# hp compaq d530 Series Personal Computer
illustrated parts map
convertible minitower

May 2003
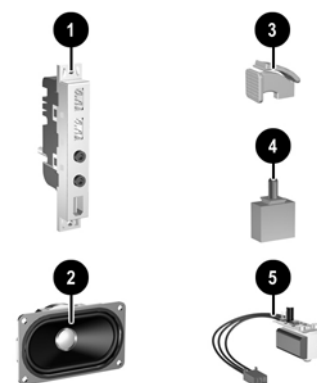
**Miscellaneous Parts**

| | | |
|---|---|---|
| 1 | Front I/O device | 336446-001 |
| 2 | Speaker | 326776-001 |
| 3 | PCI latch kit | 339808-001 |
| 4 | Hood sensor | 267529-001 |
| 5 | Solenoid lock with cable | 336442-001 |
| * | 5.25" Bay bezel blank | 335937-001 |
| * | Diskette drive bay bezel blank | 336581-001 |
| *# | Heatsink with thermal grease and alcohol pad (see reverse side) | 333866-001 |
| * | Chassis fan | 330457-001 |
| * | Mouse, 2-Button, PS/2 with scroll wheel | 323614-001 |
| * | Mouse, 2-Button, USB, optical with scroll wheel | 323617-001 |
| * | Mouse, 2-Button, wireless with scroll wheel | 323616-001 |
| * | Mouse, 2-Button, USB, with scroll wheel | 323615-001 |
| * | Rubber foot (4 ea) | 336445-001 |
| * | Drive Key, 16 MB | 324780-001 |
| * | Drive Key, 64 MB | 331465-001 |
| * | Drive Key, 128 MB | 331466-001 |
| * | Return kit with buns | 337910-001 |
| * | Real-time-clock battery | 153099-001 |
| * | Port control cover | 340400-001 |
| * | PCI extender card tray | 335817-001 |

*Not shown
#See back side for more information
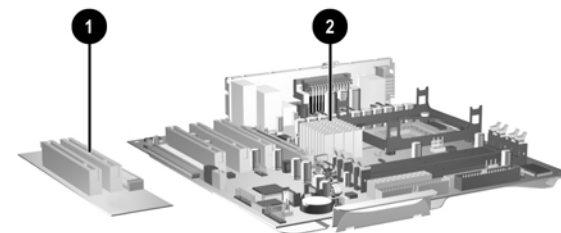


**Standard and Optional Boards**

| | | |
|---|---|---|
| 1 | PCI extender card | 252609-001 |
| 2 | System board with alcohol pad and thermal grease | 323091-001 |
| **Memory Modules** | | |
| * | 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, ATX bkt | 309492-001 |
| * | nVidia GeForce4 MX440, 64 M, ATX bkt | 322891-001 |
| * | nVidia Quadro4 400 NVS, 64M, ATX bkt | 274623-001 |
| * | nVidia Quadro4 200 NVS, 32 M, ATX bkt | 274622-001 |
| * | nVidia Quadro4 100 NVS, 64 M, ATX bkt | 322893-001 |
| * | nVidia Quadro4 100 NVS, PCI, 64 M, ATX bkt | 322892-001 |
| * | AGP card with DVI output, low profile bkt | 335815-001 |
| * | DVI ADD 4-layer card | 325833-001 |

*Not shown
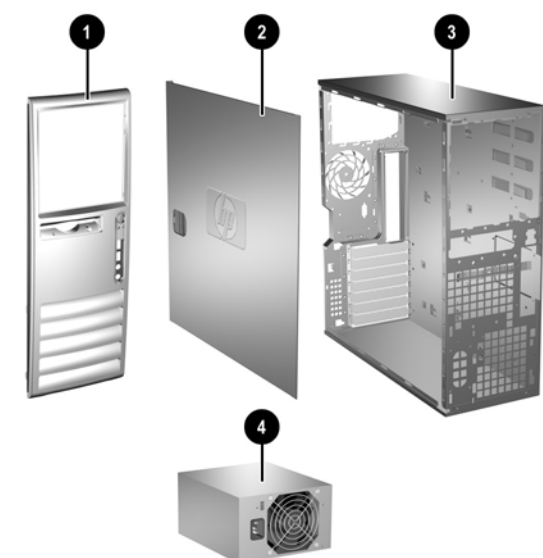


**System Unit**

| | | |
|---|---|---|
| 1 | Front bezel assembly with sub panel, 5.25" bezel blank, and diskette drive bezel (unpainted, for Blue Angel use only) | 336441-001 |
| 1 | Front bezel assembly with sub panel, 5.25" bezel blank, and diskette drive bezel | 336443-001 |
| 2 | Computer access panel | 336444-001 |
| 3 | Chassis assembly | not spared |
| 4 | Power supply, PFC | 308615-001 |

**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 drive adapter | 335805-001 |
| | 24X/10X/24X/8X 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 |

**Easy Access Keyboards (not illustrated)**

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

**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
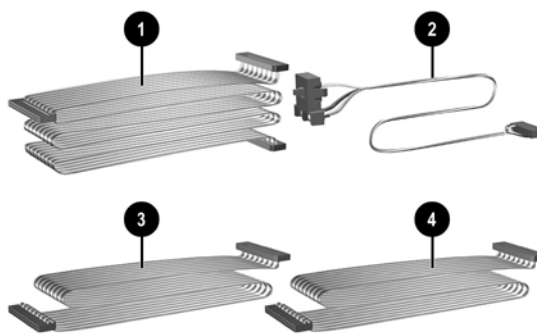


**Cables**

| | | |
|---|---|---|
| 1 | IDE cable, 15.25", two device (108950-047) | 336448-001 |
| 2 | Power switch/LED cable with switch holder | 336447-001 |
| 3 | Diskette drive cable (143218-006) | 333875-001 |
| 4 | IDE cable, 12.5", two device (108950-046) | 333876-001 |
| *# | DVI graphics cable | 285380-001 |
| *# | VGA graphics cable | 285379-001 |
| *# | DVI-VGA graphics adapter | 202997-001 |
| * | CD-ROM Audio cable (387527-001) | 149806-001 |

*Not shown
#Use with 322893-001, 274623-001, and 274622-001

**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 (101517-037) 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 | |
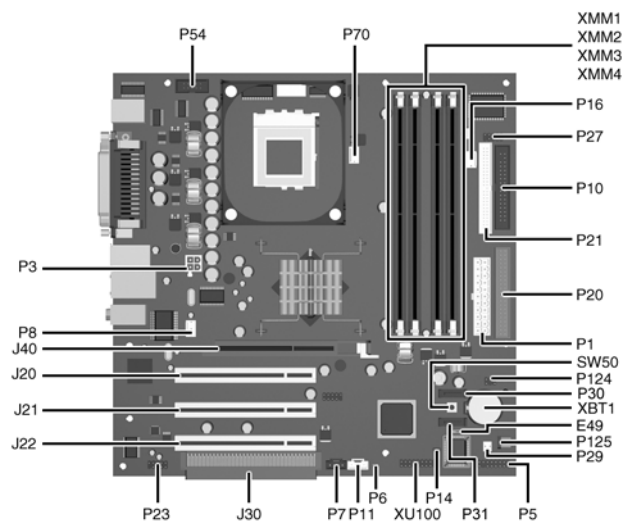
**System Board Connectors and Jumpers (position of some untitled components may vary in location)**

| | | | | |
|---|---|---|---|---|
| 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 |
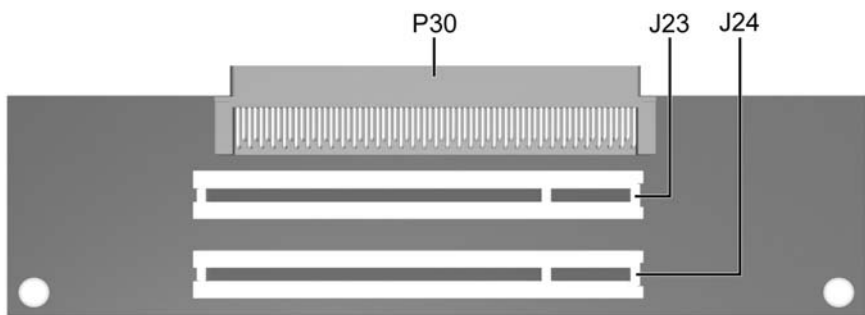


**PCI Extender Card Connectors and Jumpers**

| | | | | |
|---|---|---|---|---|
| J23 | PCI slot 4 | | P30 | Male expansion plug |
| J24 | PCI slot 5 | | | |

**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 O nly**

| 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.

*When the CMOS button is pushed or the jumper is removed, both the power-on password and the setup password become invalid because both are stored in the configuration memory. You will need to reset the passwords.

**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.
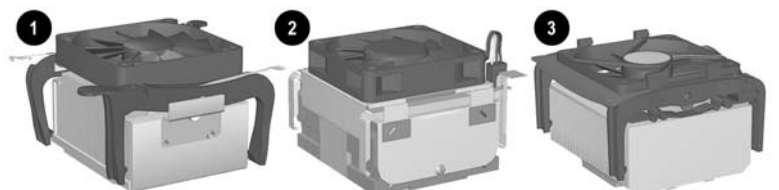*When the CMOS button is pushed or the jumper is removed, both the power-on password and the setup password become invalid because both are stored in the configuration memory. You will need to reset the passwords.

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

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

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

**Interchangeable Heatsinks**



**Heat Sink Removal**