Illustrated Parts & Service Map

HP Compaq Pro 4300 All-in-One Business PC

Key Specifications

Processor Type	Intel® Core™ i7, i5, i3, Pentium®, Celeron®
Form Factor	All-in one desktop, 20-inch, non-touch screen
RAM Type	PC3-10600 (1333 MHz) Non-ECC SDRAM
Maximum RAM	16 GB (2 slots)
Expansion Slot	(1) half height Mini PCIe x1
Power	150W external
Chipset	Intel H61 Express
Graphics Adapter	Integrated Intel HD Graphics: Basic, 2000, 2500 or 4000 (depends on processor)
Drives	(1) optical drive, (1) hard drive
I/O Interfaces	Side: (2) USB 2.0 ports, microphone, headphone Rear: (4) USB 2.0 ports, stereo audio out, RJ-45 Ethernet, serial RS-232, power connector
Preinstalled Operating Systems	Windows 8 Windows 7 FreeDOS

Spare Parts

Mass Storage Devices (do not include bracket; reuse existing bracket)

DVD-ROM drive	608394-001
DVD±RW drive	657958-001
1 TB, 7200 rpm SATA hard drive	613202-001
500 GB, 7200 rpm SATA hard drive	613208-001
250 GB, 7200 rpm SATA hard drive	613206-001
256 GB Solid State Drive (SSD), SATA 6.0, TCG	680020-001
256 GB Solid State Drive (SSD), SATA 2.0	661842-001
128 GB Solid State Drive	665961-001
120 GB Solid State Drive	661841-001

Keyboards (not illustrated)

Wireless	**674314-xx1**
Standard, USB	**674313-xx1**
HP Smart card, USB	**631411-xx4**
Washable*	**613125-xx1**

Brazilian Portuguese	-20x	South Korea	-KDx
French Canadian	-12x	Taiwanese	-ABx
India	-37x	Thai	-28x
LA Spanish	-16x	U.S.	-00x
People's Republic of China	-AAx		

* -001, -121 only

System Unit

System Unit

1	Drive access panel	697335-001
2	Hinge cover panel	697338-001
3	Memory access panel	697336-001
4	Rear cover	697334-001
5	LCD assembly kit - LG, Samsung, or CMI	697341-001
6	Top panel	697337-001
7	Stand	697314-001
*	Front bezel	697333-001
*	Power supply, 150W, external	697317-001
*	Power supply, 180W, external	697318-001

* Not shown

Cables
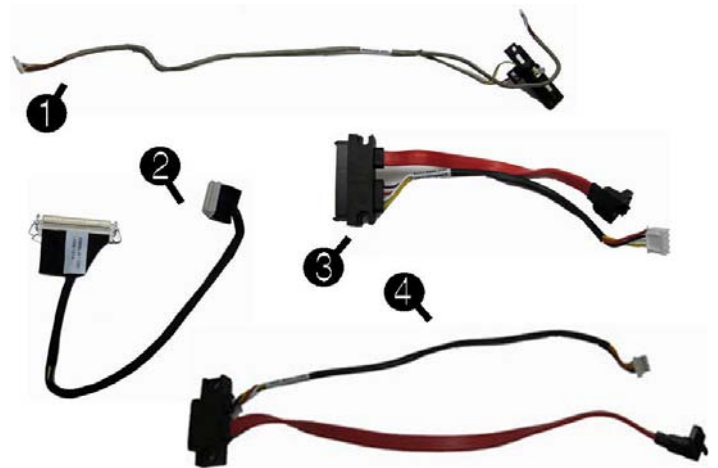
Cables

1	Side key cable with holder	697326-001
2	LVDS display cable	697322-001
3	Hard drive SATA cable	697325-001
4	Optical drive SATA cable	697324-001
*	Converter cable	697321-001
*	Webcam cable	697323-001
*	Antenna, WLAN	697332-001
*	Backlight cable for use with CMI display panels	697327-001
*	Backlight cable for use with Samsung display panels	697328-001
*	Backlight cable for use with LG display panels	697329-001

*Not shown

Boards
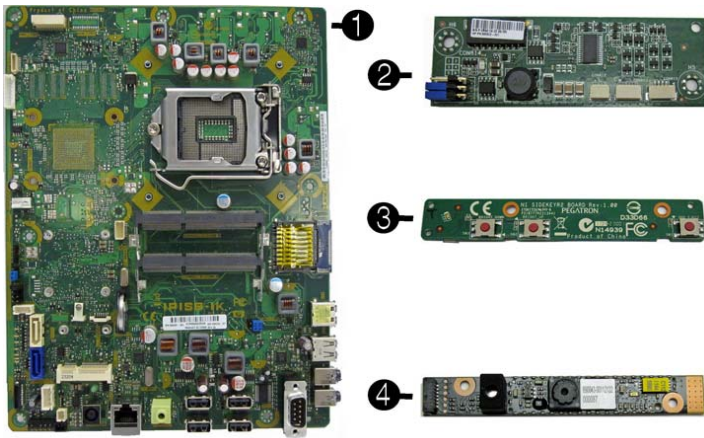
Boards, Memory, Processors

	System boards (include replacement thermal material)	
1	System board for use in models without Windows 8	693481-001
*	System board for use in models with Windows 8 Standard	693481-501
*	System board for use in models with Windows 8 Professional	693481-601
*	System board for use in models with NetClone	700014-001
2	Converter board	697319-001
3	Sidekey board	663348-001
4	Webcam, 1.3MP with analog microphone	698187-001
*	Memory module, 2 GB (PC3-12800, CL11, SODIMM)	689372-001
*	Memory module, 4 GB (PC3-12800, CL11, SODIMM)	689373-001
*	Memory module, 8 GB (PC3-12800, CL11, SODIMM)	689374-001
	Processors (include replacement thermal grease)	
*	Intel Core i7 3770s processor, 3.1 GHz	689370-001
*	Intel Core i5 3570 processor, 3.4 GHz	688162-001
*	Intel Core i5 3475s processor, 2.9 GHz	695078-001
*	Intel Core i5 3470s processor, 2.9 GHz	695077-001
*	Intel Core i3 2130 processor, 3.4 GHz	665120-001
*	Intel Core i3 2120 processor, 3.3 GHz	638629-001
*	Intel Pentium Dual-Core G870 processor, 3.1 GHz	691936-001
*	Intel Pentium Dual-Core G860 processor, 3.0 GHz	665123-001
*	Intel Pentium Dual-Core G640 processor, 2.8 GHz	691935-001
*	Intel Celeron G550 processor, 2.6 GHz	691934-001
*	Intel Celeron G540 processor, 2.5 GHz	665119-001
*	Intel Celeron G460 processor, 1.8 GHz	682410-001

* Not shown

Miscellaneous Parts

Miscellaneous Parts

1	Heat sink/thermal module (includes replacement thermal material)	697315-001
2	Speaker, right	697330-001
2	Speaker, left	697331-001
3	Optical drive bracket	651600-001
4	CPU blower/fan	697320-001
5	802.11a/b/g/n WLAN PCIe card	652165-001
*	Grommet, rubber, hard drive	663357-001
*	Optical drive insert (for models without an optical drive)	697339-001
*	Web cam cover (for models without a webcam)	697340-001
*	Bluetooth 4.0 and 802.11a/b/g/n WLAN combo card	697316-001
*	HP keyed cable lock	626729-002
*	HP Business Digital Headset	642738-001
*	Mouse, laser, USB	674318-001
*	Mouse, wireless	674317-001
*	Mouse, optical, USB	673416-001
*	Mouse, washable	619580-001

*Not shown

Password Security and CMOS

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**.

Resetting a Setup or Power-On password

1. Turn off the computer and disconnect the power cord from the power outlet.
2. Remove the access panel.
3. On the system board, locate the header labeled PW.
4. Remove the jumper from the header.
5. Replace the jumper.
6. Replace the access panel and reconnect the power cord.
7. Turn on the computer and allow it to start.

Resetting 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, locate the header labeled CMOS.
4. Remove the jumper and place it on pins 1 and 2.
5. Wait for three seconds, and then replace the jumper to its original position (pins 2 and 3).
6. Replace the access panel and reconnect the power cord.
7. Turn on the computer and allow it to start.

System Board
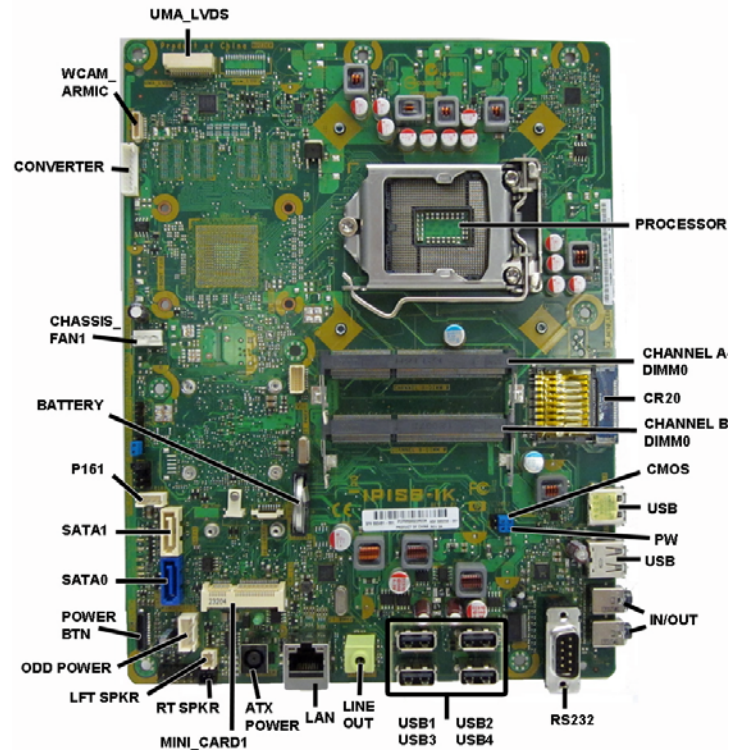
System Board Connectors and Jumpers

UMA_LVDS	Display panel connector	MINI_CARD1	PCIe X1 slot (WLAN)
PROCESSOR	Processor socket	RT SPKR	Right speaker connector
CHANNEL A DIMM0	Memory socket - Ch A	LFT SPKR	Left speaker connector
CR20	External 6-in-1 card reader	ODD POWER	Optical drive power
CHANNEL B DIMM0	Memory socket - Ch B	POWER BTN	Power switch/LED
CMOS	CMOS header	SATA0	Hard drive data
USB	External USB connectors (2)	SATA1	Optical drive data
PW	Password header	HDD POWER	Hard drive power
IN/OUT	Headphone out/microphone in connectors	BATTERY	RTC battery slot
RS232	External display connector	CHASSIS_FAN1	Fan connector
USB1-USB4	Internal USB connectors	CONVERTER	Converter power connector
LINE OUT	External audio connector	WCAM_ARMIC	Camera/microphone connector
LAN	Network connector	CHFAN	Main fan connector
ATX PWR	External power connector		

Common POST Error Messages

Screen Message	Probable Cause	Recommended Action
101-Option ROM Error	System ROM or expansion board option ROM checksum.	1. Verify ROM, reflash if required 2. Remove recently added cards to see if problem remains. 3. Clear CMOS. If message disappears, may be card problem. 4. Replace system board
103-System Board Failure	DMA or timers	1. Clear CMOS memory. 2. Remove expansion boards. 3. Replace system board.
163-Time & Date Not Set	Invalid time or date in configuration memory. RTC battery may need to be replaced.	Reset the date and time under Control Panel (Computer Setup can also be used). If the problem persists, replace the RTC battery.
164-Memory Size Error	Memory amount has changed since the last boot (memory added/removed).	Press the F1 key to save the memory changes.
164-Memory Size Error	Incorrect memory configuration	1. Run Setup (F10). 2. Make sure memory module(s) installed properly. 3. If third-party memory added, test using HP-only memory. 1. Verify proper module type.
201-Memory Size Error	RSM failure	1. Ensure memory modules are correctly installed. 2. Verify proper module type. 3. Remove and replace faulty module(s). 4. If error persists after replacing modules, replace system board.
214-DIMM Configuration Warning	Populated DIMM configuration is not optimized	Rearrange DIMMs so that each channel has the same amount of memory.
219-ECC Memory Module Detected ECC Modules not supported on this Platform	Recently added memory module(s) support ECC memory error correction.	1. If additional memory was recently added, remove it to see if the problem remains. 2. Check product documentation for memory support information.
301-, 304-Keyboard error	Keyboard failure.	1. Reconnect keyboard with system turned off. 2. Check kybd connection or keys. 3. Check connector for bent or missing pins. 4. Replace keyboard. 5. If 304, possible sys bd problem.
511-CPU Fan not Detected	CPU Fan not Detected.	1. Reseat CPU fan. 2. Reseat fan cable. 3. Replace CPU fan.
1805-Ambient Temperature Previously Over Limit	This system was placed in a low power state to prevent damage due to excessive environmental temperature.	Make sure the system meets the HP enclosure guidelines as listed in the QuickSpecs, including the following: 1. Clean the air vents on the front, back, or any other vented side of the computer. 2. Ensure that there is a 10.2 cm (4 in) clearance on all vented sides of the computer to permit the required airflow. 3. Ensure that computers are not so near each other that they are subject to each other's re-circulated or preheated air.
2200-PMM Allocation Error during MEBx Download 2201-MEBx Module did not checksum correctly 2202-PMM Deallocation Error during MEBx cleanup	(2200) Memory error during POST execution of the Management Engine (ME) BIOS Extensions option ROM. (2201) Memory error during POST execution of the Management Engine (ME) BIOS Extensions option ROM. (2202) Memory error during POST execution of the Management Engine (ME) BIOS Extensions option ROM.	1. Reboot the computer. 2. Unplug the power cord, re-seat the memory modules, and reboot the computer. 3. If the memory configuration was recently changed, unplug the computer, restore the original memory configuration, and reboot the computer. 4. If the error persists, replace the system board.

Diagnostic LEDs

LED	Color	LED Activity	State/Message
Power	White	5 blinks, 1 blink every second followed by a 2 second pause.	Pre-video memory error.
Power	White	6 blinks, 1 blink every second followed by a 2 second pause.	Pre-video graphics error.
Power	White	7 blinks, 1 blink every second followed by a 2 second pause.	System board failure (ROM).
Power	White	8 blinks, 1 blink every second followed by a 2 second pause.	Invalid ROM based on Checksum.

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 • SKU number (some models) • Processor type/speed/stepping • Cache size (L1/L2/L3) • Installed memory size/speed/ch • Integrated MAC Address • System BIOS • Chassis serial number • Asset tracking number • ME firmware version • ME management mode
	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.
File (*continued*)	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 • Hard Disk • Default Values • Translation Mode • SSD Life Used • SMART (ATA disks only) • Diskette • 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 Gbps 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.
	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)