Illustrated Parts & Service Map

HP ap5000 All-In-One Point of Sale System

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Key Specifications

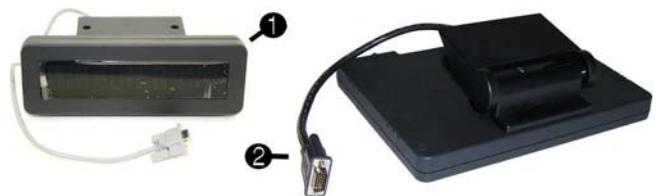|	
Processor Type	Intel® Core™ 2 Duo E7400 or Intel Celeron 440 processor
RAM Type	DDR2-SDRAM DIMMs (667/800 MHz)
Maximum RAM Supported	4 GB (2 slots)
Power	130W AC power adapter
Display	15-inch TFT dual-bulb, 1024x768, touchscreen
Graphics Adapter	Integrated Intel Graphics Media Accelerator 3000
Drive Support	(2) 2.5-inch hard drive bays
RAID Support	0/1
I/O Interfaces	VGA, (5) USB, audio line out, microphone in, RJ-45, (2) RS232 5V, (1) RS232 12V, USB+power 24V, PS/2, parallel
Operating Systems	• Windows 7 Professional • Windows XP Professional • Windows Embedded POSReady 2009 • FreeDOS

Spare Parts

Head Unit*

Celeron processor	591691-001
Core2 Duo processor	591692-001

* Includes plastics, cables, screws, and system board with processor. No hard drive, memory, or MSR installed. Note that there is one flat head screw that must be installed in a specific location. All other screws are the same.

Memory and hard drives

2 GB DIMM, PC2-6400	457624-001
1 GB DIMM, PC2-6400	418951-001
250 GB, 7200-rpm, hard drive, 2.5-inch	608746-001
160 GB, 7200-rpm, hard drive, 2.5-inch	608745-001
120 GB solid state drive, 2.5-inch	661841-001
80 GB solid state drive, 2.5-inch	607817-001
64 GB solid state drive, 2.5-inch	581057-001

Hardware Kit

	Includes:	591695-001
1	Advertising frame, including panel*	
2	Hard drive carrier	
3	VFD hinge cover	
4	Side I/O cover	
5	Feet	
6	Drive cover	
7	MSR blank (includes screws)	
8	Bottom I/O cover	

*The advertising frame includes a protective film on both sides that can be removed.
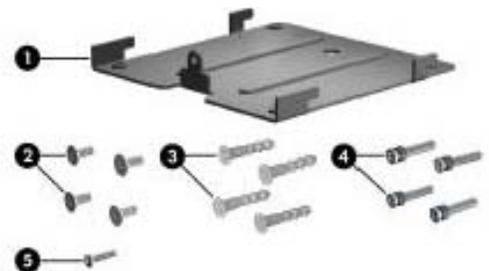
Plastic base

Includes advertising frame* and blank bezel. Does not include power supply, VFD, or head unit.	591696-001

*The advertising frame includes a protective film on both sides that can be removed.

Customer-facing displays

1	2-line VFD (includes 2 screws; cable color may be black)	591697-001
2	10-inch customer display (includes 2 screws)	609396-001

Misc parts

Wall mount kit, includes: (1) Wall mount bracket (2) Screws to secure bracket to optional HP Quick Release Mechanism (3) Anchors to secure wall mount to ½" wallboard (4) Screws used with anchors to secure wall mount to ½" wallboard (5) Safety screw set	not spared
CD/DVD drive, external USB* (not shown)	519700-001
USB 2-button mouse* (not shown)	537749-001
USB keyboard* (not shown)	537746-xx1

*This part does not come standard on the ap5000; it is used only for quick restore.

AC adapter, 130W

Does not include AC power cord	591693-001

Power cords

For use in:	
Afghanistan, Albania, Algeria, Andorra, Angola, Armenia, Austria, Azerbaijan, Azores (Portugal), Belarus, Belgium, Benin, Bolivia, Bosnia and Herzegovina, Bulgaria, Burkina, Burma (Myanmar), Burundi, Cameroon, Canary Islands (Spain), Cape Verde, Central African Republic, Chad, Comoros, Congo, Croatia, Czech Republic, Djibouti, East Timor, Egypt, Equatorial Guinea, Eritrea, Estonia, Ethiopia, Finland, France, French Guiana, French Polynesia, Gabon, Georgia, Germany, Greece, Greenland, Guadeloupe, Guinea, Hungary, Iceland, Indonesia, Iran, Iraq, Ivory Coast, Kazakhstan, South Korea, Kyrgyzstan, Latvia, Lebanon, Libya, Lithuania, Luxembourg, Macedonia, Madagascar, Madeira Islands, Mali, Martinique, Mauritania, Mayotte, Miquelon, Moldova, Monaco, Mongolia, Morocco, Mozambique, Netherlands, New Caledonia, Niger, Norway, Poland, Portugal, Reunion, Romania, Russia, Rwanda, Saint Pierre and Miquelon, San Marino, Sao Tome and Principe, Senegal, Serbia and Montenegro, Slovakia, Slovenia, Somalia, Spain, Svalbard, Sweden, Syria, Tahiti, Tajikistan, Togo, Tunisia, Turkey, Turkmenistan, Ukraine, Uzbekistan, Vatican City, Vietnam, Wallis and Futuna, Western Sahara, Zaire	602046-001
Argentina	602054-001
Australia	602052-001
Brazil	602057-001
People's Republic of China	602053-001
Denmark	602049-001
India	602059-001
Israel	602055-001
Chile, Italy, and Uruguay	602048-001
Japan	602051-001
Japan - Domestic	602061-001
American Samoa, Anguilla, Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, Bermuda, Cacaos and Turks Islands, Canada, Cayman Islands, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guam, Guatemala, Guyana, Haiti, Honduras, Jamaica, Laos, Liberia, Marshall Islands, Mexico, Micronesia, Midway Islands, Netherlands Antilles, Nicaragua, Northern Marianna Islands, Palau, Panama, Paraguay, Peru, Puerto Rico, Saudi Arabia, Suriname, Trinidad and Tobago, Turks and Cacaos Islands, United States, Venezuela, Virgin Islands, Wake Island	602045-001
South Africa	602058-001
South Korea	602062-001
Switzerland	602050-001
Taiwan	602060-001
Thailand	602056-001
The United Kingdom	602047-001

Magnetic strip reader (MSR)

Entire assembly, including screws and screw covers	591694-001

Hewlett-Packard Vision Diagnostics (Windows Systems)

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.

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.

To access HP Vision Diagnostics, you must burn the utility onto a CD or copy it onto a USB flash drive then boot to the CD or USB flash drive. It can also be downloaded from http://www.hp.com and either burned to CD or installed to a USB flash drive.

1. In Windows Explorer, go to **C:\SWSetup\ISOs** and burn the file **Vision Diagnostics.ISO** to a CD or copy it to a USB flash drive.

2. While the computer is on, insert the CD in the optical drive or USB flash drive in a USB port.

3. Shut down the operating system and turn off the computer.

4. Turn on the computer. The system will boot into HP Vision Diagnostics.
   NOTE: If the system does not boot to the CD in the optical drive or to the USB flash drive, you may need to change the boot order in the Computer Setup (F10) utility.

5. At the boot menu, select either the **HP Vision Diagnostics** utility to test the various hardware components in the computer or the **HP Memory Test** utility to test memory only.
   NOTE: The HP Memory Test is a comprehensive memory diagnostic utility that is run as a stand-alone application, outside of HP Vision Diagnostics.

6. If running **HP Vision Diagnostics**, select the appropriate language and click **Continue**.

7. In the End User License Agreement page, select **Agree** if you agree with the terms. The HP Vision Diagnostics utility launches with the Survey tab displayed.

Calibrating the Touch Screen

NOTE: You may want to connect a mouse (not included) to the system for this procedure.
After the operating system is installed, you will need to calibrate the touch screen.

1. Launch the TouchMon utility by right-clicking on the TouchMon icon in the system tray and selecting 4 points calibration or selecting **Start > All Programs > HP Touch > HP TouchMon Calibration**.

2. When you see a red circle in the corner of the screen, touch the center of the circle with your finger and continue touching it until the progress counter changes to **OK**. A new red circle will then appear in another corner of the screen.

3. Repeat Step 2 for each corner of the screen. When the process is complete, the utility will close and return you to the Windows desktop.

Configuring the MSR and VFD Customer Display

To configure the MSR and VFD, refer to the HP Point of Sale Configuration Guide (available in English only). The guide is available on the system's hard drive. In Windows XP or Windows Embedded POSReady 2009, select Start > All Programs > HP Point of Sale Information to access the guide. In Windows 7, select Start > HP Point of Sale Information to access the guide.

Configuring the COM Port for the VFD Customer Display

You can connect the VFD customer display to either the COM1 port or the COM2 port. The COM port must be configured for 5 volts in the Computer Setup utility for the VFD customer display to function properly. The VFD is connected to the COM2 port from the factory and the COM2 port is already configured for 5 volts.
NOTE: Do not connect the VFD customer display to the COM3 port.

1. Press the power button to turn off the computer.

2. Press the power button again to turn on the computer and press the F10 key before the system boots to the operating system to enter the Computer Setup utility.

3. Note which COM port (COM1 or COM2) on the rear panel is connected to the VFD customer display.

4. In the Computer Setup utility, go to Advanced > Super IO Configuration > Serial Port1 Standard Mode/5V or Serial Port2 Standard Mode/5V and change the setting to 5 V.
   NOTE: If you set the Serial Port2 Standard Mode/5V port to 5 V, you must set the Serial Port1 Standard Mode/5V port to Standard Mode. Likewise, if you set the Serial Port1 Standard Mode/5V port to 5 V, you must set the Serial Port2 Standard Mode/5V to Standard Mode.

5. In the Computer Setup Exit menu, select Save Changes & Exit.

Configuring Serial Port Voltage

The computer has configured power serial ports. COM1 and COM2 are 5V. COM3 is 12V. You can configure the ports in Computer Setup as follows:

1. Launch Computer Setup by pressing F10 when booting the computer.

2. In the **Advanced** menu, select **Super IO Configuration**.

3. Select the mode (standard or voltage) for the serial port you want to configure.