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HP Kayak
PC Workstation
Service Handbook

PC Workstations and
Accessories

4th Edition
June 2000

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HP Kayak XA Desktop Series 05xx PC Workstations

Models and Accessories

Product Number	Cache Memory	Std. RAM	Hard Drive	Video Controller	Multi-media	LAN
		HP Kayak XA 6/xxx PC Workstation				
HP Kayak XA Series 0503 PC Workstation 6/350 MHz 100 FSB[1] (CPL: 10/98 ▶)						
D6721N and D6721T	Pentium II with 512 KB of L2 cache memory	64MB SDRAM 100 MHz non-ECC	4.3 GB Ultra ATA 5.4 krpm	Matrox Millennium G200 8 MB video memory fitted. Upgradable to 16 MB of memory	32✕ Max IDE CD-ROM. Bolero add-on audio board.	None
HP Kayak XA Series 0541 PC Workstation 6/350 MHz 100 FSB (CPL: 10/98 ▶)						
D6722N and D6722T	Pentium II with 512 KB of L2 cache memory	64 MB SDRAM 100 MHz non-ECC	6.4 GB Ultra ATA 7.2 krpm	ELSA GLoria Synergy+ AGP, 8 MB on board, not upgradable	32✕ Max IDE CD-ROM. Bolero add-on audio board.	None
HP Kayak XA Series 0503 PC Workstation 6/400 MHz 100 FSB (CPL: 10/98 ▶)						
D6723N and D6723T	Pentium II with 512 KB of L2 cache memory	64 MB SDRAM 100 MHz non-ECC	4.3 GB Ultra ATA 5.4 krpm	Matrox Millennium G200 8 MB video memory fitted. Upgradable to 16 MB of memory.	32✕ Max IDE CD-ROM. Bolero add-on audio board.	None
HP Kayak XA Series 0503 PC Workstation 6/450 MHz 100 FSB (CPL: 10/98 ▶)						
D6726N and D6726T	Pentium II with 512 KB of L2 cache memory	64 MB SDRAM 100 MHz non-ECC	6.4 GB Ultra ATA 7.2 krpm	Matrox Millennium G200 8 MB video memory fitted Upgradable to 16 MB of memory	32✕ Max IDE CD-ROM. Bolero add-on audio board.	None

HP Kayak XA Desktop Series 05xx PC Workstations

Product Number	Cache Memory	Std. RAM	Hard Drive	Video Controller	Multi-media	LAN
HP Kayak XA Series 0541 PC Workstation 6/400 MHz 100 FSB (CPL:03/99 ▶)						
D6729N and D6729T	Pentium II with 512 KB of L2 cache memory	128 MB SDRAM 100 MHz ECC	6.4 GB Ultra ATA 7.2 krpm	ELSA GLoria Synergy+ AGP, 8 MB on board, not upgradable.	32✕ Max IDE CD-ROM. Bolero add-on audio board.	None

Product Number	Cache Memory	Std. RAM	Hard Drive	Video Controller	Multi-media	LAN
HP Kayak XA 7/xxx PC Workstation						
HP Kayak XA Series 0503 PC Workstation 7/450 MHz 100 FSB (CPL:10/98 ▶)						
D6720N and D6720T	Pentium III with 512 KB of L2 cache memory	64 MB SDRAM 100 MHz non-ECC	6.4 GB 7.2 krpm IDE	Matrox Millennium G200 8 MB video memory fitted. Upgradable to 16 MB of memory	32✕ Max IDE CD-ROM. Bolero add-on audio board.	None
HP Kayak XA Series 0503 PC Workstation 7/500 MHz 100 FSB (CPL:03/99 ▶)						
D6731N and D6731T	Pentium III with 512 KB of L2 cache memory	128 MB SDRAM 100 MHz ECC	10.1 GB 7.2 krpm IDE	Matrox Millennium G200 8 MB video memory fitted. Upgradable to 16 MB of memory.	32✕ Max IDE CD-ROM. Bolero add-on audio board.	None
HP Kayak XA Series 0541 PC Workstation 7/500 MHz 100 FSB (CPL:06/99 ▶)						
D6734N and D6734T	Pentium III with 512 KB of L2 cache memory	128 MB SDRAM 100 MHz ECC	6.4 GB 7.2 krpm IDE	ELSA GLoria Synergy+ AGP, 8 MB on board, not upgradable	32✕ Max IDE CD-ROM. Bolero add-on audio board.	None
HP Kayak XA Series 0503 PC Workstation 7/500 MHz 100 FSB (CPL:11/99 ▶)						
D6738N and D6738T	Pentium III with 512 KB of L2 cache memory	64 MB SDRAM 100 MHz non-ECC	6.5 GB 7.2 krpm IDE	Matrox Millennium G200 8 MB video memory fitted. Upgradable to 16 MB of memory	32✕ Max IDE CD-ROM. Bolero add-on audio board.	None

HP Kayak XA Desktop Series 05xx PC Workstations

Product Number	Cache Memory	Std. RAM	Hard Drive	Video Controller	Multi-media	LAN
HP Kayak XA Series 0503 PC Workstation 7/550 MHz 100 FSB (CPL:06/99 ▶)						
D6735N and D6735T	Pentium III with 512 KB of L2 cache memory	128 MB SDRAM 100 MHz ECC	13.5 GB 7.2 krpm IDE	Matrox Millennium G200 8 MB video memory fitted. Upgradable to 16 MB of memory	32✕ Max IDE CD-ROM. Bolero add-on audio board.	None
HP Kayak XA Series 0503 PC Workstation 7/600 MHz 100 FSB (CPL:06/99 ▶)						
D7994N and D7994T	Pentium III with 512 KB of L2 cache memory	128 MB SDRAM 100 MHz ECC	10.1 GB 7.2 krpm IDE	Matrox Millennium G200 8 MB video memory fitted. Upgradable to 16 MB of memory	32✕ Max IDE CD-ROM. Bolero add-on audio board.	None

1.   FSB = Front Side Bus

Supported Accessories

Memory Upgrades

SDRAM 32MB 72bit 100MHz main memory unbuffered ECC)	D6521A
SDRAM 64MB 72bit 100MHz main memory unbuffered ECC)	D6522A
SDRAM 128MB 72bit 100MHz main memory (unbuffered ECC)	D6523A
SDRAM 256MB 72bit 100MHz main memory (unbuffered ECC)	D6743A

Processor Upgrades

Intel Pentium II Slot 1 Processor 350/512 KB	D6527A
Intel Pentium II Slot 1 Processor 400/512 KB	D6528A
Intel Pentium II Slot 1 Processor 450/512 KB	D6529A
Intel Pentium III 450 MHz containing 512 KB internal L2 cache	D7510A
Intel Pentium III 500 MHz containing 512 KB internal L2 cache	D7511A
Intel Pentium III 550 MHz containing 512 KB internal L2 cache	D7512A
Intel Pentium III 600 MHz containing 512 KB internal L2 cache	D7516A

Input Devices

HP keyboard for Windows®	C4735A
HP standard 2-button mini-din mouse	C3751B
HP mouse with scrolling wheel	C4736A

Video Displays

All current HP PC Displays (refer to the Displays section of the Vectra Accessory *Service Handbook*)

Mass Storage—Hard Disk Drives

4.3-GB 5400 rpm Ultra ATA/33 hard disk	D2677A
6.4-GB 7200 rpm Ultra ATA/33 hard disk	D6452A
10.1-GB 7200 rpm Ultra ATA/33 hard disk	D6627A
9.1-GB 7200 rpm Ultra SCSI hard disk	D6938A

Removable Mass Storage

32✕ Max-speed IDE CD-ROM drive	D4384A
SureStore CD-Writer Plus 8100i internal CD-RW drive	C4400A
SureStore Tape 5000i, 4 GB DAT drive	C1526H
SureStore DAT 8i, 8 GB DAT drive	C1528H
SureStore DAT 24i, 24 GB DAT drive	C1555B
Atapi 100 MB Internal Iomega Zip Drive	D6650A

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LAN Interfaces

HP NightDirector/Plus 10/100 Base-T Ethernet board (x1)	D6936A
HP NightDirector/Plus 10/100 Base-T Ethernet board (bulk pack of 10)	D6937A

Mounting Rails

5.25-inch CD-ROM side mounting rails, pack of 5	D2880A
3.5-inch floppy disk mounting rails, pack of 5 (for Desktop models only)	D3566A

System Board, BIOS, and Memory

Switches

Not used on the Desktop
(MT status panel)

Processor
Fan

Not used on the Desktop
(MT LCD status panel connectors)

Power

Fan Disk Drive

Floppy
Disk
Drive

External Battery

Memory Modules

IDE 2 Connector
IDE 1 Connector

Processor

Buzzer

Desktop MaxiLife and
LCD Status Panel

Desktop Audio Connector

AGP Slot

PCI Slots

Wake On LAN

PCI/ISA Combination Slots

I/O Fan

External Start

ISA Slot

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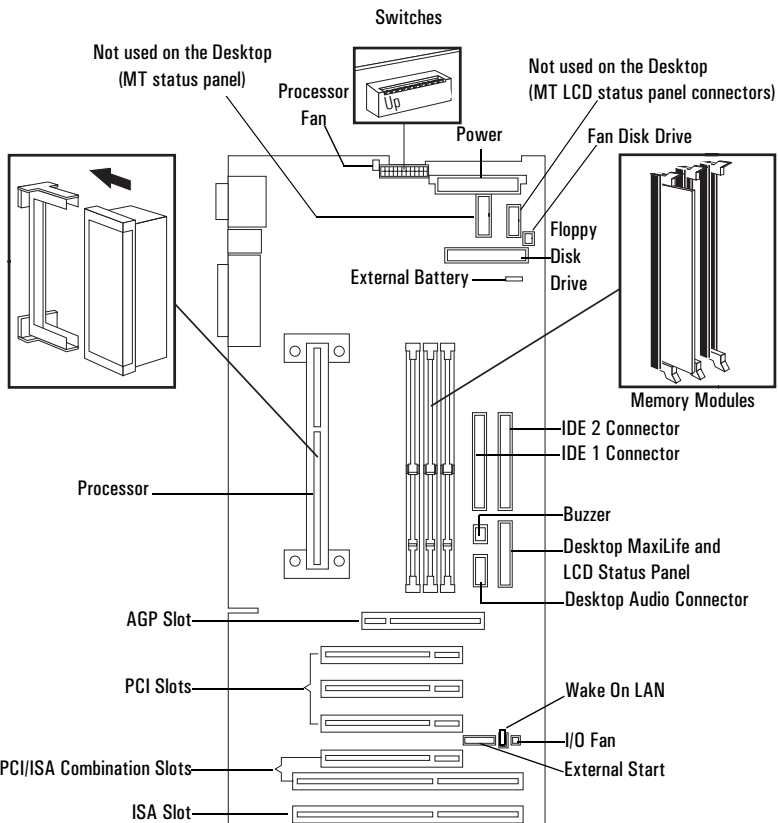
HP Kayak XA Desktop Series 05xx PC Workstations

System Board Switches

Switch		Function	Default
1	**Up**[1]	Reserved	**Up**
2-5	-	Processor frequency, see the following table	-
6	**Up**	Retains Configuration	**Up**
	Down	Clears CMOS (to reload the *Setup* program defaults)	
7	**Up**	Enables passwords	**Up**
	Down	Clears passwords	
8	Up	Disables keyboard power-on	**Down**
	Down	Enables keyboard power-on (normal operation)	
9	Up	Minitower	**Down**
	Down	Desktop	
10	**Up**	Enables BIOS normal mode	**Up**
	Down	Enables BIOS recovery mode	

1. Up=Off, Down=On.

Processor Frequency	Local Bus Frequency (FSB)[1]	Switch	Switch		
		2	**3**	**4**	**5**
350 MHz	100 MHz	Up	Up	Down	Down
400 MHz	100 MHz	Up	Down	Up	Up
450 MHz	100 MHz	Up	Down	Up	Down
500 MHz	100 MHz	Up	Down	Down	Up
550 MHz	100 MHz	Up	Down	Down	Up
600 MHz	100 MHz	Up	Down	Down	Up

1. FSB = Front Side Bus

BIOS History

For the latest BIOS, the flasher utility program, and the BIOS history refer to the HP World Wide Web site. The BIOS is in the form HU11yyzz

yy= BIOS version number
zz = is the selected language to be downloaded

http://www.hp.com/go/kayaksupport

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Replacing the Processor

The PC Workstation has only one processor slot on the system board and is supplied with either a Pentium II or Pentium III processor which includes an integrated heatsink, level-1 and level-2 cache memory.

The processors are contained on a module which is installed in the processor socket and is held in place by a bracket. To remove the processor, press the two plastic clips towards each other and pull the processor out of its connector.

Cache Memory

512 KB of level-two cache memory is integrated in the Pentium II Slot 1 processor package.

Main Memory

The PC Workstation has three DIMM slots on the system board for installing main memory; slots Mem 1, Mem 2 and Mem 3. Models are supplied with 64 MB of non-ECC main memory. Memory upgrades are only available in single 32 MB, 64 MB, 128 MB or 256 MB unbuffered ECC SDRAM modules.

Memory can be upgraded to a maximum of 768 MB using multiples of (3 x 256 MB) of unbuffered ECC memory modules.

A serial EEPROM on each DIMM contains data on the memory speed. This information is read at each power on, and access time settings are set accordingly.

Video Memory Upgrade

The graphics controller installed on the PC Workstation could be either an ELSA GLoria Synergy™ or a Matrox Millennium G200.
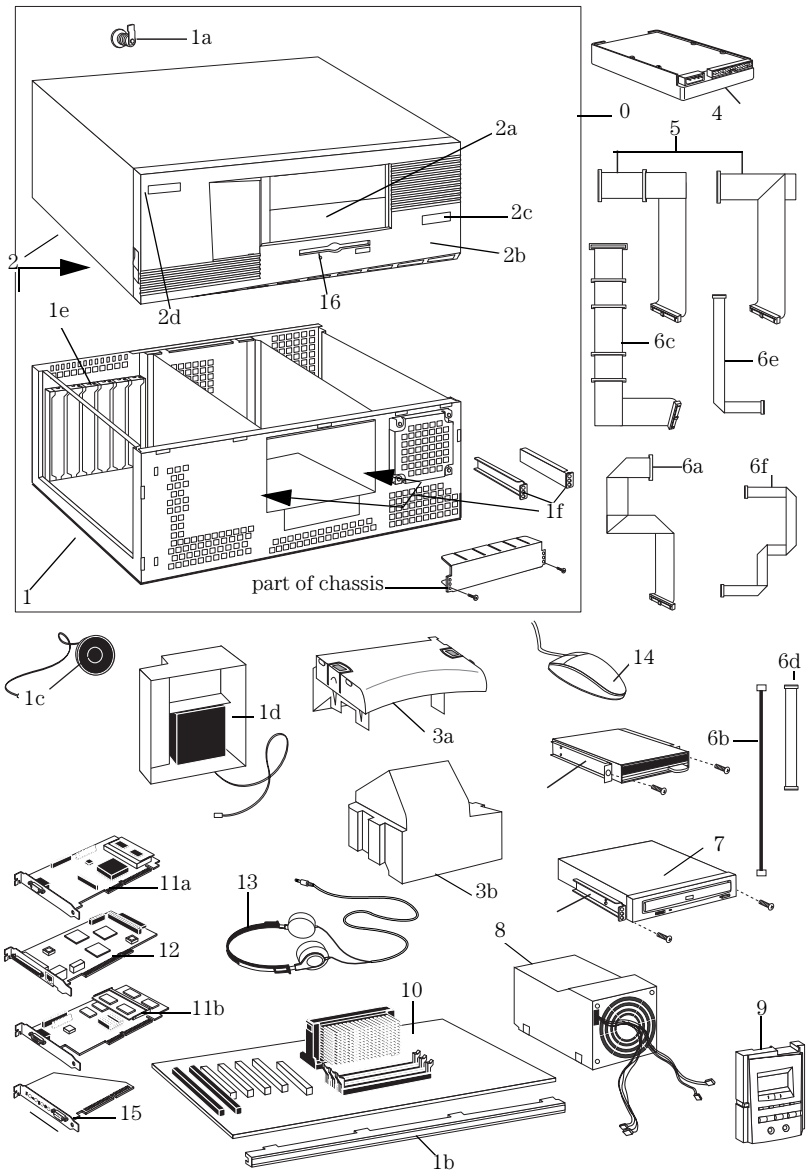
The Matrox Millennium G200 has a total of 8 MB of video memory already supplied on the graphics controller board. Memory may be upgraded to a maximum of 16 MB by installing a memory module of 8 MB onto the board. No switch or jumper settings need to be changed.

The ELSA GLoria Synergy includes 4 MB of video SGRAM memory installed on the graphics board. Added to this, there is a pre-installed 4 MB SO_DIMM video memory module, giving a total of 8 MB (this is the maximum amount of video memory possible).

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HP Kayak XA Desktop Series 05xx PC Workstations

Parts and Part Numbers

HP Kayak XA Desktop Series 05xx PC Workstations

Parts List

Item	Description	Repl. Part Number	Exchange Part Number
0	Box assembly	5065-1250	—
1	Chassis assembly:	5064-3392	—
	a Cover lock assembly	5062-5590	—
	b System board guide	5042-1859	—
	c Speaker	5063-4559	—
	d I/O Card Guide and fan assembly	5064-6721	—
	e I/O blank panel	45935-00004	—
	f 5 ¼ device rails	5002-4717	—
	Not shown		
	Bumper Foot	5042-2479	—
	3.5-inch rails	5063-7922	—
2	Cover Assembly	5064-3394	—
	a Filler Panel	5042-1178	—
	b Front bezel assembly	5064-6058	—
	c XA PC Workstation logo	5042-3066	—
	d HP Logo	5042-3030	—
3	a Upper processor airflow guide	5042-3001	—
	b Lower processor airflow guide + fan	5064-6705	—
4	Standard hard disk drive[1]		
	4.3 GB IDE 5400 rpm	D2677-63001	D2677-69001
	6.4 GB IDE 7200 rpm	D6452-63101	D6452-69001
	10.1 GB IDE 7200 rpm	D6627-63001	D6627-69001
	9.1 GB UW-SCSI 7.2k rpm (Low Profile)	D6455-63101	D6455-69001
5	Cable kit contains:	5064-6092	—
	Ultra ATA hard disk cable IDE CD-ROM cable		
6	Cables:		
	a Flexible disk drive cable	5183-6069	—
	b CD-ROM to audio connector cable	5182-1857	—
	c SCSI cable (16-bit data) for SCSI models only	5183-2702	—
	d LAN-to-CPU internal cable (3 COM)	5183-2769	—
	e Audio cable	5183-6072	—
	f External Start cable	5183-6090	—
7	Standard 32X IDE CD-ROM drive	D4384-63031	D4384-69031
8	Power supply units - 200W	0950-2892	—
9	Status panel with LED display	5064-6727	—
10	System board	See PC's system board parts list	

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HP Kayak XA Desktop Series 05xx PC Workstations

Parts List

Item	Description	Repl. Part Number	Exchange Part Number
11	Graphics cards: a Matrox Video board G200 b ELSA Synergy 8 MB Video Board Not shown: Accel Galaxy 31MB	 5064-7478 5064-6732 5064-9190	 D5685-69501 D6478-69501 D6728-69501
12	LAN cards: SCSI/100TX LAN Combo board Not shown: HP LAN board 3 COM LAN board Intel LAN board	 5064-6016 5067-6057 5064-3672 5064-6023	 D6331-69301 — — —
13	Headset (supported only on models shipped before November, 1998)	5064-2673	—
14	2-button Mouse with scrolling wheel Not shown: 3-button Mouse with scrolling wheel	C4736-60101 C4728-60101	— —
15	Bolero Audio board	5064-2620	—
16	Floppy disk drive (bezel-less) 3.5-inch	D2035-60191	—
Not Shown	Enhanced Keyboard (US and European)	C4734-60301	—
	Japanese Keyboard	C4729-60324	—
	Kit CD-ROM rail	5064-6743	—
	Power cable European 220V	8120-1689	—
	Screw 6-32 hard disk drive fixation	2360-0565	—
	Screw 6-32 for card cage and chassis	2680-0311	—

1.   For optional disk drive information, refer to the *Accessories Service Handbook*.

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HP Kayak XA Desktop Series 05xx PC Workstations

System Board Parts List

Description	Repl. Part Number	Exchange Part Number
System board:		
XA 6/xxx Series 05xx system board	D6720-63001	D6720-69001
Processors:		
Intel Pentium II 350/512	D6527-63101	D6527-69101
Intel Pentium II 400/512	D6528-63101	D6528-69101
Intel Pentium II 450/512	D6529-63001	D6529-69001
Intel Pentium III 450 MHz, 512 KB cache	D7510-63001	—
Intel Pentium III 500 MHz, 512 KB cache	D7511-63001	—
Intel Pentium III 550 MHz, 512 KB cache	D7512-63001	—
Intel Pentium III 600 MHz, 512 KB cache	D7516-63001	—
Main memory modules:		
SDRAM 32MB 100MHz non-ECC	D6501-69001	—
SDRAM 64MB 100MHz non-ECC	D6502-69001	—
SDRAM 64MB 100MHz ECC	D6522-69001	—
SDRAM 128MB 100MHz ECC	D6523-69001	—
SDRAM 256MB 100MHz ECC	D6524-69001	—
SDRAM 64MB 100 MHz ECC	D5365-69001	—

Manuals and Documentation

Description	Part Number	
User's Guide - English only (refer to page 11-4 for all multilingual manual part numbers)	D6738-90001	Paper document
Familiarization Guide	D6738-90901	Electronic file (PDF)
Technical Reference Manual	no number	Electronic file (PDF)
ConfigTailor CD-ROM	5011-6634	—

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HP Kayak XA Desktop Series 05xx PC Workstations

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Beep, POST, and Error Codes

Beep Codes

If an error occurs during the POST, which prevents the PC Workstation from starting, and before the display device has been initialized, a series of beep codes are issued. Beep codes indicate that a fatal error has occurred and can be reported one after another if there is more than one detected error. In this case, the first detected error is the most important.

These codes are useful for identifying the error when the system is unable to display the error message.

A

Beep Codes for the HP Kayak XU800

Number of Beeps	Description	Action to Take...
1	The memory refresh circuitry is faulty.	Check that: • Memory is installed correctly. • Correct memory modules are being used. If the error still occurs, replace the memory.
2	Parity error in the base memory (the first 64 KB block) of memory.	
3	Memory error.	
4	Clock error.	• Check that the system board is correctly cabled (power cables, processor and terminator). If the error still occurs, replace the system board.
5	Processor test error.	Check that: • Processor is correctly installed. • Termination card installed in processor slot 2 in a single processor system. If the error still occurs, replace: 1 Processor. 2 system board.
6	Input/Output (I/O) error.	• Keyboard is connected. • PCI card is installed correctly. • Termination card installed in processor slot 2 in a single processor system.
7	The processor on the system board generated an error.	• There is an installed processor(s). • Processor(s) is correctly installed in the processor slot(s). • Two installed processors have the same cache size (256 k). • Termination card is installed in processor slot 2 in a single processor system. • VRM is installed in the VRM socket in a dual processor system. If the error still occurs, replace the system board.
8	The system video card is either missing or faulty.	This is not a fatal error. Check that the video card is correctly installed and cabled. If missing, install the video card. If the error still occurs, replace it with a known working video card.

Number of Beeps	Description	Action to Take...
9	The BIOS Checksum value does not match the value encoded in the BIOS.	Perform the following actions in this order: 1 Press **F2** to enter the *Setup* program, then **F9** to load the default BIOS settings. 2 Clear the CMOS. 3 Flash the BIOS. If the error still occurs, replace the system board.
10	The CMOS RAM has failed.	Perform the following actions in this order: 1 Press **F2** to enter the *Setup* program, then **F9** to load the default BIOS settings. 2 Clear the CMOS. 3 Flash the BIOS. If the error still occurs, replace the system board.
11	The cache memory test failed.	Replace the processor(s).

A

Beep Codes for the HP Kayak XM600

Beep Pattern	Beep Code	Numeric Code	Description	Recommended Action
— - - - - - - -	1-2-2-3	16h	BIOS ROM check-sum failure	Inform HP support/HP reseller that system board is defective.
— - - - — —	1-3-1-1	20h	DRAM refresh test failure1	Check the memory is correctly installed. If the error still occurs, replace the module.
— - - - — - - -	1-3-1-3	22h	8042 Keyboard controller test failure	Inform HP support/HP reseller that system board is defective.
— - - - - - - —	1-3-3-1	28h	Initialization of RDRAM has failed.	Verify that memory or continuity modules are installed.
— - - - - - - - —	1-3-4-1	2Ch	RAM failure on address line[1]....	Check the memory is correctly installed. If the error still occurs, replace the module.
— - - - - - - - - - -	1-3-4-3	2Eh	RAM failure on data bits ....of low byte of memory bus1	Check the memory is correctly installed. If the error still occurs, replace the module.
— - - - - - — —	1-4-1-1	30h	RAM failure on data bits ....of high byte of memory bus1	Check the memory is correctly installed. If the error still occurs, replace the module.
- - — - - - - -	2-1-2-3	46h	ROM copyright notice check failure	Inform HP support/HP reseller that system board is defective.
- - - - - - - - —	2-2-3-1	58h	Unexpected interrupts test failure	Inform HP support/HP reseller that system board is defective.
— - -	1-2	98h	Video configuration failure or option ROMs check-sum failure	This can be caused by problems with the ROM on integrated video, an add-on video board or the ROM on a SCSI card. Inform reseller for the affected component.

1. Non-HP memory modules are not supported. Only HP memory modules should be used.

Beep Codes for Previous Models

The following beep codes are for all models before the HP Kayak XU800 and XM600 PC Workstations.

Beep Pattern	Beep Code	Numeric Code	Description
— -- -- ---	1-2-2-3	16h	BIOS ROM check-sum failure
— --- — —	1-3-1-1	20h	DRAM refresh test failure
— --- — ---	1-3-1-3	22h	8742 Keyboard controller test failure
	1-3-3-1	28h	Autosize DRAM
	1-4-4-1	30h	RAM failure on data bits of high byte of memory bus
— --- ---- —	1-3-4-1	2Ch	RAM failure on address line $xxxx$[1]
— --- ---- ---	1-3-4-3	2Eh	RAM failure on data bits $xxxx$[1] of low byte of memory bus
-- — -- ---	2-1-2-3	46h	ROM copyright notice check failure
-- -- --- —	2-2-3-1	58h	Unexpected interrupts test failure
— --	1-2	98h	Video configuration failure or option ROMs check-sum failure
-	1	B4h / F4h	This does not indicate an error. There is one short beep before system startup.
---- -- ----- -- --	4-2-4-4		Crisis recovery flash error[2]

1. If the BIOS detects error 2C or 2E (base 512K RAM error), it displays an additional word-bitmap ($xxxx$) indicating the address line or bits that failed. For example, "2C 0002" means address line 1 (bit one set) has failed. "2E 1020" means data bits 12 and 5 (bits 12 and 5 set) have failed in the lower 16 bits.
2. For more information, refer to Appendix B.

POST and Error Codes

A list of all POST (Power-On Self-Test) and error codes are available through electronic files from the Support Center.

If you wish to view the POST details, press the ⎡Esc⎦ key when the Kayak logo is being displayed at power on, and the checkpoint code of the test currently in progress will appear in the upper right corner of the screen. When POST is completed, the HP Summary Screen will appear.

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POST and Error Codes

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A-6 Beep, POST, and Error Codes

B

Recovery Boot Active Procedures

HP Kayak XU800 PC Workstation BIOS Recovery

NOTE: The following BIOS recovery (Crisis Mode) is for the HP Kayak XU800 PC Workstation models only.

If for some reason the BIOS is corrupted and the standard flash cannot be used, use the BIOS Recovery Mode (exceptional BIOS recovery operation) to restore the BIOS.

The following recovery operation is also documented in the flash.txt file which is supplied with the downloaded BIOS files.

To restore the BIOS:

1   Copy the BIOS files on to the floppy disk.

2   Rename the file AI11xx.rom to amiboot.rom.

3   Shut down the PC Workstation.

4   Power off the PC Workstation and remove the power cord and cables.

5   Remove the cover.

6   Set switch 1 to the DOWN position.

7   Insert the floppy disk into the floppy disk drive.

8   Reconnect the power cord and switch on the PC Workstation.

9   The PC Workstation boots from the floppy disk, then flashes the BIOS. However, it should be noted that during the flash process, the screen remains blank. MaxiLife will display a message on the LCD panel "RECOVERY MODE".

10 The recovery process is finished when there are four beeps.

11 Power off the PC Workstation. Remove the floppy disk from the drive. Remove the power cord.

12 Set switch 1 back to the UP position.

13 Replace the cover, reconnect the power cord, then reboot the PC Workstation.

B

HP Kayak XM600 PC Workstation Desktop and Minitower BIOS Recovery

NOTE: The following BIOS recovery (Crisis Mode) is for the HP
                Kayak XM600 Desktop and Minitower PC Workstations
                only.

If for some reason the BIOS is corrupted and the standard flash cannot be used,
use the BIOS Recovery Mode (exceptional BIOS recovery operation) to restore
the BIOS. To do this:

1   Obtain a bootable DOS floppy disk.

2   Copy the BIOS files on to the floppy disk.
    The latest system BIOS (standard flash operation) can be downloaded from
    HP's Support Web site at: http://www.hp.com/go/kayaksupport. Then select
    HP Kayak XM600 PC Workstation.
    Instructions on updating the BIOS are supplied with the downloaded BIOS
    files and a BIOS flash utility (flash.txt).

3   Create (or edit) the file, AUTOEXEC.BAT This should contain a single line of
    text: "phlash /c /mode=3 IC1105US.FUL"
    (rename the BIOS filename with the one on the floppy disk).

4   Shut down the PC Workstation.

5   Power off the PC Workstation and remove the power cord.

6   Remove the cover.

7   Set switch 7 to the ON position.

8   Insert the floppy disk into the floppy disk drive.

9   Reconnect the power cord and switch on the PC Workstation.

10 The PC Workstation boots from the floppy disk, then flashes the BIOS.
    However, it should be noted, that during the flash process, the screen
    remains blank.

11 The recovery process is finished when there is one very long beep.

12 Power off the PC Workstation. Remove the floppy disk from the drive.
    Remove the power cord.

13 Set switch 7 back to the OFF position.

14 Replace the cover, reconnect the power cord, then reboot the PC
    Workstation.

Force BIOS flash, Switch 9 (XA models) or 10 (XW and XA-s models) Down Position

WARNING:
WARNING: For Kayak XU Series 03xx, XA-s Series 02xx and XA Series 05xx, a specific 'Mini-Dos' bootable disk has to be used. An image of this 'Mini-Dos' bootable floppy can be obtained from the Alps/Info server (not available from the external web site). If you do not have access to the Alps/Info server, contact your escalation team.

If, for example, during a BIOS flash, the procedure is interrupted by a power failure, and the system does not restart, then you can force a BIOS flash. However, it should be noted that during the procedure, there is no image on the screen, nor access to the keyboard or mouse (only "vital" devices that are required to boot on the floppy device are initialized).

To force a BIOS flash, do the following steps:

1   Ensure that you have created a DOS-bootable diskette. This floppy diskette contains all the recovery and system BIOS programming software (phlash.exe, platform.bin and hb1xxxyy.Ful). Include the flash command in the autoexec.bat, for example: phlash /mode=3 hb1xxxyy.Ful

2   Turn off the computer.

3   Set Switch 9 (XA models) or,
Set Switch 10 (XW, XU and XA-s models) to the DOWN position (=on).

4   Insert the DOS-bootable diskette (refer to the above warning).

5   Power on the computer.

6   During the recovery process, short beeps are emitted. The recovery process is finished when there is a much longer beep (approximately around 1 to 2 minutes).

7   Power off the computer. Press the power ON/OFF button (for about 5 seconds), until the ON/OFF light switches off. Set the switch 10 to the UP position (=off).

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Notes: _____

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B-4 Recovery Boot Active Procedures