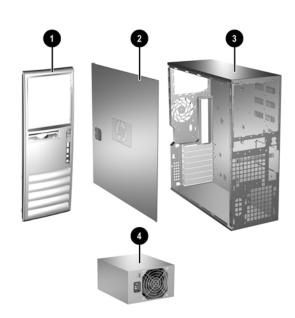
# HP Compaq Business Desktop dc7100 Series Personal Computer

Illustrated Parts Map Convertible Minitower







## System Unit

| 1 | Front bezel assembly with sub panel, 5.25" bezel blank, and diskette drive bezel (unpainted, for Blue Angel use only) | 336441-005 |
|---|---|------------|
| 1 | Front bezel assembly with sub panel, 5.25" bezel blank, and diskette drive bezel                                      | 371116-001 |
| 2 | Computer access panel   | 336444-005 |
| 3 | Chassis assembly  | not spared |
| 4 | Power supply, PFC   | 349987-001 |

## Mass Storage Devices (not illustrated)

| 40 GB\7200 RPM SATA hard drive              | 365555-001 |
|---|------------|
| 80 GB\7200 RPM SATA hard drive              | 345713-005 |
| 120 GB\7200 RPM SATA hard drive             | 365556-001 |
| 160 GB\7200 RPM SATA hard drive             | 345712-005 |
| Diskette drive with mounting screws         | 333505-005 |
| Optical Disk Drives                         | •          |
| 48X CD-ROM drive with mounting screws       | 326773-005 |
| 52X CD ROM drive                            | 333969-005 |
| 48X/32X/48X CD-RW                           | 346788-005 |
| 48X/32X/48X +16X DVD/CD-RW                  | 359493-005 |
| 8X DVD+R/RW                                 | 358688-005 |
| 16/40X DVD ROM drive                        | 325313-005 |
| Zip 250 Drive with mounting bracket         | 333504-005 |
| Zip 250 drive without mounting bracket      | 326772-005 |
| MultiBay devices                            | •          |
| MultiBay drive adapter                      | 335805-005 |
| Diskette drive, MultiBay use only           | 335169-005 |
| 24X/24X/24X/8X CD-RW/DVD-ROM MultiBay drive | 346789-005 |
| 24X CD-ROM MultiBay drive                   | 325314-005 |
| 8X/24X DVD-ROM MultiBay drive               | 325316-005 |
|   |            |

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1st Edition, July 2004 2nd Edition, September 2004

> Document Number 361292-002

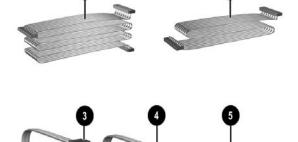


#### Keyboards (not illustrated)

| PS/2, Basic<br>USB, Basic<br>USB, Modular |      | 355630-xxx<br>355631-xxx<br>355102-xxx |      |
|---|------|--|------|
| Arabic                                    | -175 | Japanese                               | -295 |
| Belgian                                   | -185 | Korean (Hanguel)                       | -KD5 |
| BHCSY                                     | -B45 | LA Spanish                             | -165 |
| Brazilian Portuguese                      | -205 | Norwegian                              | -095 |
| Czech                                     | -225 | PRC                                    | -AA5 |
| Danish                                    | -085 | Portuguese                             | -135 |
| Europe*                                   | -025 | Russian                                | -255 |
| Finnish                                   | -355 | Slovakian                              | -235 |
| French                                    | -055 | Spanish                                | -075 |
| French Arabic                             | -DE5 | Swedish                                | -105 |
| French Canadian                           | -125 | Swiss                                  | -115 |
| German                                    | -045 | Taiwanese                              | -AB5 |
| Greek                                     | -155 | Thai                                   | -285 |
| Hebrew                                    | -BB5 | Turkish                                | -145 |
| Hungarian                                 | -215 | U.S.                                   | -005 |
| International                             | -B35 | U.K.                                   | -035 |
| Italian                                   | -065 |  |      |
| * 355102 only                             | ı    |  | 1    |

## USB Basic Keyboard (not illustrated)

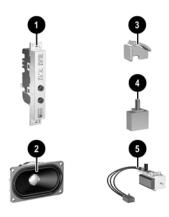
| Europe, gray and carbonite (Blue Angel) | 355632-B35 |
|---|------------|
|   |            |





| Ca | DIES   |            |
|----|--|------------|
| 1  | IDE cable, 17.25", two device (108950-052)                   | 366640-001 |
| 2  | Diskette drive cable (143218-007)                            | 371511-001 |
| 3  | SATA hard drive cable for 5.25" ODD bay only                 | 346142-005 |
| 4  | SATA hard drive cable  | 346141-005 |
| 5  | Power switch/LED cable without switch holder                 | 367595-001 |
| *  | MultiBay adapter cable (108950-040)                          | 289050-001 |
| *  | CD-ROM Audio cable (387527-001)                              | 149806-005 |
| *  | Serial PCA card cable (use with 289384-005)                  | 302652-005 |
| *  | Wireless LAN cable (use with 332963-005, 332964-005)         | 333365-005 |
| *  | Wireless LAN antenna cable (use with 356295-B35, 356296-295) | 367596-001 |

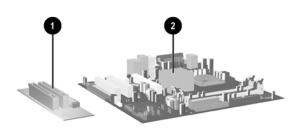
<sup>\*</sup>Not shown



#### Miscellaneous Parts

| 1 | Front I/O device with cable                     | 336446-005 |
|---|---|------------|
| 2 | Speaker   | 326776-005 |
| 3 | PCI latch kit                                   | 339808-001 |
| 4 | Hood sensor                                     | 267529-001 |
| 5 | Solenoid lock with cable                        | 336442-005 |
| * | 5.25" Bay bezel blank                           | 335937-005 |
| * | Diskette drive bay bezel blank                  | 336581-005 |
| * | Diskette drive bay bezel, Blue Angel (no paint) | 371119-001 |
| * | Heatsink with thermal grease and alcohol pad    | 366639-001 |
| * | Chassis fan                                     | 366641-001 |
| * | Mouse, 2-Button, PS/2 with scroll wheel         | 323614-005 |
| * | Mouse, 2-Button, USB, optical with scroll wheel | 323617-005 |
| * | Mouse, 2-Button, USB, with scroll wheel         | 323615-005 |
| * | Rubber foot (4 ea)                              | 336445-001 |
| * | Drive Key, 16 MB                                | 324780-001 |
| * | Drive Key, 128 MB                               | 349988-005 |
| * | Drive Key, 256 MB                               | 344249-005 |
| * | Real-time-clock battery                         | 153099-001 |
| * | Port control cover                              | 340400-005 |
| * | PCI extender card tray                          | 335817-005 |
| * | Card guide                                      | 371117-001 |
| * | Front I/O device mounting bracket               | 371118-001 |
| * | Kensington cable lock                           | 370856-001 |
| * | Universal clamp lock without cable              | 335808-005 |
| * | Universal clamp lock with cable                 | 335809-005 |

<sup>\*</sup>Not shown



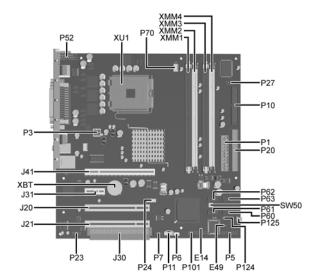
## Standard and Optional Boards

| 1    | PCI extender card                                 | 252609-005 |
|------|---|------------|
| 2    | System board with alcohol pad and thermal grease  | 365865-001 |
| Me   | mory Modules                                      | •          |
| *    | 128 MB/400 MHz FSB                                | 335697-005 |
| *    | 256 MB/400 MHz FSB                                | 335698-005 |
| *    | 512 MB/400 MHz FSB                                | 335699-005 |
| *    | 1.0 GB/400 MHZ FSB                                | 335700-005 |
| Inte | el Processors with alcohol pad and thermal grease | •          |
| *    | 2.8 GHz\800 MHz FSB, 1MB cache                    | 367594-001 |
| *    | 3.0 GHz\800 MHz FSB, 1MB cache                    | 366643-001 |
| *    | 3.2 GHz\800 MHz FSB, 1MB cache                    | 366644-001 |
| *    | 3.4 GHz\800 MHz FSB, 1MB cache                    | 367415-001 |
| *    | 3.6 GHz\800 MHz FSB, 1MB cache                    | 367416-001 |
| Oth  | ner Cards   | •          |
| *    | TPM security module                               | 366504-001 |
| *    | Broadcom Gigabit NIC                              | 321793-005 |
| *    | Wireless LAN PCI Adapter (802.11) 11 channel      | 332963-005 |
| *    | Serial Port PCI card (use with 302625-005 cable)  | 283984-005 |
| *    | Wireless LAN PCI Adapter (802.11) International   | 356295-B35 |
| *    | Wireless LAN PCI Adapter (802.11) Japan           | 356296-295 |
| *    | ATI PCI Xpress DVI graphics, 128 MB               | 361266-001 |
| *    | ATI PCI Xpress VGA graphics, 64 MB                | 361267-001 |
| *    | DVI ADD 2 graphics card                           | 361265-001 |
| *    | PCI Modem, worldwide                              | 361286-021 |
| *    | 1394 Firewire                                     | 361552-001 |

<sup>\*</sup>Not shown

## Miscellaneous Screw Kit (not illustrated)

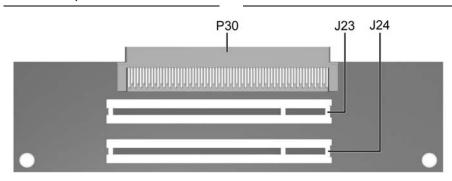
| Miscellaneous screw kit                  | 337237-001 |
|--|------------|
| M3 x 5mm, hitop (263585-001) 4 ea        |            |
| #6-32 x .250, hitop (262508-001) 8 ea    |            |
| #6-32 x .250, pan head (101517-037) 3 ea |            |
| #6-32 x .312, hitop (262508-002) 4 ea    |            |
| #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)

| E14 | Boot Block write jumper     |
|-----|-----------------------------|
| E49 | Password jumper             |
| J20 | PCI slot 1                  |
| J21 | PCI slot 2                  |
| J30 | PCI slot extender           |
| J31 | PCE Express slot x1         |
| J41 | PCI Express slot x16        |
| P1  | Main power (24 pin)         |
| P3  | CPU regulator power (4 pin) |
| P5  | Front panel                 |
| P6  | Internal chassis speaker    |
| P7  | CD audio in                 |
| P8  | Chassis fan                 |
| P10 | Diskette drive              |
| P11 | Aux audio in                |
| P20 | Primary IDE                 |
| P23 | Front audio                 |
| P24 | Front panel USB             |

| P27  | MultiBay                         |
|------|----------------------------------|
| P52  | Serial Port header               |
| P60  | Primary Serial ATA (SATA) Port   |
| P61  | Secondary Serial ATA (SATA) Port |
| P62  | Third Serial ATA (SATA) Port     |
| P63  | Fourth Serial ATA (SATA) Port    |
| P70  | CPU fan                          |
| P101 | Security board connector         |
| P124 | Hood lock                        |
| P125 | Hood sensor                      |
| SW50 | CMOS button                      |
| XBT1 | Battery                          |
| XMM1 | Memory socket                    |
| XMM2 | Memory socket                    |
| XMM3 | Memory socket                    |
| XMM4 | Memory socket                    |
| XU1  | Processor socket                 |
|      |                                  |



## **PCI Extender Card Connectors and Jumpers**

| J23 | PCI slot 4 | P30        | Male expansion plug |
|-----|------------|------------|---------------------|
| J24 | PCI slot 5 | , <u> </u> |                     |

## System Hardware Interrupts

| IRQ | System Function              |
|-----|------------------------------|
| 0   | Timer Interrupt              |
| 1   | Keyboard                     |
| 2   | Interrupt Controller Cascade |
| 3   | Serial Port (COM B)          |
| 4   | Serial Port (COM A)          |
| 5   | Unused, available for PCI    |
| 6   | Diskette Drive               |
| 7   | Parallel Port (LPT 1)        |

| IRQ | System Function              |  |  |
|-----|------------------------------|--|--|
| 8   | Real-Time Clock              |  |  |
| 9   | Unused                       |  |  |
| 10  | Unused, available for PCI    |  |  |
| 11  | Unused, available for PCI    |  |  |
| 12  | Mouse                        |  |  |
| 13  | Coprocessor                  |  |  |
| 14  | Primary ATA (IDE) Controller |  |  |
|     |                              |  |  |

## Computer Diagnostic LEDs (on front of computer)

| LED Color  |       | LED/Beep 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      | Clear | Off   | (S4) Hibernation Mode                           |  |
| 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                     | 1 second apart Power supply overload (crow bar) |  |
| Power      | Red*  | 5 blinks 1 second apart                     | ss 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                                     |  |
| Power      | Red*  | 9 blinks 1 second apart                     | System not fetching code                        |  |
| Power      | Red*  | 10 blinks 1 second apart                    | System hang while loading an option ROM         |  |
| Hard Drive | Green | Blinking                                    | Hard drive activity                             |  |

<sup>\*</sup>Blinking codes are repeated after a 2 second pause. Beeps stop after fifth iteration but LEDs continue until problem is resolved.

#### Keyboard Diagnostic LEDs, PS/2 Keyboards Only

| LED                       | Color | LED Activity                                   | State/Message   |  |
|---------------------------|-------|--|---|--|
| Num, Caps,<br>Scroll Lock | Green | On (Rising Tone)                               | 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,<br>Scroll Lock | Green | Blink On in sequence, one at a time - N, C, SL | t a Keyboard locked in network mode                       |  |

<sup>\*</sup> 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.
- Press the CMOS button located on the system board and keep it depressed for 5 seconds.
- Replace the access panel.
- 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\*

- 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.
- Remove the jumper from pins 1 and 2. Place the jumper over pin 2 only, in order to avoid losing it.
- Replace the access panel.
- - 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.
- $7. \hspace{0.5cm} \hbox{To re-enable the password features, repeat steps 1-3, then replace the jumper on pins 1 and 2.} \\$
- 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  | Replicated Setup<br>Default Setup<br>Apply Defaults and Exit  | Ignore Changes and Exit<br>Save Changes and Exit      |  |
|----------|---|---|---|--|
| Storage  | Device Configuration<br>Storage Options   | DPS Self-Test<br>Boot Order   |   |  |
| Security | Setup Password<br>Power-On Password<br>Password Options<br>Smart Cover<br>Embedded Security | Drivelock Security Data Execution Prevention Master Boot Record Security Save Master Boot Record Restore Master Boot Record | Device Security<br>Network Service Boot<br>System IDs |  |
| Power    | OS Power Management   | Hardware Power Management   | Thermal   |  |
| Advanced | Power-On Options<br>BIOS Power On<br>Onboard devices  | PCI Devices<br>Bus Options  | Device Options<br>PCI VGA Configuration               |  |

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