hp compaq d530 Series Personal Computer

illustrated parts map
Small Form Factor

© 2003 Hewlett-Packard Development Company, L.P.

HP and the HP logo are trademarks of Hewlett-Packard Development Company, L.P.

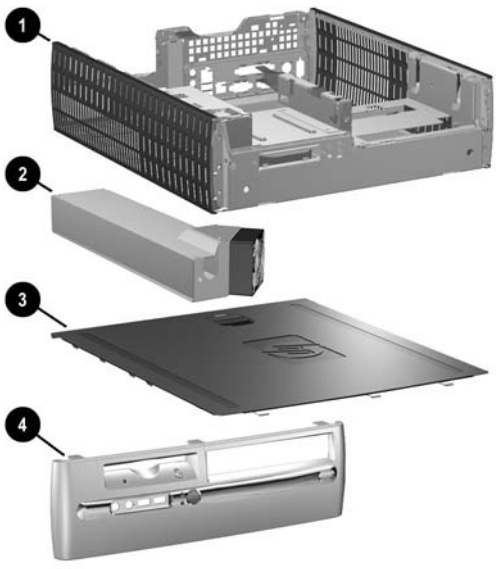
All other product names mentioned herein may be trademarks of their respective companies.

HP shall not be liable for technical or editorial errors or omissions contained herein. The information in this document is provided “as is” without warranty of any kind and is subject to change without notice. The warranties for HP products are set forth in the express limited warranty statements accompanying such products. **Nothing herein should be construed as constituting an additional warranty.**

July 2003

Document Number
334098-002

invent



System Unit

1	Chassis assembly	not spared
2	Power supply, PFC	308617-001
3	Computer access panel	337239-001
4	Front bezel assembly with diskette drive bezel	337241-001
4	Front bezel assembly with diskette drive bezel (not painted, for Blue Angel use only)	337652-001

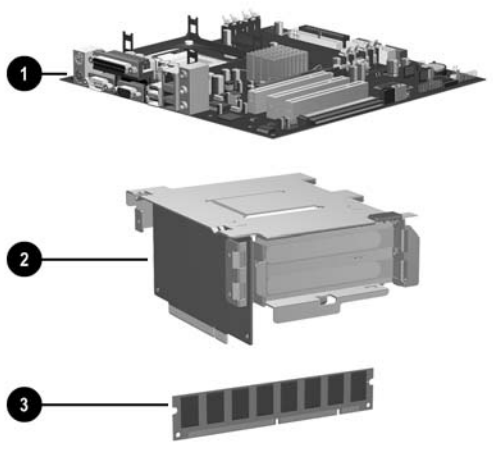
Easy Access Keyboards (not illustrated)

PS/2		**323686-xxx**	
Wireless		**323745-xxx**	
USB		**324634-xxx**	
USB		**323746-xxx**	
Arabic	-171	Japanese	-291
Belgian	-181	Korean (Hanguel)	-AD1
BHCSY	-B41	LA Spanish	-161
Brazilian Portuguese	-181	Norwegian	-091
Czech	-221	PRC	-AA1
Danish	-081	Polish#	-241
Finnish	-351	Portuguese	-131
French	-051	Russian	-251
French Arabic*	-DE1	Slovakian	-231
French Canadian	-121	Spanish	-071
German	-041	Swedish	-101
Greek	-151	Swiss*	-111
Hebrew	-BB1	Taiwanese	-AB1
Hungarian**##	-211	Thai	-281
International	-B31	Turkish	-141
International**	-021	U.S.	-001
Italian	-061	U.K.	-031

*not for 323686-xxx
**for 324634-xxx only
#for 323686-xxx only
##not for 324634-xxx

Easy Access Keyboards (not illustrated)

PS/2		**325445-xxx**	
Danish	-081	International	-B31
French	-051	Italian	-061
German	-041	Swedish	-101



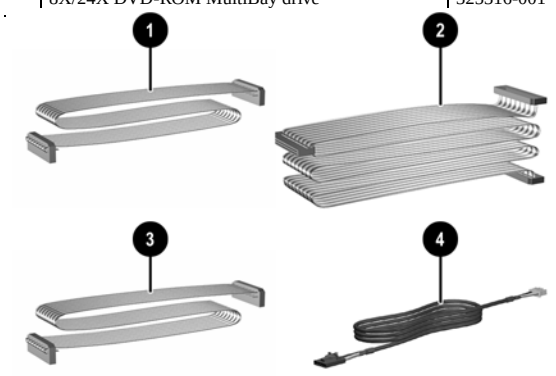
Standard and Optional Boards

1	System board with alcohol pad and thermal grease	323091-001
2	Backplane (riser board without tray)	323090-001
Memory Modules		
3	128 MB/400 MHz FSB	335697-001
*	256 MB/400 MHz FSB	335698-001
*	512 MB/400 MHz FSB	335699-001
*	1.0 GB/400 MHZ FSB	335700-001
*	128 MB/333 MHz FSB	314795-001
*	256 MB/333 MHz FSB	314793-001
*	512 MB/333 MHz FSB	314796-001
*	1.0 GB/333 MHZ FSB	314794-001
Intel Processors with alcohol pad and thermal grease		
*	Celeron 2.0 GHz processor	309578-001
*	Celeron 2.2 GHz processor	321723-001
*	Celeron 2.3 GHz processor	335136-001
*	Pentium 2.4 GHz processor	288689-001
*	Pentium 2.53 GHz processor	333485-001
*	Pentium 2.66 GHz processor	305579-001
*	Pentium 2.8 GHz processor	305051-001
*	Pentium 3.0 GHz processor	315637-001
*	Pentium 2.4 GHz processor with Hyperthreading	335812-001
*	Pentium 2.6 GHz processor with Hyperthreading	333863-001
*	Pentium 2.8 GHz processor with Hyperthreading	333864-001
*	Pentium 3.0 GHz processor with Hyperthreading	333865-001
*	Pentium 3.2 GHz processor with Hyperthreading	335813-001
Other Cards		
*	TPM security module	320163-001
*	Broadcom Gigabit NIC	321793-001
*	Intel Gigabit NIC	314901-001
*	Wireless LAN PCI Adapter (802.11)	332963-001
*	nVidia GeForce2 MX400, 32 M low profile bkt	309471-001
*	nVidia GeForce2 MX400, 32 M, ATX bkt	309492-001
*	nVidia GeForce4 MX440, 64 M, ATX and low profile bkts	335816-001
*	nVidia Quadro4 400 NVS, 64M, ATX bkt	274623-001
*	nVidia Quadro4 200 NVS, 32 M, ATX and low profile bkts	274622-001
*	nVidia Quadro4 100 NVS, 64 M, ATX band low profile bkts	322893-001
*	nVidia Quadro4 100 NVS, PCI, 64 M, ATX bkt	322892-001
*	nVidia Quadro4 100 NVS, 32 M, low profile bkt	335814-001
*	AGP card with DVI output, low profile bkt	335815-001
*	DVI ADD 4-layer card	325833-001

*Not shown

Mass Storage Devices (not illustrated)

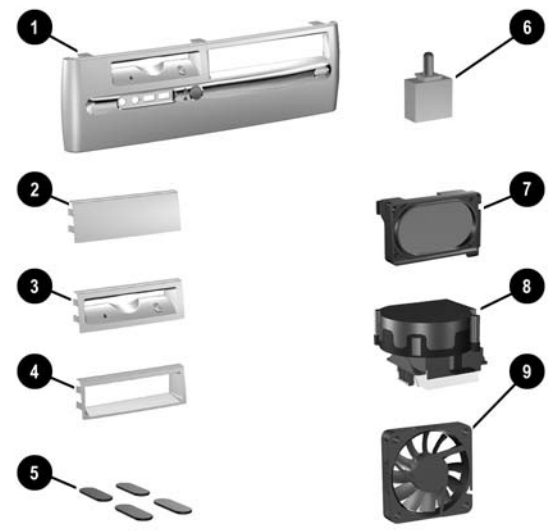
	40 GB\5400 RPM Hard drive	236921-001
	80 GB\5400 RPM Hard drive	292208-001
	40 GB\7200 RPM Hard drive	286692-001
	80 GB\7200 RPM Hard drive	250185-001
	160 GB/7200 RPM Hard drive	325306-001
	Diskette drive with mounting screws	333505-001
	48X CD-ROM drive with mounting screws	326773-001
	48X/24X/48X CDRW	325308-001
	48X/24X/48X +16X DVD/CD-RW	325309-001
	4X DVD+R/RW	325317-001
	16/40X DVD ROM Drive	325313-001
	Zip 250 Drive with mounting bracket	333504-001
	Zip 250 drive without mounting bracket	326772-001
	PC MCIA drive bay reader	331589-001
	MultiBay device	335805-001
	24X CD-RW/DVD-ROM MultiBay drive	325312-001
	24X CED-ROM MultiBay drive	325314-001
	24/10/24X CD-RW MultiBay drive	325315-001
	8X/24X DVD-ROM MultiBay drive	325316-001



Cables

1	Diskette drive cable (168999-005)	337244-001
2	UATA data cable, 13.5” (108950-045)	337247-001
3	UATA data cable, 8.6” (108950-044)	337246-001
4	Audio cable (CD to system board) (387527-001)	149806-001
5	Power switch/LED cable with switch holder	337243-001
6	Front I/O device with cable	337242-001
*	Solenoid lock cable	255438-001
#	DVI video cable	285380-001
#	VGA cable	285379-001
*	DVI to VGA adapter (use with 322892-001)	202997-001
*	Dual head IDE cable	342254-001

*Not shown
use with 322893-001, 274622-001, and 274623-001



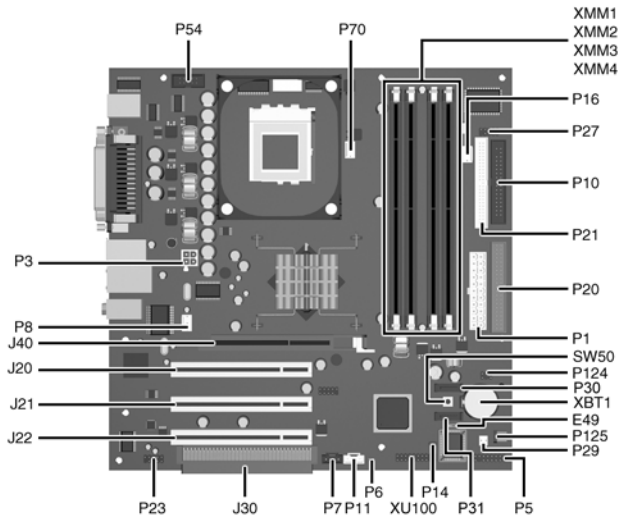
Miscellaneous Parts

1	Front bezel assembly with diskette drive bezel ❸	337241-001
1	Front bezel assembly with diskette drive bezel ❸ (not painted, for Blue Angel use only)	337652-001
*	5.25” Bay bezel blank	335937-001
2	Diskette drive bay bezel blank	337019-001
3	Diskette drive bezel, ships with front bezel ❶	see above
4	3.5” drive bay bezel (for Zip drive)	337021-001
5	Rubber foot (4 ea)	337545-001
6	Hood sensor	267529-001
7	Speaker with housing	337249-001
8#	Heatsink with thermal grease and alcohol pad	336580-001
*	Solenoid lock without cable	335810-001
9	Chassis fan	342685-001
*	Mouse, 2-Button, PS/2 with scroll wheel	323614-001
*	Mouse, 2-Button, USB, optical with scroll wheel	323615-001
*	Mouse, 2-Button, wireless with scroll wheel	323616-001
*	Mouse, 2-Button, USB, with scroll wheel	323617-001
#	Misc screw kit	see reverse
*	Drive Key, 16 MB	324780-001
*	Drive Key, 64 MB	331465-001
*	Drive Key, 128 MB	331466-001
*	Return kit with buns	337911-001
*	Real-time-clock battery	153099-001
*	Port control cover	340399-001

*Not shown
#See back side for more information

Miscellaneous Screw Kit (not illustrated)

Miscellaneous screw kit	337237-001
M3 x 5mm, hitop (263585-001) 4 ea	
#6-32 x .250, hitop (262508-001) 8 ea	
#6-32 x .250, pan head (101517-067) 3 ea	
#6-32 x .312, hitop (262508-002) 4 ea	
#6-19 x .312, pan head (101346-068) 2 ea	
#6-19 x .315, T15 head (331310-001) 2 ea	



System Board Connectors and Jumpers (position of some untitled components may vary in location)

E49	Password jumper	P21	Secondary IDE
J20	PCI slot 1	P23	Front audio/USB
J21	PCI slot 2	P27	Miulti Bay
J22	PCI slot 3	P29	SCSI LED
J30	PCI slot extender	P30	Primary Serial ATA (SATA) Port
J40	AGP slot	P31	Secondary Serial ATA (SATA) Port
P1	Main power (20 pin)	P54	Serial Port “B”
P3	CPU regulator power (4 pin)	P70	CPU fan
P5	Front panel	P124	Hood lock
P6	Internal chassis speaker	P125	Hood sensor
P7	CD audio in	SW50	CMOS button
P8	Chassis fan	XBT1	Battery
P10	Diskette drive	XMM1	Memory socket
P11	Aux audio in	XMM2	Memory socket
P14	Boot block	XMM3	Memory socket
P16	Power supply fan control	XMM4	Memory socket
P20	Primary IDE	XU100	Security

System Hardware Interrupts

IRQ	System Function	IRQ	System Function
0	Timer Interrupt	8	Real-Time Clock
1	Keyboard	9	Unused
2	Interrupt Controller Cascade	10	Unused, available for PCI
3	Serial Port (COM B)	11	Unused, available for PCI
4	Serial Port (COM A)	12	Mouse
5	Unused, available for PCI	13	Coprocessor
6	Diskette Drive	14	Primary ATA (IDE) Controller
7	Parallel Port (LPT 1)	15	Secondary ATA (IDE) Controller

Computer Diagnostic LEDs (on front of computer)

LED	Color	LED Activity	State/Message
Power	Green	On	(S0) Computer on
Power	Green	1 blink every 2 seconds	(S1) Suspend Mode
Power	Green	1 blink every 2 seconds	(S3) Suspend to RAM
Power	Green	Off	(S4) Suspend to Disk (if applicable)
Power	Clear	Off	(S5) Computer off
Power	Red	1 blink followed by 2-second pause - Repeat	Power Supply failure
Power	Red*	2 blinks 1 second apart	CPU thermal shutdown
Power	Red*	3 blinks 1 second apart	CPU not installed
Power	Red*	4 blinks 1 second apart	Power supply overload (crow bar)
Power	Red*	5 blinks 1 second apart	No memory
Power	Red*	6 blinks 1 second apart	No graphics
Power	Red*	7 blinks 1 second apart	System board failure (detected prior to video)
Power	Red*	8 blinks 1 second apart	Invalid ROM
Hard Drive	Green	Blinking	Hard drive activity

*Blinking codes are repeated after a 2 second pause.

Keyboard Diagnostic LEDs, PS/2 Keyboards Only

LED	Color	LED Activity	State/Message
Num, Caps, Scroll Lock	Green	On (Rising Tone)	ROM reflashed successfully
Num Lock	Green	On	ROMPaq diskette not present, is bad, or drive not ready.*
Caps Lock	Green	On	Enter password.
Num, Caps, Scroll Lock	Green	Blink On in sequence, one at a time - N, C, SL	Keyboard locked in network mode

** Insert valid ROMPaq diskette in drive A. Turn power switch off, then on to reflash ROM. If ROM flash is successful, all three keyboard LEDs will light up, and you will hear a rising tone series of beeps. Remove diskette and turn power off, then on to restart the computer. For more information about flashing the ROM, refer to the Troubleshooting guide.*

Clearing CMOS

The computer's configuration (CMOS) may occasionally be corrupted. If it is, it is necessary to clear the CMOS memory using switch SW50.
To clear and reset the configuration, perform the following procedure:

1. Prepare the computer for disassembly.

CAUTION: The power cord must be disconnected from the power source before pushing the Clear CMOS Button (NOTE: All LEDs on the board should be OFF). Failure to do so may damage the system board

2. Remove the access panel.
3. Press the CMOS button located on the system board and keep it depressed for 5 seconds.
4. Replace the access panel.
5. Turn the computer on and run F10 Computer Setup (Setup-utility) to reconfigure the system.

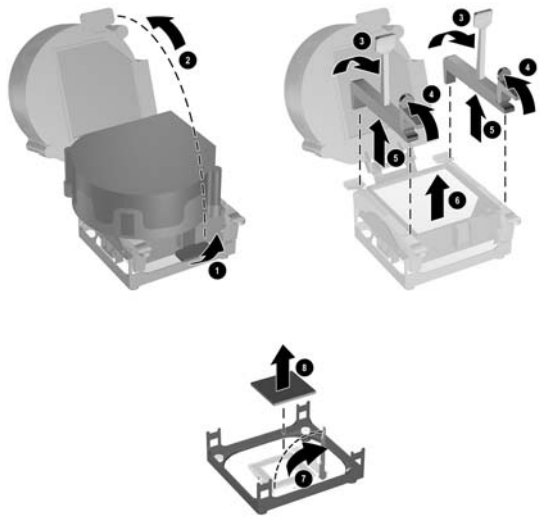
Disabling or Clearing the Power-On and Setup Passwords

1. Turn off the computer and any external devices, and disconnect the power cord from the power outlet.
2. Remove the access panel.
3. Locate the header and jumper labeled E49.
4. Remove the jumper from pins 1 and 2. Place the jumper over pin 2 only, in order to avoid losing it.
5. Replace the access panel.
6. Plug in the computer and turn on power. Allow the operating system to start.
   NOTE: Placing the jumper on pin 2 clears the current passwords and disables the password features.
7. To re-enable the password features, repeat steps 1-3, then replace the jumper on pins 1 and 2.
8. Repeat steps 5-6, then establish new passwords.

   Refer to the Computer Setup (F10 Setup) instructions to establish new passwords.

Computer Setup (F10) Utility Features (not all features may be available)

File	System Information About Set Time and date	Save to Diskette Restore From Diskette Set defaults and Exit	Ignore Changes and Exit Save Changes and Exit
Storage	Device Configuration Options	IDE DPS Self-Test Controller Order	Boot Order
Security	Setup Password Power-On Password Password Options Smart Cover	Smart Sensor DriveLock Master Boot Record Security Save Master Boot Record	Restore Master Boot Record Device Security Network Service Boot System IDs
Advanced	Power-On Options Onboard devices	PCI Devices Bus Options	Device Options PCI VGA Configuration

Note: See Computer Setup (F10) Utility Guide on the Documentation Library CD.

Heat Sink Removal