Illustrated Parts & Service Map
HP Compaq Elite 8300 All-in-One Business PC

Key Specifications

<table>
<thead>
<tr>
<th>Processor Type</th>
<th>Intel® Core i7, i5, i3, Pentium®, Celeron®</th>
</tr>
</thead>
<tbody>
<tr>
<td>RAM Type</td>
<td>Non-ECC DDR3 PC3-12800 (1600 MHz) SODIMM, 2 slots</td>
</tr>
<tr>
<td>Maximum RAM</td>
<td>16 GB</td>
</tr>
</tbody>
</table>

Expansion Slots

- 1 Mini PCIe half-length (used by wireless LAN module)
- 2 M.2 3.0 Type A - 3.5W
- 1 mSATA

Chipset

Intel® Q77 Express

Bays

- 1 3.5" hard drive; supports up to two - 2.5" hard drives or one - 5.25" drive
- 1 5.25" slim line optical drive

I/O Interfaces

Side: 6-in-1 card reader, (2) USB 3.0, mic, headphone
Rear: PS/2 mouse and keyboard, (2) USB 2.0, (2) USB 3.0, DisplayPort, RJ-45, stereo line out

Display

23-inch (1920 x 1080), widescreen WLED backlit anti-glare

Operating Systems

- Windows® 8
- Windows® 7
- FreeDOS

Spare Parts

1. Front bezel - non-touch screen models
   Includes capacitive sensor board and shutter. For products without a webcam, replace shutter with Webcam assembly kit.
   698815-001

2. Front bezel - touch screen models
   Includes capacitive sensor board and shutter. For products without a webcam, replace shutter with Webcam assembly kit.
   698816-001

3. Power supply, 230W
   698821-001

4. Left side panel
   698812-001

5. Right side panel
   698811-001

6. Stand assembly
   698223-001

7. Height adjustment stand
   698226-001

8. Upper rear access panel (security screw and hardware are not spared)
   698813-001

9. Lower rear access panel
   698814-001

10. Rear I/O security cover
    698824-001

11. Display panel - touch screen
    698818-001

12. Display panel - non-touch screen
    698823-001

* -001, -121 only

Cables

1. Power button board cable
   098208-001

2. Backlight cable for use with CMI, LG display panels
   098605-001

3. Backlight cable for use with Samsung display panels
   098810-001

4. Optical drive cable (data and power assembly)
   098607-001

5. Hard drive cable (data and power assembly)
   098806-001

6. Antenna, WLAN
   098604-001

7. Touch panel cable, control VSO
   098806-001

8. Touch panel cable, control VSO
   098216-001

9. Convertor board side cable
   098208-001

10. LVDS (display) cable
    098209-001

11. Capacitive strip sensor cable
    098210-001

12. Webcam cable
    098211-0001

13. Adapters, DisplayPort to VGA
    698204-001

14. Adapters, DisplayPort to DVI
    698409-001

15. Adapters, DisplayPort to HDMI
    613450-001

16. Display Port cable
    487562-001

Keyboards (not illustrated)

- Arabic -17x
- F Arabic -DE1
- Dutch -B41
- Belgian -18x
- Brazilian Portuguese -20x
- Bulgarian -22x
- Czech -22x
- Danish -22x
- Dutch -35x
- Dutch -35x
- Finnish -25x
- French -05x
- French Canadian -12x
- German -04x
- Greek -15x
- Hebrew -06x
- Hindi -D61
- Hungarian -26x
- Italian -06x
- Arabic -17x
- F Arabic -DE1
- Dutch -B41
- Belgian -18x
- Brazilian Portuguese -20x
- Bulgarian -22x
- Czech -22x
- Danish -22x
- Dutch -35x
- Dutch -35x
- Finnish -25x
- French -05x
- French Canadian -12x
- German -04x
- Greek -15x
- Hebrew -06x
- Hindi -D61
- Hungarian -26x
- Italian -06x

Mass Storage Devices (not illustrated)

<table>
<thead>
<tr>
<th>Model</th>
<th>Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>608744-001</td>
<td>24 GB Solid State Drive (SSD), mSATA, flash</td>
</tr>
</tbody>
</table>

* -001, -121 only
Standard and Optional Boards

- System board for use in models with Windows Standard
- Intel Core i7 processors (include thermal material)
- Memory modules (SODIMM, PC3-12800, CL11)
- Intel Core i5 processors (include thermal material)
- AMD Radeon HD 7650A (MXM) discrete graphics board
- NVIDIA GeForce GT 540M 2GB DDR3 MXM 3.0A discrete graphics board
- HP WLAN 802.11 b/g/n

Miscellaneous Parts

- Heat sink for use with graphics board
- Intel Celeron processors (include thermal material)
- Intel Core i3 processors (include thermal material)
- Intel Pentium processors (include thermal material)
- AMD Radeon HD 7650A (MXM) disc rete graphics board
- Converter board
- AMD Radeon HD 7650A (MXM) discrete graphics board
- NVIDIA GeForce GT 540M 2GB DDR3 MXM 3.0A discrete graphics board
- HP WLAN 802.11 b/g/n

Common POST Error Messages

<table>
<thead>
<tr>
<th>Screen Message</th>
<th>Probable Cause</th>
<th>Recommended Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>103-System Board Failure</td>
<td>DMA, timers</td>
<td>1. Clear CMOS memory. 2. Replace system board.</td>
</tr>
<tr>
<td>164-Memory Size Error and 201-Memory Error</td>
<td>Incorrect memory configuration.</td>
<td>1. Run Setup (F10). 2. Check DIMMs for proper seating, type, compatibility. 3. Remove DIMM(s) singularly and reseat to isolate faulty DIMM. 4. Replace system board.</td>
</tr>
<tr>
<td>214-DIMM Configuration Warning</td>
<td>Populated DIMM configuration is not optimized</td>
<td>1. Check DIMMs for proper seating, type, compatibility. 2. Rearrange the DIMMs so that each channel has the same amount of memory.</td>
</tr>
<tr>
<td>301-304-Keyboard error</td>
<td>Keyboard failure.</td>
<td>1. Reconnect keyboard and check connector for bent or missing pins. Replace keyboard if faulty. 2. Apply hard drive firmware patch if applicable. 3. Back up contents and replace hard drive.</td>
</tr>
<tr>
<td>1720-SMART Hard Drive Detects Imminent Failure</td>
<td>Hard drive is about to fail.</td>
<td>1. Determine if hard drive is giving correct error message. Enter Computer Setup and run the Drive Protection System test under Storage &gt; DPS Self-test. 2. Apply hard drive firmware patch if applicable. 3. Back up contents and replace hard drive.</td>
</tr>
</tbody>
</table>

Diagnostic LEDs

<table>
<thead>
<tr>
<th>LED</th>
<th>Color</th>
<th>LED Activity</th>
<th>State/Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
<td>Green</td>
<td>On</td>
<td>Computer on</td>
</tr>
<tr>
<td>Power</td>
<td>Green</td>
<td>1 blink every 2 seconds</td>
<td>Normal Standby Mode</td>
</tr>
<tr>
<td>Power</td>
<td>Red</td>
<td>1 blink every second followed by a 2 second pause</td>
<td>CPU thermal shutdown</td>
</tr>
<tr>
<td>Power</td>
<td>Red</td>
<td>5 blanks, 1 blink every second followed by a 2 second pause</td>
<td>Processor not installed</td>
</tr>
<tr>
<td>Power</td>
<td>Red</td>
<td>4 blanks, 1 blink every second followed by a 2 second pause</td>
<td>Power failure (power supply overload)</td>
</tr>
<tr>
<td>Power</td>
<td>Red</td>
<td>5 blanks, 1 blink every second followed by a 2 second pause</td>
<td>Pre-video memory error</td>
</tr>
<tr>
<td>Power</td>
<td>Red</td>
<td>6 blanks, 1 blink every second followed by a 2 second pause</td>
<td>Pre-video graphics error</td>
</tr>
<tr>
<td>Power</td>
<td>Red</td>
<td>7 blanks, 1 blink every second followed by a 2 second pause</td>
<td>System board failure (ROM not present)</td>
</tr>
<tr>
<td>Power</td>
<td>Red</td>
<td>8 blanks, 1 blink every second followed by a 2 second pause</td>
<td>Invalid ROM based on Checksum</td>
</tr>
<tr>
<td>Power</td>
<td>Red</td>
<td>9 blanks, 1 blink every second followed by a 2 second pause</td>
<td>System powers on but is unable to boot</td>
</tr>
<tr>
<td>Power</td>
<td>Red</td>
<td>11 blanks, 1 blink every second followed by a 2 second pause</td>
<td>Current processor does not support a feature previously enabled</td>
</tr>
<tr>
<td>Power</td>
<td>Red</td>
<td>12 blanks, 1 blink every second followed by a 2 second pause</td>
<td>SMM thermal shutdown</td>
</tr>
<tr>
<td>none</td>
<td>none</td>
<td>System does not power on and LEDs are not flashing</td>
<td>System unable to power on</td>
</tr>
</tbody>
</table>
**System Setup and Boot**

Access the Setup Utility during the computer boot sequence by pressing the F10 key at boot.

### Computer Setup Menu

#### File

- **System Information** - Lists the following main system specifications:
  - **Product name**
  - **SKU number (some models)**
  - **Processor type/speed/stepping**
  - **Cache size (L1/L2/L3)**
  - **Installed memory size/speed/lan**
  - **System BIOS**
  - **Chassis serial number**
  - **Asset tracking number**
  - **ME firmware version**
  - **ME Management mode**
  - **Integrated MAC Address**

**About** - Displays copyright notice.

**Set Time and Date** - Allows you to set time and date.

**Flash System ROM** - Allows you to flash a new system BIOS.

**Replicated Setup** - Save to Rumble Media and Restore from Rumble Media.

**Default Settings**

- **Save Current Settings as Default**
- **Restore Factory Settings as Default**

**Apply Defaults and Exit** - Applies the selected default settings and clears any established passwords.

**Ignore Changes and Exit** - Exits Computer setup without saving changes.

### Storage

**Device Configuration** - Lists all installed BIOS-controlled storage devices. The following options are available:

- **Hard Disk** - View drive size, serial, firmware version, serial number, connector color. Also lets you set Translation Mode (Automatic, Bit-Shif, LBA-Assisted, User, and Off).
- **CD-ROM - View model, firmware version, serial num, connector color**
- **SDD Life Used**
- **SMART (ATA disks only)**
- **Diskette Drive - model and firmware version**
- **SATA Defaults - lets you set Translation Mode (Automatic, Bit-Shif, LBA Assisted, User, and Off).**

**Storage Options** - Lists drive options. The following options are available:

- **eSATA port** - Allows you to set a SATA port as an eSATA port for use with an external drive.
- **IDE - Safe mode (not for USB), or APCI**
- **Remoteable Media Boot** - Enables/disables ability to boot the system from removable media.
- **Max eSATA Speed** - Allows you to choose 1.5 Gbps or 3.0 Gbps as the maximum eSATA speed.

**DPS Self-Test** - Allows you to execute self-tests on ATA hard drives.

**Bios Boot Order** - Allows you to specify boot order.

**BiOS Security**

- **Setup Password** - Allows you to set and enable the setup (Admin) password.
- **Power-On Password** - Allows you to set and enable power-on password.

**Password Options** - When any password exists allows you to lock legacy resources, enable/disable Setup Browse Mode, set password prompt, enable/disable network server mode, specify password requirement for warm boot, and set stringent passwords.

**Set Time and Date** - Allows you to set system time and date.

### Security

**Setup Password** - Allows you to set and enable the setup (Admin) password.

**Bios Setup Password** - Allows you to set and enable power-on password.

**Password Options** - When any password exists allows you to lock legacy resources, enable/disable Setup Browse Mode, set password prompt, enable/disable network server mode, specify password requirement for warm boot, and set stringent passwords.

**Smart Cover (some models)** - Allows you to lock/unlock cover lock and set status of cover removal sensor.

**Device Security** - Allows you to set Device Available/Device Hidden for:

- **USB ports 1-4, rear USB ports 1-6, accessory USB ports 1-4.**
- **USB Security** - Allows you to disable any PCI or PCI Express slot.
- **Network Boot** - Enables/disables boot from OSI (NIC models only).

**System IDS** - Allows you to set Asset tag, Ownership tag, Chassis serial number or UUID, and keyboard locale setting.

**Master Boot Record Security** - Enables/disables Master Boot Record (MBR) security. The MBR contains information needed to successfully boot from a disk and to access the data stored on the disk. Master Boot Record Security may prevent unintentional or malicious changes to the MBR, such as those caused by some viruses or by the incorrect use of certain disk utilities. It also allows you to recover the “last known good” MBR, should changes to the MBR be detected when the system is restarted.

**System Security (some model)** - Allows you to enable/disable:

- **Data Execution Prevention (enable/disable)**
- **Virtualization Technology (VTx) (enable/disable)**
- **Virtualization Technology (VTd) (enable/disable)**
- **Trusted Execution Technology (enable/disable)**

**OS Management of Embedded Security Device (enable/disable)**

**Factory Recovery Boot Support** - Enables/disables:

**Bios PowerOn** - Allows you to set the computer to turn on at a preset time.

**Onboard Devices** - Allows you to set resources or disable Legacy devices.

### Advanced

**Power-On Options** - Allows you to set:

- **POST mode** - QuickBoot, FullBoot, Clear Memory, FullBoot every x days
- **POST messages** - Enable/disable
- **Press the ESC key for Startup Menu** - Enable/disable
- **Operation ROM prompt** - Enable/disable
- **After Power Loss - Off/on/previous state**
- **POST Delay - None, 5, 10, 15, or 20 seconds**
- **Remote Wakeup Boot Source** - Remote server/local hard drive
- **Factory Recovery Boot Support** - Enable/disable
- **Bypass F1 Prompt on Configuration Changes** - Enable/disable

### Power Management

- **CPU Power Management** - Allows you to enable/disable PC3 SERR# Generation and PC3 VGA palette snooping.
- **NIC Option ROM Download** - Enable/disable
- **SATA RAID Option ROM Download** - Enable/disable
- **Multi-Processor - enable/disable**
- **Hyper threading - enable/disable**
- **Turbo Mode - enable/disable**

### Watchdog Timer Set Amount of Time for a operating system and BIOS watchdog alert to be sent if the timers are not deactivated.

### Password Security

Establishing a Setup or Power-On password:

1. Turn on or restart the computer.
2. As soon as the computer turns on, press the Enter key while “Press the ESC key for Setup Menu” message is displayed at the bottom of the screen.
3. Press the F10 key to enter Computer Setup.
4. To establish Setup password, select Security > Setup Password and follow the instructions.

Changing a Setup or Power-On password:

1. Turn on or restart the computer.
2. To change the Setup password, go to step 2.
3. To change the Power-On password, go to step 3.
4. To change the Setup password, select Security > Setup Password and follow the instructions.
5. To change the Power-On password, select Security > Power-On Password and follow the instructions.

Deleting a Power-On or Setup password:

1. Turn on or restart the computer.
2. To delete the Setup password, go to step 2.
3. To delete the Power-On password, go to step 3.
4. To change the Power-On password, select Security > Power-On Password and follow the instructions.
5. To change the Setup password, select Security > Setup Password and follow the instructions.

Clearing CMOS:

1. Turn off the computer and disconnect the power cord from the power outlet.
2. Remove the access panel.
3. On the system board, press and hold the CMOS button for 5 seconds.
4. Replace the chassis access panel and reconnect the power cord.
5. Turn on the computer and allow it to start.

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### System Board Connectors and Jumper (component location may vary)

<table>
<thead>
<tr>
<th>Connector</th>
<th>Description</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1PCIEXP1</td>
<td>PCIe X1 slot</td>
<td>USB 3.0</td>
</tr>
<tr>
<td>WEBCAM</td>
<td>Webcam connector</td>
<td>PS2</td>
</tr>
<tr>
<td>TOUCHPANEL</td>
<td>Touch panel display connector</td>
<td>COMA</td>
</tr>
<tr>
<td>J107</td>
<td>Card reader slot</td>
<td>PWR</td>
</tr>
<tr>
<td>PCIEXP1</td>
<td>PCIe X1 slot</td>
<td>PS/2 keyboard + mouse connector</td>
</tr>
<tr>
<td>HDMI1</td>
<td>Memory socket - Channel B</td>
<td>PWR</td>
</tr>
<tr>
<td>HDMI1</td>
<td>Memory socket - Channel A</td>
<td>SATA PWR0</td>
</tr>
<tr>
<td>USB</td>
<td>External USB 2.0 connectors</td>
<td>SATAS</td>
</tr>
<tr>
<td>CMOS</td>
<td>CMOS button</td>
<td>SATA PWR1</td>
</tr>
<tr>
<td>SPD</td>
<td>Speaker connector</td>
<td>VGA</td>
</tr>
<tr>
<td>USB</td>
<td>Internal USB 2.0 connectors</td>
<td>SATA S1</td>
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<tr>
<td>MIC</td>
<td>Internal microphone connector</td>
<td>SATA A2</td>
</tr>
<tr>
<td>HDPH</td>
<td>External headphone connector</td>
<td>BAT</td>
</tr>
<tr>
<td>PWBD</td>
<td>Password header</td>
<td>SATA PWR1</td>
</tr>
<tr>
<td>OUT</td>
<td>External audio out connector</td>
<td>CHFAN</td>
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<tr>
<td>ESDP</td>
<td>Network jack</td>
<td>LVDS UMA</td>
</tr>
<tr>
<td>mSATA</td>
<td>mSATA slot</td>
<td>LVDS MXM</td>
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<tr>
<td>DISPLAYPORT</td>
<td>DisplayPort connector</td>
<td>MXM</td>
</tr>
<tr>
<td>EHICLE</td>
<td>Head-ventilator connector</td>
<td></td>
</tr>
<tr>
<td>CHFAN</td>
<td>Fan connector</td>
<td></td>
</tr>
<tr>
<td>LVDS UMA</td>
<td>Display connector - UMA graphics</td>
<td></td>
</tr>
<tr>
<td>LVDS MXM</td>
<td>Display connector - discrete graphics</td>
<td></td>
</tr>
<tr>
<td>HSENSE</td>
<td>Hood sensor connector</td>
<td></td>
</tr>
</tbody>
</table>

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**HP Compaq Elite 8300 All-in-One**

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