# Compaq Deskpro EN Convertible Minitower

Illustrated Parts Map

COMPAQ

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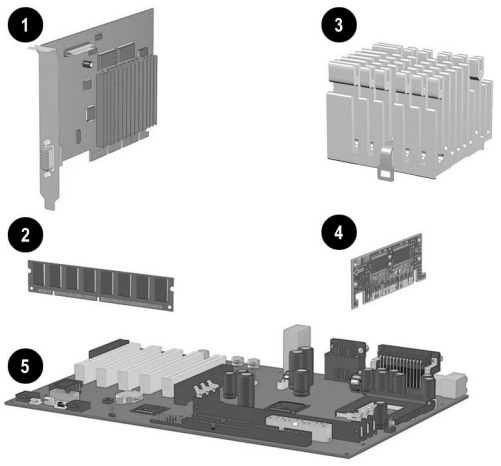
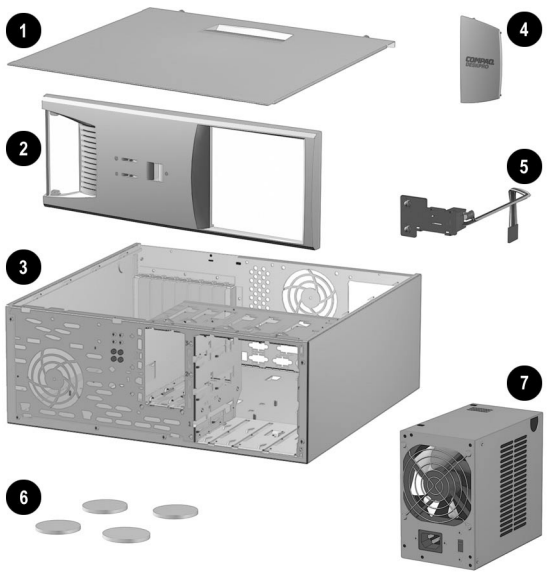
April 2002

Part Number 203252-004

Spare Part Number 203722-001





### System Unit

| | | |
|---|---|---|
| 1 | Access Panel | Not spared |
| 2 | Front bezel | 166868-001 |
| 3 | Chassis assembly (reference only) | Not spared |
| 4 | Logo kit (1 ea., DT and MT) DT shown | 210004-001 |
| 5 | Power switch with cable, LED, and switch holder | 192013-001 |
| 6 | Feet | Plastics Kit |
| 7 | Power supply | 103748-001 |

### Mass Storage Devices (not illustrated)

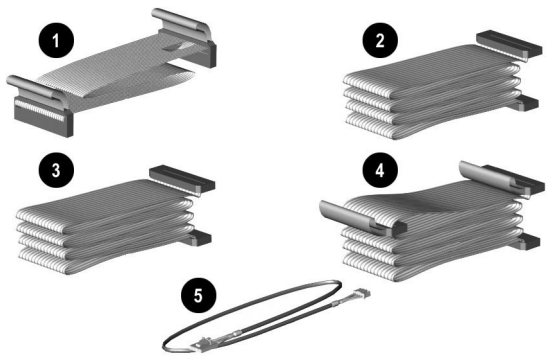
| | |
|---|---|
| 10-GB UATA 66, 7200 Quiet hard drive | 192058-001 |
| 10-GB, UATA 66, 7200 hard drive | 135364-001 |
| 15-GB UATA 66, 7200 Quiet hard drive | 192059-001 |
| 5-GB UATA 66, 7200 hard drive | 192060-001 |
| 20-GB, UATA, 7200 hard drive | 180476-001 |
| 20-GB, UATA, 7200 hard drive | 157403-001 |
| Diskette drive, 3.5-inch, with button, opal | 158266-001 |
| 40X CD-ROM drive | 400807-001 |
| 48X CD-ROM drive | 187263-001 |
| 16X DVD-ROM drive | 213251-001 |

### Miscellaneous Screws (not illustrated)

| | |
|---|---|
| Miscellaneous screw kit, includes: | 179180-001 |
| 6-32 x 1/4 hi-top, thread forming with serrations (4 ea.) (192308-001) | |
| 6-19 x 5/16 panhead, plastite (5 ea.) (101346-068) | |
| 6-19 x 5/16 hi-top, plastite with captive washer (4 ea.) (114399-069) | |
| 6-32 x 3/16 hi-top, thread forming with serrations (5 ea.) (192308-003) | |
| M3 x 5mm, hi-top, plastite with serrations (3 ea.) (247348-001) | |
| 6-32 x 3/16 buttonhead tamper-resistant, taptite with serrations (4 ea.) (296769-002) | |
| 6-32 x 5/16 hi-top, taptite (5 ea.) (109384-568) | |
| 6-19 x 1/2 panhead, plastite (4 ea.) (101346-071) | |
| Thumbscrew, molded cap (179333-002) | |

### Miscellaneous Plastics (not illustrated)

| | |
|---|---|
| Miscellaneous plastics kit, includes: | 166878-001 |
| Panel, sub (166835-001) | |
| Bezel, blank (166775-001) | |
| Diskette bezel (166776-001 | |
| Card guide (166778-001) | |
| Foot, rubber (4 ea.) (166939-002) | |
| Button, power (166774-001) | |
| Drivelock, DT (166779-001) | |
| Spring, power button (166837-001) | |
| Spring, drivelock (2 ea.) (166837-002) | |
| Drivelock, MT (166780-001) | |
| Retention mechanism (2 ea.) (350767001) | |



### Cables

| | | |
|---|---|---|
| 1 | Diskette drive cable (143218-0002) | 228369-001 |
| * | Solenoid cable (174311-001) | 228370-001 |
| Cable kit, includes: | | 166879-002 |
| * | Diskette drive data cable with twist, 11” with pull tab (and center polarization (143218-001) | |
| 2 | 40-pin IDE cable, 12.5” (105876-001) | |
| 3 | IDE Ultra ATA dual device, hard drive/CD-ROM cable, 18” with pull tab, center polarization (108950-007) | |
| * | Dual-LED power cable (387727-001) | |
| * | Switch mounting bracket (3 ea.), (166777-001) | |
| * | Diskette drive/tape cable, with twist, no key, 34” (356107-001) | |
| * | Diskette drive cable, with twist, no pull tab, (387795-001) | |
| Cable kit, includes: | | 192264-001 |
| 4 | IDE Ultra ATA dual device, hard drive/CD-ROM cable, 18” (108950-019) | |
| 5 | Audio cable, 21”, (288489-002) | |
| * | 40 pin IDE data cable, 12.5” (105876-001) | |
| 5 | Audio cable, Panther 21” (387527-001) | |
| * | IDE Ultra ATA dual device, hard drive/CD-ROM cable, 18” (108950-021) | |
| Cable kit, includes: | | 192263-001 |
| 5 | Audio cable, 12” (358727-002) | |
| * | CD-ROM cable, 18” (108950-017) | |

**Not shown*

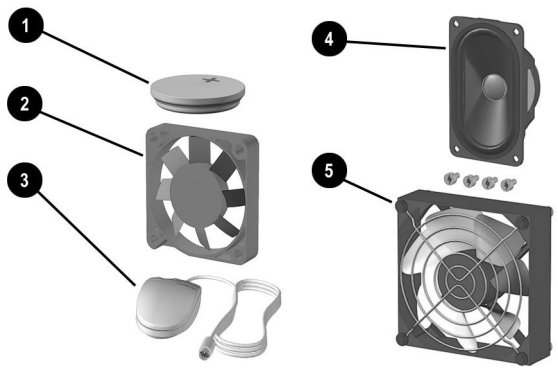
### Documentation and Packaging (not illustrated)

| | |
|---|---|
| *Maintenance & Service Guide* | 201843-001 |
| *Service Reference Guide* | 152611-001 |
| *Quick Troubleshooting Guide* | 153837-001 |
| *Illustrated Parts Map* | 203722-001 |
| Return kit | 166990-001 |
| Return kit, International, with carton and buns | 166990-002 |

### Standard and Optional Boards

| | | |
|---|---|---|
| 1 | TNT2 PRO graphics | 179997-001 |
| 2 | Memory module, 64 MB SDIMM | 170080-001 |
| * | Memory module, 128 MB SDIMM | 170081-001 |
| * | Memory module, 256 MB SDRAM | 192014-001 |
| Processor, Intel Celeron with heatsink | | |
| 3 | 600/66 MHz with heatsink | 192011-001 |
| * | 733/66 MHz with heatsink | 231234-001 |
| * | 850/100 MHz with heatsink | 239115-001 |
| Processor, Intel Pentium III | | |
| * | 667/133 MHz with heatsink | 192007-001 |
| * | 733/133 MHz with heatsink | 192008-001 |
| * | 800/133 MHz with fansink | 192009-001 |
| * | 866/133 MHz with fansink | 192006-001 |
| * | 933/133 MHz with fansink | 192010-001 |
| * | 1 GHz with fansink | 218316-001 |
| * | 1.13 GHz, Tualatin, without heatsink | 239112-001 |
| * | 1.20 GHz, Tualatin, without heatsink | 239113-001 |
| 4 | AIMM (GPA) 4 MB graphics | 192012-001 |
| 5 | System board, Tualatin ready (replaces 187498-001) | 239116-001 |
| * | System board (replaced by 239116-001) | 187498-001 |
| * | NIC 10/100 PCI | 118042-001 |
| * | Modem, 56K, PCI | 157071-B21 |
| * | nVIDIA graphics card, 32-MB | 232244-001 |

** Not shown*



### Miscellaneous Parts

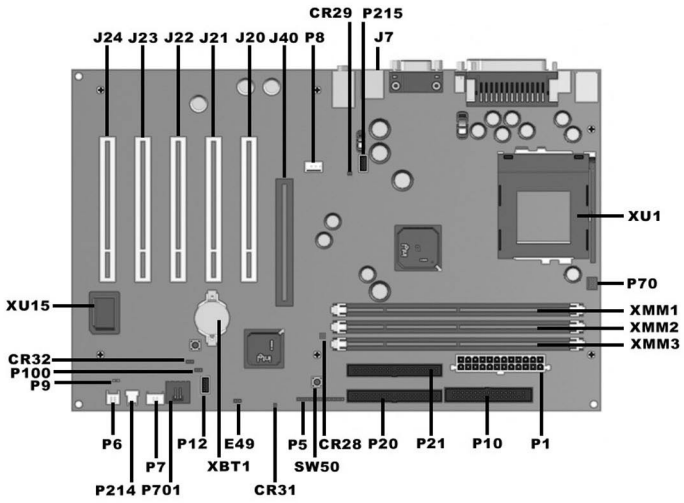
| | | |
|---|---|---|
| 1 | Battery | 153099-001 |
| 2 | Active fansink (733 MHz through 866 MHz) | 228026-001 |
| * | Active fansink (933 MHz and 1.0 GHz only) | 245261-001 |
| * | Active fansink (1.13 GHz and faster) | 239119-001 |
| 3 | Mouse, scroll, Opal | 334689-002 |
| 4 | Speaker | 192518-001 |
| 5 | Fan assembly (use with 933 MHz Pentium III processors and above) | 207609-001 |
| * | External speaker | 294408-001 |
| * | Solenoid, 2-coil | 201485-001 |
| * | Security reader | 294427-001 |

**Not shown*

### Keyboards (not illustrated)

| | | | |
|---|---|---|---|
| **Easy Access, U.S.** | **123130-xxx** | | |
| **Spacesaver, Opal** | **269513-xxx** | | |
| **Basic Smart Card, U.S.** | **125790-xxx** | | |
| **Enhanced Smart Card, U.S.** | **125761-xxx** | | |
| **USB Easy Access, U.S.** | **173304-xxx** | | |
| Arabic | -171 | International | -B31 |
| Belgian | -181 | Latin American Spanish | -161 |
| Brazilian Portuguese | -201 | Norwegian | -191 |
| BHCSY* | -B41 | Polish | -B31 |
| Czech | -221 | Portuguese | -131 |
| Danish | -081 | Russian | -251 |
| Dutch/Netherlands | -B31 | Slovakian | -231 |
| Finnish | -351 | Spanish | -071 |
| French | -051 | Swedish | -101 |
| French-Canadian | -121 | Swiss | -111 |
| German | -041 | Taiwanese | -AB1 |
| Greek | -151 | Thai | -281 |
| Hungarian | -211 | Turkish | -141 |
| Italian | -061 | United Kingdom | -031 |
| Japanese | -191 | U.S. | -001 |
| Korean (Hanguel) | -AD1 | | |

*Bosnia-Herzegovina, Croatia, Slovenia, and Yugoslavia




### System Board Connectors and Jumpers

| | | | |
|---|---|---|---|
| CR28 | 3.3V Aux LED | P10 | Diskette drive connector |
| CR29 | 3.3 V Main LED (NI) | P12 | SOS connector |
| CR31 | Power button LED (ON when pushed) | P20 | Primary IDE connector |
| CR32 | 5 V Aux (ON)/PS_ON_LED (OFF) | P21 | Secondary IDE connector |
| E49 | Password jumper (Installed = Enabled, Removed = Cleared) | P70 | CPU fan connector |
| J7 | RJ-45 jack | P100 | ITP connector |
| J20-24 | PCI slots | P214 | Hood intrusion sensor |
| J40 | AGP/AIMM connector | P215 | Hood lock solenoid connector |
| P1 | Power supply connector | P701 | CD-ROM audio |
| P5 (pins 1-9) | Power button, Power LED, and HD LED connector | SW50 | Clear CMOS button |
| P5 (pins 10-11 | SCSI LED connector | XBT1 | Battery |
| P6 | Speaker connector | XMM1-3 | Memory sockets |
| P7 | CD-ROM audio | XU1 | Processor socket |
| P8 | Chassis fan connector | XU15 | ROM socket |
| P9 | Wake On Lan connector | | |

### System Hardware Interrupts

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

### System Hardware DMA

| DMA | System Function | DMA | System Function |
|---|---|---|---|
| 0 | Unused | 4 | DMA Controller Cascading |
| 1 | Unused | 5 | Unused |
| 2 | Diskette Drive | 6 | Unused |
| 3 | ECP Parallel Port LPT1 (Default; Alternate = DMA 0) | 7 | Unused |

### ICH Fixed I/O Registers

| Port | Register Name |
|---|---|
| 00h, 02h, 04h, 06h | Channel 0, 1, 2, 3 DMA base and current address register |
| C0h, C4h, C8h, CCh | Channel 4, 5, 6, 7 DMA base and current address register |
| 01h, 03h, 05h, 07h | Channel 0, 1, 2, 3 DMA base and current count register |
| C2h, C6h, Cah, CEh | Channel 4, 5, 6, 7 DMA base and current count register |
| 10h-1Fh | Aliased at 00h-0Fh |
| 20h | Master PIC ICW1 Init. Cmd Word 1 register, Master PIC OCW2 Init. Cmd Word 2 register, and Master PIC OCW3 Init. Cmd Word 3 register |
| 21h | Master PIC OCW1 Init. Cmd Word 1 register, Master PIC ICW2 Init. Cmd Word 2 register, and Master PIC ICW3 Init. Cmd Word 3 register |
| 24h,-25h, 28-29h, 2Ch-2Dh, 30h-31h, 34h-35h, 38h-39h, 3Ch-3Dh | Aliased at 20h-21h |
| 40h | Counter 0 interval time status byte format and Counter 0 counter access port register |
| 41h | Counter 1 interval time status byte format and Counter 1 counter access port register |
| 42h | Counter 2 interval time status byte format and Counter 2 counter access port register |
| 43h | Timer control word register, Timer control word register read back, and Counter latch command |
| 50h-53h | Aliased at 40h-43h |
| 61h | NMI status and control register |
| 70h | NMI enable register and Real-time clock (Standard RAM) index register |
| 71h | Real-time clock (Standard RAM) target register |
| 72h | Extended RAM index register |
| 73h | Extended RAM target register |
| 74h-75h | Aliased at 70h-71h |
| 76h-77h | Aliased at 72h-73h or 70h-71h |
| 81h, 82h, 83h | Channel 2, 3, 1 DMA memory low page register |
| 84h-86h, 88h | Reserved page registers |
| 89h, 8Ah, 8Bh | Channel 6, 7, 5 DMA memory low page register |
| 8Ch-8Eh | Reserved page registers |
| 8Fh | Refresh low page register |
| 91h-9Fh (except 92h) | Aliased at 81h-8Fh |
| 92h | Fast A20 and INIT register |
| CF9h | Reset control register |
| A0h | Slave PIC ICW1 Init. cmd word 1 register, Slave PIC OCW2 Init. cmd word 2 register, and Slave PIC 0CW3 Init. cmd word 3 register |

### ICH Fixed I/O Registers (Continued)

| Port | Register Name |
|---|---|
| A1 | Slave PIC ICW2 Init. cmd word 2 register, Slave PIC ICW3 Init. cmd word 3 register, Slave PIC ICW4 Init. cmd word 4 register, and Slave PIC OCW1 Init. cmd word 1 register |
| A4h-A5h, A8h-A8h, ACh-ADh, B0h-B1h, B4h-B5h, B8h-B9h, BCh-Bdh | Aliased at A0h-A1h |
| B2h | Advanced power management control port register |
| B3h | Advanced power management status port register |
| C0h, C4h, C8h, CCh | Channel 4, 5, 6, 7 DMA base and current address register |
| C1h | Aliased at C0h |
| C5h | Aliased atC4h |
| C9h | Aliased at C8h |
| CDh | Aliased at CCh |
| C2h, C6h, CAh, CEh | Channel 4, 5, 6, 7 DMA base and current count register |
| C3h | Aliased at C2h |
| C7h | Aliased at C6h |
| CBh | Aliased at CAh |
| CFh | Aliased at Ceh |
| D0h | Channel 4-7 DMA command register and status register |
| D1h | Aliased at D0h |
| D4h | Channel 4-7 DMA write single mask register |
| D5h | Aliased at D4h |
| D6h | Channel 4-7 DMA channel mode register |
| D7h | Aliased at D6h |
| D8h | Channel 4-7 DMA clear byte pointer register |
| D9h | Aliased at D8h |
| DAh | Channel 4-7 DMA master clear register |
| DBh | Aliased at DAh |
| DCh | Channel 4-7 DMA clear mask register |
| DEh | Aliased at DCh |
| DEh | Channel 4-7 DMA write all mask register |
| DFh | Aliased at DEh |
| F0h | Coprocessor error register |
| 170h-177h | PIO mode command block offset for secondary drive |
| 1F0h-1F7h | PIO mode command block offset for primary drive |
| 376h | PIO mode control block offset for secondary drive |
| 3F6h | PIO mode control block offset for primary drive |
| 4D0h | Master PIC edge/level triggered register |
| 3F6h | PIO mode control block offset for primary drive |
| 4D1h | Slave PIC edge/level triggered register |
| 400-47F | Super I/O |
| F800-F87F | Reserved (power management) |
| FA00-FA3F | Reserved (GPIO management) |
| FC00-FC0F | Reserved (SMBUS controller) |

*NOTE: When the POS_DEC_EN bit is set, additional I/O ports get positively decoded by the ICH.*

### System Memory Map

| Size | Memory Address | System Function |
|---|---|---|
| 512 KB | FFFFFFFFh to FFF80000h | System ROM |
| 3839 MB | FFFBFFFFh to 10000000h | PCI memory expansion |
| 511 MB | 0FFFFFFFh to 00100000h | Host or PCI memory expansion |
| 128 KB | 000FFFFFh to 000E0000h | System ROM |
| 96 KB | 000DFFFFh to 000C8000h | PCI option ROMs |
| 32 KB | 000C7FFFh to 000C0000h | Video ROM |
| 128 KB | 000BFFFFh to 000A0000h | Video RAM |
| 640 KB | 0009FFFFh to 00000000h | Base memory |

### 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 (delete-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. (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.