Illustrated Parts & Service Map

HP Compaq Elite 8300 All-in-One Business PC

Key Specifications

Processor Type	Intel® Core i7, i5, i3, Pentium®, Celeron®
RAM Type	Non-ECC DDR3 PC3-12800 (1600 MHz) SODIMM, 2 slots
Maximum RAM	16 GB
Expansion Slots	• (1) Mini PCIe half-length (used by wireless LAN module) • (2) MXM 3.0 Type A - 35W • (1) mSATA
Chipset	Intel Q77 Express
Bays	• (1) 3.5" hard drive; supports up to two - 2.5" hard drives or one - 3.5" hard 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

System Unit

|		
1	Front bezel - non-touch screen models Includes capacitive sensor board and shutter. For products without a webcam, replace shutter with Webcam assembly kit (698227-001)	698615-001
*	Front bezel - touch screen models Includes capacitive sensor board and shutter. For products without a webcam, replace shutter with Webcam assembly kit (698227-001)	698616-001
2	Power supply, 230W	698621-001
3	Left side panel	698612-001
4	Right side panel	698611-001
5	Standard stand assembly	698223-001
*	Height adjustment stand	698226-001
6	Upper rear access panel (security screw and hardware are not spared)	698613-001
*	Lower rear access panel	698614-001
7	Rear I/O security cover	698624-001
*	Display panel - touch screen	698618-001
*	Display panel - non-touch screen	698623-001

* Not shown
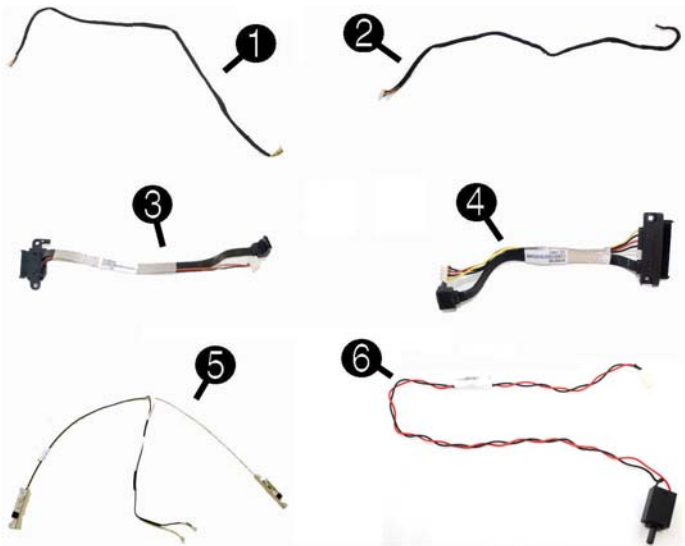
Cables

1	Power button board cable	698208-001
2	Backlight cable for use with CMI, LG display panels	698605-001
*	Backlight cable for use with Samsung display panels	698610-001
3	Optical drive cable (data and power assembly)	698607-001
4	Hard drive cable (data and power assembly)	698606-001
5	Antenna, WLAN	698604-001
6	Hood sensor with cable	698205-001
*	Touch panel cable, control VSO	698609-001
*	2nd hard drive cable	698216-001
*	Converter board side cable	698206-001
*	LVDS (display) cable	698209-001
*	Capacitive strip sensor cable	698210-001
*	Webcam cable	698211-001
*	Adapter, DisplayPort to VGA	632484-001
*	Adapter, DisplayPort to DVI	489409-001
*	Adapter, DisplayPort to HDMI	617450-001
*	DisplayPort cable	487562-001

*Not shown

Keyboards (not illustrated)

PS/2 (standard/Windows 8)	**674312-xx1/701423-xx1**
USB (standard/Windows 8)	**674313-xx1/701424-xx1**
Wireless (standard/Windows 8)	**674314-xx1/701426-xx1**
Washable* (standard/Windows 8)	**613125-xx1/700510-xx1**
Smart card (standard/Windows 8)	**631411-xx4/701427-xx1**

Arabic	-17x	Japanese	-29x
F Arabic	-DE1	LA Spanish	-16x
BHCSY	-B41	Norwegian	-09x
Belgian	-18x	People's Republic of China	-AAx
Brazilian Portuguese	-20x	Portuguese	-13x
Bulgaria	-26x	Romanian	-27x
Czech	-22x	Russian	-25x
Danish	-08x	Saudi Arabia	-DEx
Finnish	-35x	Slovakian	-23x
French	-05x	South Korea	-KDx
French Canadian	-12x	Spanish	-07x
German	-04x	Swedish	-10x
Greek	-15x	Swiss	-11x
Hebrew	-BBx	Taiwanese	-ABx
Hungarian	-21x	Thai	-28x
India	-D61	Turkish	-14x
International	-37x	U.S.	-00x
International English	-L3x	U.K.	-03x
Italian	-06x		

* -001, -121 only

Mass Storage Devices (not illustrated)

DVD-ROM drive	608394-001
DVD±RW drive	657958-001
1 TB, 7200 rpm hard drive	667719-001
500 GB, 7200 rpm, 2.5-inch hard drive, Advanced Format	686217-001
500 GB, 7200 rpm, 2.5-inch hard drive	613208-001
320 GB, 7200 rpm, 2.5-inch hard drive	639135-001
250 GB, 7200 rpm hard drive, SATA	608746-001
256 GB Solid State Drive (SSD), self-encrypting (SED), SATA 6.0	680020-001
180 GB Solid State Drive (SSD), SATA 6.0	696622-001
160 GB Solid State Drive (SSD), SATA 3.0	646809-001
128 GB Solid State Drive (SSD), SATA 2.0	665961-001
120 GB Solid State Drive (SSD), SATA 2.0	661841-001
24 GB Solid State Drive (SSD), mSATA, flash	683306-001
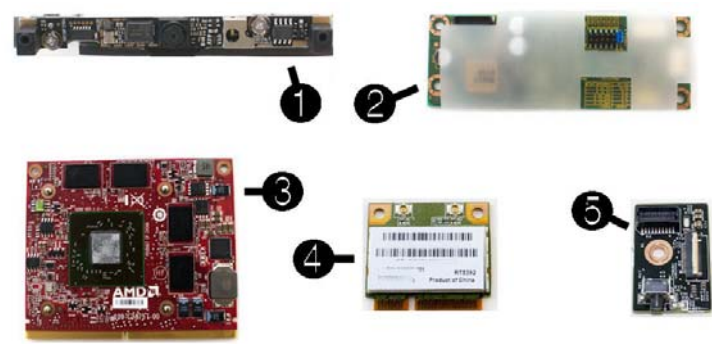
Standard and Optional Boards

Misc boards

1	Webcam	698198-001
2	Converter board	698200-001
3	AMD Radeon HD 7650A (MXM) discrete graphics board	687445-001
*	NVIDIA GeForce GT 540M 2GB DDR3 MXM 3.0A discrete graphics board	698213-001
4	HP WLAN 802.11 a/b/g/n	652165-001
*	HP WLAN 802.11 b/g/n	654602-001
*	HP WLAN 802.11 a/b/g/n + Bluetooth 4.0	697316-001
5	Power button board	698204-001

System boards (include replacement thermal material)

*	System board for use in models without Windows 8	657097-001
*	System board for use in models with Windows Standard	657097-501
*	System board for use in models with Windows Professional	657097-601
*	System board - NetClone	700015-001

Memory modules (SODIMM, PC3-12800, CL11)

*	8-GB	689374-001
*	4-GB	689373-001
*	2-GB	689372-001

Intel Core i7 processors (include thermal material)

*	3770, 3.4 GHz, 8-MB L3 cache	688164-001

Intel Core i5 processors (include thermal material)

*	3570, 3.4 GHz, 6-MB L3 cache	688162-001
*	3470, 3.2 GHz, 6-MB L3 cache	687943-001

Intel Core i3 processors (include thermal material)

*	2130, 3.4 GHz, 3-MB L3 cache (65-W)	665120-001
*	2120, 3.3 GHz, 3-MB L3 cache (65-W)	638629-001

Intel Pentium processors (include thermal material)

*	G870, 3.1 GHz, 3-MB L3 cache	691936-001
*	G860, 3.0 GHz, 3-MB L3 cache	665123-001
*	G640, 2.8 GHz, 3-MB L3 cache	691935-001

Intel Celeron processors (include thermal material)

*	G550, 2.6 GHz, 2-MB L3 cache	691934-001

* Not shown

Miscellaneous Parts

1	Heat sink for use with graphics board	698603-001
2	Heat sink for use with the processor (includes fan)	698602-001
3	Stand cover	698225-001
4	Serial port assembly	698212-001
5	Cable routing bracket for use on stand	698224-001
6	Speakers (left and right)	698622-001
7	Fan for use with processor heat sink	702808-001
8	Fan/blower	698617-001
*	Thermal pad (76mm*29mm*2.25mm)	706867-001
*	HP keyed cable lock	626729-002
*	Optical drive insert	698222-001
*	Card reader insert	698220-001
*	Card reader, 6-in-1	698219-001
*	Hard drive isolation grommet	450712-001
*	Mouse, PS2, optical	674315-001
*	Transceiver for use with wireless mouse and keyboard	674319-001
*	Mouse, washable	619580-001
*	Mouse, wireless	674317-001
*	Mouse, USB, optical	674316-001
*	Mouse, USB, laser	674318-001
*	Webcam assembly kit for models without a webcam (includes webcam cover for bezel)	698227-001
*	HP Business Digital Headset	642738-001

*Not shown

Diagnostic LEDs

LED	Color	LED Activity	State/Message
Power	Green	On	Computer on
Power	Green	1 blink every 2 seconds	Normal Suspend Mode
Power	Red	1 blink every second followed by a 2 second pause	CPU thermal shutdown
Power	Red	3 blinks, 1 blink every second followed by a 2 second pause	Processor not installed
Power	Red	4 blinks, 1 blink every second followed by a 2 second pause	Power failure (power supply overload)
Power	Red	5 blinks, 1 blink every second followed by a 2 second pause	Pre-video memory error
Power	Red	6 blinks, 1 blink every second followed by a 2 second pause	Pre-video graphics error
Power	Red	7 blinks, 1 blink every second followed by a 2 second pause	System board failure (ROM
Power	Red	8 blinks, 1 blink every second followed by a 2 second pause	Invalid ROM based on Checksum
Power	Red	9 blinks, 1 blink every second followed by a 2 second pause	System powers on but is unable to boot
Power	Red	11 blinks, 1 blink every second followed by a 2 second pause	Current processor does not support a feature previously enabled.
Power	Red	12 blinks, 1 blink every second followed by a 2 second pause	MXM thermal shutdown
none	none	System does not power on and LEDs are not flashing	System unable to power on

Common POST Error Messages

Screen Message	Probable Cause	Recommended Action
101-Option ROM Error	System ROM checksum error.	1. Verify ROM, reflash if required 2. Clear CMOS memory, reboot 3. Replace system board
103-System Board Failure	DMA, timers	1. Clear CMOS memory. 2. Replace system board.
164-Memory Size Error and 201-Memory Error	Incorrect memory configuration	1. Run Setup (F10). 2. Check DIMMs for proper seating, type, compatibility. 3. Remove DIMMs singularly and reboot to isolate faulty DIMM. 4. Replace system board.
214-DIMM Configuration Warning	Populated DIMM configuration is not optimized	1. Check DIMMs for proper seating, type, compatibility. 2. Rearrange the DIMMs so that each channel has the same amount of memory.
301-, 304-Keyboard error	Keyboard failure.	Check kybd connection or keys. Check connector for bent or missing pins. Replace kybd. If 304, possible system board problem.
501-Display Adapter Failure	Graphics display controller.	1. Reseat graphics card. 2. Clear CMOS. 3. Replace graphics card.
1720-SMART Hard Drive Detects Imminent Failure	Hard drive is about to fail.	1. Determine if hard drive is giving correct error message. Enter Computer Setup and run the Drive Protection System test under **Storage > DPS Self-test**. 2. Apply hard drive firmware patch if applicable. 3. Back up contents and replace hard drive.

System Setup and Boot

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

Computer Setup Menu

Heading	Option/Description
File	System Information - Lists the following main system specifications: • Product name • System BIOS • SKU number (some models) • Chassis serial number • Processor type/speed/stepping • Asset tracking number • Cache size (L1/L2/L3) • ME firmware version • Installed memory size/speed/chan • ME Management mode • Integrated MAC Address
	About - Displays copyright notice.
	Set Time and Date - Allows you to set system time and date.
	Flash System ROM - Allows you to select a drive containing a new BIOS.
	Replicated Setup - Save to Rmvble Media and Restore from Rmvble Media
	Default Setup • 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.
	Save Changes and Exit - Saves changes to system configuration or default settings and exits Computer Setup.
Storage	Device Configuration - Lists all installed BIOS-controlled storage devices. The following options are available: • Hard Disk - View drive size, model, firmware version, serial number, connector color. Also lets you set Translation Mode (Automatic, Bit-Shift, LBA Assisted, User, and Off). • CD-ROM - View model, firmware version, serial num, connector color. • SSD Life Used • SMART (ATA disks only) • Diskette Drive - model and firmware version. • SATA Defaults - lets you set Translation Mode (Automatic, Bit-Shift, 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. • SATA Emulation - IDE, RAID (not for USDT), or AHCI. • Removable 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.
	Boot Order - Allows you to specify boot order. • Shortcut to Temporarily Override Boot Order
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.
	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: embedded security devices, serial and parallel ports, system audio, network controller, and SATA ports.
	USB Security - Allows you to set Device Available/Device Hidden for front USB ports 1-4, rear USB ports 1-6, accessory USB ports 1-4.
	Slot Security - Allows you to disable any PCI or PCI Express slot.
	Network Boot - Enables/disables boot from OS (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 models) - Allows you to enable/disable: • Data Execution Prevention (enable/disable) • Virtualization Technology (VTx) (enable/disable) • Virtualization Technology Directed I/O (VTd) (enable/disable) • Trusted Execution Technology (enable/disable) - Enabling automatically enables VTx and VTd and disable OS Management of Embedded Security Device. Embedded Security Device must be enabled to enable this feature. • Intel TXT (LT) (enable/disable) • Embedded Security Device Support (enable/disable) • OS management of Embedded Security Device (enable/disable) • Reset of Embedded Security Device through OS (enable/disable)
	DriveLock Security - Allows you to assign or modify a master or user password for hard drives.
Power	OS Power Management - Allows you to enable/disable Runtime Power Management, Idle Power Savings, ACPI S3 Hard Disk Reset, Unique Sleep State Blink Rates.
	Hardware Power Management - Allows you to enable/disable SATA bus power management and S5 maximum power savings.
	Thermal - Allows you to control minimum fan speed.
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 • Option 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
	BIOS Power-On - 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 (*continued*)	Bus Options (some models) - Allows you to enable/disable PCI SERR# Generation and PCI VGA palette snooping.
	Device Options - Allows you to set: • Monitor Tracking - enable/disable • Printer Mode - Bi-Directional, EPP & ECP, Output Only • Num Lock State at Power-on - off/on • Integrated Video - enable/disable • Internal Speaker - enable/disable • 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
	VGA Configuration - Displayed only if there are multiple PCI video adapters in the system. Allows you to specify which VGA controller will be the "boot" or primary VGA controller.
	AMT Configuration - Allows you to set: • AMT-enable/disable functions of the embedded Management Engine (ME) such as Active Management Technology (AMT). • Unconfigure AMT/ME-unconfigure any provisioned management settings for AMT. • Hide Unconfigure ME Confirmation Prompt (enable/disable) - set the system to not display the confirmation to unconfigure ME. • 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 **Esc** key while "Press the ESC key for Startup 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.
   - or -
   To establish a Power-On password, select **Security > Power-On Password** and follow the instructions on the screen

5. Before exiting, click **File > Save Changes and Exit**.

Changing a Setup or Power-On password:

1. Turn on or restart the computer.

To change the Setup password, go to step 2.
To change the Power-on password, go to step 3.

2. To change the Setup password, as soon as the computer turns on:
   - Press the **Esc** key while "Press the ESC key for Startup Menu" message is displayed.
   - Press the **F10** key to enter Computer Setup.

3. When the key icon appears, type your current password, a slash (/) or alternate delimiter character, your new password, another slash (/) or alternate delimiter character, and your new password again as shown:
   current password/new password/new password.
   NOTE: Type the new password carefully since the characters do not appear on the screen.

4. Press **Enter**.

The new password will take effect the next time the computer is restarted.

Deleting a Power-On or Setup password

1. Turn on or restart the computer.

To delete the Setup password, go to step 2.
To delete the Power-On password, go to step 3.

2. To change the Setup password, as soon as the computer turns on:
   - Press the **Esc** key while "Press the ESC key for Startup Menu" message is displayed.
   - Press the **F10** key to enter Computer Setup.

3. When the key icon appears, type your current password followed by a slash (/) or alternate delimiter character as shown. Example: currentpassword/

4. Press **Enter**.

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.

System Board
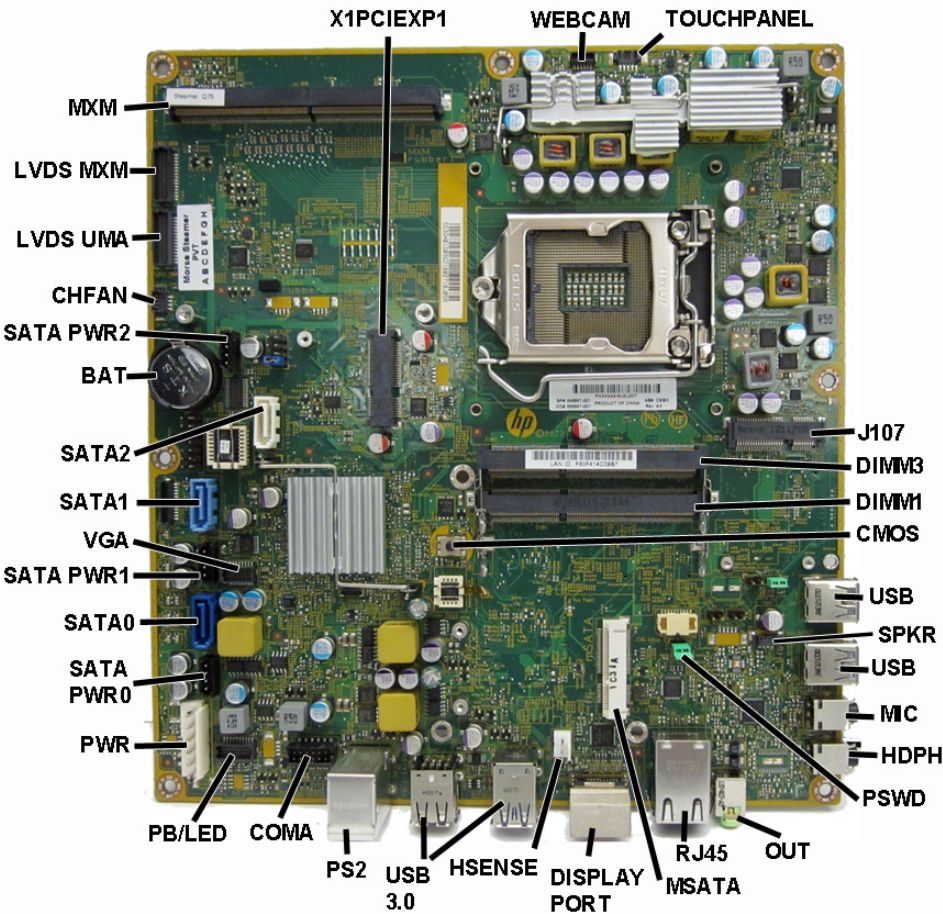
System Board Connectors and Jumpers (component location may vary)

X1PCIEXP1	PCIe X1 slot	USB 3.0	Two external USB 3.0 connectors
WEBCAM	Webcam connector	PS2	PS/2 keyboard + mouse connector
TOUCHPANEL	Touch panel display connector	COMA	Serial port
J107	Card reader slot	PB/LED	Power switch connector
DIMM3	Memory socket - Channel B	PWR	Main power connector
DIMM1	Memory socket - Channel A	SATA PWR0	Hard drive power connector
USB	External USB 2.0 connectors	SATA0	1st hard drive data connector
CMOS	CMOS button	SATA PWR1	2nd hard drive power connector
SPKR	Speaker connector	VGA	Display connector
USB	External USB 2.0 connectors	SATA1	2nd hard drive data connector
MIC	External microphone connector	SATA2	Optical drive data connector
HDPH	External headphone connector	BAT	RTC battery socket
PSWD	Password header	SATA PWR2	Optical drive power connector
OUT	External audio out connector	CHFAN	Fan connector
RJ45	Network jack	LVDS UMA	Display connector - UMA graphics
mSATA	mSATA slot	LVDS MXM	Display connector - discrete graphics
DISPLAYPORT	DisplayPort connector	MXM	Graphics card connector
HSENSE	Hood sensor connector		

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