HP Consumer Support

Motherboard and Jumper Settings for Systems with AMD Athlon Processor and an AMD Irongate (AMD-751) Chipset

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Introduction

The motherboard information in this document applies to the following HP Pavilion PCs:

US/Canada	All other World-Wide Models
HP Pavilion 8662C US	HP Pavilion 8604 Asia/Pacific
HP Pavilion 9686C US	HP Pavilion 8607 Asia/Pacific
HP Pavilion 9694C US	HP Pavilion 8610 Asia/Pacific
HP Pavilion 9695C US	HP Pavilion 8615 Asia/Pacific
HP Pavilion 8770C US	HP Pavilion 8620 Asia/Pacific
HP Pavilion 8772C US/Canada	HP Pavilion 8630 Asia/Pacific
HP Pavilion 9780C US/Canada	HP Pavilion 8634 Asia/Pacific
HP Pavilion 9790C US/Canada	HP Pavilion 8637 Asia/Pacific
HP Pavilion XL768 US	HP Pavilion 8640 Asia/Pacific
HP Pavilion XP788 US	HP Pavilion 8650 Asia/Pacific
HP Pavilion XP789	HP Pavilion 8685 France/U.K.
	HP Pavilion 8690 U.K.

This motherboard is carefully designed for the demanding PC user who wants High-performance features in a small package.

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Motherboard specifications

- AMD Athlon Processor Support: Supports AMD Athlon processor designed for the AMD Athlon Processor Module (242-pin Slot A) and packaged in a plastic ballgrid array (PBGA).
- North Bridge System Chipset: AMD-751 chipset with AGP/PCI/Memory controller supports a 200MHz Front Side Bus (FSB), supports PC-100 SDRAM DIMMs, complies with AGP 2.0 specifications for 1X and 2X.
- AGP modes and PCI 2.2. bus interface with support for 6 PCI masters. It is optimized to deliver enhanced AMD Athlon (TM) processor system performance.
- South Bridge System Chipset: VIA VT82C686A PCIset with PCI Super I/O integrated

peripheral controller supports UltraDMA/66, which allows burst mode data transfer rates of up to 66.6MB/sec.

- Enhanced ACPI and Anti-Boot Virus BIOS: Programmable BIOS (Flash EEPROM), offering enhanced ACPI for Windows 98 compatibility, built-in firmware-based virus protection, and autodetection of most devices for virtually automatic setup.
- PC100 Memory Support: Equipped with two DIMM sockets to support Intel PC100 compliant SDRAMs.
- Super Multi-I/O: Provides two high-speed UART compatible serial ports and one parallel port with EPP and ECP capabilities.
- PCI Slots: Provides 5 32-bit PCI 2.2 slots. PCI supports up to 133MB/sec maximum throughput. Each PCI slot can support a Bus Master PCI card, such as a SCSI card.
- Desktop Management Interface (DMI): Supports DMI through BIOS, which allows hardware to communicate within a standard protocol creating a higher level of compatibility. (Requires DMI-enabled components.)
- Wake-Up Support: Supports Wake-On-LAN and Wake-On-Ring.
- AGP Slot: Supports an Accelerated Graphics Port card for high performance component level interconnect targeted at 3D graphical display applications using a 1X or 2X mode bus.
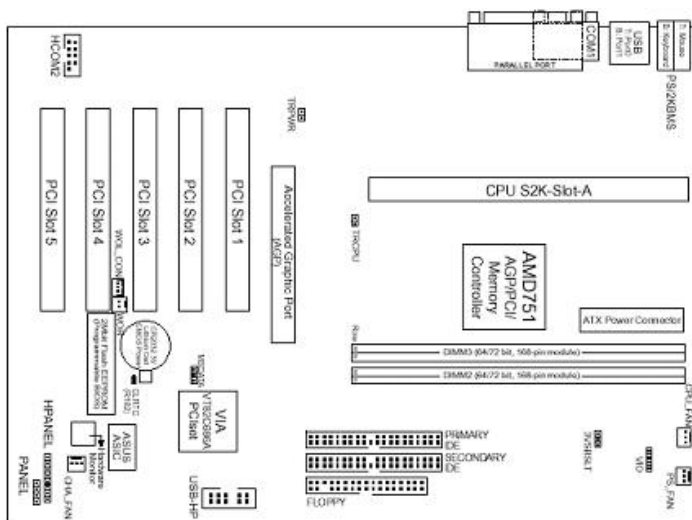
Motherboard Layout

Figure 1: Motherboard Layout
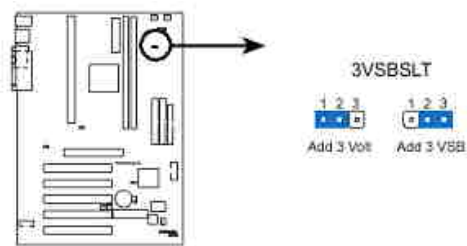
Jumper locations and functions

CAUTION: **Computer motherboards contain very delicate Integrated Circuit (IC) chips. To protect them against damage from static electricity, you should follow some precautions whenever you work on your computer. 1. Unplug your computer when working on the inside. 2. Use a grounded wrist strap before handling computer components. If you do not have one, touch both of your hands to a safely grounded object or to a metal object, such as the power supply case.**

Vaux Setting (3VSBSLT)

This jumper allows you to select the voltage supplied to add-in PCI cards that require Vaux
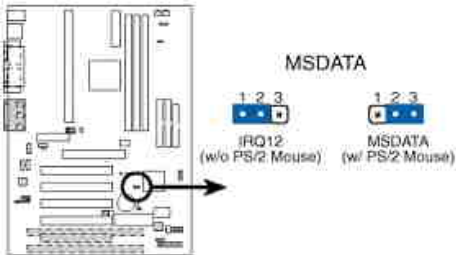
power (see Figure 2).

Figure 2: Vaux Settings

PS/2 Mouse Setting (MSDATA)

This jumper allows you to release IRQ12 for use by add-in cards (if you are not using a PS/2 mouse). Set to **IRQ12** if you do not have a PS/2 mouse. Set to **MSDATA** if you want to use a PS/2 mouse (see Figure 3).
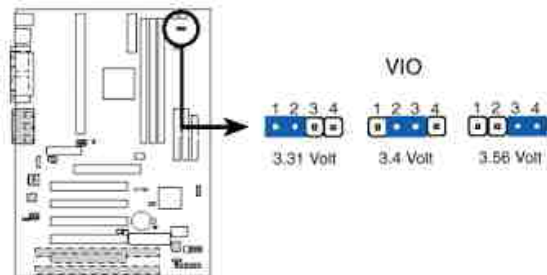
Figure 3: PS/2 Mouse Settings

Voltage I/O Setting (VIO)

This jumper allows you to select the voltage supplied to the DRAM, chipset, AGP, and PCI, among others. The default voltage is set at 3.4V. A higher voltage is used for processor overclocking.

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WARNING: **Using a higher voltage may help when overclocking but may shorten the life of the component. It is strongly recommended that the default setting be used.**

Figure 4: Voltage I/O settings

Setting	VIO Jumper Setting
3.31V	1-2
3.4V	2-3 (default)
*3.45V	*3-4

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NOTE: * The VIO Jumper setting 3-4 is 3.56 volts on the following HP Pavilion models 8662C, 9686C, 9694C, 9695C and 8772C PCs

CPU External Frequency Setting

Multiple frequency settings are not available because AMD Athlon processors have locked frequency multiples.
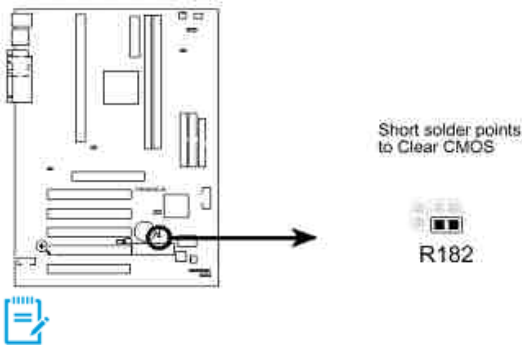
CMOS Real Time Clock (RTC) RAM Setting (R182)

You can clear the CMOS memory of date, time, and system passwords (which may have been set during BIOS Setup) by erasing the CMOS Real Time Clock (RTC) RAM. The RAM data containing system setup information is powered by the onboard button cell battery (see Figure 5).

To erase the RTC RAM

1. Unplug your computer.

2. Short the solder points.

3. Turn on your computer.

4. Hold down the DELETE key during bootup.

5. Enter BIOS setup to re-enter user preferences.

Figure 5: CMOS Real Time Clock Settings

NOTE: This document is based on information from the AMD K7M E539 and E541 motherboard manuals.

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