

# Illustrated Parts & Service Map

## HP Elite 7000 MT Series PCs



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### Key Specifications

Processor Type	Intel® Core™ i5, Intel Core i7
Max RAM Type	up to 8 GB; PC-3-10600 (1333MHz) DDR3 SDRAM
Expansion Slots	<ul style="list-style-type: none"> <li>• 1 PCI x16</li> <li>• 3 PCI x1</li> </ul>
Integrated Graphics	none; expansion card required
Chipset	Intel P55 Express
Drive Support	<ul style="list-style-type: none"> <li>• External: (2) 5.25-inch and (1) 3.5-inch drive bays</li> <li>• Internal: (2) 3.5-inch drive bays</li> </ul>
I/O Interfaces	USB ports: (3) front, (6) rear; (3) internal headers on system board (one for front ports, one for media card reader, one reserved for 3PO device, such as tax controller), (1) RJ-45, (1) 1394, (1) audio in, (1) audio out, (1) microphone, (1) surround center, (1) surround right, (1) surround left, on(1) optical out
Operating Systems	<ul style="list-style-type: none"> <li>• Windows® 7</li> <li>• Windows XP Professional</li> <li>• Windows Vista® Business</li> <li>• Novell SUSE Linux Enterprise Desktop 11</li> <li>• FreeDOS</li> </ul>

### Spare Parts



#### System Unit

1	Access panel	586372-001
2	Power supply, 300W, PFC	463317-001
2	Power supply, 300W, NPFC	463318-001
3	Chassis	not spared
4	Front bezel	586373-001
*	5.25-inch bezel blank	536306-001
*	3.5-inch bezel blank	583094-001

\* Not shown

#### Mass Storage Devices (not illustrated)

22-in-1 media card reader, 3.5-inch	480032-001
16X SATA DVD±RW and CD-RW drive with LightScribe	581600-001
16X SATA DVD-ROM drive	581599-001
Blu-ray ROM DVD±R/RW SuperMulti DL Drive with LightScribe	581601-001
1 TB (1000 GB) SATA hard drive	585465-001
500 GB SATA hard drive	586720-001
250 GB, 7200-RPM SATA hard drive	586719-001
160 GB, 7200-RPM SATA hard drive	586718-001
64 GB solid state drive (SSD)	581057-001



#### Cables

1	Front I/O with USB	487744-001
2	Power switch/LED cable assembly	464574-001
3	SATA HDD cable, 4 inch (10 cm)	449283-001
*	SATA cable, 6.5 inch (16.5 cm)	448670-001
*	SATA cable, 10 inch (25.4 cm)	392307-001
*	DMS-59 to dual VGA	463023-001
*	Adapter, DVI-I to VGA	202997-005
*	Modem cable, RJ-11	198220-005

\*Not shown

#### Keyboards (not illustrated)

USB, Standard	537746-xxx		
USB, Low cost	537924-xxx		
Arabic*	-171	Italian	-061
Belgian	-261	Norwegian	-091
BHCSY	-B41	Polish*	-241
Czech	-221	Portuguese	-131
Danish	-081	Romanian	-271
Finnish	-351	Russian	-251
French	-051	Slovakian	-231
French Arabic	-DE1	Spanish	-071
French Canadian**	-121	Swedish	-101
German	-041	Swiss	-111
Greek	-151	Turkish	-141
Hebrew	-BB1	U.S.**	-001
Hungarian	-211	U.K.	-031
International	-L31		

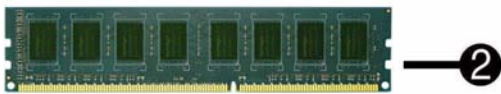
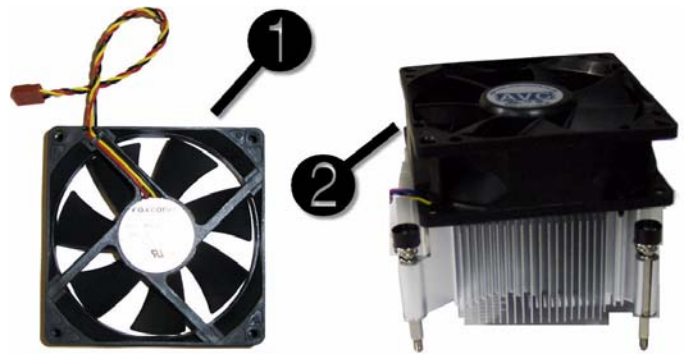
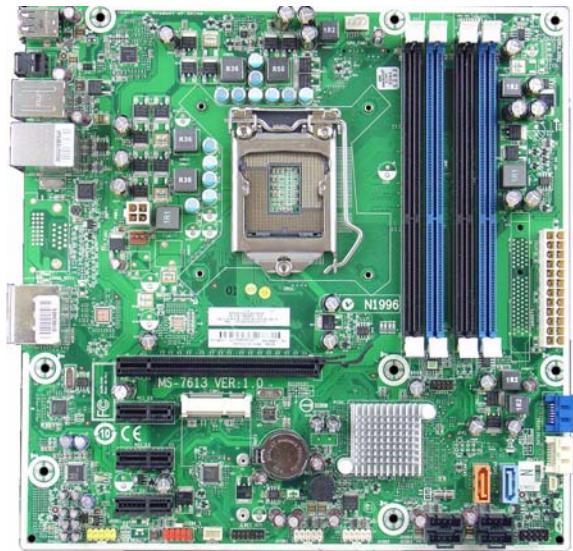
\*537924 only

\*\*Not for 537924

#### Keyboards (not illustrated)

USB, Mini	535873-xxx		
USB, Smartcard	537747-xxx		
USB, Washable	577495-xxx		
French*	-051	Swedish*	-101
French Canadian	-121	Spanish*	-071
International*	-L31	U.S.	-001
Italian*	-061	U.K.*	-031

\*Not for 535873 or 537747

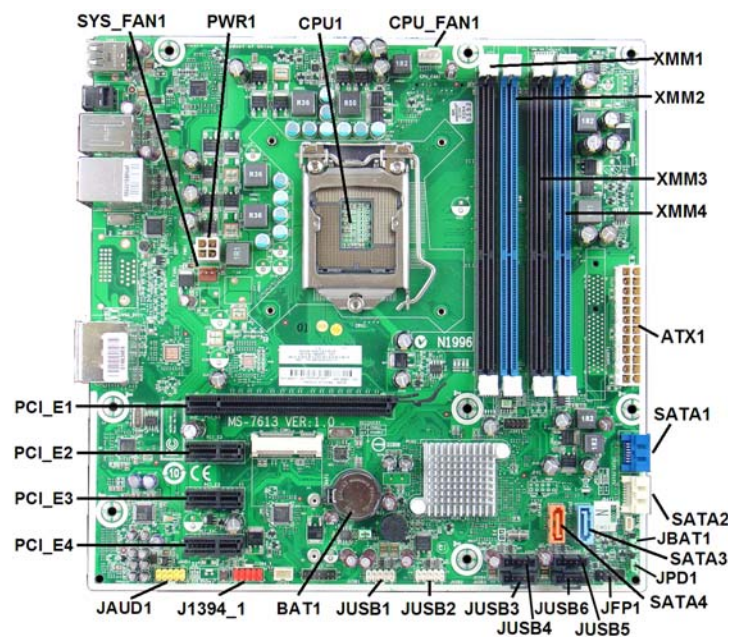


### Miscellaneous Parts

1	Chassis fan	449207-001
2	Heat sink with alcohol pad and factory-applied thermal grease	586374-001
*	Heat sink backplate	586375-001
*	Rubber feet	530593-001
*	Mouse, optical, black	537749-001
*	Mouse, USB laser	570580-001
*	USB-powered speakers	466618-001

\*Not shown  
LP = Low profile

### System Board



### System Board Connectors and Jumpers (position of some untitled components may vary in location)

SYS_FAN1	Primary chassis fan	JFP1	Power button/LED
PWR1	CPU power	JUSB5	USB connector
CPU1	Processor	JUSB6	USB connector
CPU_FAN1	Primary CPU fan	JUSB4	USB connector
DIMM1	DIMM 1 (Channel B)	JUSB3	Front I/O connector
DIMM2	DIMM 2 (Channel A)	JUSB2	Media card reader connector
DIMM3	DIMM 3 (Channel B)	JUSB1	Front USB
DIMM4	DIMM 4 (Channel A)	BAT1	Real-time-clock battery
ATX1	Main power	J1394_1	Front 1394 port connector
SATA1	Primary HDD connector	JAUD1	Front audio connector
SATA2	Primary ODD connector	PCL_E1	PCIe X16 slot
JBAT1	Clear CMOS header	PCL_E2	PCIe X1, slot 1
SATA3	Secondary HDD connector	PCL_E3	PCIe X1, slot 2
JPD1	Clear password header	PCL_E4	PCIe X1, slot 3
SATA4	Secondary ODD connector		

### Standard and Optional Boards

1	System board, includes heat sink backplate	586371-001
Memory modules (DDR3, PC3-10600)**		
*	4 GB	585157-001
*	2 GB	576110-001
2	1 GB	576109-001
Other boards		
3	ATI Radeon HD 4550 256-MB Dual Head graphics adapter (PCIe x16), includes bracket	538051-001
*	ATI Radeon HD 4650 1-GB Dual Head graphics adapter (PCIe x16), includes bracket	578174-001
*	nVidia GeForce GT230 1.5-GB graphics adapter, includes bracket	586381-001
*	nVidia GeForce G210 512-MB graphics adapter, includes bracket	586382-001
*	Intel Pro 1000 PT Gb Ethernet PCIe NIC, includes bracket	490367-001
*	LSI PCIe x1 56K International SoftModem, includes bracket	490689-001
Intel Core2 Quad processors (8-MB L2 cache, 1333-MHz FSB; LGA 1156 socket)		
*	i7-8xx, 3.06-GHz processor	586379-001
*	i7-870, 2.93-GHz processor	586378-001
*	i7-860, 2.80-GHz processor	586377-001
*	i5-750, 2.66-GHz processor	586376-001

\* Not shown

\*\* Note that the DIMM insertion order is sockets 2,4,1,3.

## Setup Utility

Basic system information is in the Setup Utility held in the system ROM, accessed by pressing **F10** when prompted (on screen) during the boot sequence.

### Computer Setup Menu

Heading	Option / Description	
Main	System Time	Allows you to set system time.
	System Date	Allows you to set system date.
	Language	Allows you to select the language.
	1st Drive 2nd Drive 3rd Drive 4th Drive	Allow you to: view capacity (HDD only). Also allows you to run HDD self-test for selected channel: SMART status check, SMART short self test, SMART extended self test.
	System Information	Allows you to view installed memory, memory banks 1-4, BIOS revision, core version.
	Model Number	Allows you to modify the model number.
	Serial Number	Allows you to manually enter the serial number.
	Asset Tag	Allows you to manually enter the Asset Tag.
	Product Number	View only. Allows you to view the product number.
Advanced	CPU Type	View only.
	CPU Speed	View only.
	Cache RAM(L2)	View only.
	Cache RAM(L3)	View only.
	Primary Video Adapter	Allows you to select boot display device when more than 2 video options are offered by system: PCIe x1 and PCIe x16.
	SATA Controller Mode	If SATA controller is enabled, allows you to set the mode to: IDE, AHCI, RAID.
	SATA Controller	Allows you to disable/enable the SATA controller.
	Onboard LAN	Disable/enable onboard LAN controller.
	Onboard LAN Boot ROM	Disable/enable the boot ROM of the onboard LAN chip.
	Onboard 1394	Allows you to enable/disable all 1394 ports.
	USB Ports	Allows you to individually enable/disable available USB ports.
	Supervisor Password	Allows you to view the supervisor password.
	User Password	Allows you to view the user password.
Onboard Audio	Auto/disable/enable.	
Change Supervisor Password	Allows you to change the supervisor password.	
	ESC: Boot Menu	Allows you to enable/disable the option to press the Esc key to access the Boot menu during computer startup.
	F9:Diagnostics	Allows you to enable/disable the option to press the F9 key to access the Diagnostics menu during computer startup.
	F10:Setup	Allows you to enable/disable the option to press the F10 key to access the Setup menu during computer startup.
	F11:Recovery	Allows you to enable/disable the option to press the F11 key to access the Recovery menu during computer startup.
	F12:Boot from LAN	Allows you to enable/disable the option to press the F12 key to access the Boot from LAN option during computer startup.
Power	After AC Power Failure	Allows you to select system restart behavior after power loss: Stay off, Power on, Auto.
	Hyper-threading	Disable/enable.
	XD (Execute Disable)	Disable/enable XD bit.
	Virtualization Technology	Disable/enable.
	WOL from S5	Allows you to enable/disable Limited (normal shutdown) WOL from S5 support.
Boot	Boot-time Diagnostic Screen	Disable/enable POST diagnostic messages display.
	Boot Device Priority: 1st Boot Device, 2nd Boot Device, 3rd Boot Device, 4th Boot Device	Allows you to specify which device groups will boot first, second, third, and fourth or to disable any of the four: Floppy group, CD-ROM group, Hard drive group, Network boot group. MS-DOS drive lettering assignments may be applied after a non-MS-DOS operating system has started.
	Floppy Group Boot Priority	Specifies boot device priority within removable devices.
	CD-ROM Boot Priority	Specifies boot device priority within CD/DVD drives.
	Hard Drive Boot Priority	Specifies boot device priority within hard drives.
	Network Group Boot Priority	Specifies boot device priority within bootable network devices.
Exit	Exit Saving Changes	Press <b>Enter</b> to exit saving changes.
	Exit Discarding Changes	Press <b>Enter</b> to exit discarding changes.
	Load Setup Defaults	Press <b>Enter</b> to load setup defaults.
	Discard Changes	Press <b>Enter</b> to discard changes.
	Save Changes	Press <b>Enter</b> to save changes.

## Recovering the Configuration Settings

To reset all BIOS Setup options to their default values (including options for **Ctrl+F10**), you must enter F10 Setup mode and press **F5**.

This does not include updates to system date, system time, supervisor password, user password, and CPU frequency multiplier.

## Password Security

This computer supports security password features, which can be established through the Computer Setup Utilities menu.

This computer supports two security password features that are established through the Computer Setup Utilities menu: setup password and power-on password. When you establish only a setup password, any user can access all the information on the computer except Computer Setup. When you establish only a power-on password, the power-on password is required to access Computer Setup and any other information on the computer. When you establish both passwords, only the setup password will give you access to Computer Setup.

When both passwords are set, the setup password can also be used in place of the power-on password as an override to log in to the computer. This is a useful feature for a network administrator.

If you forget the password for the computer, you can clear that password so you can gain access to the information on the computer by resetting the password jumper.

## Resetting the password jumper

- Shut down the computer. With the power cord disconnected, press the power button again to drain the system of any residual power.
- Remove the access panel.
- Locate the header and jumper labeled JFP1.
- Remove the jumper from pins 1 and 2. Place the jumper on pins 2 and 3.
- Replace the access panel.
- Plug in and turn on power. Allow the operating system to start. This clears the current passwords and disables the password features.
- To establish new passwords, repeat steps 1 - 4, replace the password jumper on pins 1 and 2, then repeat steps 5 - 6. Establish new passwords in Computer Setup.

## Resetting the CMOS jumper

The CMOS button resets CMOS but does not clear the power-on and setup passwords.

- Turn off the computer and any external devices, and disconnect power.
- Remove the access panel.
- Locate the header and jumper labeled JBAT1.
- Remove the CMOS jumper from pins 1 and 2 and put the jumper on pins 2 and 3. This clears the CMOS.
- Put the jumper back on pins 1 and 2.
- Replace the access panel, external devices, and reconnect the power cord.
- Turn on the computer.

Use Computer Setup to reset any special system setups along with the date and time.

## HP Vision Diagnostics

The Hewlett-Packard Vision Diagnostics utility allows you to view information about the hardware configuration of the computer and perform hardware diagnostic tests on the subsystems of the computer. The utility simplifies the process of effectively identifying, diagnosing, and isolating hardware issues.

The Survey tab is displayed when you invoke HP Vision Diagnostics. This tab shows the current configuration of the computer. From the Survey tab, there is access to several categories of information about the computer. Other tabs provide additional information, including diagnostic test options and test results. The information in each screen of the utility can be saved as an html file and stored on a USB flash drive.

Use HP Vision Diagnostics to determine if all the devices installed on the computer are recognized by the system and functioning properly. Running tests is optional but recommended after installing or connecting a new device.

Vision Diagnostics may be found on the CD that shipped with some computer models. The tool may also be downloaded from the HP Web site using the following procedure:

- Go to [www.hp.com](http://www.hp.com)
- Click the **Software & Drivers** link.
- Select **Download drivers and software (and firmware)**.
- Enter the product number in the text box and press **Enter**.
- Select the specific product.
- Select the OS.
- Click the **Diagnostics** link.
- Click **Hewlett-Packard Vision Diagnostics**.
- Click **Download**.

NOTE: The download includes instructions on how to create a bootable CD or USB flash drive.

## POST Front Panel LEDs and Audible Codes

Beeps/Activity	Meaning	Recommended Action
1 short, 1 long, 3 sec pause	Bad memory or memory configuration error.	Check that the memory modules have been installed correctly and that proper modules are used.
2 short, 1 long, 3 sec pause	No graphics card installed or graphics card initialization failed.	For systems with a graphics card: 1. Reseat graphics card. Power on system. 2. Replace the graphics card. 3. Replace the system board. For systems with integrated graphics, replace the system board.
3 short, 1 long, 3 sec pause	CPU configuration error or invalid CPU detected before graphics card initialized.	1. Upgrade the BIOS to proper version. 2. Change the processor.
1 short, 1 sec pause	No optical drive found.	1. Check cable connections. 2. Run the Computer Setup utility and ensure the device port is enabled.
2 short, 1 sec pause	No CD found.	1. Check the type of drive and use the correct media type. 2. Replace the CD with a new one.
3 short, 1 sec pause	Flashing not ready (missing utility or BIOS image file, etc.)	Upgrade the BIOS to proper version.
4 short, 1 sec pause	Flashing operation has failed (checksum error, corrupted image, etc.)	1. Verify the correct ROM. 2. Flash the ROM if needed. 3. If an expansion board recently added, remove to see if the problem remains. 4. Clear CMOS. 5. If the message disappears, there may be a problem with the expansion card. 6. Replace the system board.
5 short, 1 sec pause	BIOS recovery was successful.	No action required.