


Illustrated Parts & Service Map

HP Compaq 4300 Pro Small Form Factor Business PC

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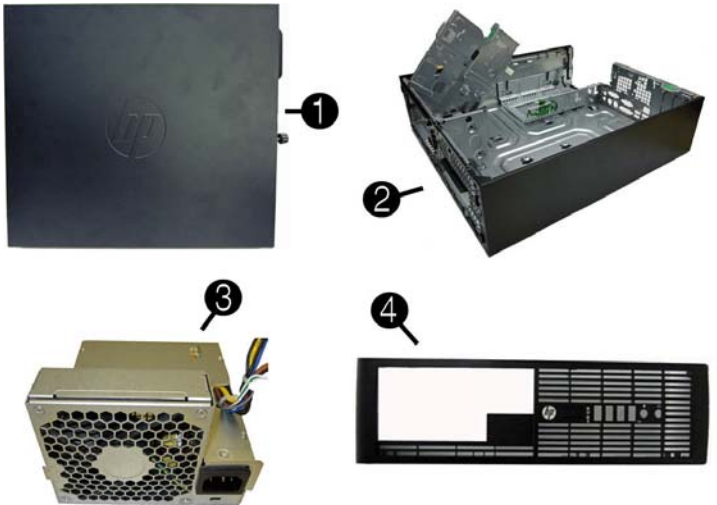
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Key Specifications

Processor Type	Intel® Core™ i7, i5, i3, Pentium®, Celeron®
RAM Type	DDR3-SDRAM DIMMs, PC3-12800 (1666 MHz)
Maximum RAM Supported	16 GB
Expansion Slots	<ul style="list-style-type: none">• (1) PCIe-x16• (1) PCIe-x1• (2) PCI
Chipset	Intel H61Express
Graphics Adapter	Integrated Intel HD graphics
Bays	<ul style="list-style-type: none">• (1) external 5.25-inch for optical drive• (1) external 3.5-inch for media card reader• (1) internal 3.5-inch for hard drive
I/O Interfaces	Front: (4) USB 2.0 ports, dedicated headphone output, micro-phone jack Rear: (4) USB 2.0 ports, serial port, PS/2 mouse and keyboard ports, RJ-45 network interface, VGA and DVI-D video interfaces, audio in/out jacks
Operating Systems	<ul style="list-style-type: none">• Windows 8• Windows 7• Novell SUSE Linux Enterprise Desktop 11• FreeDos

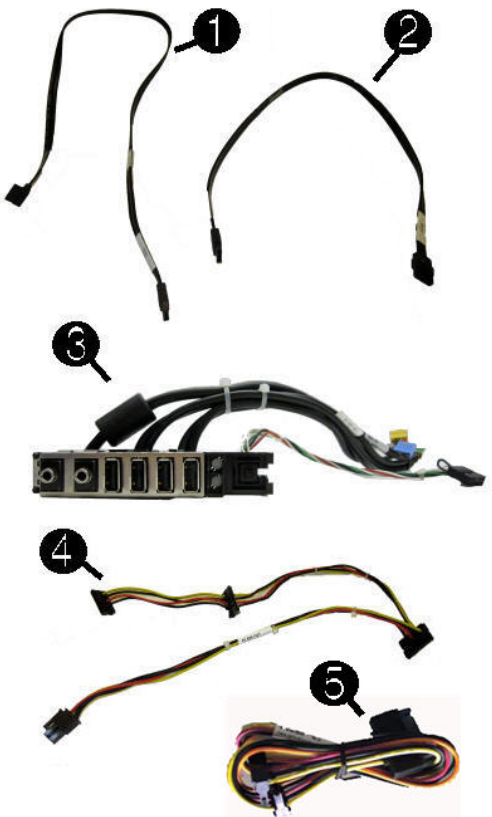
Spare Parts



System Unit

1	Access panel	636924-001
2	Chassis	Not spared
3	Power supply, 240W	613763-001
*	Power supply, 240W, 85% efficient	613663-001
*	Power supply, 240W, High Voltage protection	613664-001
4	Front bezel	695080-001
*	Bezel blank, 5.25-inch	570838-001

* *Not shown*



Cables

1	SATA ODD cable, 25 inch, 1 straight, 1 angled end	638814-001
2	19-inch SATA cable, 2 straight ends	638813-001
3	Front I/O cable and power assembly	636926-001
4	SATA power cable	636923-001
5	SATA USB 3.0 SuperSpeed power extension cable, 20 in	663214-001
*	SATA power extension cable, 20 in	633756-001
*	HP DisplayPort cable	487562-001
*	Adapter, DMS-59 to dual VGA	463023-001
*	Adapter, DisplayPort (DP) to DVI	662723-001
*	Adapter, DVI to VGA	657401-001
*	Adapter, DisplayPort (DP) to HDMI	617450-001
*	Adapter, DisplayPort (DP) to VGA	603250-001

* *Not shown*

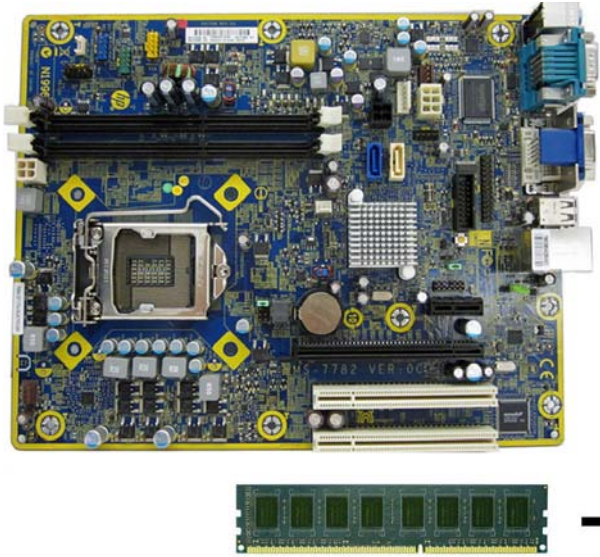
Keyboards (not illustrated)

PS/2 (Win7/Win8) USB (Win7/Win8) USB Smart Card (Win7/Win8) Wireless (Win7/Win8)* Washable (Win7/Win8)		537745-xx1/701428-xx1 537746-xx1/701429-xx1 631411-xx4/701427-xx1 674314-xx1/701426-xx1 613125-xx1/700510-xx1	
Arabic	-17x	LA Spanish	-16x
Belgian	-18x	Norwegian	-09x
BHCSY	-B4x	People’s Republic of China	-AAx
Brazilian Portuguese	-20x	Portuguese	-13x
Bulgarian	-26x	Romanian	-27x
Czech	-22x	Russian	-25x
Danish	-08x	Saudi Arabian	-DEx
French	-05x	Slovakian	-23x
French Canadian	-12x	South Korean	-KDx
German	-04x	Spanish	-07x
Greek	-15x	Swedish	-10x
Hebrew	-BBx	Swiss	-11x
Hungarian	-21x	Taiwanese	-ABx
India	-D6x	Thai	-28x
International - Asia/Pacific region	-37x	Turkish	-14x
International English	-L3x	U.S.	-00x
Italian	-06x	U.K.	-03x
Japanese	-291		

* *only for -001 and -021*

Mass Storage Devices (not illustrated)

16X SATA DVD±RW drive	690418-001 660408-001
16X SATA DVD-ROM drive	682550-001
6X BD-Writer and DVD+/-RW SuperMulti DL Drive	656792-001
1 TB SATA hard drive	636930-001
500 GB SATA hard drive	636929-001
500 GB SATA hard drive, 2.5 inch, self-encrypting drive (SED)	696442-001
250 GB SATA hard drive	636927-001
256 GB Solid-state drive (SSD), SATA 6.0	661842-001 680020-001
180 GB Solid-state drive (SSD), SATA 6.0	696622-001
120 GB Solid-state drive (SSD), SATA 2.0	661841-001



Standard and Optional Boards

System boards (include thermal material)		
1	System board for use in models without Windows 8	676358-001
*	System board for use in models with Windows 8 Standard	676358-501
*	System board for use in models with Windows 8 Professional	676358-601
*	System board for use in models with NetClone	699943-001

Memory modules (PC3-12800, CL11)		
2	2 GB	671612-001
*	4 GB	671613-001
*	8 GB	689375-001

Graphics cards for use in models without Windows 8		
*	HP FireWire / IEEE 1394a PCIe x1 Card	637591-001
*	nVidia Quadro NVS310 PCIe x16 graphics card, 512 MB	680653-001
*	nVidia Quadro NVS300 PCIe x16 graphics card	632486-001
*	ATI Radeon HD6350 PCIe x16 graphics card, 512 MB	637995-001
*	ATI Radeon HD7450 PCIe x16 graphics card, 1 GB (includes adapter)	682411-001
*	AMD FirePro 2270 PCIe x16 graphics card, 512-MB	637213-001

Graphics cards for use in models without Windows 8		
*	nVidia Quadro NVS300 PCIe x16 graphics card	700578-001
*	ATI Radeon HD6350 PCIe x16 graphics card, 512 MB	697246-001
*	ATI Radeon HD7450 PCIe x16 graphics card, 1 GB (includes adapter)	702647-001

Other boards		
*	USB 3.0 SuperSpeed PCI-3 x1 card, 2 external Type A ports and 2 internal ports	663213-001
*	USB 3.0 SuperSpeed PCI-3 x1 card, 2 external Type A ports	608151-001
*	HP WLAN 802.11 g/n 1x2 PCIe NIC	538048-001
*	Intel PRO/1000CT2 NIC, includes bracket	635523-001

Processors (include thermal material)		
*	Intel Core i7 3770s processor, 3.1 GHz	689370-001
*	Intel Core i5 3570s processor, 3.1 GHz	695079-001
*	Intel Core i5 3475s processor, 2.9 GHz	695078-001
*	Intel Core i5 3470s processor, 2.9 GHz	695077-001
*	Intel Core i3 3240 processor, 3.4 GHz	688951-001
*	Intel Core i3 3225 processor, 3.3 GHz	689578-001
*	Intel Core i3 3220 processor, 3.3 GHz	688950-001
*	Intel Core i3 3210 processor, 3.2 GHz	715895-001
*	Intel Core i3 2130 processor, 3.4 GHz	665120-001
*	Intel Core i3 2120 processor, 3.3 GHz	638629-001
*	Intel Pentium Dual-Core G2130 processor, 3.2 GHz	715898-001
*	Intel Pentium Dual-Core G2120 processor, 3.1 GHz	703282-001
*	Intel Pentium Dual-Core G2020 processor, 2.9 GHz	715897-001
*	Intel Pentium Dual-Core G2010 processor, 2.8 GHz	715896-001
*	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 G645 processor, 2.9 GHz	704228-001
*	Intel Pentium Dual-Core G640 processor, 2.8 GHz	691935-001
*	Intel Celeron G1620 processor, 2.7 GHz	715894-001
*	Intel Celeron G1610 processor, 2.6 GHz	715893-001
*	Intel Celeron G555 processor, 2.7 GHz	704227-001
*	Intel Celeron G550 processor, 2.6 GHz	691934-001
*	Intel Celeron G540 processor, 2.5 GHz	665119-001
*	Intel Celeron G465 processor, 1.9 GHz	706883-001
*	Intel Celeron G460 processor, 1.8 GHz	682410-001

* Not shown



Miscellaneous Parts

1	Internal speaker	636925-001
2	Chassis fan assembly	636922-001
3	Heat sink (includes thermal material)	636919-001
4	Baffle	636921-001
5	Clamp Lock Kit, includes universal cable (plate not included)	508987-001
*	Rubber feet kit	583654-001
*	Chassis stand	688952-001
*	Antenna for use with WLAN module 538048-001	583345-001
*	Hard drive grommet	450712-001
*	Hard drive adapter, 2.5 inch	586721-001
*	Printer port kit	638817-001
*	Serial port kit	638815-001
*	Card reader, 22-in-1	636166-001
*	USB webcam	609252-001
*	USB powered speakers	636917-001
*	Mouse, wireless	674317-001
*	Mouse, USB, optical	537749-001
*	Mouse, laser, jack black	570580-001
*	Mouse, washable	619580-001
*	Wireless keyboard/mouse transceiver	674319-001
*	HP Business Digital Headset	642738-001
*	Hard drive conversion bracket	397117-001
*	Screw Kit	393956-001

*Not shown

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	<div>System Information - Lists the following main system specifications:<ul style="list-style-type: none">Product nameSKU number (some models)Processor type/speed/steppingCache size (L1/L2/L3)Installed memory size/speed/chIntegrated MAC AddressSystem BIOSChassis serial numberAsset tracking numberME firmware versionME management mode</div> <div>About - Displays copyright notice.</div> <div>Set Time and Date - Allows you to set system time and date.</div> <div>Replicated Setup - Allows you to save or restore system configuration to/from a USB flash drive.</div> <div>Default Setup - Allows you to save current settings as default or restore factory settings as default.</div> <div>Apply Defaults and Exit - Applies the selected default settings and clears any established passwords.</div>

File <i>(continued)</i>	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: <ul style="list-style-type: none">CD-ROMHard DiskDefault ValuesTranslation ModeSSD Life UsedSMART (ATA disks only)DisketteSATA Defaults
	Storage Options - Allows you to set: <ul style="list-style-type: none">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. <ul style="list-style-type: none">Shortcut to Temporarily Override Boot Order
	Setup Password - Set and enable the setup (Admin) password.
	Power-On Password - Set and enable power-on password.
Security	Password Options - Allows to you enable/disable: <ul style="list-style-type: none">Lock Legacy ResourcesSetup Browse ModePassword prompt on F9 & F12Network 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, key-board locale setting.
	Master Boot Record Security - enables/disables MBR.
	System Security - Allows you to set: <ul style="list-style-type: none">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) <ul style="list-style-type: none">Legacy Support (enable/disable)Secure Boot (enable/disable).Key Management (enable/disable)Fast Boot (enable/disable)
	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.
	Power-On Options - Allows you to set: <ul style="list-style-type: none">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.
Power	Onboard Devices - Allows you to set resources for or disable on-board system devices.
	Device Options - Allows you to set: <ul style="list-style-type: none">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: <ul style="list-style-type: none">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	Red	2 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	8 blinks, 1 blink every second followed by a 2 second pause	Invalid ROM based on bad checksum

Password Security

Establishing a Setup or Power-On password:

- Turn on or restart the computer.
- As soon as the computer is turned on, press **F10** when the monitor light turns green to enter Computer Setup. Press **Enter** to bypass the title screen, if necessary. If you do not press **F10** when prompted, a restart will be necessary.
- To establish a Setup password, select **Security > Setup Password** and follow the instructions on the screen.
 - or -
 - To establish a Power-On password, select **Security > Power-On Password** and follow the instructions on the screen
- Before exiting, click **File > Save Changes and Exit**.

Changing a Setup or Power-On password:

- 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.

- To change the Setup password, as soon as the computer is turned on, press **F10** when the monitor light turns green to enter Computer Setup. Press **Enter** to bypass the title screen, if necessary.
- 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.

- Press **Enter**.

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

Deleting a Power-On or Setup password

- 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.

- To change the Setup password, as soon as the computer is turned on, press **F10** when the monitor light turns green to enter Computer Setup. Press **Enter** to bypass the title screen, if necessary.
- When the key icon appears, type your current password followed by a slash (/) or alternate delimiter character as shown. Example: **currentpassword/**
- Press **Enter**.

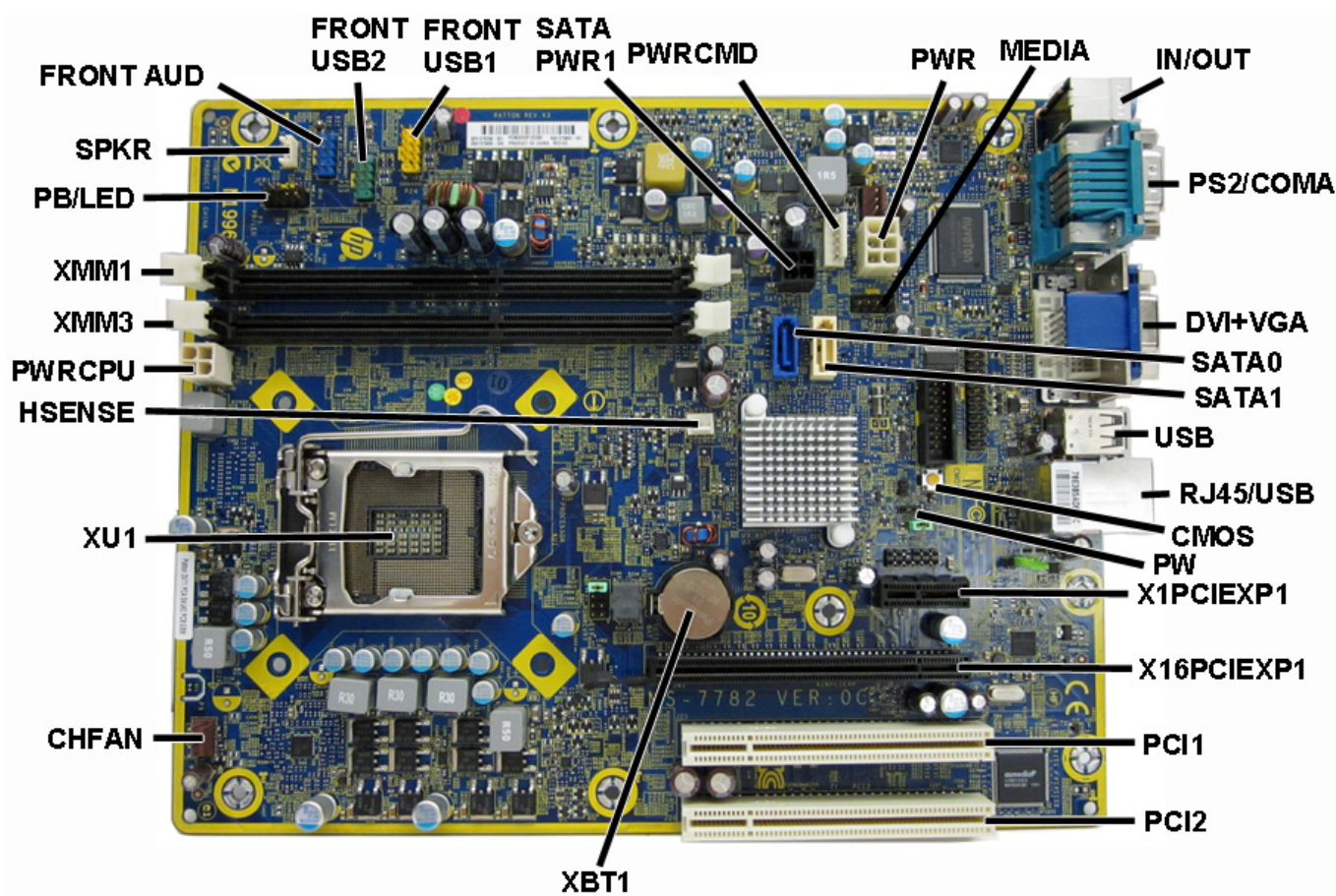
Clearing CMOS

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

Common POST Error Messages

Screen Message	Probable Cause	Recommended Action
ERROR: No boot disk has been detected or the disk has failed.	The computer cannot read the boot sector of the boot disk.	<ol style="list-style-type: none">Check drive data and power cables.Use F10 Setup to make sure the first boot device is set to drive C or the primary hard drive.The drive has failed due to mechanical or virus corruption. Replace the drive.
511-CPU Fan not Detected	CPU fan is not connected or may have malfunctioned.	<ol style="list-style-type: none">Reseat CPU fan.Reseat fan cable.Replace CPU fan.
Unsupported CPU	Recently installed processor is not supported by the system	Install a processor supported by your system.
Time & Date Not Set	<p>Invalid time or date in configuration memory.</p> <p>RTC (real-time clock) battery may need to be replaced.</p> <p>CMOS jumper may not be properly installed.</p>	<p>Reset the date and time under Control Panel (Computer Setup can also be used). If the problem persists, replace the RTC battery.</p> <p>Check for proper placement of the CMOS jumper if applicable.</p>
Keyboard error	Keyboard failure.	<ol style="list-style-type: none">Reconnect keyboard with computer turned off.Check connector for bent or missing pins.Ensure that none of the keys are depressed.Replace keyboard.Replace system board.

System Board



System Board Connectors and Jumpers (component location may vary)

FRONT AUD	Front panel connector	PW	Password header
FRONT_USB2	2nd USB connector	X1PCIEXP1	PCIe X1 slot
FRONT_USB1	1st USB connector	X16PCIEXP2	PCIe X16, slot 2
SATA PWR1	SATA drive power connector	PCI1	PCI slot 1
PWRCMD	Power supply connector, 6-pin	PCI2	PCI slot 2
PWR	Main power connector	XBT1	Battery socket
MEDIA	Media card reader connector	CHFAN	System fan connector
IN/OUT	Double stack audio connector	XU1	Processor socket
PS2/COMA	Stacked serial port/PS2 connector	HSENSE	Hood sensor connector
DVI+VGA	Stacked VGA/DVI connector	PWRCPU	CPU power connector
SATA0	Primary SATA hard drive	XMM1	Memory socket, channel A
SATA1	1st SATA optical drive	XMM3	Memory socket, channel B
USB	External USB connector	PB/LED	Power switch connector
RJ45/USB	Stacked RJ-45/USB connectors	SPKR	Speaker connector
CMOS	CMOS header		