Illustrated Parts & Service Map

HP Compaq 8300 Elite Business PC
Ultra Slim Desktop

Key Specifications

Processor Type	Intel® Core i7, i5, i3, Pentium®
RAM Type	Non-ECC DDR3 PC3-12800 (1600 MHz) SODIMM
Maximum RAM	16 GB
Expansion Slots (Low profile)	• mini-PCI express • MXM • mSATA
Chipset	Intel Q77 Express
Graphics Adapter	Integrated Intel HD graphics
Bays	• (1) optical drive • (1) internal 2.5-inch hard drive • (1) Secure Digital Card Reader
I/O Interfaces	Front: (4) USB 2.0 ports, headphone jack, microphone jack Rear: (4) USB 3.0 ports, (2) USB 2.0 ports, (2) DisplayPort 1.1a, VGA video, PS/2 mouse and keyboard, RJ-45 network interface, 3.5mm audio in/out jacks
Preinstalled Operating Systems	• Windows® 8 • Windows 7 • FreeLnx

Spare Parts

System Unit

1	Access panel	689382-001
2	Stand	612496-001
3	Front bezel	689383-001
*	AC adapter, 180W, 90% efficient	682320-001
*	AC adapter, 180W, standard	613766-001
*	AC adapter, 135W, standard	682321-001
*	Bezel blank	593230-001

* Not shown
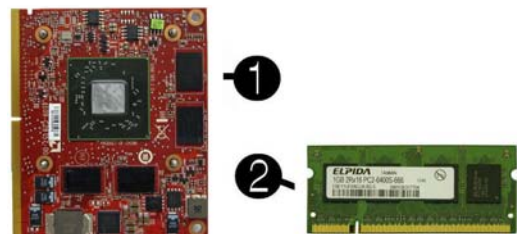

Cable and accessory

1	Optical drive cable/connector	605163-001
*	Adapter, DisplayPort to VGA	603250-001
*	Adapter, DisplayPort to DVI	484156-001
*	Adapter, DisplayPort to HDMI	617450-001
*	DisplayPort cable	487562-001

* Not shown

Keyboards (not illustrated)

PS/2 (standard/Windows 8)	**537745-xx1/701428-xx1**
USB (standard/Windows 8)	**537746-xx1/701424-xx1**
USB, silver/black (Windows 8)	**701429-xx1**
Wireless (standard/Windows 8)	**674314-xx1/701426-xx1**
Washable (standard/Windows 8)	**613125-xx1/700510-xx1**
Smart card (standard/Windows 8)	**631411-xx1/701427-xx1**
USB, hub	**631913-xx1**

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

Standard and Optional Boards

System board (includes replacement thermal material)		
*	System board for use in models without Windows 8	657095-001
*	System board for use in models with Windows 8 Standard	657095-501
*	System board for use in models with Windows 8 Professional	657095-601
*	System board with DisplayPort 1.2 support for use in models without Windows 8	711787-001
*	System board with DisplayPort 1.2 support for use in models with Windows 8 Standard	711787-501
*	System board with DisplayPort 1.2 support for use in models with Windows 8 Professional	711787-601
Optional boards		
1	AMD Radeon HD 7650A (MXM)	687445-001
*	Intel Centrino Advanced-N 6205 (802.11a/b/g/n Wi-Fi wireless adapter)	652165-001
Memory modules (PC3-12800, CL11)		
*	8 GB	689374-001
*	4 GB	689373-001
2	2 GB	689372-001
Intel Core i7 processors (include thermal material)		
*	3770s, 3.1 GHz, 8-MB L3 cache	689370-001
Intel Core i5 processors (include thermal material)		
*	3570s, 3.1 GHz, 6-MB L3 cache	695079-001
*	3475s, 2.9 GHz, 6-MB L3 cache	695078-001
*	3470s, 2.9 GHz, 6-MB L3 cache	695077-001
Intel Core i3 processors (include thermal material)		
*	2130, 3.4 GHz, 3-MB L3 cache	665120-001
*	2120, 3.3 GHz, 3-MB L3 cache	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

* Not shown

Common POST Error Messages

Screen Message	Probable Cause	Recommended Action
101-Option ROM Error	1. System ROM checksum error. 2. Expansion board option ROM checksum	1. Verify ROM, reflash if required 2. Remove suspected card, reboot 3. Clear CMOS memory, reboot 4. Replace system board
103-System Board Failure	DMA, timers	1. Clear CMOS memory. 2. Remove expansion boards. 3. 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, and HP 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	Rearrange the DIMMs so that each channel has the same amount of memory.
301-, 304-Keyboard error	Keyboard failure.	Check keyboard connection or keys. Check connector for bent of missing pins. Replace keyboard. If 304, possible system board problem.
501-Display Adapter Failure	Graphics display controller.	1. Reseat graphics card. 2. Clear CMOS. 3. Check monitor connection. 4. 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.

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.

Miscellaneous Parts

1	Heat sink for use with the processor (includes thermal material)	587456-001
2	Heat sink for use on models with UMA graphics (includes thermal material)	625256-001
*	Heat sink for use on models with discrete graphics cards (includes thermal material)	689369-001
3	Chassis fan, rear	691352-001
4	Card reader assembly	592685-001
5	Internal speaker - 20mm x 28mm	689384-001
6	Front I/O panel	587458-001
7	Rear port cover	646818-001
8	Chassis fan, front	689376-001
9	Clamp lock, includes universal cable (plate not included)	508987-001
*	Optical drive rail (green plastic piece on drive)	594219-001
*	Hood sensor	638816-001
*	Grommet, hard drive	594220-001
*	WLAN antenna hardware kit	646811-001
*	USB powered speakers	636917-001
*	Mouse, PS2, optical, jack black	537748-001
*	Mouse, USB, HP Elite	674318-001
*	Mouse, washable	619580-001
*	Mouse, wireless, HP Elite	674317-001
*	Mouse, USB, optical, jack black	537749-001
*	HP Business Digital Headset	642738-001
*	External USB Webcam	609252-001

*Not shown

Mass Storage Devices (not illustrated)

DVD-ROM drive, slim-line	608394-001
DVD±RW and CD-RW Super Multi Double-Layer Combo Drive (slim-line). This kit also includes the drive bracket.	657958-001
500 GB, 7200 rpm, 2.5 inch, self-encrypting (SED), SATA hard drive	696442-001
500 GB, 7200 rpm, 2.5 inch, SATA hard drive	686217-001
320 GB, 7200 rpm, 2.5 inch, self-encrypting (SED), SATA hard drive	634824-001
320 GB, 7200 rpm, 2.5 inch, SATA hard drive	639135-001
256 GB Solid State Drive (SSD), self-encrypting (SED), 2.5-inch, 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), 2.5-inch, SATA 2.0	665961-001
120 GB Solid State Drive (SSD), 2.5-inch, SATA 2.0	661841-001
32 GB SATA Solid State Drive (SSD), SATA	686616-001
24 GB mSATA Solid State Drive (SSD), SATA	683306-001
16 GB Solid State Drive (SSD), SATA	688328-001

System Setup and Boot

Access the Setup Utility during computer boot by pressing the **F10** key. If you do not press **F10** at the appropriate time, you must restart the computer and again press **F10** when the monitor light turns green. NOTE: Not all settings are available for all models.
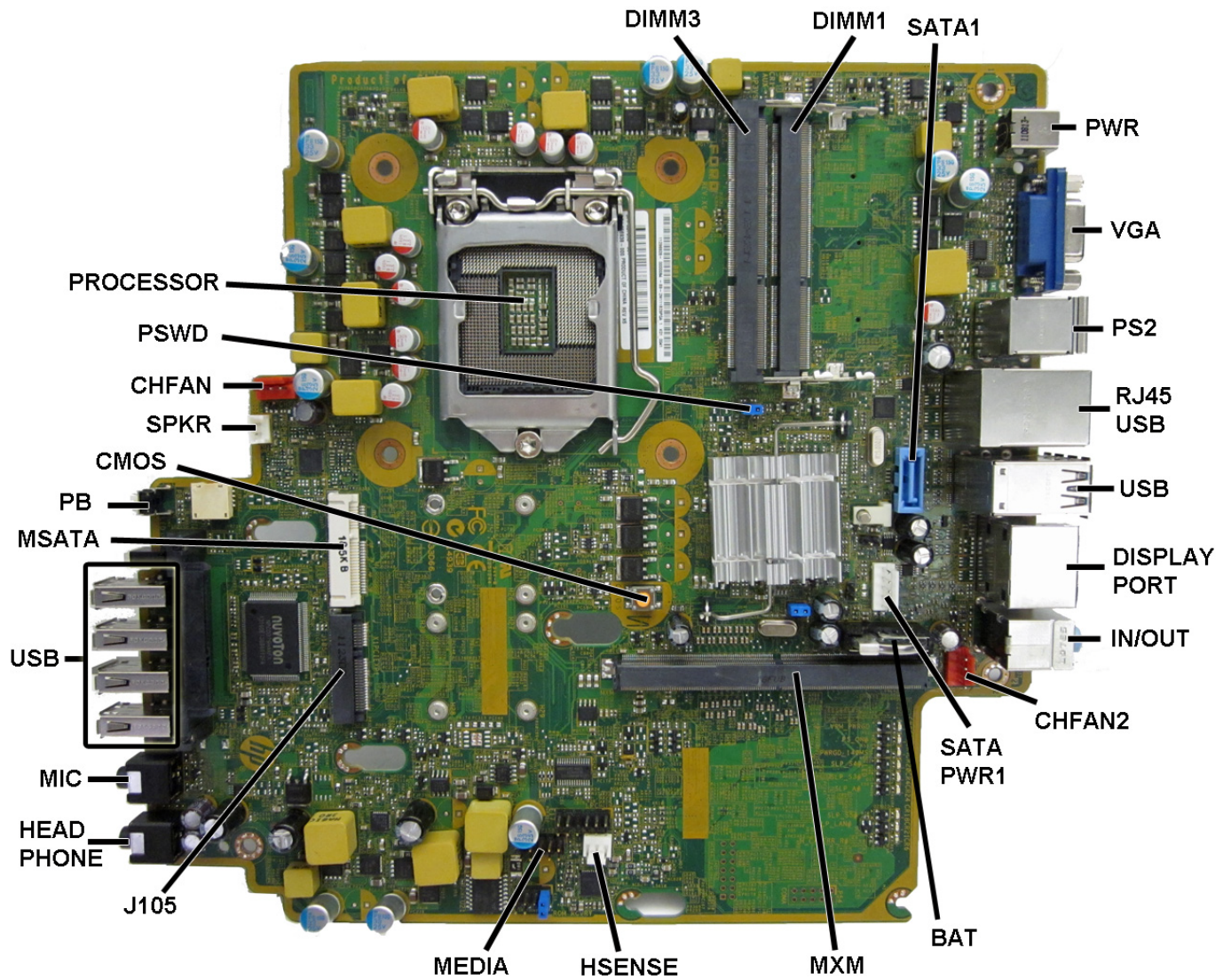
Computer Setup Menu

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/ch • ME management mode • Integrated MAC Address
	About - Displays copyright notice.
	Set Time and Date - Allows you to set system time and date.
	Replicated Setup - Allows you to save or restore system configuration to/from a USB flash drive.
	Default Setup - Allows you to save current settings as default or 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: • CD-ROM • SSD Life Used • Hard Disk • SMART (ATA disks only) • Default Values • Diskette • Translation Mode • SATA Defaults
	Storage Options - Allows you to set: • eSATA Port - Set SATA port as eSATA port for use with external drive. • SATA Emulation - Choose how the SATA controller and devices are accessed by the OS. SATA Emulation choices are AHCI, RAID, or IDE. • 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 Gpbs as the maximum eSATA speed. By default, the speed is limited to 1.5 Gbps for maximum reliability.
	DPS Self-Test - Execute self-tests on ATA hard drives capable of performing the Drive Protection System (DPS) self-tests.
	Boot Order - Specify boot order for UEFI and legacy boot sources. Also specify hard drive boot order. • Shortcut to Temporarily Override Boot Order
Security	Setup Password - Set and enable the setup (Admin) password.
	Power-On Password - Set and enable power-on password.
	Password Options - Allows to you enable/disable: • Lock Legacy Resources • Setup Browse Mode • Password prompt on F9 & F12 • Network Server Mode
	Smart Cover - Allows you to lock/unlock the smart cover and set the cover removal sensor to disable/notify user/setup password.
	Device Security - Set Device Available/Device Hidden for: embedded security device, system audio, network controller, USB controller, serial/parallel ports, and SATA ports.
	USB Security - Set Device Available/Device Hidden for front USB ports, rear USB ports, internal USB ports, accessory USB ports.
	Slot Security - Disable the PCI, PCIe, and Mini Card slots.
	Network Boot - Enables/disables boot from OS (NIC models only).
	System IDs - Allows you to update asset tag, ownership tag, UUID, keyboard locale setting.
	Master Boot Record Security - enables/disables MBR.
	System Security - Allows you to set: • Data Execution Prevention (enable/disable) • SVM CPU Virtualization (enable/disable). • Virtualization Technology (VTx) (enable/disable) • Virtualization Technology/Directed IO (VTd) (enable/disable) • Trusted Execution Technology (enable/disable) • Embedded Security Device (enable/disable) • Reset to Factory Settings (Do not reset/Reset) • Measure boot variables/devices to PCR1 (enable/disable) • OS management of Embedded Security Device (enable/disable) • Reset of Embedded Security Device through OS (enable/disable) • No PPI provisioning (Windows 8 only; enable/disable) • Allow PPI policy to be changed by OS (enable/disable)
	DriveLock Security - Allows you to assign or modify a master or user password for hard drives.
	Secure Boot Configuration (Windows 8 only) • Legacy Support (enable/disable) • Secure Boot (enable/disable). • Key Management (enable/disable) • Fast Boot (enable/disable)
Power	OS Power Management - Allows you to enable/disable Runtime Power Management, Idle Power Savings, Unique Sleep State Blink Rates.
	Hardware Power Management - Enable/disable SATA power management, S5 maximum power savings., PCI slots, network controller, USB 3.0 controller
	Thermal - Control minimum fan speed.
Advanced	Power-On Options - Allows you to set: • POST mode (QuickBoot, Clear Memory, FullBoot, or 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, 20, or 60 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 - Set the computer to turn on at a preset time.
Advanced (continued)	Bus Options - Allows you to enable/disable PCI SERR# Generation and PCI VGA palette snooping.
	Onboard Devices - Allows you to set resources for or disable on-board system devices.
	Device Options - Allows you to set: • Printer mode (Bi-Directional, EPP + ECP, Output Only) • Num Lock State at Power-on (off/on) • Integrated Video (enable/disable) • Integrated Graphics (Auto/Disable/Force) • Internal Speaker (enable/disable) • NIC PXE 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 - Allows you to specify which VGA controller is the "boot"/primary. Displayed only if add-in video card installed.
	AMT Configuration - Allows you to set: • AMT (enable/disable) • Unconfigure AMT/ME (enable/disable) • Hide Unconfigure ME Confirmation Prompt (enable/disable) • Watchdog Timer (enable/disable)

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	10 blinks, 1 blink every second followed by a 2 second pause	Bad option card
Power	Red	11 blinks, 1 blink every second followed by a 2 second pause	Current processor does not support a feature previously enabled.
none	none	System does not power on and LEDs are not flashing	System unable to power on

System Board

DIMM3 DIMM1 SATA1

PWR

VGA

PROCESSOR

PSWD

CHFAN

SPKR

CMOS

PB

MSATA

USB

MIC

HEAD PHONE

J105

PS2

RJ45 USB

USB

DISPLAY PORT

IN/OUT

CHFAN2

SATA PWR1

BAT

MEDIA   HSENSE   MXM

System Board Connectors and Jumpers (component location may vary)

DIMM3	SODIMM 3	MEDIA	Media reader connector
DIMM1	SODIMM 1	CMOS	CMOS button
SATA1	1st optical drive	HEADPHONE	Headphone connector
PWR	DC power connector	MIC	Microphone connector
VGA	Video connector	USB	USB connectors (4)
PS2	PS/2 mouse/kybd connectors	J105	Mini card connector
RJ45/USB	Ntwrk connector/USB ports	MSATA	SSD drive connector
DISPLAYPORT	DisplayPort connector	PB	Power button
IN/OUT	Headphone/microphone	CMOS	CMOS reset button
CHFAN2	Fan connector	SPKR	Speaker connector
SATAPWR1	SATA power header	CHFAN	Front fan connector
BAT	RTC battery socket	PSWD	Password header
MXM	Graphics card connector	PROCESSOR	Processor socket
HSENSE	Hood sensor connector		