B Error	Drive A: or B: is present, but fails the BIOS POST diskette tests	 Run <u>Setup</u>. Replace the signal cables. Replace the drive.
Extended RAM failed at offset <i>nnn</i>	Extended memory not working or not configured properly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

Maintenance and Service Guide

Compaq Presario 5300 Series Computers

MSG index	Product Description	Troubleshooting	Illustrated Parts Catalog
Home	<u>Removal & Replacement</u>	Jumper & Switch Information	Specifications
<u>Clearing CMOS</u>	TROUBLESHOOTI	NG	
<u>Power-On Self</u> <u>Test (POST)</u>	Configuration		
Configuration			
Diagnostic error codes	This section explains how to ι following instances:	use Setup and Compaq Utilities which s	should be accessed in the
Troubleshooting without diagnostics	 (POST) To change factor To change the sy add or remove of 	<u>s Options</u>	puter features
	Preparing the Computer If you encounter an error con procedures:	dition, complete the following steps be	fore 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

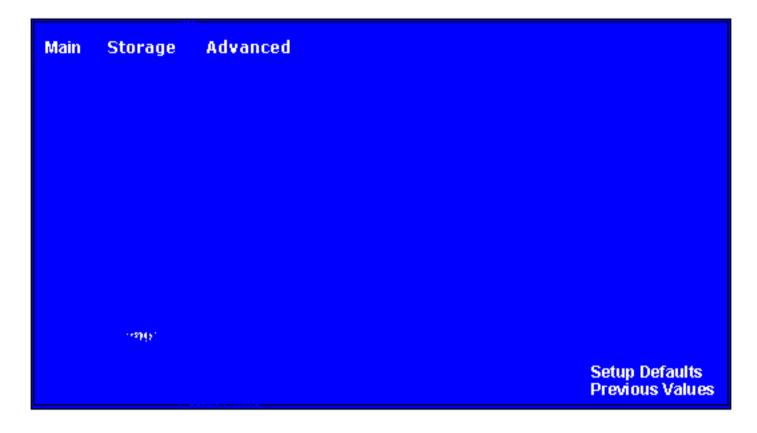
The Setup utility gives a snapshot of the computer's hardware configuration, aids in troubleshooting, and sets custom features. Setup recognizes a new internal component or an external device and automatically updates the configuration screens. Use the Setup utility to:

- 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. The following menu will appear:

NOTE: The actual menu displayed on your computer more 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*.

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

Maintenance and Service Guide

Compaq Presario 5300 Series Computers

MSG index	Product Descripti	on <u>Troubleshooting</u>	Illustrated Parts Catalog	
Home	<u>Removal & Replace</u>	nent Jumper & Switch Information	Specifications	
Clearing CMOS	TROUBLESHOO	TING		
Power-On Self Test (POST)	Diagnostic Error Co	Diagnostic Error Codes		
Configuration				
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.			
Troubleshooting without diagnostics	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. been resolved, do not proceed with the remain	•	

For assistance in the removal and replacement of a particular subassembly, see <u>Removal and Replacement</u> <u>Procedures</u>.

100- xx	Processor	800-xx	<u>Monochrome video</u>	3200- xx	<u>Audio</u>
200- xx	<u>Memory</u>	1100-xx	<u>Serial</u>	3300- xx	CD or DVD
300- xx	<u>Keyboard</u>	1200-xx	<u>Modem</u>	6600- xx	<u>CD or DVD</u>
400- xx	<u>Parallel (printer)</u>	1700-xx	<u>Hard drive</u>	8600- xx	<u>Pointing device</u> interface
500- xx	<u>Monitor</u>	1900- xx	<u>Tape drive</u>		
600- xx	<u>Diskette drive</u>	2400-xx	<u>Video</u>		

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.2 Replace the system beard and retest.	
304-xx	Keyboard typematic test failed	3 Replace the <u>system board</u> 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.	

Monochrome video error codes		
Error Code	Description	Recommended Action
802-xx	Video memory test failed	The following step applies to error codes 802-xx through 824-xx:

824-xx	Monochrome video text mode test
	failed

Replace the 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 <u>system board</u> 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	0		
1203-xx	Modem External Termination Test	1 Refer to modem documentation for correct Setup procedures.		
1204-xx	Modem Auto Originate Test	2 Check the modem line.		
1206-xx	Dial Multifrequency Tone Test	3 <u>Replace the modem</u> and retest.		
1210-xx	Modem Direct Connect Test			

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

Video

anda

<u>Clearing CMOS</u>

Power-On Self Test (POST)

Diagnostic Error Codes (continued)

TROUBLESHOOTING

Configuration

Diagnostic error codes

Troubleshooting without **diagnostics**

Video error codes				
Error Code	Description	Recommended Action		
2402-xx	Video memory test failed	The following steps apply to error codes 2402-xx		
2403-xx	Video attribute test failed	through 2456-xx:		
2404-xx	Video character set test failed1Run Setup.			
2405-xx	Video 80×25 mode 9×14 character cell test failed	2 Replace the <u>system</u> <u>board</u> 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	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 \times 200 graphics mode test failed			
2422-xx	ECG/VGC 640×350 16-color set test failed			
2423-xx	ECG/VGC 640 \times 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
- Advanced VGA BitBLT test 2468-xx
- 2477-xx Advanced VGA datapath test
- 2478-xx Advanced VGA BitBLT test
- 2480-xx Advanced VGA Linedraw test
- The following steps apply to error codes 2468-xx through 2480-xx:
- 1 Run <u>Setup</u>.
- 2 Replace the <u>system</u> board and retest.

Processor error codes			
Error code	Description	Recommended action	
101-xx	CPU test failed	Replace the system board and retest.	
102-xx	Processor error	 Run <u>Setup</u> and retest. <u>Replace the processor</u> and retest. 	
103-xx	DMA controller failed	The following step applies to error codes 103- xx through 106-xx:	
104-xx	Interrupt controller failed	AA UIIOUGII 100 AA.	
105-xx	Port error	Replace the <u>system board</u> and retest.	
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:
108-xx 109-xx	CMOS interrupt test failed CMOS clock test failed	 Replace the <u>battery/clock module</u> and retest Replace the <u>system board</u> and retest.
110-xx	Programmable timer test failed	The following step applies to error codes 110- xx through 113-xx:
111-xx	Refresh detect test failed	Replace the system board and retest.
112-xx	Speed test failed	
113-01	Protected mode test failed	
114-xx	Speaker test failed	 Verify the speaker connection. Replace the <u>system board</u> and retest.
199-xx	Installed devices test failed	 Check system configuration. Verify cable connections. Check switch settings. Run <u>Compaq Utilities</u>.

5.	Replace	the	system	board	and	retest.

	Monitor (VGA) error codes			
Error Code	Description	Recommended Action		
501-xx	Video controller test failed	The following step applies to error		
502-xx	Video memory test failed	codes 501-xx through 516-xx:		
503-xx	Video attribute test failed	Replace the <u>system</u> <u>board</u> and retest.		
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			

Video gray scale test failed 512-xx

Video white screen test failed 514-xx

Video noise pattern test failed 516-xx

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

TROUBLESHOOTING

Power-On Self Test (POST)

<u>Clearing CMOS</u>

Diagnostic Error Codes (continued)

Configuration

Diagnostic error codes

Troubleshooting without **diagnostics**

	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	 Run <u>Setup</u> and verify drive type. <u>Replace the hard drive signal and power</u> 		
1702- xx	Hard drive read test failed	<u>cables</u> and retest.<u>Replace the hard drive</u> and retest.		
1703- xx	Hard drive write/read/compare test failed	4 Replace the <u>system board</u> and retest.		
1704- xx	Hard drive random seek test failed			
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-	Hard drive conditional format			

- test failed XX
- 1717-Hard drive ECC* test failed XX
- Hard drive power mode test 1719failed XX
- Hard drive power mode test 1719-x failed
- **1730-x** Fixed Disk 0 does not support DMA Mode
- **1731-x** Fixed Disk 1 does not support DMA Mode
- Fixed Disk 0 failed Set Block 1740-x 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
- Fixed Disk 1 does not support Block Mode 1761-x
- **1790-x** Disk 0 Configuration Error
- Secondary Disk Controller 1792-x Failure
- Invalid hard drive type failed 1799-XX

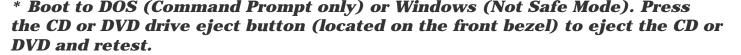
*Error Correction Code

	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	 Replace the tape cartridge and retest. Check and/or replace the signal cable and retest. 		
1902- xx	Tape format failed	3 Replace the tape drive and retest.4 Replace the <u>system board</u> and retest.		
1903- xx	Tape drive sensor test failed			
1904- xx	Tape BOT/EOT test failed			
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	 Replace with a working pointing device and retest. Replace the <u>system board</u> and retest. 	

Audio error codes		
Error Code	Description	Recommended Action
3206- xx	Audio System Internal Error	Replace the <u>system board</u> and retest.

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



Maintenance and Service Guide

Compaq Presario 5300 Series Computers

MSG index	Product Description	Troubleshooting	Illustrated Parts Catalog	
Home	Removal & Replacement	Jumper & Switch Information	<u>Specifications</u>	
<u>IIOIIIe</u>	<u>Nemoval & Neplacement</u>	<u>Jumper & Switch Information</u>	Specifications	
Clearing CMOS	TROUBLESHOOT	ING		
Power-On Self Test (POST)	Troubleshooting Without Diagnostics			
Configuration				
Diagnostic error codes	This section describes some simple, preliminary tests and guidelines for troubleshooting the computer.			
Troubleshooting without diagnostics	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 <i>CONFIG.SYS</i> file correct? Is the <i>AUTOEXEC.BAT</i> file (MS-DOS) or <i>STARTUP.CMD</i> 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 s	solutions for problems related to these	e topics:	
	<u>CD drive</u>	hardware insta	llation	
	diskette drive	power		
	DVD drive	<u>USB ports</u>		
	hard drive	VGA monitor		

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	
uctetteu.	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.	

CD drive

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.
UISK.	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	DVD drive is not connected properly.	Open the computer and check to see that the drive cable is connected properly.
detected.	Incorrect driver is installed.	Ensure the correct driver is installed in <i>CONFIG.SYS.</i>
	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

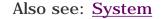
Hardware conflicts occur when two or more peripheral devices attempt to use the same hardware resources. I/O addresses, interrupts, and DMA channels are the most common hardware resources used by peripheral devices. For example, the factory default settings for the MIDI port audio interface are:

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.



Maintenance and Service Guide

Compaq Presario 5300 Series Computers

<u>MSG index</u>	Product Description	Troubleshooting	Illustrated Parts Catalog
Home	<u>Removal & Replacement</u>	Jumper & Switch Information	Specifications
<u>Clearing CMOS</u>	TROUBLESHOOTING		
Power-On Self Test (POST)	Troubleshooting Without Diagnostics (continued)		
Configuration			

Diagnostic error codes

Troubleshooting without diagnostics

Hard drive			
Problem	Probable cause(s)	Possible solution	
Hard drive error occurs.	Hard disk has bad sectors or has failed.	Run <u>Computer Setup</u> . 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 <i>Program</i> \clubsuit <i>Accessories</i> \clubsuit <i>System Tools</i> \clubsuit <i>Scandisk</i> 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 <i>Program</i> \clubsuit <i>Accessories</i> \clubsuit <i>System Tools</i> \clubsuit <i>Disk Defragmenter</i> .	
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 <u>Computer Setup</u> and enable diskette boot.	
operation seems may be fragmented. Program → Accessories → System slow Scandisk to check for problems. If or run Scandisk and checkmark the "A or If a large number of lost allocation		From the desktop click on the Start menu. Choose <i>Program</i> → <i>Accessories</i> → <i>System Tools</i> → <i>Scandisk</i> 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 <i>Program</i> →	
activity light is not on, or stays on without blinking.		Accessories ➡ System Tools ➡ Disk Defragmenter.	

Hardware installation			
Problem Probable cause(s)		Possible solutions	
A new device is not recognized as part of the	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.	
computer system.	The system may not have automatically recognized the new device.	Run <u>Computer Setup</u> 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. <u>Click here</u> 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	Diskette is not formatted.	Format the diskette.	
to a 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 is not formatted.	Format the diskette.	
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 <i>Computer Setup</i> .	Run <u>Computer Setup</u> and enable the diskette drive.	

SuperDisk Drive					
Problem	Probable cause(s)	Possible solution			
SuperDisk 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.			
SuperDisk drive cannot	Diskette is not formatted.	Format the diskette.			
write to a 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.			
SuperDisk	Diskette is not formatted.	Format the diskette.			
drive cannot read a 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 <i>Computer Setup</i> .	Run <u>Computer Setup</u> and enable the diskette drive.			

	VGA Monitor					
Problem	Probable cause(s)	Possible solution				
Characters are dim.	The brightness control is not set properly.	Adjust the brightness control.				
Screen is blank.	A screen-blanking utility could be installed.	Press any key. If the display reappears, you have a screen-blanking utility installed.				
	The brightness needs adjusting.	Adjust the brightness control.				
	Screen save has been initiated.	Press any key or move the mouse to light the screen.				
Garbled characters on the screen are mixed with	The ANSI.SYS driver is not in the <i>CONFIG.SYS</i> file.	Add the ANSI.SYS driver to the <i>CONFIG.SYS</i> file by adding the following line:				
text.		DEVICE = C:\ANSI.SYS				
Monitor overheats.	There is not enough ventilation space for proper airflow.	Leave at least 3 inches (7.6 cm) of ventilation space. Also, be sure there is nothing on top of the monitor to obstruct air flow.				
Cursor will not move using the arrow keys on the numeric	The Num Lock key is on.	Press the Num Lock key. The Num Lock light should not be on when you want to use the arrow keys.				
keypad.	There is a possible application error.	Restart the computer.				

1 m

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

ILLUSTRATED PARTS CATALOG - INDEX PAGE

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

<u>System unit</u>	<u>Keyboards</u>
Mass storage devices	<u>Monitors</u>
<u>Cables</u>	<u>Miscellaneous parts</u>
Standard & optional boards	<u>Return kits</u>
<u>Fax/modem</u>	Documentation & software

<u>MSG index</u> <u>Home</u>	_	Troubleshooting Jumper & Switch Information	<u>Illustrated Parts</u> <u>Catalog</u> <u>Specifications</u>
System unit	ILLUSTRATED P	PARTS CATALOG	
<u>Mass storage</u> devices	System Unit		
<u>Cables</u>	1	2	3
<u>Standard &</u> optional boards		5	001 6
<u>Fax/modem</u>			I/O front bracket
<u>Keyboards</u> <u>Monitors</u>	Door assembly 102381- 001		388599-001
<u>Miscellaneous</u>		ĉ	
Return kits Documentation & software	<u>n</u>	Front bezel - 102377-	
	 Drive bay bezel blank (for 5.25" hard drive) 102371 001 Differ (3.5") 102375-001 		9 Drive bay bezel blank (for 3.5" hard drive) 102368-001 12 12 DCI back bracket 388524-001

Drawer (part of chassis assembly) 388513-001

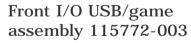




10.00

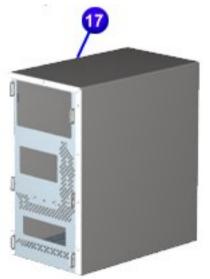
Drive cage assembly 122896-001





I/O front clip 102388-001





Can (part of chassis assembly) 388513-001



drive) 136436-001???

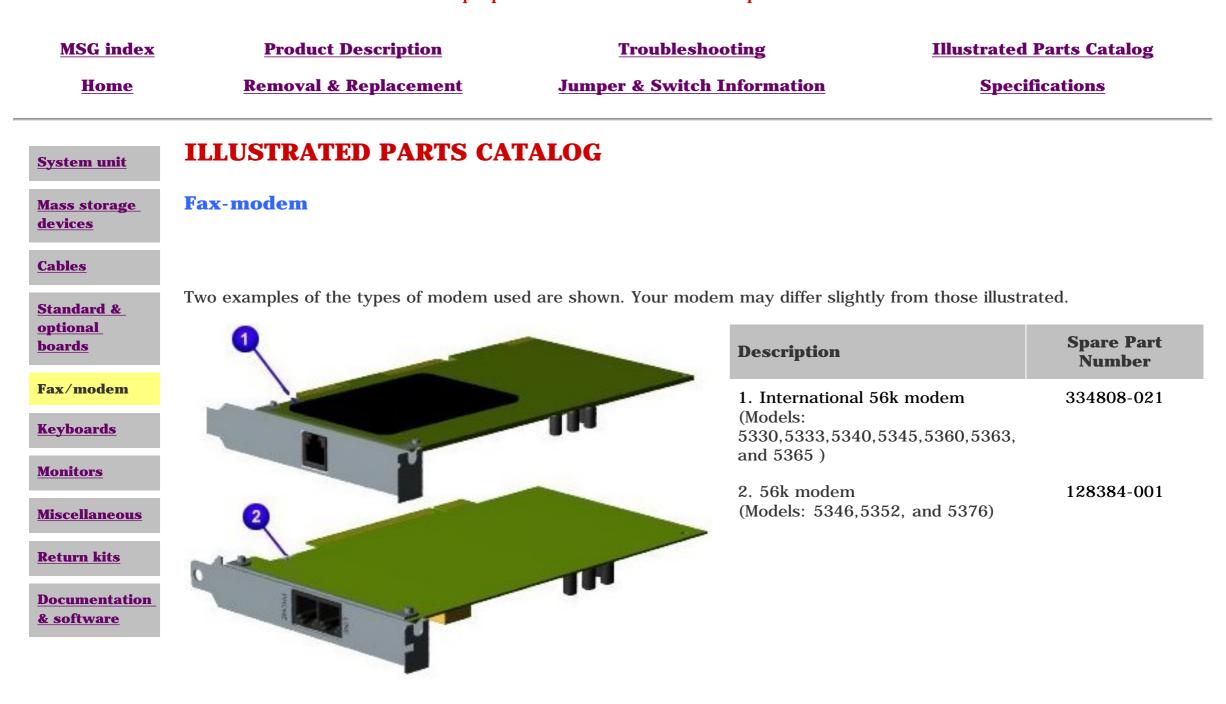
<u>MSG index</u>	Product Description	<u>Troubleshooting</u>	<u>Illustrated Parts</u> <u>Catalog</u>
<u>Home</u>	<u>Removal &</u> <u>Replacement</u>	Jumper & Switch Information	Specifications
System unit	ILLUSTRATE	D PARTS CATA	LOG
<u>Mass storage</u> <u>devices</u>	<i>Cables</i>		
Cables	0		
Standard & optional boards			2 CD/DVD drive cable in cable
<u>Fax/modem</u>	2		kit 122238-001
<u>Keyboards</u>	Power cable - click fo number	r country-specific part	
Monitors		2	
Miscellaneous	3	3-1-	4
<u>Return kits</u>	Fax/Modem - click for	r country-specific part	CD Audio in cable kit -
Documentation	numbor	security specific part	171891-002



Serial cable

<u>MSG index</u> <u>Home</u>	Product Description Removal & Replacement	Troubleshooting <u>Jumper & Switch Information</u>	<u>1</u>]	llustrated Part	
<u>System unit</u>	ILLUSTRATED PA	RTS CATALOG			
Mass storage devices	Standard and Optiona 5365	l Boards - 5330, 5333, 5340,	, 53	45, 5360, 5 3	863, and
<u>Cables</u>	AMD K6-2				
Standard & optional boards	Click link to see <u>Intel Celeron</u>	<u>n</u> boards.			
<u>Fax/modem</u> <u>Keyboards</u>				Description	Spare Part Number
				System Board	
<u>Monitors</u>	and a second			w/o PROC, VID-S	148398- 001
<u>Miscellaneous</u> <u>Return kits</u>				w/o PROC, VID-S, F	120694- 101
Documentation				w/o PROC, VID-S, M	120694- 111
<u>& software</u>				Heat sink retention clip	Spared with procesor & heat sink
		2-10000000		AMD K6-2 Processor w/Heat sink	
	1			380 MHz 400 MHz 450 MHz	136437- 001 136438- 001 136439- 001
			3	100-MHz SDRAM DIMM Memory Module	
	3			32 MB 64 MB	337372- 001 179190- 001

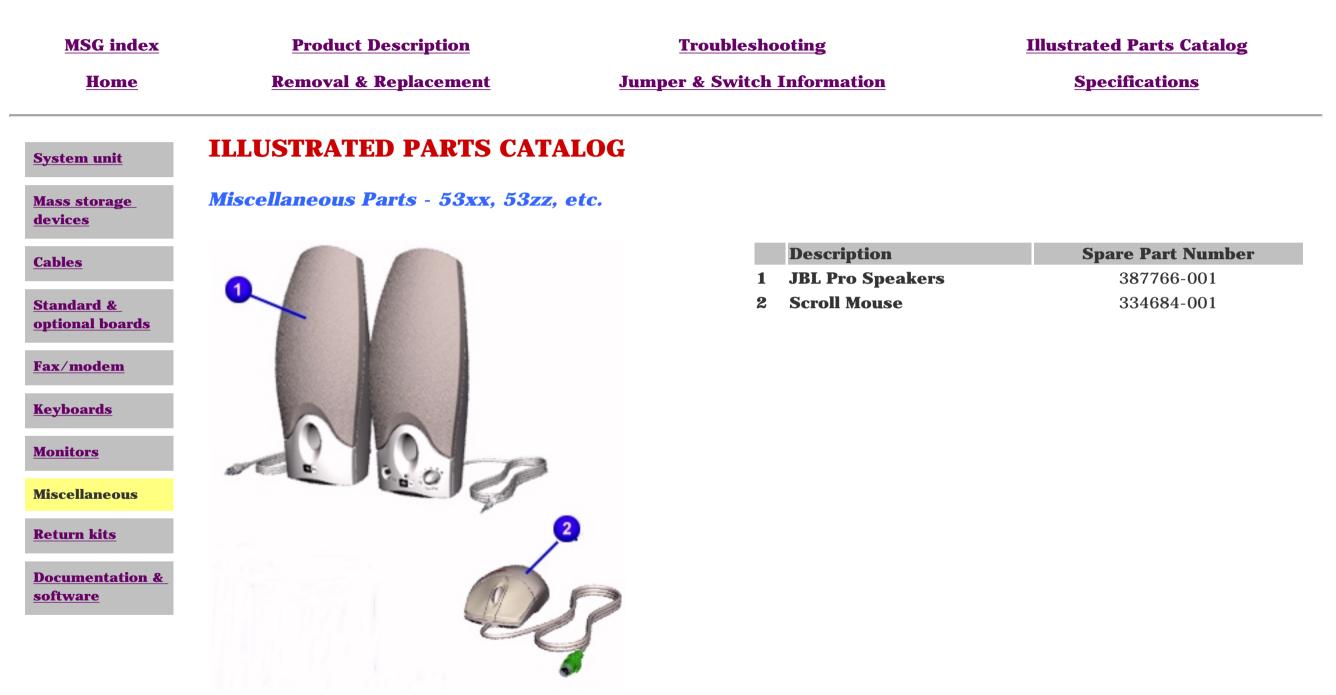
<u>MSG index</u> <u>Home</u>	Product DescriptionTroubleshootingRemoval & ReplacementJumper & Switch Information			<u>Illustrated Parts Catalog</u> <u>Specifications</u>	
<u>System unit</u>	ILLUSTRATED PARTS	CATALOG			
<u>Mass storage</u> <u>devices</u>	Standard and Optional Boa 5378, 5396, 5398	r ds - 5346, 5352, 5354, 5 3	356, 5358, 5359, s	5373, 537 6 ,	
<u>Cables</u>	Pentium Celeron				
Standard & optional boards	Click link to see <u>AMD K6-2</u> boards.				
Fax/modem			Description	Spare Part Number	
<u>Keyboards</u>			System Board		
Monitors		m	w/o PROC, VID-S	148398-001	
Miscellaneous			w/o PROC, VID- S, F	120694-101	
<u>Return kits</u>			w/o PROC, VID- S, M	120694-111	
Documentation <u>& software</u>		1	Heat sink retention clip	spared with processor & heat sink	
	2-	2	Pentium Celeron Processor w/Heat sink		
		and the property of the second s	400 MHz 433 MHz 466 MHz	149268-001 138157-001 138158-001	
		3	100-MHz SDRAM DIMM Memory Module		
	3		32 MB 64 MB	337372-001 179190-001	



MSG index	Product Description	Troubleshooting	Illustrated Parts Catalog
Home	Removal & Replacement	Jumper & Switch Information	Specifications
<u>System unit</u>	ILLUSTRATED PARTS CAT	ALOG	
<u>Mass storage</u> <u>devices</u>	Keyboard		
<u>Cables</u>			
<u>Standard &</u> optional boards	Easy access Internet keyboard Part Numb	er 387084-xxx. Click on the drop-down box to fir	nd xxx for a particular region or country.
Fax/modem			
Keyboards	一种超越自然		
<u>Monitors</u>			
Miscellaneous			
<u>Return kits</u>			
Documentation &			

<u>software</u>

Maintenance and Service Guide **Compaq Presario 5300 Series Computers Illustrated Parts MSG index Product Description Troubleshooting** Catalog Removal & Jumper & Switch **Specifications** Home **Replacement** Information **ILLUSTRATED PARTS CATALOG System unit Monitors** Mass storage devices **Cables Compaq MV 520**, 15" 341265-Standard & (speakers not shown) 001 optional boards Fax/modem <u>Keyboards</u> **Monitors Compaq MV 720**, 17" 341267-榆. Miscellaneous (speakers not shown) 001 **Return kits** Documentation & software **MV920**, 19" (speakers not 341269shown) 001 Speaker brackets (not shown)



MSG index	Product Description	Troubleshooting	<u>Illustrated Parts</u> <u>Catalog</u>
<u>Home</u>	<u>Removal &</u> <u>Replacement</u>	<u>Jumper & Switch</u> <u>Information</u>	Specifications
<u>System unit</u>	ILLUSTRATE	D PARTS CATALOG	r
<u>Mass storage</u> <u>devices</u>	Return Kits		
<u>Cables</u>			
Standard &	Description		Spare Part Number
optional boards	Return kit		128389-001
Fax/modem			
<u>Keyboards</u>			
<u>Monitors</u>			
Miscellaneous			
Return kits			
Documentatio <u>& software</u>	<u>n</u>		

MSG index	Product Description	Troubleshooting	Illustrated Parts Catalog			
Home	<u>Removal & Replacement</u>	Jumper & Switch Information	Specifications			
System unit	ILLUSTRATED P	ARTS CATALOG				
<u>Mass storage</u> <u>devices</u>	Documentation & So 5373, 5376, 5396, 53	ftware for models 5346, 53 398	352, 5354, 5356, 5358,			
<u>Cables</u>	Description		Spare Part Number			
<u>Standard &</u> optional	Product Brick					
<u>boards</u>	• User's Guide					
Fax/modem	- Compag Wowenty					
<u>Keyboards</u>	Compaq Warranty					
Monitors	QuickRestore CD, 5300 Se	eries (Windows 98)				
<u>Miscellaneous</u>						
<u>Return kits</u>	QuickRestore CD #2, 530	0 Series (Windows 98)				
Documentation & software						

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

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

REMOVAL & REPLACEMENT PROCEDURES - INDEX PAGE

This section provides general service information for Compaq 5300 Series Personal Computers. Adherence to the procedures and precautions described in this section is essential for safe and proper service.

Electrostatic discharge	Fax-modem
Service considerations	Parallel port assembly
Preparation for disassembly	PCI bracket
<u>Serial number</u>	<u>System board</u> <u>battery</u>
Chassis	memory module
<u>Power supply</u>	<u>processor</u> <u>I/O panel</u> <u>system board</u>
Mass storage devices	
<u>3.5" Hard drive</u>	
5.25" Hard drive	Instant On button board
<u>CD or DVD drive</u>	
Zip drive	Creativity Action Center
Diskotto drivo	creating notion conter

Diskette drive

Maintenance and Service Guide

Compaq Presario 5300 Series Computers

<u>MSG index</u>	Product Description	Troubleshooting	Illustra	ted Parts Catalog
Home	Removal & Replacement	Jumper & Switch Informati	on Sı	<u>pecifications</u>
DISASSEMBLY SEQUENCE	REMOVAL & REPLA	CEMENT		
Electrostatic discharge				
<u>Service</u> <u>considerations</u>	devices or microcircuitry. Often device exposed to electrostatic of throughout a normal cycle. Or it	ctricity from a finger or other con the spark is neither felt nor hearc lischarge (ESD) may not be affec may function normally for a whil	d, but damage occ ted at all and will	curs. An electronic work perfectly
<u>Preparation</u> <u>for</u> disassembly		ated circuits provide some protect device parameters or melt silicon		cases, the discharge
<u>Serial number</u>	Generating Static			
<u>Chassis</u>	The table below shows the differ	rent amounts of static electricity g	generated by diffe	rent activities .
Power supply		Re	elative Humidi	ty
<u>rower suppy</u>	Event	10%	40%	55%
<u>Mass storage</u>	Walking across carpet	35,000 V	15,000 V	7,500 V
<u>devices</u>	Walking across vinyl floo	or 12,000 V	5,000 V	3,000 V
Fax-modem	Motions of bench worker	6,000 V	800 V	400 V
	Removing DIPS from pla	stic tubes 2,000 V	700 V	400 V
<u>Parallel port</u>	Removing DIPS from vin	yl trays 11,500 V	4,000 V	2,000 V
<u>assembly</u>	Removing DIPS from Sty	vrofoam 14,500 V	5,000 V	3,500 V
PCI bracket	Removing bubble pack fr	rom PCBs 26,000 V	20,000 V	7,000 V
	Packing PCBs in foam-lin	ned box 21,000 V	11,000 V	5,000 V
<u>System board</u>	NOTE: 700 volts can de	grade a product!		
<u>Instant On</u> button board	Preventing Electrostatic Dam	age to Equipment		
<u>Creativity</u> <u>Action Center</u>	5	e sensitive to ESD. Circuitry design packaging and grounding precau		0

- 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-Shi	elding Protection I	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 $\pm 10\%$ resistance to the ground cords. To provide proper ground, a strap must be worn snug against the skin. On grounded mats without bananaplug 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

<u>MSG index</u> <u>Home</u>	<u>Product Descript</u>		Illustrated Parts Catalog
DISASSEMBLY SEQUENCE	REMOVAL &	REPLACEMENT	
<u>Electrostatic</u> <u>discharge</u>	Service Conside	rations	
Service considerations	Tool Requirements		
<u>Preparation</u> <u>for</u> <u>disassembly</u>	 Phillips screwd Needle-nose p Flathead screw Compaq Utilitie 	liers /driver	
<u>Serial number</u>		es soltware	
<u>Chassis</u>	Screws		
<u>Chassis</u> <u>Power supply</u>	The screws used in the reassembly proce	nese products are not interchangeable. If ess, it could cause damage to the unit. Co	ompaq strongly recommends that
	The screws used in the reassembly proce	ess, it could cause damage to the unit. Co uring the disassembly process be kept wi	ompaq strongly recommends that
Power supply Mass storage devices	The screws used in the reassembly proce all screws removed d	ess, it could cause damage to the unit. Co uring the disassembly process be kept wi r proper locations.	ompaq strongly recommends that ith the part that was removed, om the computer, it should
Power supply Mass storage devices Fax-modem Parallel port	The screws used in the reassembly proceed all screws removed do then returned to their	ess, it could cause damage to the unit. Couring the disassembly process be kept with proper locations.	ompaq strongly recommends that ith the part that was removed, om the computer, it should
Power supply Mass storage	The screws used in the reassembly proceed all screws removed do then returned to their IMPORTANT	ess, it could cause damage to the unit. Couring the disassembly process be kept with proper locations.	ompaq strongly recommends that ith the part that was removed, om the computer, it should to prevent damage.
Power supply Mass storage devices Fax-modem Parallel port assembly	The screws used in the reassembly proceed all screws removed de then returned to their IMPORTANT Cables and Connece Most cables used three care to avoid damage insertion or removal all cases, avoid bend	 ess, it could cause damage to the unit. Couring the disassembly process be kept with proper locations. C: As each subassembly is removed from be placed away from the work area to be placed away from the cables. These exactly only the tension required to seat from the connector. Handle cables by the bing, twisting, or tearing the cables, and exactly be placed away from the cables area to be placed away from the ca	e must be handled with extreme or unseat the cables during e connector whenever possible. I
Power supply Mass storage devices Fax-modem Parallel port assembly PCI bracket	The screws used in the reassembly proceed all screws removed de then returned to their IMPORTANT Cables and Connece Most cables used three care to avoid damage insertion or removal all cases, avoid bend	 ess, it could cause damage to the unit. Couring the disassembly process be kept with proper locations. f: As each subassembly is removed from be placed away from the work area to be placed away from the work area	e must be handled with extreme or unseat the cables during e connector whenever possible. I

Ribbon Cable Positions

CD or DVD drive

Hard drive

Zip drive

Diskette drive

Creativity Action Center

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

REMOVAL & REPLACEMENT

Preparation for Disassembly

Electrostatic discharge

DISASSEMBLY SEQUENCE

<u>Service</u> considerations

Preparation for disassembly

Serial number

<u>Chassis</u>

Power supply

<u>Mass storage</u> devices

Fax-modem

<u>Parallel port</u> <u>assembly</u>

PCI bracket

<u>System board</u> components

<u>Instant On</u> button board

<u>Creativity</u> <u>Action Center</u> 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.

MSG index Product Description Troubleshooting Illustrated Parts Catalog Removal & Jumper & Switch Specifications Home **Replacement** Information **REMOVAL & REPLACEMENT** DISASSEMBLY **SEQUENCE** Chassis **Electrostatic** discharge Removal Perform the 1 Service preparation considerations procedures. **Preparation** 2 Remove for the three disassembly screws from the **Serial number** back of the computer Chassis as shown. **Power supply** 3 With one hand, grasp Mass storage the handle devices

Fax-modem

Parallel port assembly

PCI bracket

System board **components**

Instant On button board

Creativity **Action Center** 4 Lift up on the chassis and pull it completely out of the cover.

on the back

computer chassis while

holding the

cover with the other

hand, and pull until

the chassis

stops.

of the

Replacement

To replace the chassis, reverse this procedure.

Maintenance and Service Guide

Compaq Presario 5300 Series Computers



DISASSEMBLY Service considerations Preparation for disassembly Serial number Chassis Power supply Mass storage devices

Power Supply

Removal

- **1** <u>Perform preparation procedures.</u>
- **2** <u>Remove the chassis</u>.
- **3** Gently lay the computer on its side (rear connectors should be closest to the working surface).
- **4** Remove the four screws that secure the power supply to the rear of the chassis as shown.
- 5 Slide the power supply away from the back of the chassis
 1, flip it up and away 2, and slide it to the right to remove it from the slots.

Replacement

To replace the power supply, reverse this procedure.

<u>PCI bracket</u>

Fax-modem

Parallel port assembly

<u>System board</u> components

<u>Instant On</u> button board

Creativity Action Center

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

DISASSEMBLY SEQUENCE

Electrostatic discharge

Service considerations

Preparation for

disassembly

Serial number

Chassis

Power supply

Mass storage devices

Fax-modem

Parallel port assembly

PCI bracket

System board components

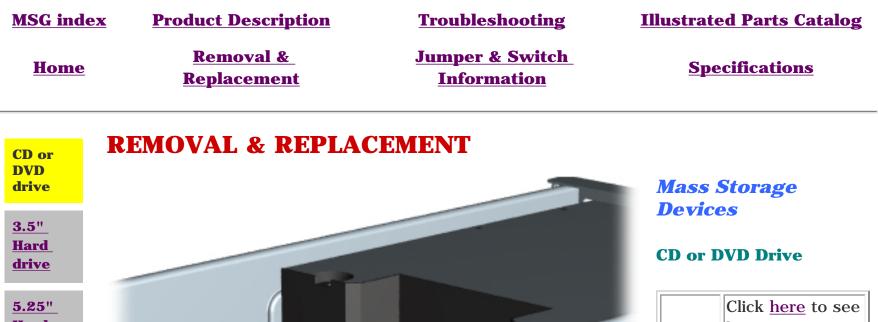
Instant On button board

Creativity **Action Center**



Mass Storage Devices - Index Page

- **CD or DVD drive** 1
- 3.5" Hard drive or 5.25" Hard drive 2
- 3 **Zip drive** (available on select models)
- **Diskette drive** 4

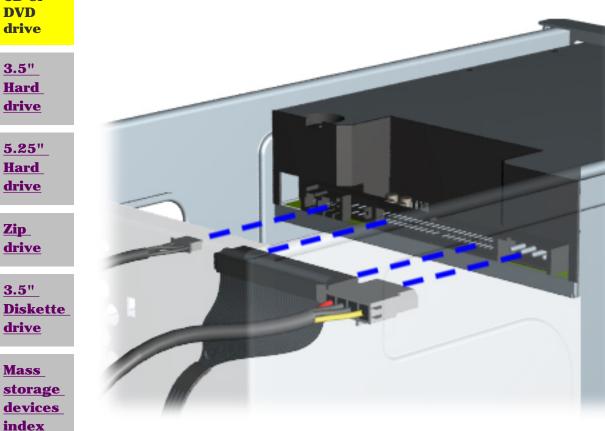


NOTE: NOTE: CD or DVD that has jammed in the drive.

Removal

- 1 <u>Perform</u> <u>preparation</u> <u>procedures</u>.
- **2** <u>Remove the cover</u>.
- **3** Disconnect the signal, power, and audio cables from the CD or DVD drive.

NEXT STEP



page

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

REMOVAL & REPLACEMENT

Mass Storage Devices

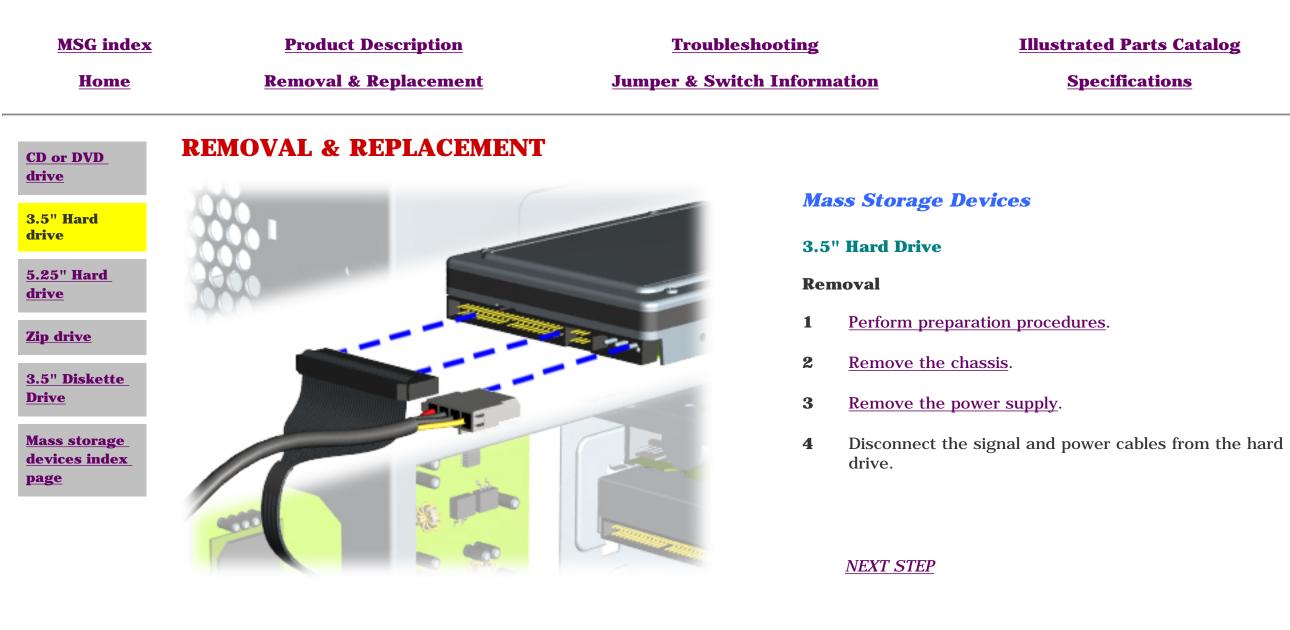
CD or DVD Drive, continued

- **4** Remove the four screws from the sides of the CD or DVD drive.
- **5** Pull the CD or DVD drive straight out of the front of the chassis.

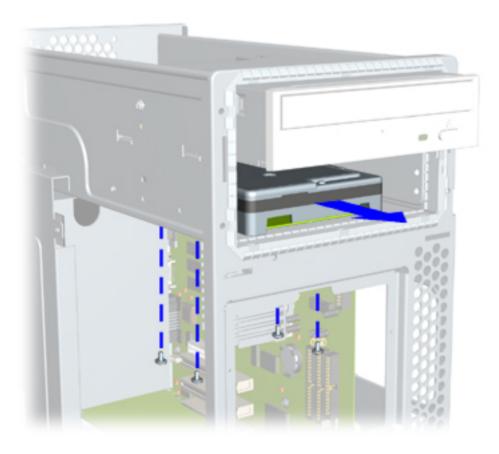
Replacement

To replace the CD or DVD drive, reverse this procedure.

Return to section index



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



REMOVAL & REPLACEMENT

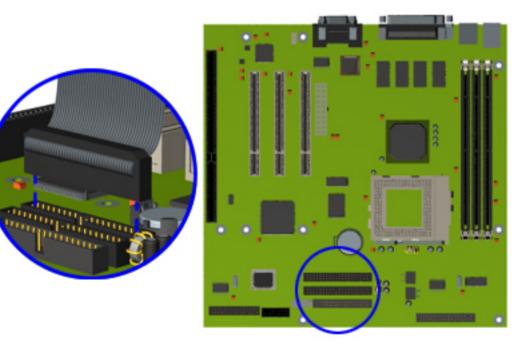
Mass storage devices

3.5" Hard Drive, continued

- **5** Remove the four screws from the underside of the hard drive bracket and chassis.
- **6** Remove the hard drive from the front of the chassis.

<u>NEXT STEP</u>

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



REMOVAL & REPLACEMENT

Mass storage devices

3.5" Hard Drive, continued

7 Disconnect the hard drive cable from the board.

Replacement

To replace the 3.5-inch hard drive, reverse this procedure.

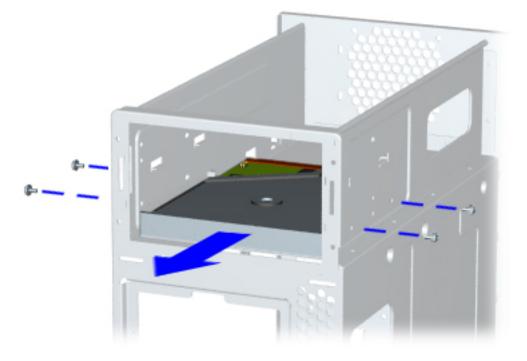
Return to index page



<u>NEXT STEP</u>

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

REMOVAL & REPLACEMENT



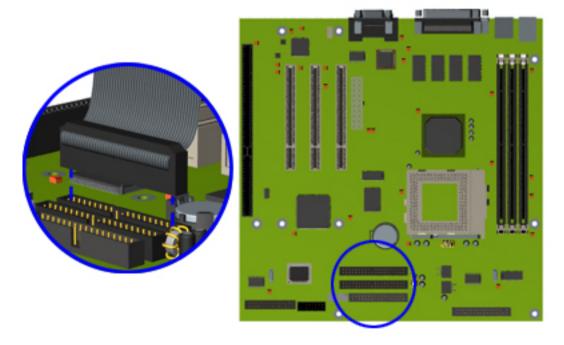
Mass Storage Devices

5.25" Hard Drive, continued

- **4** Remove the four screws from the sides of the hard drive.
- **5** Pull the hard drive from the front of the chassis.

<u>Next Step</u>

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



REMOVAL & REPLACEMENT

Mass Storage Devices

5.25" Hard Drive, continued

6 Disconnect the hard drive cable from the board.

Replacement

To replace the hard drive, reverse this procedure.

Return to index page

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

CD or DVD drive

3.5" Hard drive

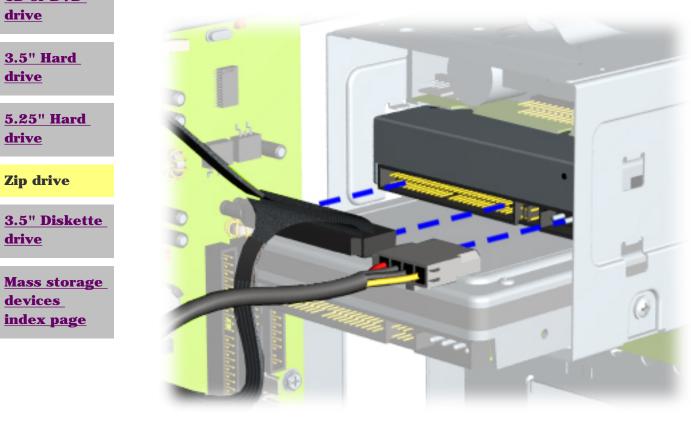
drive

drive

devices index page

Zip drive

REMOVAL & REPLACEMENT



Mass Storage Devices

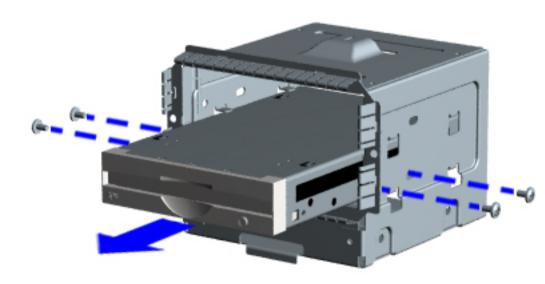
Zip Drive

Removal

- Perform preparation procedures. 1
- Remove the cover. 2
- 3 Disconnect the signal and power cables from the Zip drive.

NEXT STEP

MSG indexProduct DescriptionTroubleshootingIllustrated Parts
CatalogHomeRemoval &
ReplacementJumper & Switch
InformationSpecifications



REMOVAL & REPLACEMENT

Mass Storage Devices

Zip Drive, continued

- 4 Remove the four screws from the sides of the Zip drive.
- **5** Remove the Zip drive from the front of the drive cage assembly.

<u>Next Step</u>.

MSG index Product Description

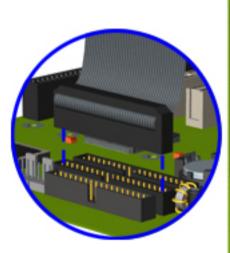
Troubleshooting

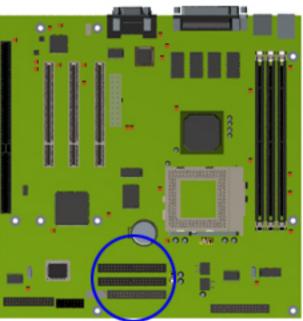
Illustrated Parts Catalog

<u>Home</u>

<u>Removal &</u> <u>Replacement</u> Jumper & Switch Information

Specifications





REMOVAL & REPLACEMENT

Mass Storage Devices

Zip Drive, continued

4 Remove the zip drive cable from the board.

Replacement

To replace the Zip drive, reverse the removal procedure.

<u>Return to</u> index page.

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

REMOVAL & REPLACEMENT

CD or DVD

3.5" Hard drive

5.25" Hard

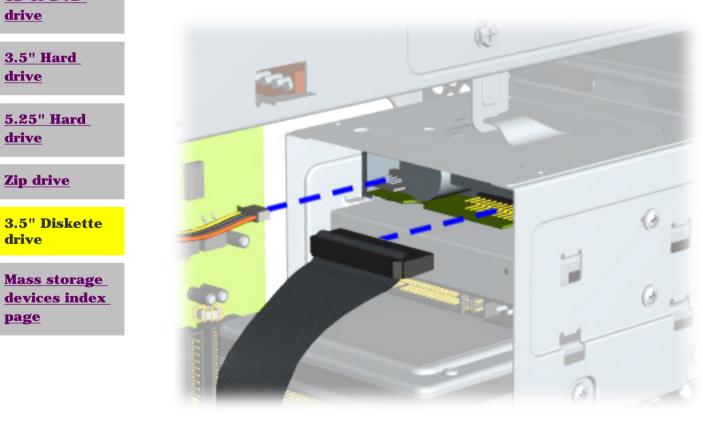
Zip drive

drive

drive

drive

page



Mass Storage Devices

Diskette Drive

Removal

- Perform the preparation procedures. 1
- Remove the cover. 2
- 3 Disconnect the signal and power cables from the diskette drive.

NEXT STEP

MSG index

Product Description

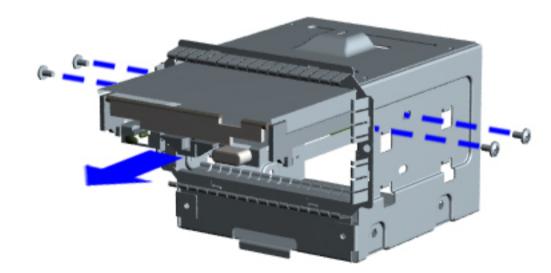
Troubleshooting

Illustrated Parts Catalog

<u>Home</u>

Removal & Replacement Jumper & Switch Information

Specifications



REMOVAL & REPLACEMENT

Mass Storage Devices

Diskette Drive, continued

- 4 Remove the four screws from the sides of the drive bracket.
- **5** Remove the drive from the front of the drive age assembly.

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

REMOVAL & REPLACEMENT

DISASSEMBLY SEQUENCE

<u>Electrostatic</u> <u>discharge</u>

<u>Service</u> considerations

Preparation for disassembly

<u>Serial number</u>

<u>Chassis</u>

Power supply

Mass storage devices

Fax-modem

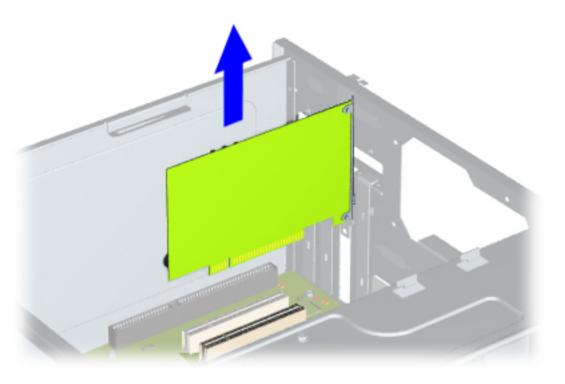
<u>Parallel port</u> <u>assembly</u>

PCI bracket

<u>System board</u> <u>components</u>

<u>Instant On</u> button board

<u>Creativity</u> <u>Action Center</u>



Fax/modem

Removal

- 1 <u>Perform</u> preparation procedures.
- 2 <u>Remove the</u> <u>chassis</u>.
- 3 <u>Remove the</u> <u>power</u> <u>supply</u>.
- 4 Remove the screws holding the option card bracket to the chassis.
- 5 Remove the bracket and pull the fax/modem out of the slot.

Replacement

To replace the fax/modem, reverse this procedure.

	Compaq Presa	rio 5300 Series Compute	rs
<u>MSG index</u>	Product Description	Troubleshooting	Illustrated Parts Catalog
Home	Removal & Replacement	Jumper & Switch Information	Specifications
DISASSEMBLY SEQUENCE	REMOVAL & REI	PLACEMENT	
<u>Electrostatic</u> discharge		• • • • • • • • • •	Parallel Port Cable
Service considerations			AssemblyRemoval
Preparation for disassembly			1 <u>Perform</u> <u>preparation</u> <u>procedures</u> .
Serial number		••••	2 <u>Remove</u> <u>the chassis</u> .
<u>Chassis</u> <u>Power supply</u>			3 <u>Remove</u> <u>the power</u> <u>supply</u> .
<u>Mass storage</u> <u>devices</u>			4 Disconnect the parallel cable from
Fax-modem			the system board.
Parallel port assembly			5 Remove
PCI bracket			the two screwlocks
System board components			that secure the parallel port to the chassis and
<u>Instant On</u> <u>button board</u>			pull the parallel port cable
<u>Creativity</u> <u>Action Center</u>			assembly out of the chassis.
			Replacement

To replace the parallel port, reverse this procedure.

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

DISASSEMBLY SEQUENCE

REMOVAL & REPLACEMENT

<u>Electrostatic</u> discharge

Service considerations

Preparation for disassembly

Serial number

<u>Chassis</u>

Power supply

<u>Mass storage</u> <u>devices</u>

Fax-modem

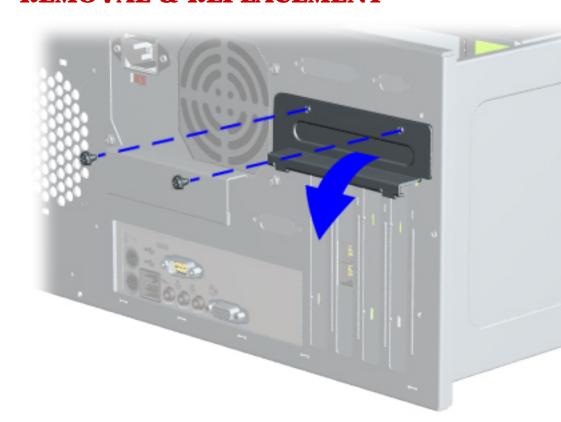
Parallel port assembly

PCI bracket

System board components

<u>Instant On</u> button board

<u>Creativity</u> <u>Action Center</u>



PCI Bracket

Removal

- **1** <u>Perform preparation procedures.</u>
- **2** <u>Remove the chassis</u>.
- **3** Gently lay the computer on its side (rear connectors should be closest to the working surface).
- **4** Remove the two screws that secure the PCI bracket to the rear of the chassis as shown.
- **5** Remove the bracket.

Replacement

To replace the PCI bracket, reverse this procedure.

<u>MSG index</u> <u>Home</u>	<u>Product Description</u> <u>Removal &</u> <u>Replacement</u>	<u>Troubleshooting</u> <u>Jumper & Switch</u> <u>Information</u>	<u>Illustrated Parts Catalog</u> <u>Specifications</u>
DISASSEMBLY SEQUENCE	REMOVAL & REP	PLACEMENT	
<u>Electrostatic</u> <u>discharge</u>	System Board Compo	onents - Index Page	
<u>Service</u> <u>considerations</u>	<u>Heat sink</u> <u>I/O panel</u>		
Preparation for disassembly	Memory module		
Serial number	Processors:	AMD K6-2 Celeron	
<u>Chassis</u>	<u>RTC battery</u>		
Power supply Mass storage	System board comp	onents	
<u>devices</u>			
<u>Fax-modem</u> Parallel port assembly			
PCI bracket			
System board components Index			
<u>Instant On</u> button board			
G			

<u>Creativity</u> <u>Action Center</u>

MSG index	Product Description	<u>Troubleshootir</u>	ng <u>Illustrated Parts</u> <u>Catalog</u>
<u>Home</u>	<u>Removal &</u> <u>Replacement</u>	<u>Jumper & Swit</u> <u>Information</u>	<u>ch</u> <u>Specifications</u>
Heat sink	REMOVAL & RE	PLACEMENT	2
<u>I-O panel</u>	System Board Com	<i>ponents</i>	
Memory module	Removing the Heat Si	nk (on select mod	e ls)
Processors		Re	emoval
<u>RTC battery</u>	2	1	<u>Perform preparation</u> procedures.
<u>System</u> board		2	<u>Remove the chassis</u> .
<u>System</u> board		3	<u>Remove the power supply</u> .
components index page		4	Locate the heat sink clip 1 and release the clip from the heat sink ² .

5 Lift the heat sink lever and remove the heat sink from the system board.

Replacement

To replace the heat sink, reverse this procedure.

MSG index Product Description

Troubleshooting

Illustrated Parts Catalog

<u>Home</u>

Heat sink

I-O panel

Memory

module

<u>Removal &</u> Replacement

Jumper & Switch Information

Specifications

REMOVAL & REPLACEMENT

System Board Components

Click here to see other models.

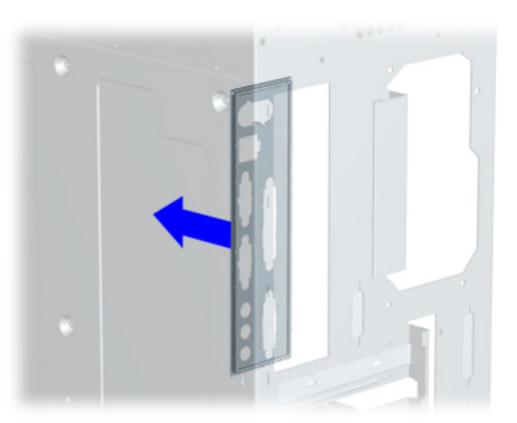
I/O Panel for models 5330, 5333, 5340, 5345, 5360, 5363, 5365

Processors

RTC battery

<u>System</u> <u>board</u> <u>components</u>

<u>System</u> <u>board</u> <u>components</u> <u>index page</u>



Removal

- 1 <u>Perform</u> preparation procedures.
- 2 <u>Remove the</u> <u>chassis</u>.
- 3 <u>Remove the</u> <u>power</u> <u>supply</u>.
- 4 <u>Remove</u> <u>mass</u> <u>storage</u> <u>devices</u>.
- 5 <u>Remove the</u> <u>fax/modem</u>.
- 6 <u>Remove the</u> <u>system</u> <u>board</u>.
- 7 Gently push the I/O panel into the chassis from the rear of the chassis and remove.
 - **Note**: Your I/O panel may look slightly different.

Replacement

To replace the I/O panel, reverse this procedure.

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

REMOVAL & REPLACEMENT

I-O panel

Heat sink

System Board Components

Click here for other models.

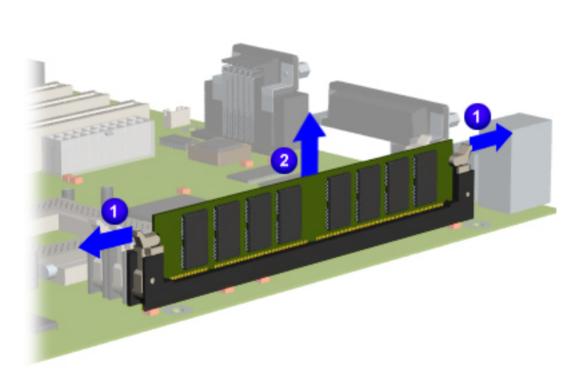
Memory module Memory Module (DIMM) for models 5330, 5333, 5340, 5345, 5360, 5363, 5365

Processors

<u>RTC battery</u>

System board components

System board components index page



- 1 <u>Perform</u> <u>preparation</u> <u>procedures</u>.
- 2 <u>Remove the</u> <u>chassis</u>.
- 3 <u>Remove the</u> <u>power</u> <u>supply</u>.
- 4 <u>Remove</u> <u>mass</u> <u>storage</u> <u>devices</u>.
- 5 <u>Remove the</u> <u>fax/modem</u>.
- 6 Release the retention clips of the socket 1 and unplug the DIMM from the system board 2.

To replace the DIMM, reverse this procedure.

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

REMOVAL & REPLACEMENT

<u>I-O panel</u>

Heat sink

System Board Components

Click here for other models.

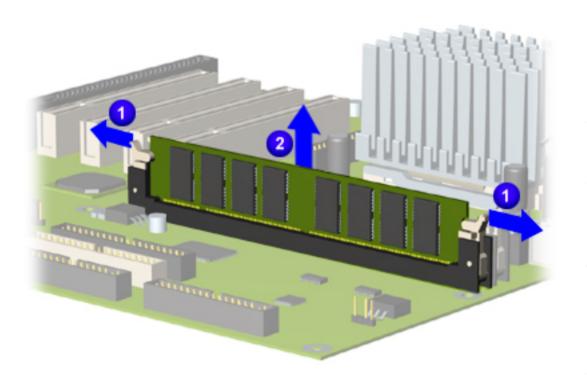
Memory module Memory Module (DIMM) for models 5352, 5354, 5356, 5358, 5359, 5373, 5376, 5378, 5396, and 5398

Processors

RTC battery

<u>System</u> <u>board</u> components

System board components index page



- 1 <u>Perform</u> <u>preparation</u> <u>procedures</u>.
- 2 <u>Remove the</u> <u>chassis</u>.
- 3 <u>Remove the</u> <u>power</u> <u>supply</u>.
- 4 <u>Remove</u> <u>mass</u> <u>storage</u> <u>devices</u>.
- 5 <u>Remove the</u> <u>fax/modem</u>.
- 6 Release the retention clips of the socket 1 and unplug the DIMM from the system board 2.

To replace the DIMM, reverse this procedure.

<u>MSG index</u> <u>Home</u>	<u>Product Description</u> <u>Removal & Replacement Ju</u>	Troubleshooting mper & Switch Information	<u>Illustrated Parts Catalog</u> <u>Specifications</u>
Heat sink	REMOVAL & REPLAC	EMENT	
<u>I-O panel</u>	System Board Component	ts	
<u>Memory</u> module	AMD K6-2 Processor		
Processors	This page shows the removal and	replacement procedure for an A	MD K6-2 processor.
System board	Click the links to see how to remo	ove an <u>Intel Celeron</u> processor.	
componentsRTC batterySystem board components index page			 Removal Perform preparation procedures. Remove the chassis. Remove mass storage devices. Remove the power supply. Locate the AMD K6-2 processor.

7 Lift up the ZIF socket handle 4 and lift the heat sink 2 and processor 3 out of the socket.

6 Remove the clip **1**

from the heat sink ².

be very hot if the computer has been running recently.

Replacement

To reinstall the AMD K6-2 processor, rub a thermal transfer crayon on the bottom of the heatsink, then reverse the steps above. (The thermal transfer crayon replaces the thermal pad used with earlier K6 processors.)

MSG index	Product Description	Troubleshooting	Illustrated Parts Catalog
Home	<u>Removal & Replacement</u>	Jumper & Switch Information	Specifications
<u>Heat sink</u>	REMOVAL & REPI	LACEMENT	
I-O panel	System Board Compo	nents	
<u>Memory</u> <u>module</u>	Intel Celeron Processor		
Processors	This page shows the remova	l and replacement procedure for an	Intel Celeron processor.
System board components	Click the links to see how to	remove an <u>AMD K6-2</u> processor.	
<u>RTC battery</u>			Removal 1 <u>Perform preparation</u> procedures.
System board components index page			 2 <u>Remove the chassis</u>. 3 <u>Remove the power</u> <u>supply</u>.

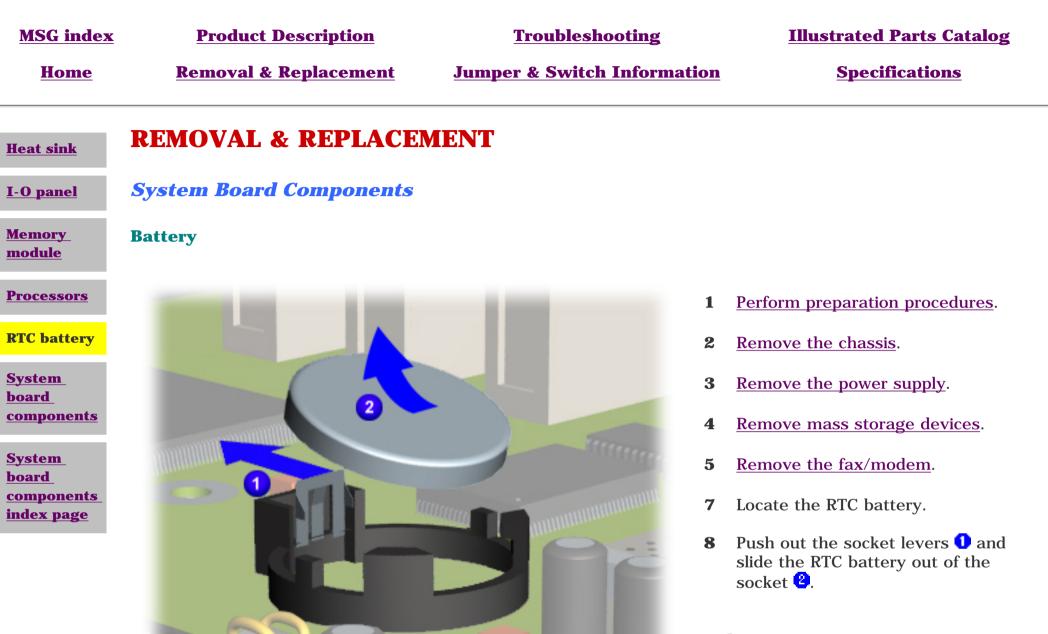
- 4 <u>Remove mass storage</u> devices.
- **5** Locate the Intel Celeron processor.

CAUTION The processor may still be very hot if the computer has been running recently.

- **6** Remove the clip **1** from the heat sink 2 .
- **7** Lift up the ZIF socket handle 4 and lift the heat sink ² and processor ³ out of the socket.

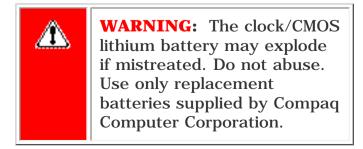
Replacement

To reinstall the Internal Celeron processor, rub a thermal transfer crayon on the bottom of the heatsink, then reverse the steps above. (The thermal transfer crayon replaces the thermal pad used with earlier K6 processors.)



Replacement

To replace the RTC battery, reverse this procedure.



Maintenance and Service Guide

Compaq Presario 5300 Series Computers

<u>MSG index</u> <u>Home</u>	Product Description Removal & Replacement	Troubleshooting Jumper & Switch Information	<u>Illustrated Parts Catalog</u> <u>Specifications</u>
Heat sink	REMOVAL & REPLACE	MENT	
<u>I-O panel</u>	System Board Components		
Memory module	System Board		
Processors			Removal
RTC battery System			1 <u>Perform preparation</u> <u>procedures</u> .
board components			2 <u>Remove the chassis</u> .
<u>System</u>		P P P	3 <u>Remove the power supply</u> .
board components index page			4 <u>Remove floppy drive</u> .
index page			5 <u>Remove the fax/modem</u> .
			6 <u>Remove the processor</u> .
			7 <u>Remove the memory module</u> .
			Pomovo all cables form the

Remove all cables form the 8

system board.

Remove the eight screws from the system board (may 9 differ slightly from photo) and separate it from the bracket.

Replacement

To replace the system board, reverse this procedure.

NOTE:	The system board spare part kit does not include the processor, cache, DIMM, or video expansion module. The components must be transferred from the old system board to the new system board.
-------	---

Maintenance and Service Guide

Compaq Presario 5300 Series Computers

_

MSG index	Product Description	Troubleshooting	Illustrated Parts Catalog
Home	Removal & Replacement	Jumper & Switch Information	Specifications
DISASSEMBLY SEQUENCE Electrostatic discharge	REMOVAL & REPLACEMENT <i>Instant On Button Board</i>		
<u>Service</u> considerations	Removal 1 Perform preparation procedures.		
Preparation for disassembly	 2 <u>Remove the chassis.</u> 2 <u>Remove the chassis.</u> 		
Serial number	3 Remove the two screws from the <u>Next Step</u> .	button assembly and remove the assembly fro	m the chassis.
<u>Chassis</u>			
Power supply			
<u>Mass storage</u> <u>devices</u>			
Fax-modem			
Parallel port assembly			
PCI bracket			
System board components			
Instant On button board			
<u>Creativity</u> <u>Action Center</u>			

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

REMOVAL & REPLACEMENT

DISASSEMBLY SEQUENCE

Instant On Button Board, continued

<u>Electrostatic</u> <u>discharge</u>

<u>Service</u> considerations

Preparation for disassembly

Serial number

<u>Chassis</u>

Power supply

<u>Mass storage</u> <u>devices</u>

Fax-modem

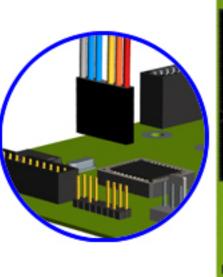
Parallel port assembly

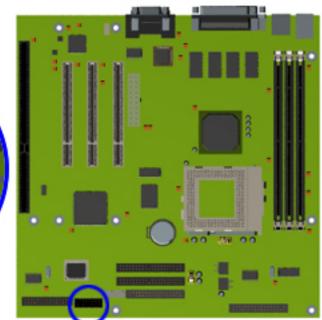
PCI bracket

<u>System board</u> <u>components</u>

Instant On button board

<u>Creativity</u> <u>Action Center</u>





Removal, continued

- 3 Remove the Button Board cable from the system board.
- 4 Remove the two screws from the button assembly and remove the assembly from the rear of front bezel.

Replacement

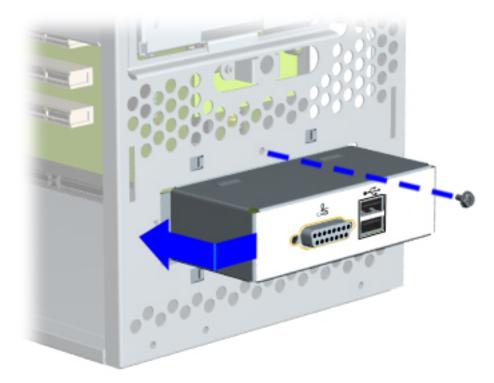
To replace the button board assembly, reverse this procedure.

<u>MSG index</u> <u>Home</u>	Product Description <u>Removal &</u> <u>Replacement</u>	<u>Troubleshooting</u> <u>Jumper & Switch</u> <u>Information</u>	<u>d Parts Catalog</u> <u>cifications</u>
DISASSEMBLY SEQUENCE Electrostatic	REMOVAL & REP	LACEMENT	Creativity Action
discharge <u>Service</u> <u>considerations</u>			<i>Center - (available on select models</i>
Preparation for disassembly			only) Removal 1 <u>Perform</u>
Serial number Chassis Power supply		4°*******	preparation procedures. 2 <u>Remove</u>
<u>Mass storage</u> <u>devices</u>			 the cover. 3 Disconnect the cable from the
Fax-modem Parallel port assembly			creativity action center <u>NEXT STEP</u>
PCI bracket System board components			
Instant On button board			
Creativity Action Center			

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

REMOVAL & REPLACEMENT

Creativity Activity Center, continued



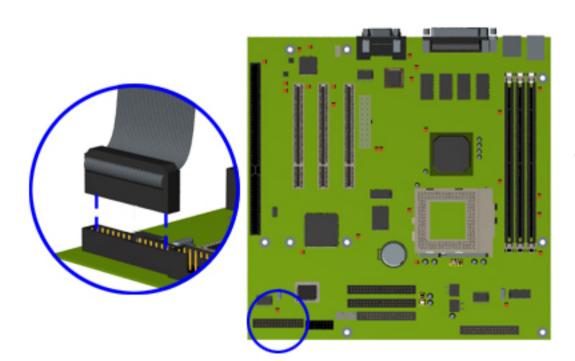
- **4** Remove the screw holding the Creativity Action Center port to the chassis.
- 5 Release the top clip and slide the Creativity Action Center port up and push it in to remove it.

<u>Next Step</u>

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

REMOVAL & REPLACEMENT

Creativity Activity Center, continued



4 Remove the Creativity Action Center cable from the board.

Removal

To replace the Creativity Action Center, reverse this procedure.

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

JUMPER & SWITCH INFORMATION - INDEX PAGE

System board

CD drive

DVD drive

Hard drive

<u>Zip drive</u> (available on select models)

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

System boards	JUMPER & SWITCH	INFORMATION
<u>Hard</u> drives	System Board Index	
DVD drive	For models 5330, 5333, 5340, 5345, 5360, 5363, 5365	 System board connectors Jumper settings
<u>CD drive</u> Zip drive	For models 5346, 5352, 5356, 5358, 5359, 5373, 5376, 5378, 5396, 5398	 System board connectors Jumper settings

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

JUMPER & SWITCH INFORMATION

System boards

System Board Connectors Models 5330, 5333, 5340, 5345, 5360, 5363, 5365

<u>Hard</u> drives

DVD drive Click on a jumper designator to get its function and a connector description.

Connector information

<u>CD drive</u>

Zip drive	Function	Description	Reference Designator
	Keyboard	Miniature 6-pin	PS1
	Mouse	Miniature 6-pin	PS1
	Parallel port	DSUB 25-pin	P1
	Serial port	DSUB 15-pin	COM1
	Video	15-pin VGA	VGA1
	Microphone in	Mini stereo	J3
	Line out	Mini stereo	J1
	Line in	Mini stereo	J2
	DIMM sockets	168-pin DIMM	DIMM 1 - 3
	Socket 7	321-pin PGA	CPU1
	Socket 7 clock multiplier	3X3 -pin header	BF0, BF1, BF2
	CPU bus speed select	4 2-pin headers	FREQ 0-3
	Battery socket	Battery holder	BAT1
	Power supply	20-pin	ATX-PWR-1
	PCI slots	32-bit PCI connector	PCI1, PCI2, PCI3
	ISA slots	16-bit ISA connector	ISA1
	CD-ROM audio	4-pin header, key 2	J4
	IDE drives	40-pin headers, key 20	IDE1, IDE2
	Diskette drive	34-pin header	J1
	CPU core voltage select	3X5-pin header	JP5
	Fans	3-pin	FAN1, FAN2
	CMOS clear	3-pin header	JP3
	Button board	16-pin header	JP8
	Back USB	Dual 4-pin	USB1
	Front Panel I/O (Game & 2 USB)	30-pin header	J5

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

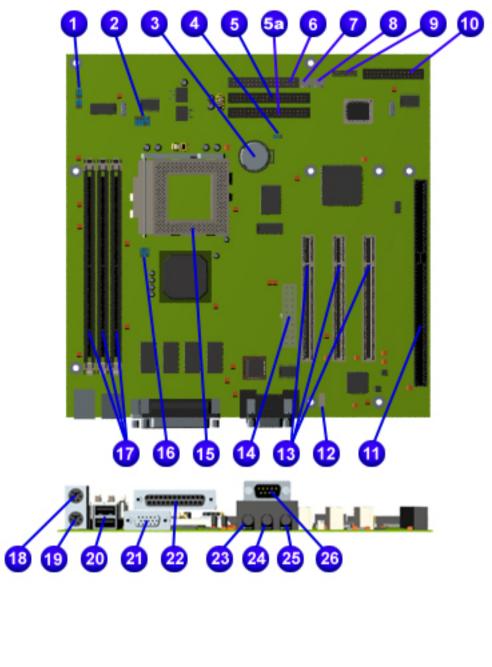
System boards	JUMPER & SW	ITCH INFOR	MATION
<u>Hard</u> drives	System Board Con Models 5346, 535		5373, 5376, 53 <mark>96</mark> , 5398
DVD drive	JP1 CMOS Jumper Sett	ings	
	CMOS Normal	CMOS Clear	
<u>CD drive</u>	pins 1-2	pins 2-3	-
Zip drive			

Product Description	Troubleshooting	Illustrated Parts <u>Catalog</u>
<u>Removal &</u> <u>Replacement</u>	<u>Jumper & Switch</u> Information	Specifications

JUMPER & SWITCH INFORMATION

1	Frequency Jumper
2	CPU Core Voltage Select
3	CMOS Battery
4	CMOS
5	Secondary IDE Drive
5a	Primary IDE Drive
6	Diskette Drive
7	Fan
8	Fan
9	Button Board
10	Front I/O Panel
11	ISA Slot
12	CD Audio
13	PCI Slots
14	Power
15	Processor
16	Processor Multiple
17	Memory DIMM
18	Mouse
19	Keyboard
20	USB
21	VGA Connector
22	Parallel Port
23	Microphone
24	Line In
25	Speaker
26	Serial Port

<u>Home</u>



Jumper Settings for models 5330, 5333, 5340, 5345, 5360, 5363, 5365

BF2	BF1	BFO	AMD
1-2	1-2	1-2	3.5X

1-2	1-2	2-3	2.0X
1-2	2-3	1-2	3.0X
1-2	2-3	2-3	2.5X
2-3	1-2	1-2	5.5X
2-3	1-2	2-3	4.0X
2-3	2-3	1-2	5.0X
2-3	2-3	2-3	4.5X

JP5					
Vid4	Vid3	Vid2	Vid1	Vid0	CPU Vcore
1-2	1-2	2-3	1-2	2-3	1.80V
1-2	1-2	2-3	1-2	1-2	1.85V
1-2	1-2	1-2	2-3	2-3	1.90V
1-2	1-2	1-2	2-3	1-2	1.95V
1-2	1-2	1-2	1-2	2-3	2.00V
1-2	1-2	1-2	1-2	1-2	2.05V
2-3	2-3	2-3	2-3	2-3	NO CPU
2-3	2-3	2-3	2-3	1-2	2.1V
2-3	2-3	2-3	1-2	2-3	2.2V
2-3	2-3	2-3	1-2	1-2	2.3V
2-3	2-3	1-2	2-3	2-3	2.4V
2-3	2-3	1-2	2-3	1-2	2.5V
2-3	2-3	1-2	1-2	2-3	2.6V
2-3	2-3	1-2	1-2	1-2	2.7V
2-3	1-2	2-3	2-3	2-3	2.8V
2-3	1-2	2-3	2-3	1-2	2.9V
2-3	1-2	2-3	1-2	2-3	3.0V
2-3	1-2	2-3	1-2	1-2	3.1V
2-3	1-2	1-2	2-3	2-3	3.2V
2-3	1-2	1-2	2-3	1-2	3.3V
2-3	1-2	1-2	1-2	2-3	3.4V
2-3	1-2	1-2	1-2	1-2	3.5V

W179H						
FREQ3	FREQ2	FREQ1	FREQO	CPU	SDRAM	PCI
2-3	2-3	2-3	2-3	90	90	CPU/3
2-3	2-3	2-3	1-2	83.3	55.53	CPU/2.5
2-3	2-3	1-2	2-3	95.25	63.5	CPU/3
2-3	2-3	1-2	1-2	66.8	100	CPU/2
2-3	1-2	2-3	2-3	105	105	CPU/3
2-3	1-2	2-3	1-2	112	74.67	CPU/3
2-3	1-2	1-2	2-3	124	82.67	CPU/4
2-3	1-2	1-2	1-2	133.3	88.9	CPU/4
1-2	2-3	2-3	2-3	66.8	66.8	CPU/2
1-2	2-3	2-3	1-2	75	75	CPU/2.5
1-2	2-3	1-2	2-3	83.3	83.3	CPU/2.5
1-2	2-3	1-2	1-2	95.25	95.25	CPU/3
1-2	1-2	2-3	2-3	100.2	100.2	CPU/3
1-2	1-2	2-3	1-2	112	112	CPU/3
1-2	1-2	1-2	2-3	100.0	66.8	CPU/3
1-2	1-2	1-2	1-2	90	60	CPU/3

Product Description

Troubleshooting

Illustrated Parts Catalog

<u>Removal &</u> Replacement

Home

Jumper & Switch Information

Specifications

JUMPER & SWITCH INFORMATION

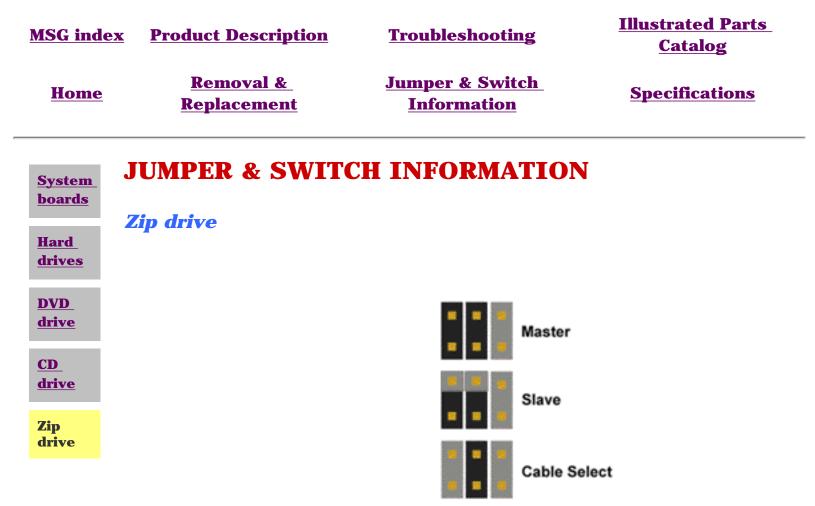
Jumper Settings for models 5346, 5352, 5354, 5356, 5358, 5359, 5376, 5378, 5396, 5398

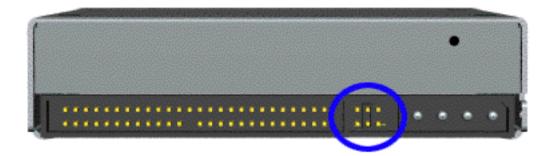
This board has no jumper settings except for clearing CMOS. Click <u>here</u> to see the CMOS jumper settings.

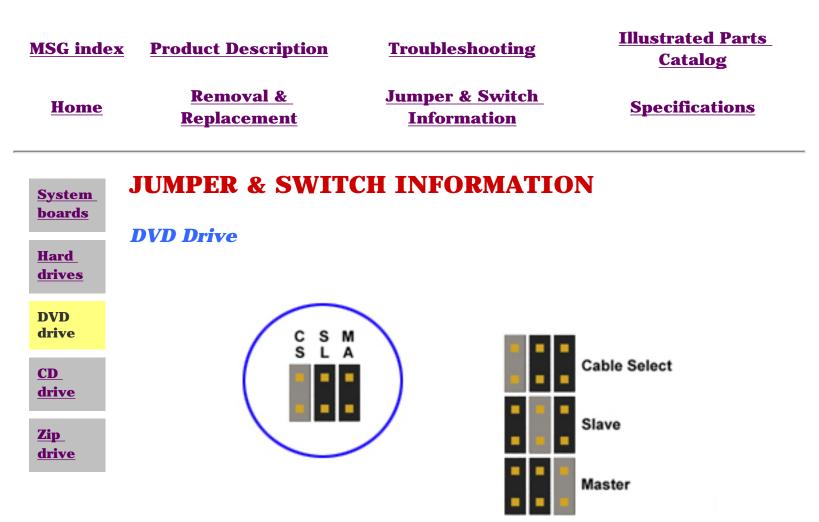
<u>MSG index</u>	Product Description	Troubleshooting	Illustrated Parts <u>Catalog</u>
<u>Home</u>	<u>Removal &</u> <u>Replacement</u>	<u>Jumper & Switch</u> <u>Information</u>	Specifications
<u>System</u> boards		TCH INFORMATI	ON
Hard_ drives	CD Drive		
DVD drive			Master
CD drive Zip drive			Slave



Cable Select

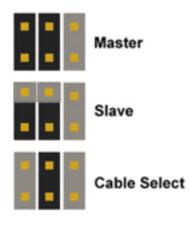






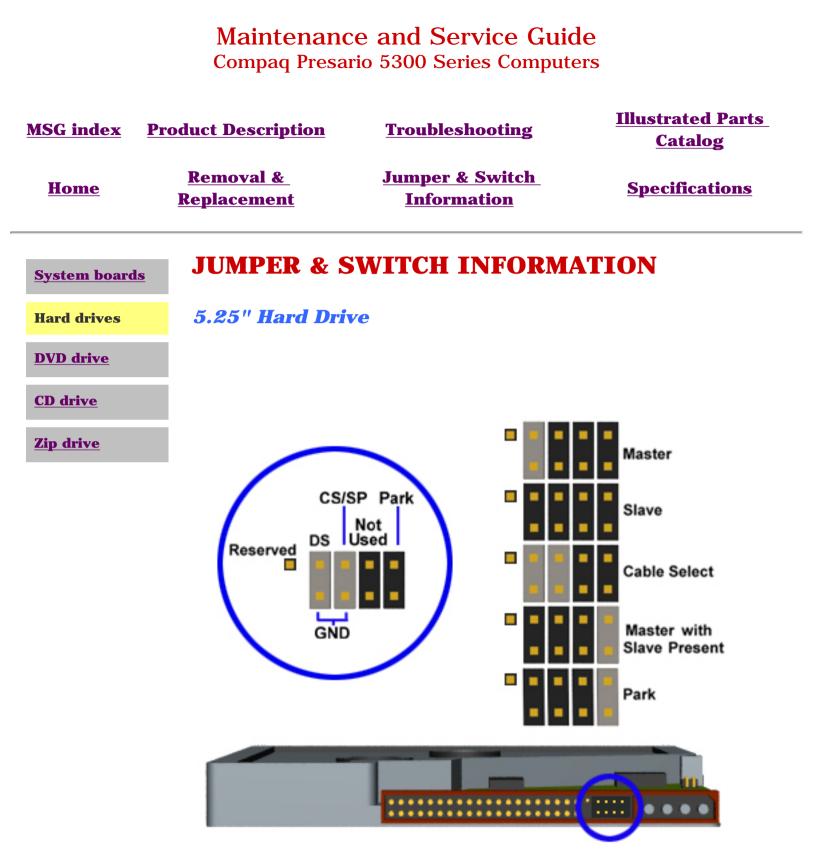


Maintenance and Service Guide Compaq Presario 5300 Series Computers					
MSG index	<u>Product Description</u>	Troubleshooting	Illustrated Parts Catalog		
<u>Home</u>	<u>Removal &</u> <u>Replacement</u>	Jumper & Switch Information	Specifications		
System boards Hard drives	JUMPER & SWITC 3.5" Hard Drives	CH INFORMATIO	Ν		
DVD drive CD drive Zip	Compaq Computer Corporati different device 0/device 1 ir compatible mode. These two Seagate jumper settings are jumper settings	nplementations. These are modes are incompatible w	Conner mode and ATA- ith one another.		





3.5" Hard Drive Jumper Settings



5.25" Hard Drive Jumper Settings

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

SPECIFICATIONS - INDEX PAGE

This section provides physical, environmental, and performance specifications for Compaq 5300 Series Personal Computers.

<u>CD drive</u>	<u>Mouse</u>
<u>Diskette</u> <u>drive</u>	<u>Power</u> supply
DVD drive	<u>System</u>
<u>Fax-</u> modem	<u>Zip drive</u>

Hard drive

<u>MSG index</u>	Product Description	Troubleshooting	Illustrated Parts Catalog
Home	<u>Removal & Replacement</u>	Jumper & Switch Informa	tion <u>Specifications</u>
<u>System</u>	SPECIFICATIONS		
Power supply	CD Drives		
		32× CD Drive	
<u>Diskette</u> drive	Dimensions	U. S.	Metric
	Width	5.75 in	150.1 mm (maximum)
Hard drives	Height	1.67 in	42.9 mm (maximum)
	Depth	8.23 in	208.0 mm (maximum)
DVD drive		0.05.1	1000
CD drives	Weight	2.65 lb	1200 grams
CD urives	Applicable Disc		
Mouse	CD-ROM CD-DA	Modes 1 and 2 Audio	
	CD-R/W		
Fax/modem	CD-XA Photo CD	Mode 2, Form 1 and 2 Single and Multiple Se	
Zip drive			
	Block Size		
	CD-ROM Mode 1	2048 bytes	
	CD-ROM Mode 2	2340, 2336 bytes	
	CD-DA CD-XA	2352 bytes 2328 bytes	
	Diameter	0	ust support 8 cm adapters)
	Thickness	1.2 mm	
	Track Pitch	1.6 µm	
	Laser	·	
	Divergence Angle Output Power Type Wave Length	53.5 degrees +/- 1.5 0.14 mW (@ objective Semiconductor laser (780 nm +/- 25 nm	e lens)
	Access Time		
	Random Full Stroke	< 100 ms (typical) < 150 ms (typical)	
	Audio Output Level		
	Line Out	0.7 V (RMS)	
	Cache Buffer	128 KB (minimum)	
	Data Transfer Rate		
	Sustained	150 kB/s (IX, using at 2100 to 4800 kB/s (14	udio disc) 4X to 32X variable, w/650 MB disc)
	Bus Rate		
	Burst	4.0 MB/s minimum	
	Startup Time (Single)	< 7 sec (typical)	
	Startup Time (Multisession	n) < 30 sec (typical)	
	Stop Time	< 4 sec	

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

<u>System</u>

SPECIFICATIONS

<u>Power</u> <u>supply</u>

Diskette	Mouse			
<u>drive</u>	Dimensions	<i>U. S.</i>	Metric	
Hard drives	Height	1.22 in	3.1 cm	
DVD drive	Length Width	3.94 in 2.21 in	10 cm 5.6 cm	
<u>CD drives</u>	Weight	2.9 oz	85 g	
Mouse	Base Resolution	400 DPI		
Fax/modem	Tracking Speed (maximum)	10 in/sec	25 cm/sec	
Zip drive	Temperature			
	Operating Storage	32° F to 104° F -4° F to 140° F	0° C to 40° C -20° C to 60° C	
	Lifetime			
	Mechanical Switch	Exceeds 300 miles Exceeds 1 million operations	Exceeds 483 km Exceeds 1 million operations	
	Relative Humidity	10% to 90%, noncond	ensing	
	ESD	No soft errors through 6 kV; No hard errors through 6 kV; specific performance depends on host system		

<u>MSG index</u> <u>Home</u>	<u>Product Descrip</u> <u>Removal &</u> <u>Replacemen</u>	Jumpe	eshooting <u>II</u> r & Switch rmation	lustrated Parts Catalog Specifications
<u>System</u>	SPECIFICATIONS			
Power supply				
Diskette drive		Fax	-modem	
Hard drives		Conexant HCF V.90 56K Data Fax PCI Modem	Supra Express 56i PRO	1.5 Mb DSL Modem
<u>CD drives</u> <u>Mouse</u>	Maximum Data Speed (kbps)	56*	56*	56*
Fax/modem	Data	V.90, K56Flex, V.34, V.32terbo, V.32bis, V.32, V.22bis, V.22, V.21, Bell 212A, Bell 103	V.90, K56Flex, V.34, V.32terbo, V.32bis, V.32, V23, V.22bis, V.22, V.21, Bell 212A, Bell 103	V.32terbo, V.32bis,
	Error Correction	V.42bis,V.42, LAPM, and MNP 2-5	V.42, LAPM, and MNP 2-4	V.42 and MNP2-4
	Fax	V.17 (14.4 kbps transmission speed) V.29, V.27ter, V.21 Channel 2, Class 1 command set, Group III FAX	V.17 (14.4 kbps transmission speed) V.29, V.27ter, V.21 Channel 2, Group III FAX, Class 1 interface	V.17 (14.4kbps, 12000, 9600, 7200), V.29 (9600, 7200), V.27ter (4800, 2400), V.21 Ch 2 (300bps), Group 3 with Class 1 interface

* Both K56flex and V.90 are designed only to allow faster downloads from either K56flex or V.90 compliant digital sources. Maximum achievable download transmission rates are currently unknown, may not reach 56kbps, and will vary with line conditions.

** The G.Lite DSL protocol is designed to allow faster downloads from G.Lite DSLcompliant digital sources. Maximum achievable download transmission rates are currently unknown, may not reach 1.5Mbps, and will vary with line conditions and distance from the telephone company central office.

<u>MSG index</u>	Product Description	<u>Troubleshooting</u>	<u>Illustrated Parts</u> <u>Catalog</u>	
<u>Home</u>	<u>Removal &</u> <u>Replacement</u>	<u>Jumper & Switch</u> <u>Information</u>	Specifications	
<u>System</u>	SPECIFICATIO	NS		
Power supply				
<u>Diskette</u> <u>drive</u>	Z	ip Drive		
Hand drives	Total formatted capacit	y (bytes) 100,66	53,296	
Hard drives	Sector size (bytes)	51	12	
DVD drive	Total number of sectors1		,608	
	Number of reassignable	e spare sectors 25	52	
CD drives	Seek times (including s	ettling), ms:		
Manage	Average	2	9	
Mouse	Track-to-track Maximum	5		
Fax/modem	Maximum	5	5	
Zip drive	Average latency, ms	1	0	
Lip unite	Motor speed, rpm	2941	2941±5%	
	Motor start time, ms	30	00	
	Track density, tpi	21	18	
	Track width, µm	1	2	
	Transfer rate, kb/s:			
	From diskette		790-1400	
	Buffer (maximum	n)	3300	

<u>MSG index</u>	Product Description	Troubleshooting	Illustrated Parts Catalog	
Home	Removal & Replacement	Jumper & Switch Information	ion <u>Specifications</u>	
<u>System</u>	SPECIFICATIONS			
Power supply				
<u>Diskette</u>		DVD3, 6x Drive		
<u>drive</u>	Dimensions	U. S .	Metric	
Hard drives	Width Height	5.74 in 1.68 in	14.60 cm 4.29 cm	
DVD drive	Depth	8.23 in	20.80 cm	
CD drives	Weight	1.80 lb	0.9 kg	
Mouse	Applicable Disc Formats			
Fax/modem	DVD-5, DVD-9, DVD-10, DVD-18	Mode 1 and Mode 2		
Zip drive	CD-ROM CD-DA CD-XA Photo CD CD-I Ready CD-Bridge CD-R	Audio Mode 2, Form 1 and 2 Single and Multiple S		
	Block Size			
	CD-ROM Mode 0 CD-ROM Mode 1 CD-ROM Mode 2 DVD	2352 bytes 2352, 2340,2336, 20 2352,2340, 2336, 20 2048 bytes	•	
	Center Hole	15 mm diameter		
	Disc Diameter	12 cm, 8 cm		
	Thickness	1.2 mm		
	Track Pitch	1.6 μm (CD-ROM); 0.	.74 μm (DVD)	
	Access Time			
	Random Full Stroke	DVD: < 180 ms typical < 300 ms	CD: < 120 ms < 200 ms	
	Audio Output Level			
	Line Out Headphone	1.0 V (RMS) at 47 kW 0.7 V (RMS) at 32 W	V	
	Cache Buffer	512 Kb		
	Sustained Data Transfer		2× CAV CD-ROM mode)	
	Interface Cable Length ((Max) 18 in		
	Typical Startup Time	< 10 sec		
	Typical Stop Time	< 2 sec		

<u>MSG index</u>	Product Description	Troubleshoe	•	Illustrated	Parts Catalog	
Home	<u>Removal & Replacement</u> Ju	mper & Switch 1	Information	<u>Specif</u>	ications	
<u>System</u>	SPECIFICATIONS					
<u>Power</u> supply	Click link for specifications on <u>Seagate</u>	e or <u>Western Digit</u>	<u>al</u> hard drives.			
<u>Diskette</u> <u>drive</u>						
Hard drives	Quantum Hard Drives	- 3.5" 4.3-GB	6.0-GB	8.0-GB	13-GB	
DVD drive	Compaq Part Number Formatted Capacity			134127-001		
<u>CD drives</u> Mouse	Physical (MB) Logical (MB)	4311.9 MI 4311.9 MI			13020 13020	
<u>Fax/modem</u>	Drive Type Data Transfer Rate	65	65	65	65	
Zip drive	Head (Mbits/sec) Zones 1-14	121.9	168.16	121.9	121.9	
	Zone 15 Interface (Mbytes/sec)	194.9 66	101.05 33.3	194.9 66	194.9 66	
	Typical Seek Time (including settling)					
	Track to Track (ms) Average (ms)	1.5 - 2.0 11 - 13	2.0 - 4.0 10.5 - 14	11 - 13	1.5 - 2.0 11 - 13	
	Full Stroke (ms) Disk Rotational Speed (RPM)	18 - 22 5400	22 - 30 4000	18 - 22 5400	18 - 22 5400	
	Data Cylinders					
	Physical Logical	12515 8912	$15449 \\ 13266$	$\begin{array}{c} 12515\\ 16384 \end{array}$	12515 16383	
	Data Heads/ Cylinder	4	0	4	C	
	Physical Logical	4 15	2 15	4 16	6 16	
	Sectors per Track Physical	250-403	289-483	250-403	250-403	
	Logical	(15 zones) 63) (15 zone: 63	s) (15 zones) 63	(15 zones) 63	
	Seagate Hard Drives -					
		4.3-GB 128474-001	6.0-GB 134126-001	8.0-GB	10.0-GB	
	Compaq Part Number Formatted Capacity					
	Physical (MB) Logical (MB)	4311 MB 4311 MB 65	6418 MB 6418 MB	8455 8455 65	10,000 MB 10,000 MB 65	
	Drive Type Transfer Rate		65			
	Disk to Buffer (Mbits/sec) Interface (Mbytes/sec) DMA	171 16.6	??? 105.15-	171 16.6	171 16.6	
	UDMA	16.6 33.3	222.87 16.7	16.6 33.3	16.6 33.3	
	Typical Seek Time		66.6			
	(including settling) Single Track (ms) Average (ms)	1.5 - 3.0	2.0 - 2.4	1.5 - 3.0	1.5 - 3.0	
	Full Stroke (ms)	9 - 12 18 - 20	10.5 - 11.5 24 - 26	18 - 20	9 - 12 18 - 20	
	Disk Rotational Speed (RPM)) 5400	5400	5400	5400	
	Data Cylinders Physical	12561	12210	12561	12561	
	Logical Data Heads/ Cylinder	89120	13328	16383	16383	
	Physical Logical	2 15	3 15	4 16	6 16	
	Sectors per Track					
	Physical	244-416 (10 zones)	244-437	244-416 (10 zones)	244-416 (10 zones)	
	Logical	63	63	63	63	
	Western Digital Hard Drives 15.0-GB					
	Compaq Part Number	10.0-01				
	Formatted Capacity Physical (MB) Logical (MB)					
	Drive Type	65				
	Transfer Rate Disk to Buffer (Mbits/sec) Interface (Mbytes/sec)	139.61- 224.31				
	DMA UDMA	16.7 66.6				
	Typical Seek Time (including settling)	00.0				
	Single Track (ms) Average (ms)	1.7-2.4 8.5-9.5				
	Full Stroke (ms) Disk Rotational Speed (RPM)	15-18 5400				
	Data Cylinders					
	Physical Logical	15011 16383				
	Data Heads					
	Physical Logical	8 16				
	Sectors per Track Physical	214-312				
	Logical	63				

<u>MSG index</u>	Product Description	Troubleshooting	Illustrated Parts <u>Catalog</u>
<u>Home</u>	<u>Removal &</u> <u>Replacement</u>	<u>Jumper & Switch</u> Information	Specifications
<u>System</u>	SPECIFICATION	IS	
Power supply			
Diskette drive		Diskette Driv	ve
	Diskettes		
Hard drives	Size (in)		3.5 (8.89 cm)
DVD drive	High Density (MB)		1.44
CD drives			
Mouse	Low Density (KB)		720
Fax/modem	Light		Green
	Height		One-third
Zip drive	Bytes per Sector		512
	Sectors per Track		
	High Density		18
	Low Density		9
	Tracks per Side		
	High Density		80
	Low Density		80
	Read/Write Heads		2
	Average Seek Time	(ms)	
	Track-to-Track		3
	Average		94
	Settling Time		15
	Latency Average		100

<u>MSG index</u> <u>Home</u>	Product Description Removal & Replacement	<u>Troubleshooting</u> Jumper & Switch Information	Illustrated Parts Catalog Specifications
<u>System</u>	SPECIFICATIONS		
Power supply			
Diskette drive		Power Supply	
		U. S.	Outside U. S.
Hard drives	Input Specifications		
DVD drive	Nominal Line Voltage	100 to 120 VAC	220 to 240 VAC
<u>CD drives</u>	Range Input Line	90 to 132 VAC	180 to 264 VAC
Mouse	Frequency Range	47 to 63 Hz	47 to 63 Hz
Fax/modem	Input Power	210 Watts	210 Watts
Zip drive	Input Current	4.5 at 90 VAC	2.2 at 180 VAC
	Inrush Current	80 A at 132 VAC (cold start)	80 A at 264 VAC (cold start)
	Holdup Time	16 ms from zero crossing at 120 VAC	16 ms from zero crossing at 240 VAC
	General Specifications		
	Full Output Rating	To 122° F and 5,000 ft To 90° F and 10,000 ft (derate linearly)	To 50° C and 1524 m To 32° C and 3048 m (derate linearly)
	Minimum Load	1.0 A on + 5.0 V output 0.2 A on 12 V output	1.0 A on + 5.0 V output; 0.2 A on 12 V output
	Ambient Temperature Ra	ange	
	Operating	50° to 122° F	10° to 50° C
	Storage	-40° to 151° F	-40° to 66° C
	Dielectric Voltage Withst	tand	
	Input to Ground	1500 VAC/1 second	
	Safety Standard	UL 1950; CSA 22.2 #950 or CS 60 950 (VDE0805/11.91); EMK	
	Input Transient Suscept	ibility	
	Common and Differential Mode (superimposed on AC line)	2500 V, 1 μs, damped sinusoidal 600 V, 10 μs pulse	
	Differential Mode	20% step change in AC input vo	ltage

Maintenance and Service Guide

Compaq Presario 5300 Series Computers

MSG index	Product Description	Troubleshooting	Illustrated Parts Catalog
Home	<u>Removal & Replacement</u>	Jumper & Switch Information	Specifications
System	SPECIFICATIONS		
Power supply	System Specifications		
Diskette drive	General system specifica	ations	
Hard drives	<u>Video memory</u>		
DVD drive	System interrupts		
<u>CD drives</u>	System I/O (system fun	ction - shipping configuration)	
Mouse	System memory		
Fax/modem	System DMA		
Zip drive			

General System Specifications

	U. S.	Outside U. S.
Dimensions		
Height	16.55 in	420.37 mm
Depth	17.30 in	439.32 mm
Width	8.76 in	222.50 mm
Weight	25.3 lbs.	11.5 kg
Shipping Weight	36.6 lbs	16.4 kg
Input Requirements		
Voltage Range	100 to 120	210 to 240
AC Frequency	50 or 60 Hz	50 or 60 Hz
Fluctuations	5v +/-5%	3.3v +/-3%
Power (watts)		
Steady State	145	145
Sleep Mode	< 30	< 30

Environmental Requirements

Temperature

Operating	50° to 95° F	10° to 35° C
Shipping	-22° to 140° F	-30° to 60° C
Humidity (noncondensing)		
Operating	10% to 90%	10% to 90%
Nonoperating	5% to 95%	5% to 95%
Maximum Altitude (unpressurized)		

Operating10,000 ft3048 mNonoperating30,000 ft9144 m

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

ATI 3-D RagePro Video Memory

Resolution	Colors	Vertical Refresh (Hz)
640×480	256	60 and 75
640×480	65K (high color)	60 and 75
640×480	16M (true color)	60
800×600	256	60 and 75
800 × 600	65K (high color, default)	60 and 75
800 × 600	16M (true color)	60 and 75
1024×768	256	60 and 75
1024×768	65K (high color)	60 and 75
1024×768	16M (true color)*	60 and 75
1280×1024	256	60
1280×1024	65K (high color)*	60
1280×1024	16M (true color)*	60

*With 4-MB video memory only

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

MSG index	Product Description	Troubleshooting	Illustrated Parts Catalog
Home	Removal & Replacement	Jumper & Switch Information	Specifications
System	SPECIFICATIONS		
<u>Power</u> <u>supply</u>	System Specifications (continued)	
<u>Diskette</u>	General system specifica	ations	
<u>drive</u>	Video memory		
Hard drives	System interrupts		
DVD drive	<u>System I-O</u>		
CD drives			
Mouse	System memory		
Fax/modem	System DMA		
Zip drive			

System I/O

Low and High I/O	System 1/0 System Function (Shipping Configuration)
Addresses (Hex) 0000 - 000F	DMA Controller # 1
0010 - 001F	DMA controller aliases
0020	Interrupt Controller # 1 Control Register
0021 0022 - 003D	Interrupt Controller #1 Mask Register Interrupt Controller Aliases
040 - 0043	Counter/Timer
0044 - 004F	Unused
0050-0053 0053-005F	Counter/Timer Aliases Unused
0060	Keyboard Controller Data Register
0061	Port B: SERR/IOCHK NMI, Speaker, Refresh
0062 - 0063 0064	Unused Keyboard Controller Command/Status Register
0065 - 006F	Unused
0070	NMI mask register (bit 7)
0070 0071	RTC/Configuration Memory Index Port (bit 6:0) RTC/Configuration Memory Data Port
0072	RTC Extended Index
0073	RTC Extended Data
0074-007F 0080 - 008F	Unused DMA Page Registers
0090 - 0091	Unused (alias of DMA page registers if PIIX4.4C.7=0)
0092 0093 - 009F	Port 92 (fast reset and A20 gate)
0093 - 009F 00A0	Unused (alias of DMA page registers if PIIX4.4C.7=0) Interrupt Controller # 2 Control Register
00A1	Interrupt Controller # 2 Mask Register
00A2 - 00B1 00B2	Unused APM Control
00B3	APM Status
00B4-00BF	Unused
00C0 - 00DF 00E0	DMA Controller # 2 ESS Index Register
00E1	ESS Data Register
00E2 - 00E3	DDC2 Registers
00E4 - 00E5 00E6	Master I2C Interface TV/MPEG Configuration Register
00E7 - 00E9	Unused
OOEA	Ultra I/O Index Register
00EB 00EC- 00EF	Ultra I/O Data Register Modem Configuration
00F0 - 00F1	Coprocessor Busy Clear/Reset
00F2 - 00F8	Unused
OOF9 OOFA	Lock Configuration Register (Dummy Write) Unused
OOFB	Unlock Configuration Register (Dummy Write)
OOFC	TV/MPEG Configuration Register to remap base I/O address and interrupt resource
OOFD-OOFF	Unused
0100 - 0101 0102	Unused Video: POS. 102 Register
0103-012F	Unused
0130-0131	BGI Index/Data for second line modem See 260 for controllerless modems.
0132 - 016F	Unused
0170 - 0177 0178 - 01EF	Secondary IDE Controller (CD Drive) Unused
01F0 - 01F7	Primary IDE Controller (Hard Drive)
01F8 - 0200	Unused
0201 0202 - 021F	Joystick Port Unused
0220 - 022F	Audio Controller
0230 - 025F	Unused
0260 - 0263 0264 - 0277	Reserved - Modem use during POST Unused
0278 - 027F	Reserved - Parallel Port (LPT 2)
0280 - 02E7 02E8 - 02EF	Unused
02F0 - 02F7	Reserved - Serial Port (COM 4) Unused
02F8 - 02FF	Fax/Modem (COM 2)
0330 - 0331 0332 - 036F	MPU-401 Unused
0370 - 0377	Reserved - Diskette Drive Controller 2
0378 - 037F	Parallel Port
0380 - 0387 0388 - 038B	Unused Audio FM Synthesizer
038C - 03B3	Unused
03B4 - 03B5	Video: Monochrome
03B6 - 03B9 03BA	Unused Video: Monochrome
03BB	Unused
03BC -03BF	Reserved - Parallel Port
03C0 -03CF 03D0 - 03D3	Video: VGA Registers Unused
03D4 - 03D5	Video: Color
03D6 - 03D9 03DA	Unused Video: Color
03DA 03DB - 03E7	Video: Color Unused
03E8 - 03EF	Reserved - Serial Port (COM 3)
03F0 - 03F7 03F6 - 03F7	Diskette Controller (Primary) IDE Interface (Fixed disk and CD or DVD Drive)
03F8 - 03F7 03F8 - 03FF	Serial Port (COM 1)
0400 - 04EF	Unused
04D0 04D1	Interrupt Controller #1 Edge/Level Control Interrupt Controller #2 Edge/Level Control
04D1 04D2 - 0677	Unused
0678 - 067A	Parallel Port ECP Mode
0778 - 077A 0CF8	Parallel Port ECP Mode PCI Configuration Index (32-bit I/O only)
OCFC	PCI Configuration Data
46E8	Video: Adapter Sleep

MSG index	Product Description	Troubleshooting	Illustrated Parts Catalog
Home	Removal & Replacement	Jumper & Switch Information	Specifications
System	SPECIFICATIONS		
Power supply	System Specifications (<i>continued)</i>	
<u>Diskette</u> <u>drive</u>	General system specific	ations	
Hard drives	Video memory		
DVD drive	System interrupts		
<u>CD drives</u>	System I-O		
Mouse	System memory		
Fax/modem	System DMA		
Zip drive			

System Memory

Size	Low and High Memory Addresses	System Function
640 K	00000000 - 0009FFFF	Base Memory
128 K	000A0000 - 000BFFFF	Video RAM
32 K	000C0000 - 000C7FFF	Video ROM
32 K	000C8000 - 000CFFFF	Unused
64 K	000D000 - 000DFFFF	Unused
48 K	000E0000 - 000EBFFF	Unused (Not available for option cards. May use for UMBs.)
16 K	000EC000 - 000EFFFF	16-bit cacheable, shadowable, read-only memory. Not available for option cards.
64 K	000F0000 - 000FFFFF	System BIOS ROM shadow image

15 M 00100000 - 00FFFFFF Standard Extended Memory

	00100000 - 00FFFFF	Standard Extended Memory
64 M	01000000 - 04FFFFFF	Rest of Extended Memory
60 M	05000000 - 07FFFFFF	Unused
512 K	08000000 - 0807FFFF	Standard Direct Video Memory
512 K	08080000 - 080FFFFF	Optional Direct Video Memory
1919 M	08100000 - 7FFFFFFF	Unused
16 M	80000000 - 80FFFFFF	Memory mapped I/O devices
~2000 M	81000000 - FDFDFFFF	Unused/System ROM aliases
128 K	FDFE0000 - FDFFFFFF	System ROM (alias)
~32 M	FE000000 - FFFDFFFF	Unused
128 K	FFFE0000 - FFFFFFFF	System BIOS ROM

System DMA

Hardware	System Function (Default)	Alternate Mappings
DMA 0	ECP Parallel	1, 2, none
DMA 1	Entertainment Audio	0, 3, none
DMA 2	Diskette Drive	none
DMA 3	Entertainment Audio	0, 1, none
DMA 4	Internally used for cascading	
DMA 5	Available	
DMA 6	Available	
DMA 7	Available	