Trademarks

M825 Series, V8.0
VKM266/September 2003

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Static Electricity Precautions

Components on this mainboard can be damaged by static electricity. Take the following precautions when unpacking the mainboard and installing it in a system.

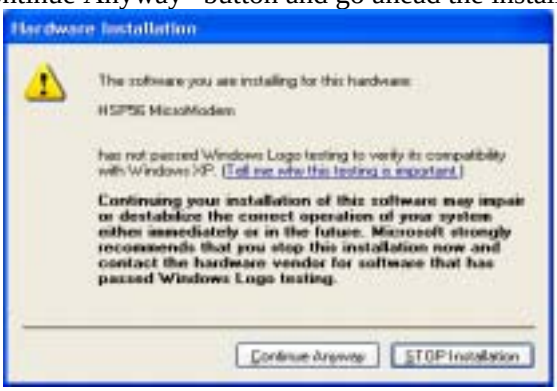
1. Keep the mainboard and other components in their original static-proof packaging until you are ready to install them.
2. During installation, wear a grounded wrist strap if possible. If you don't have a wrist strap, discharge static electricity by touching the bare metal of the system chassis.
3. Handle the mainboard carefully by the edges. Avoid touching the components unless it is absolutely necessary. During installation put the mainboard on top of the static-protection packaging it came in with the component side facing up.

Pre-Installation Inspection

1. Inspect the mainboard for damage to the components and connectors on the board.
2. If you suspect that the mainboard has been damaged, do not connect power to the system. Contact your mainboard vendor and report the damage.

Notice:

1. Owing to Microsoft's certifying schedule is various to every supplier, we might have some drivers not certified yet by Microsoft. Therefore, it might happen under Windows XP that a dialogue box (shown as below) pop out warning you this software has not passed Windows Logo testing to verify its compatibility with Windows XP. Please rest assured that our RD department has already tested and verified these drivers. Click the "Continue Anyway" button and go ahead the installation.



2. USB 2.0 Driver Limitations:
   2-1 The USB 2.0 driver only supports Windows XP and Windows 2000.
   2-2 If you connect a USB 2.0 hub to the root hub, plugging USB devices into this hub, the system might not successfully execute certain USB devices' connection because it could not recognize these devices.

Currently, we are working on such limitations' solution. As soon as the solution is done, the updated USB drive will be released to our website: www.pcchips.com.tw for your downloading.

Features & Checklist Translations

Liste de contrôle

Le coffret de votre carte mère contient les éléments suivants :

- ❑ La carte mère
- ❑ Le Manuel utilisateur
- ❑ Un câble plat pour lecteur de disquette (optionnel)
- ❑ Une câble plat pour lecteur IDE
- ❑ CD de support de logiciels

Caractéristiques

Processeur	**Prise en charge du Processeur Socket-462** • Supporte le CPU AMD **Athlon XP/Athlon/Duron** • Supporte un Bus Avant allant jusqu'à **266 MHz**
Chipset	Ce chipset comporte **VIA KM266 Northbridge** et **VT8235 Southbridge** conformément à une architecture novatrice et dimensionnable avec une fiabilité et des performances prouvées. • Une architecture de contrôleur de mémoire V-Link avancée offrant la bande passante allant jusqu'à 266 Mo/s et les performances nécessaires même pour les graphiques Internet et 2D/3D les plus exigeants • Support d'une interface 4xAGP offrant des graphiques 2D/3D éclatants, ainsi que d'excellentes performances vidéo
Support de Mémoire	• Deux logements DIMM SDRSM 168 broches pour modules mémoire • Deux logements DIMM DDR 184 broches pour modules mémoire • Supporte le bus mémoire **133**/100 MHz • La mémoire maximum installée est 2Go **Notice: Vous ne pouvez pas utiliser une SDRAM et une DDR simultanément.**
Logements d'Extension	• Deux logements PCI 32 bits pour interface • Un logement 4xAGP pour interface • Un logement CNR
IDE Interne	• Canaux IDE PCI Primaires et Secondaires • Support pour modes PIO (programmable input/output) • Support pour modes Multiword DMA • Support pour Maîtrise de Bus et modes Ultra DMA **ATA100** 33/66/**100/133**
VGA	• Intégré dans un moteur **128 bits 2D** hautes performances • Tampon de trame de 32 Mo maximum • Prend en charge l'accès de mode AGP 4X 266 MHz
Audio	• Conforme aux spécifications AC'97 2.1 • CODEC Full-duplex stéréo16 bits avec vitesse d'échantillonnage de 48KHz fixe • 3 entrées stéréo de niveau de ligne analogique avec contrôle de volume 5 bits : ENTRÉE LIGNE, ENTRÉE CD, ENTRÉE AUX • Trois Prises Audio – Ligne-Sortie, Ligne-Entrée et Entrée Microphone

	• Compatible Sound Blaster, Sound Blaster Pro • Support de gestion d'alimentation avancée
Ports E/S Internes	• Deux ports PS/2 pour souris et clavier • Un port série • Un port parallèle • Un port VGA • Quatre ports fond de panier, prises USB internes offrant deux ports supplémentaires
LAN Fast Ethernet (optionnel)	• **Solution de Couche Physique 100Base-TX/10Base-T** • Double Vitesse – 100/10 Mbps • Interface MII vers Contrôleur Ethernet/Configuration & Etat • Négociation automatique : 10/100, Full/Half Duplex • Conforme à tous les Standards IEEE802.3, 10Base-T et 100Base-TX Applicables
USB 2.0	• Conforme aux Spécifications de Bus Série Universel Révision 2.0 • Conforme aux Spécifications d'interface de Contrôleur d'Hôte Amélioré de Intel Révision 0.95 • Conforme aux Spécifications d'Interface de Contrôleur d'Hôte Universel Révision 1.1 • Le périphérique multifonction PCI consiste en deux noyaux de Contrôleur d'Hôtes UHCI pour signalisation pleine/faible vitesse et un noyau de Contrôleur d'Hôtes EHCI pour signalisation haute vitesse • Le hub racine consiste en 4 ports de face en aval avec émetteurs-récepteurs de couche physique intégrés partagés par le Contrôleur d'Hôte UHCI et EHCI • Support des Spécifications d'Interface de Gestion d'Alimentation de Bus PCI version 1.1 • Support hérité pour tous les ports face à l'aval.

Certaines spécifications matérielles et éléments de logiciels peuvent être modifiés sans avertissement .

Checkliste

Die Verpackung Ihres Mainboards enthält folgende Teile:

- ❑ Mainboard
- ❑ Handbuch
- ❑ Bandkabel für Floppylaufwerke (optional)
- ❑ Bandkabel für IDE-Laufwerke
- ❑ Software-CD

Ausstattung

Prozessor	**Unterstütz Socket-462-Prozessoren** • Unterstützung für AMD **Athlon XP/Athlon/Duron** prozessors • Unterstützung von bis zu **266 MHz** Front-Side Bus
Chipsatz	Dieser Chipsatz besteht aus einer **VIA KM266 Northbridge** und einer **VIA 8235 Southbridge.** Die Chipsatzarchitektur ist in einem innovativen und skalierbaren Design gehalten und verspricht sowohl Zuverlässigkeit als auch Leistungsstärke. • Moderner V-Link-Speichercontroller-Architektur bietet die nötige Bandbreite bis zu 266 MB/Sek.und Leistung selbst für die anspruchsvollsten Internet- und 3D-Grafiken • Unterstützung für ein 4xAGP-Interface bietet lebendige 3D-Grafiken und Videoperformance
Speicherunterstützung	• Zwei 168-pin DIMM Steckplätze für SDRAM Speichermodule • Zwei 184-pin DIMM Steckplätze für DDR Speichermodule • Unterstützung für **133**/100 MHz Speicherbus • Maximal auf 2GB Speicher erweiterbar **Anmerkung: Sie können SDRAM und DDR nicht gleichzeitig verwenden**
Erweiterungssteckplätze	• Zwei 32-Bit PCI-Steckplätze • Ein 4xAGP-Steckplatz • Ein CNR-Steckplatz
Onboard IDE	• Primäre und sekundäre PCI IDE-Kanäle • Unterstützung für PIO (Programmable Input/Output) Modi • Unterstützung für Multiword DMA-Modus • Unterstützung für Bus-Mastering und Ultra DMA **ATA 100** 33/66/**100/133** –Modus
VGA	• Onboard-**128-Bit 2D**-Engine • Maximal 32 MB Frame-Puffer • Unterstützt AGP 4X 266 MHz-Zugriff
Audio	• Entspricht AC'97 2.1 • 16-Bit Stereo Vollduplex-CODEC mit fixierter 48 KHz-Samplingrate • 3 analoge Line-level Stereo-Eingänge mit 5-Bit-Lautstärkenkontrolle: LINE-IN, CD-IN, AUX-IN Drei Audiobuchsen – Line-Out, Line-In and Microphone-In • Kompatibel mit Sound Blaster und Sound Blaster Pro • Unterstützung für Advanced Power Management
Onboard I/O Ports	• Zwei PS/2-Steckplätze für Maus und Tastatur yboard • Ein serieller Steckplatz • Ein paralleler Steckplatz

	• Ein VGA-Steckplatz • Vier auf der Rückseite, Onboard USB-Header für zwei zusätzliche Ports
Fast Ethernet LAN (optional)	• 100Base-TX/10Base-T Physical Layer-Lösung • Duale Geschwindigkeit – 100/10 MB/Sek. • MII-Interface für Ethernet Controller/Konfiguration & Status • Auto-Negotiation: 10/100 MB/Sek., Voll/Halfduplex • Entspricht allen anwendbaren Standards: IEEE802.3, 10Base-T und 100Base-TX
USB 2.0	• Entspricht Universal Serial Bus-Spezifikation, Revision 2.0 • Entspricht Intels Enhanced Host Controller Interface-Spezifikation, Revision 0.95 • Entspricht Universal Host Controller Interface -Spezifikation Revision 1.1 • PCI-Multifunktionsgerät besteht aus zwei UHCI Host Controller-Kernen für Signalübertragung bei voller und niedriger Geschwindigkeit sowie einem EHCI Host Controller-Kern für Hochgeschwindigkeits-Signalübertragung • Root Hub besteht aus 4 Downstream-Ports mit integrierten Physical Layer-Überträgern für gemeinsame Nutzung durch UHCI und EHCI Host Controller • Unterstützt PCI-Bus Power Management Interface , Spezifikation Release 1.1 • Legacy-Unterstützung für alle Downstream-Ports

Bestimmte Hardwarespezifikationen und Teile der Softwareausstattung können ohne weitere Ankündigung abgeändert werden.

Lista

L'imballo della scheda madre é composto da:

- ❑ La scheda madre
- ❑ Il manuale
- ❑ Una piattina per il collegamento dei drive (opzionale)
- ❑ Una piattina IDE
- ❑ Il CD con il Software di supporto

Caratteristiche

Processor	**Dotata di Socket 462 per Processori** • Supporta CPU AMD **Athlon XP/Athlon/Duron** • Supporta fino a **266 MHz** Front Side Bus
Chipset	In accordo ad una architettura scabile e innovative sono presenti nel chipset il **Northbridge VIA KM266 e Southbridge VT8235**. • Un'avanzata architettura del controller di memoria V-Link che fornisce un ampiezza di banda fino a 266 MB/s e prestazioni ottimali anche per le più esigenti applicazioni grafiche di Internet e in 3D • Supporto interfaccia AGP 4X per applicazioni grafiche di precisione in 3D e prestazioni video
Memory Support	• Due slot DIMM a 168 pin per moduli di memoria SDRAM • Due slot DIMM a 184 pin per moduli di memoria DDR • Supporta bus di memoria **133**/100 MHz • Quantità massima di memoria installabile, 2GB **Attenzione : Non è possibile utilizzare SDRAM e DDR contemporaneamente.**
Slot di espansione	• Due slot PCI a 32 bit • Una slot AGP 4x • Una slot CNR
Onboard IDE	• Canali PCI IDE primari e secondari • Supporto per modalità PIO (input/output programmabile) • Supporto per modalità DMA Multiword • Supporto per la gestione dei canali e modalità Ultra DMA **ATA 100** 33/66/**100/133** modes
VGA	• Motore integrato **2D** a **128 bit** che garantisce alte prestazioni • Frame buffer Max 32 MB • Supporto per la modalitá di accesso AGP 4X 266 MHz
Audio	• Conforme con le specifiche AC`97 2.1 • CODEC 16 bit stereo full-duplex con campionamento fisso a 48KHz • 3 entrate analogiche con controllo del volume a 5 bit: LINE-IN, CD-IN, AUX-IN • Tre Jack Audio – Line Out, Line In e Microphone-In • Compatibile Sound Blaster, Sound Blaster Pro Compatible • Supporto per gestione energetica avanzata.
Onboard I/O Ports	• Due porte PS/2 per tastiera e mouse • Una porta seriale • Una porta VGA • Una porta parallela

	• Quattro porte sul pannello posteriore, terminali USB a bordo che offrono due porte extra
Fast Ethernet LAN (opzionale)	• **Architettura 100Base TX/10Base T** • Doppia velocità – 100/10 Mbps • Interfaccia MII per Controllo Ethernet /Configurazione & Stato • Negoziazione Automatica: 10/100, Full/Half Duplex • Supporto di tutti gli standard esistenti IEEE802.3, 10Base-T e 100Base-TX
USB 2.0	• Compliant with Universal Serial Bus Specification Revision 2.0 • Compliant with Intel's Enhanced Host Controller Interface Specification Revision 0.95 • Compliant with Universal Host Controller Interface Specification Revision 1.1 • PCI multi-function device consists of two **UHCI Host Controller** cores for full-/low-speed signaling and one **EHCI Host Controller** core for high-speed signaling • Root hub consists 4 downstream facing ports with integrated physical layer transceivers shared by **UHCI** and **EHCI** Host Controller • Support PCI-Bus Power Management Interface Specification release 1.1 • Legacy support for all downstream facing ports

Some hardware specifications and software items are subject to change without prior notice.

LiSTA DE VERIFICACIÓN

El paquete de su placa principal contiene los sigtes. ítems:

- ❑ La placa principal
- ❑ El Manual del Usuario
- ❑ Un cable cinta para el lector de disquete (optativo)
- ❑ Un cable cinta para el lector IDE
- ❑ CD de Software de soporte

Características

Procesador	**Soporte de Procesador Socket-462** • Soporta CPU de AMD **Athlon XP/Athlon/Duron** • Soporta hasta Bus de Lado Frontal de **266 MHz**
Chipset	Hay **VIA KM266 Northbridge** y **VT8235 Southbridge** en este chipset en confomidad con una arquitectura innovadora y escalable con fiabilidad y rendimiento comprobados. • Una arquitectura de controlador de memoria V-Link avanzada que provee la ancha de banda hasta 266 MB/s y rendimiento necesarios para aun las gráficas 3D e Internet exigentes. • Soporta un interfase 4xAGP que provee gráficas 3D vivas y rendimiento de vídeo.
Soporte de Memoria	• Dos ranuras 168-pin DIMM para módulos de memoria SDRAM • Dos ranuras 184-pin DIMM para módulos de memoria DDR • Soporta bus de memoria de **133**/100 MHz • Memoria máxima instalada es 2GB **Aviso**: Usted no puede usar SDRAM y DDR simultáneamente.
Ranuras de Expansión	• Dos ranuras 32-bit PCI • Una ranura 4xAGP • Una ranura CNR
IDE Abordos	• Canales PCI IDE primario y secundario • Soporte para modos PIO (entrada/salida programable) • Soporte para el modos de Multiword DMA • Soporte para Bus Mastering y el modos Ultra DMA **ATA 100** 33/66/**100/133**
VGA	• Un motor **128-bit 2D** de alto rendimiento incorporado • Buffer de cuadro de 32 MB máximo • Soporta acceso de modo AGP 4X 266 MHz
Audio	• Conforme con la especificación AC'97 2.1 • CODEC de full-duplex de estéreo 16—bit con índice de muestreo en 48KHz fijo • 3 entradas de estéreo a nivel de línea analógica con control de volumen de 5-bit: LINE-IN, CD-IN, AUX-IN • Tres Enchufes de Audio – Línea de Salida, Línea de Entrada y Entrada de Micrófono • Tarjeta de Sonido, Tarjeta de Sonido Pro Compatible • Soporte de administración de energía avanzada
Puertos I/O Abordos	• Dos puertos PS/2 para ratón y teclado • Un puerto serial

	• Un puerto paralelo • Un puerto VGA • Cuatro puertos USB **2.0** de panel trasero, cabezales USB abordos que proveen dos puertos extras
Ethernet LAN Rápido (optional)	• **Solución de Capa Física 100Base-TX/10Base-T** • Velocidad Dual – 100/10 Mbps • Interfaz MII a Controlador Ethernet/Configuración & Estado • Autonegociación: 10/100, Duplex Completo/Medio • Satisface Todas las Normas Aplicables IEEE802.3, 10Base-T y 100Base-TX
USB 2.0	• Conforme con la Especificación de Bus Serial Universal Revisión 2.0 • Conforme con Controlador Anfitrión Reforzado de Intel Interface Specification Revision 0.95 • Conforme con la Especificación de Interfaz de Controlador Anfitrión Universal Revisión 1.1 • Dispositivo PCI multi-función se consiste de dos centros de Controlador Anfitrión UHCI para señalización de velocidad completa/baja y un centro de Controlador Anfitrión EHCI para señalización de alta velocidaa • Root hub consiste de 4 puertos que miran hacia abajo con transceptores de capa física integrado compartido por Controlador Anfitrión UHCI y EHCI • Soporta Especificación de Interfaz de Administración de Energía de BUS PCI versión 1.1 • Soporte de legado para todos los puetos que miran hacia abajo

Algunas especificaciones de hardware e ítems de software son sujetos a cambio sin aviso previo .

Lista de verificação

A embalagem da sua placa principal contém os seguintes itens:

- ❑ A placa principal
- ❑ O Manual do Utilizador
- ❑ Um cabo para a unidade de disquetes (opcional)
- ❑ Um cabo para a unidade IDE
- ❑ CD de suporte para o software

Características

Processador	**Suporte do Processador Socket-462** • Suporta AMD **Athlon XP/Athlon/Duron** processadors • Suporta até **266 MHz** Front-Side Bus
Chipset	Conta com **VIA KM266 Northbridge** e **VT8235 Southbridge** neste chipset, de acordo com uma arquitectura inovadora e escalável com um nível de confiança e desempenho comprovado. • Uma arquitetura de controlador de memória avançado V-Link fornece capacidade de banda até 266 MB/s e performance suficiente para até os mais exigentes gráficos 3D e Internet • Suporta um interface 4xAGP fornecendo gráficos vívidos de 3D e performance de vídeo
Suporte de memória	• Dois sockets DIMM com 168 pinos para módulos de memória SDRAM • Dois sockets DIMM com 184 pinos para módulos de memória DDR • Suporta bus de memória **133**/100 MHz • A memória máxima instalada é de 2GB **Nota**: Você NÃO pode usar o SDRAM e o DDR simultâneamente.
Slots de expansão	• Duas slots PCI de 32 bit • Um slot AGP4x • Um slot CNR
IDE na placa	• Canais PCI IDE Primários e Secundários • Suporte para modos PIO (input/output programável) • Suporta modos Multiword DMA • Suporte para Bus Mastering e modos Ultra DMA **ATA 100** 33/66/**100/133**
VGA	• Embutido em um engenho **128-bit 2D** de alta performance • Buffer de quadro 32 MB máximo • Suporta modo de acesso AGP 4X 266 MHz
Audio	• Compatível com a especificação AC'97 2.1 • CODEC de 16 bits em duplex complete stereo com velocidade de mistura de 48KHz • 3 entradas de linha estéreo e analógicas com controlo de volume de 5 bits: LINE-IN, CD-IN, AUX-IN • Três Tomadas de Áudio – Line-Out, Line-In e Microphone-In • Sound Blaster, Sound Blaster Pro Compatível • Suporte de gerenciamento de força avançado
Portas I/O na placa	• Duas portas PS/2 para o rato e teclado • Uma porta série • Uma porta paralela

	• Uma porta VGA • Quatro portes USB2.0 traseiros, um conector USB na placa com dois portes extras
Fast Ethernet LAN (optional)	• **100Base-TX/10Base-T Solução de Camadas Físicas** • Velocidade Dupla – 100/10 Mbps • MII Interface para Controlador Ethernet /Configuração & Status • Auto Negociação: 10/100, Full/Half Duplex • Satisfaz todos os Padrões IEEE802.3, 10Base-T e 100Base-TX Aplicáveis
USB 2.0	• Compatível com Universal Serial Bus Revisão 2.0 da especificação • Compatível com controlador Enhanced Host da Intel Revisão 0.95 da especificação da interface • Compatível com controlador Universal Host Revisão 1.1 da especificação da Interface • O dispositivo PCI muli-funções consiste em dois núcleos de **Controlador UHCI Host Controller** para sinalização de velocidade total/baixa em um núcleo de **Controlador EHCI Host** para sinalização de alta velocidade • O núcleo de raiz consiste em 4 portas de protecção a jusante com transreceptores de camadas físicas integrados partilhados pelos controladores Host **UHCI** e **EHCI** • Suporte de gestão de energia PCI-Bus Revisão 1.1 da especificação da interface • Suporte para todas as portas de protecção a jusante

As especificações de alguns artigos de hardware e software encontram-se sujeitos a alterações sem aviso prévio.

检查单

您的主板包装含有以下项目：

- ❑ 主板
- ❑ 用户手册
- ❑ 一根磁盘驱动器扁平电缆（可选）
- ❑ 一根 IDE 驱动器扁平电缆
- ❑ 软件支持 CD

功能

处理器	**支持 Socket-462 处理器** • 支持 AMD **Athlon XP/Athlon/Duron** CPU • 支持 **266 MHz** 前端总线
芯片组	芯片组包含 **VIA KM266 北桥**和 **VT8235 南桥**，它基于一种新型的、可扩展的架构，能提供已经证明的可靠性和高性能。 • 先进的 V-Link 存储控制器架构，能够提供到 266 MB/s 的带宽和性能，甚至能够满足 Internet 和 3D 图形应用的要求 • 支持一个 4xAGP 接口，能够提供逼真的 3D 图形和视频性能
内存支持	• 2 个用于 SDRAM 内存条的 168-pin DIMM 插槽 • 2 个用于 DDR 内存条的 184-pin DIMM 插槽 • 支持 **133**/100 MHz 存储总线 • 内存最多可达 2GB **注意：SDRAM 和 DDR 内存不能同时使用。**
扩展槽	• 2 个 32 位 PCI 插槽 • 1 个 CNR 槽 • 1 个 4XAGP 插槽
Onboard IDE	• Primary 和 Secondary PCI IDE 通道 • 支持 PIO（可编程输入/输出）模式 • 支持 Multiword DMA 模式 • 支持 Bus Mastering(总线控制) 和 Ultra DMA **ATA 100** 33/66/**100/133** 模式
VGA	• 内建高性能 **128 位 2D** 引擎 • 最大 32 MB 帧缓冲区 • AGP 4X 266 MHz 模式
AC97 编解码器	• 兼容 AC’ 97 2,1 规格 • 具有 48KHz 固定采样速率的 16 位全双工 CODEC（编解码器） • 3 路带 5 位音量控制的模拟线路电平立体声输入：LINE-IN, CD-IN, AUX-IN • 3 个声音插孔 – 线出、线入和麦克风入 • 兼容 Sound Blaster 和 Sound Blaster Pro • 支持高级电源管理

集成 I/O 端口	• 2 个用于鼠标和键盘的 PS/2 端口 • 1 个串口 • 1 个并口 • 1 个 VGA 端口 • 主板后面板带 4 个 USB 2.0 端口接口，板上 USB 接口提供其它 2 个端口
内建以太网 LAN（可选）	• **100Base-TX/10Base-T 物理层解决方案** • 双速 – 100/10 Mbps • 到以太网控制器的 MII 接口/配置 & 状态 • 自动协商：10/100，全双工/半双工 • 符合所有相应的 IEEE 802.3、10Base-T 和 100Base-Tx 标准
USB 2.0	• 符合通用串行总线规格 2.0 版本 • 符合 Intel 0.95 版本的增强主控器接口规格 • 符合 1.1 版本的通用主控器接口规格 • PCI 多功能设备由 2 个用于全速/低速传输数据的 UHCI 主控器 和 1 个用于高速传输数据的 EHCI 主控器组成 • Root 集线器包括 4 个下行端口，带有与 UHCI 和 EHCI 主控制器共用的集成物理层收发器。 • 支持 1.1 版本的 PCI 总线电源管理接口规格支持 • 所有传统下行端口

部分硬件规格和软件项目若有更改恕不另行通知。

Chapter 1

Introduction

This mainboard has a **Socket-A** support for the **AMD K7** processors. The Socket-A processor's front-side bus speed is **266MHz**.

This mainboard has a **KM266** chipset that supports a **4X AGP** slot for highly graphics display, 100/**133 MHz DDR/SDR**, and **Ultra DMA ATA**100/**133** function to provide outstanding high system performance under all types of system operations. The mainboard has the built-in **AC97 Codec**, a **CNR** (Communications and Networking Riser) slot and a built-in **10BaseT/100BaseTX Network Interface**. This mainboard has the **128-bit 2D/3D AGP Graphics Accelerator** with 32MB frame buffer, supporting **AGP 4X 266MHz** mode up to 1GB/s bandwidth, which provides a direct connection between the graphics sub-system and memory so that the graphics do not have to compete for processor time with other devices on the PCI bus. There is a full set of **I/O Ports** including PS/2 keyboard and mouse ports, one serial port, one onboard VGA (S3) port, one parallel port, and six USB ports (**USB2.0**)– four back-panel ports and onboard USB header USB3 providing two extra ports by connecting the Extended USB Module to the mainboard.

This mainboard has all the features you need to develop a powerful multimedia workstation that is network ready. The board is **Micro ATX size** and has power connectors for an **ATX** power supply.

Key Features

The key features of this mainboard include:

Socket-A Processor Support

- Supports AMD **Athlon XP/Athlon/Duron** processors
- Supports **266 MHz** Front-Side Bus

Chipset

There are **VIA KM266** Northbridge and VT8235 Southbridge in this chipset in accordance with an innovative and scalable architecture with proven reliability and performance. A few of the chipset's advanced features are:

- An advanced V-Link memory controller architecture that provides the bandwidth up to 266 MB/s and performance necessary for even the most demanding Internet and 2D/3D graphics
- Support for an 4xAGP interface providing vivid 2D/3D graphics and video performance

Memory Support

- Two 168-pin DIMM slots for SDRAM memory modules
- Two 184-pin DIMM slots for DDR memory modules
- Support for 100/133 MHz memory bus
- Maximum installed memory is 2GB

***Notice**: You can NOT use SDRAM and DDR simultaneously.*

Expansion Slots

- One CNR slot
- One 4X AGP slot for AGP 2.0-compliant interface
- Two 32-bit PCI slots for PCI 2.2-compliant bus interface

Onboard IDE channels

- Primary and Secondary PCI IDE channels
- Support for PIO (programmable input/output) modes
- Support for Multiword DMA modes
- Support for Bus Mastering and Ultra DMA **ATA 100** 33/66/**100/133** modes

Power Supply and Power Management

- ATX power supply connector
- ACPI and previous PMU support, suspend switch, keyboard power on/off
- Supports Wake on LAN

VGA

- Single cycle 128-bit 3D architecture
- 128-bit 2D graphic engine
- 8/16/32 MB frame buffer using system memory
- Supports AGP 4X 266 MHz mode up to 1GB/s bandwidth
- Supports 250MHz RAMDAC
- 2D/3D resolutions up to 1920x1440
- Supports AGP Rev. 2.0 Spec. Compliant

AC97 Codec

- Compliant with AC'97 2.1 specification
- 16-bit stereo full-duplex CODEC with fixed 48KHz sampling rate
- 3 analog line-level stereo inputs with 5-bit volume control: LINE-IN, CD-IN
- Three Audio Jacks – Line-Out, Line-In and Microphone-In
- Sound Blaster, Sound Blaster Pro Compatible
- Advanced power management support

Onboard I/O Ports

- Provides PC99 Color Connectors for easy peripheral device connections
- Floppy disk drive connector with 1Mb/s transfer rate
- Two PS/2 ports for keyboard and mouse
- One serial port with 16C550-compatible fast UART
- One parallel port with ECP and EPP support
- One VGA port
- Four back-panel USB2.0 ports and extra two USB2.0 ports (onboard USB header USB3)
- One infrared port connector for optional module

Built-in Ethernet LAN (optional)

- **10Base-T/100Base-TX Physical Layer Solution**
- Dual Speed – 100/10 Mbps
- MII Interface to Ethernet Controller/Configuration & Status
- Auto Negotiation: 10/100, Full/Half Duplex
- Meet All Applicable IEEE802.3, 10Base-T and 100Base-TX Standards

USB 2.0

- Compliant with Universal Serial Bus Specification Revision 2.0
- Compliant with Intel's Enhanced Host Controller Interface Specification Revision 0.95
- Compliant with Universal Host Controller Interface Specification Revision 1.1
- PCI multi-function device consists of two **UHCI Host Controller** cores for full-/low-speed signaling and one **EHCI Host Controller** core for high-speed signaling
- Root hub consists 4 downstream facing ports with integrated physical layer transceivers shared by **UHCI** and **EHCI** Host Controller
- Support PCI-Bus Power Management Interface Specification release 1.1
- Legacy support for all downstream facing ports

Hardware Monitoring

- Built-in hardware monitoring for CPU & System temperatures, fan speeds and mainboard voltages

Onboard Flash ROM

- Supports Plug and Play configuration of peripheral devices and expansion cards

Bundled Software

- **PC-Cillin2002** provides automatic virus protection under Windows 98/ME/NT/2000/XP
- **Adobe Acrobat Reader V5.0** is the software to help users read .PDF files.

Dimensions

- Micro ATX form factor (24.4cm x 22cm)

Note: Hardware specifications and software items are subject to change without notification.

Package Contents

Your mainboard package ships with the following items:

- The mainboard
- The User's Manual
- One diskette drive ribbon cable (optional)
- One IDE drive ribbon cable
- The Software support CD

Optional Accessories

You can purchase the following optional accessories for this mainboard.

- Extended USB module

Chapter 2

Mainboard Installation

To install this mainboard in a system, please follow the instructions in this chapter:

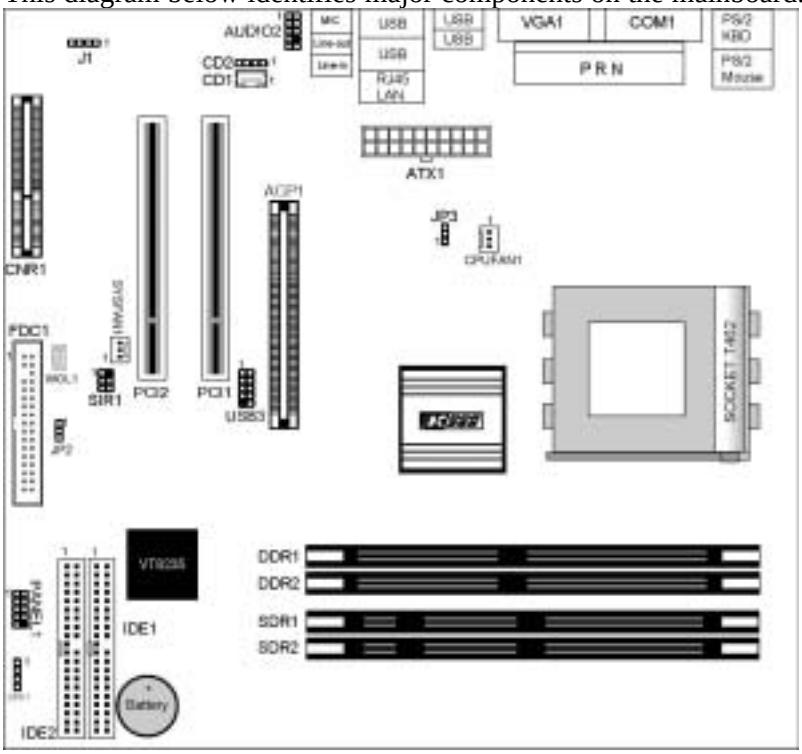
- Identify the mainboard components
- Install a CPU
- Install one or more system memory modules
- Make sure all jumpers and switches are set correctly
- Install this mainboard in a system chassis (case)
- Connect any extension brackets or cables to connectors on the mainboard
- Install any peripheral devices and make the appropriate connections to connectors on the mainboard

Note:

1. Before installing this mainboard, make sure jumper JP2 is under Normal setting. See this chapter for information about locating JP2 and the setting options.
2. Never connect power to the system during installation; otherwise, it may damage the mainboard.

Mainboard Components

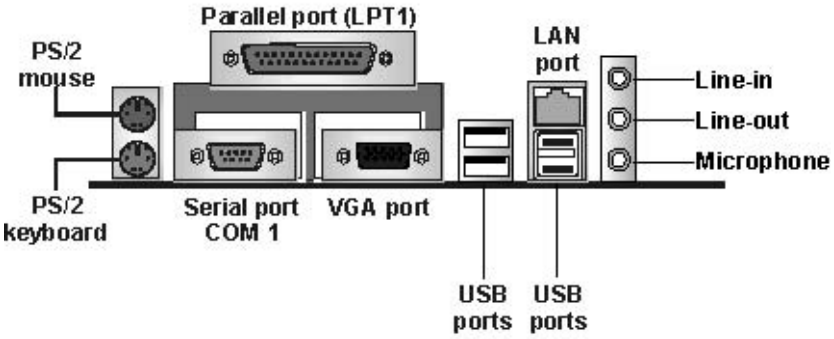
This diagram below identifies major components on the mainboard.



Note: Any jumpers on your mainboard that do not appear in the illustration above are for testing only.

I/O Ports

The illustration below shows a side view of the built-in I/O ports on the mainboard.



Install A CPU

This mainboard has a Socket-462 CPU socket for AMD K7 processors.

To ensure reliability, ensure that your processor has a heatsink/cooling fan assembly.

Do not try to install a Socket-370/Socket-7 processor in the Socket-462. A Socket-370/Socket-7 processor such as the PPGA Celeron, FCPGA Pentium-III, Pentium-MMX, or the AMD K5/K6 does not fit in the Socket-462.

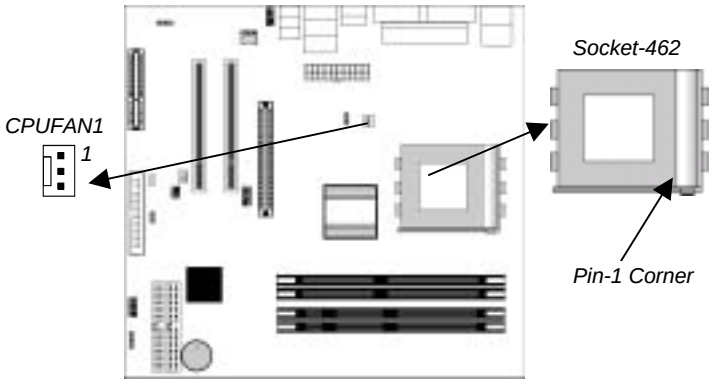
The following list notes the processors that are currently supported by this mainboard.

Athlon XP: 2000+ and up; FSB: 266 MHz
Athlon: 650 MHz~1.4 GHz, FSB: 200 MHz, 266 MHz
Duron: 550 MHz~1.2 GHz, FSB: 200 MHz

Installing a Socket-462 Processor

A processor installs into the ZIF (Zero Insertion Force) Socket-462 on the mainboard.

1. Locate the Socket-462 and CPUFAN1. Pull the locking lever out slightly from the socket and raise it to the upright position.



2. On the processor, identify the Pin-1 corner by its beveled edge.
3. On the Socket-462, identify the Pin-1 corner. The Pin-1 corner is at the top of the locking lever when it locked.
4. Match the Pin-1 corners and insert the processor into the socket. No force is required and the processor should drop into place freely.
5. Swing the locking lever down and hook it under the catch on the side of the socket. This secures the CPU in the socket.
6. All processors should be installed with a combination heatsink/cooling fan (the original fan is recommended, the others' fan is not), connect the cable from the fan to the CPU fan power connector CPUFAN1.

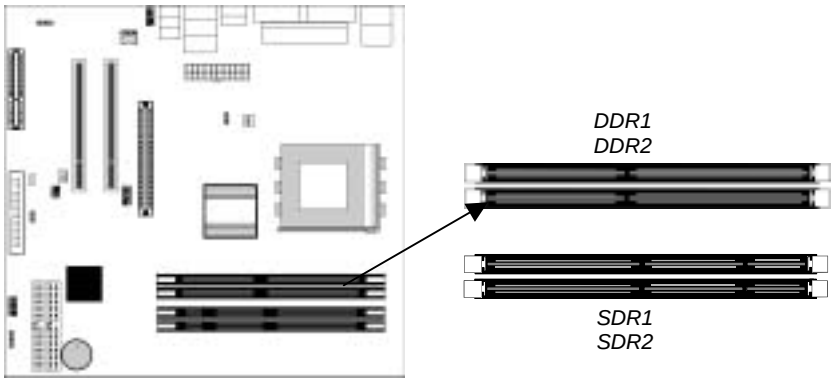
See the Setting Jumper Switches section for detail information on CPU System Bus settings.

Install Memory

This mainboard accommodates 168-pin 3.3V/184-pin 2.5V unbuffered SDRAM/DDR SDRAM (Double Data Rate SDRAM) memory modules. The memory chips must be standard or registered SDRAM (Synchronous Dynamic Random Access Memory).

You must install at least one memory module in order to work the mainboard, **either SDRAM or DDR SDRAM, but you cannot work them simultaneously**.

SDRAM provides 800 MB/s or 1 GB/s data transfer rate depending on whether the bus is 100 MHz or 133 MHz. DDR SDRAM doubles the rate to 1.6 GB/s and 2.1 GB/s by transferring data on both the rising and falling edges of the clock. DDR SDRAM uses additional power and ground lines and requires 184-pin 2.5V unbuffered DIMM module.



Installation Procedure

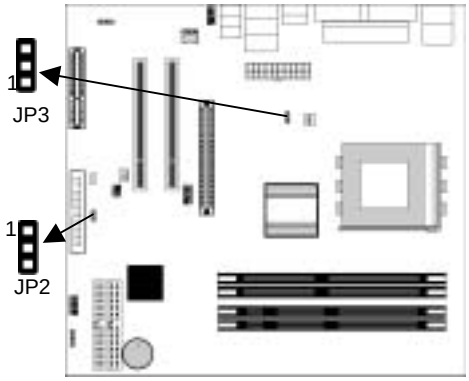
The mainboard accommodates two types of memory modules. You must install at least one module of them. Each module can be installed with up to 2 GB system memory.

Install the memory modules as the following steps:

1. Push the latches on each side of the DIMM socket down.
2. Align the memory module with the socket. The DIMM sockets are keyed with notches and the DIMMs are keyed with cutouts so that they can only be installed correctly.
3. Check that the cutouts on the DIMM module edge connector match the notches in the DIMM socket.
4. Install the DIMM module into the socket and press it firmly down until it is seated correctly. The socket latches are levered upwards and latch on to the edges of the DIMM.
5. Install any remaining DIMM modules.

Setting Jumper Switches

Jumpers are sets of pins connected together with jumper caps. The jumper caps change the mainboard's operation by changing the electronic circuits on the mainboard. If we connect two pins with a jumper cap, these pins are SHORT; if remove a jumper cap from these pins, they are OPEN.



Jumper JP2: Clear CMOS Memory

This jumper can clear the CMOS memory. You may need to clear the CMOS memory if the settings in the Setup Utility are incorrect that your mainboard can't operate. To clear the CMOS memory, disconnect all the power cables, and then move the jumper cap into the CLEAR setting for a few seconds.

Function	Jumper Setting
Normal	Short Pins 1-2
Clear CMOS	Short Pins 2-3

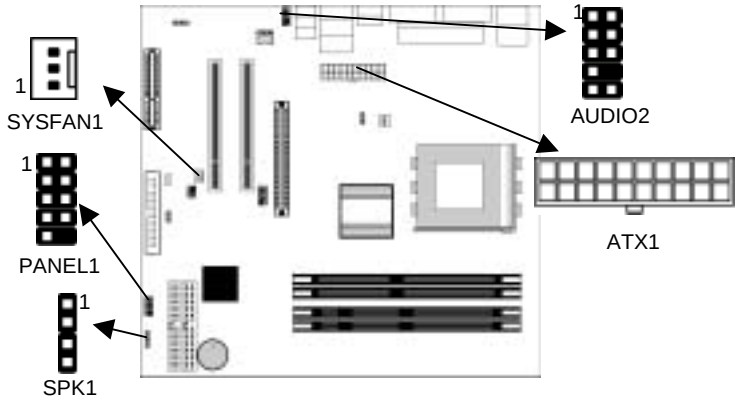
Jumper JP3: CPU Clock Selector

This 3-pin jumper selects the processor 133 MHz or 100 MHz.

Function	Jumper Setting
100 MHz	Short Pins 1-2
133 MHz	Short Pins 2-3

Install the Mainboard

Install the mainboard in a system chassis (case). The board is an ATX size mainboard with a twin-tier of I/O ports. You can install this mainboard in an ATX case. Ensure that your case has an I/O cover plate that matches the ports on this mainboard.
Install the mainboard in a case. Follow the instructions provided by the case manufacturer using the hardware and internal mounting points on the chassis.



Connect the power connector from the power supply to the **ATX1** connector on the mainboard.
If there is a cooling fan installed in the system chassis, connect the cable from the cooling fan to the **SYSFAN1** fan power connector on the mainboard.
Connect the cable from the PC speaker to the **SPK1** header on the mainboard.

Pin	Signal	Pin	Signal
1	+5V	2	NC
3	GND	4	SPKR

Connect the case switches and indicator LEDs to the **PANEL1** header.

Pin	Signal	Pin	Signal
1	HDD_LED_P	2	PWR/ACPI LED
3	HDD_LED_N	4	PWR/ACPI LED
5	RESET	6	POWER_BUTTON
7	RESET	8	POWER_BUTTON
9	NC	10	KEY

If there are a headphone jack or/and a microphone jack on the front panel, connect the cables to the **AUDIO2** header on the mainboard.

Pin	Signal	Pin	Signal
1	AUD_MIC	2	AUD_GND
3	AUD_MIC_BIAS	4	AUD_VCC
5	AUD_FPOUT_R	6	AUD_RET_R
7	HP_ON	8	KEY
9	AUD_FPOUT_L	10	AUD_RET_L

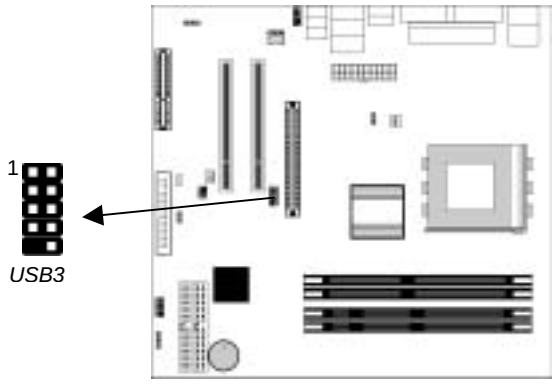
Note: If you want to connect the front panel sound jack, you have to remove jumper caps of Pin(5-6) and Pin(9-10) from the AUDIO2 header.

Optional Extension Brackets

For this mainboard, you can obtain some USB module extension brackets. You can use auxiliary USB connector USB3 for USB 2.0 port. Following these steps below to install them.
Note: *All the ribbon cables used on the extension brackets have a red stripe on the Pin-1 side of the cable.*

Extended USB Module

Each module bracket has two USB ports for more USB devices (USB3).

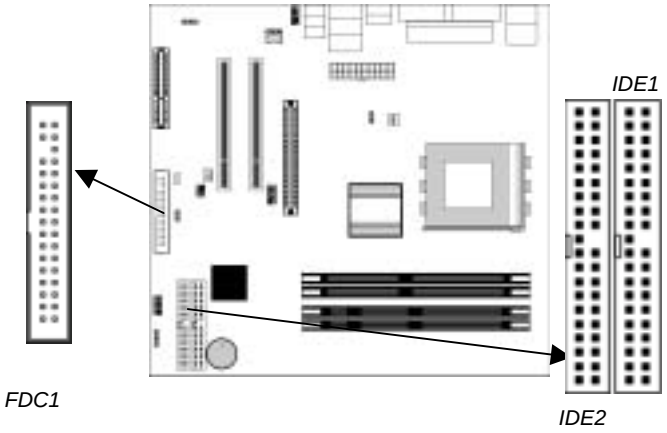


Pin	Signal	Pin	Signal
1	VERG_FP_USBPWR0	2	VERG_FP_USBPWR0
3	USB_FP_P0-	4	USB_FP_P1-
5	USB_FP_P0+	6	USB_FP_P1+
7	GROUND	8	GROUND
9	KEY	10	NC

1. Locate the USB3 header on the mainboard.
2. Plug the bracket cable onto the USB3 header.
3. Remove a slot cover from one of the expansion slots on the system chassis. Install an extension bracket in the opening. Secure the extension bracket to the chassis with a screw.

Install Other Devices

Install and connect any other devices in the system following the steps below.



Floppy Disk Drive

The mainboard ships with a floppy disk drive cable that can support one or two drives. Drives can be 3.5” or 5.25” wide, with capacities of 360K, 720K, 1.2MB, 1.44MB, or 2.88MB.
Install your drives and connect power from the system power supply. Use the cable provided to connect the drives to the floppy disk drive connector **FDC1**.

IDE Devices

IDE devices include hard disk drives, high-density diskette drives, and CD-ROM or DVD-ROM drives, among others.

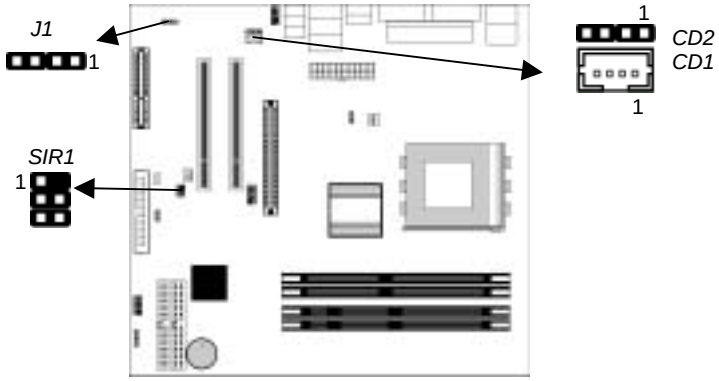
The mainboard ships with an IDE cable that can support one or two IDE devices. If you connect two devices to a single cable, you must configure one of the drives as Master and one of the drives as Slave. The documentation of the IDE device will tell you how to configure the device as a Master or Slave device. The Master device connects to the end of the cable.

Install the device(s) and connect power from the system power supply. Use the cable provided to connect the device(s) to the Primary IDE channel connector **IDE1** on the mainboard.

If you want to install more IDE devices, you can purchase a second IDE cable and connect one or two devices to the Secondary IDE channel connector **IDE2** on the mainboard. If you have two devices on the cable, one must be Master and one must be Slave.

Internal Sound Connections

If you have installed a CD-ROM drive or DVD-ROM drive, you can connect the drive audio cable to the onboard sound system.



On the mainboard, locate the two 4-pin connectors **CD1** and **CD2**. There are two kinds of connector because different brands of CD-ROM drive have different kinds of audio cable connectors. Connect the cable to the appropriate connector.

CD1

Pin	Signal
1	GND
2	CD IN L
3	GND
4	CD IN R

CD2

Pin	Signal
1	CD IN L
2	GND
3	GND
4	CD IN R

Infrared Port

You can connect an infrared port to the mainboard. You can purchase this option from third-party vendors.

Pin	Signal	Pin	Signal
1	NC	2	KEY
3	+5V	4	GND
5	IRTX	6	IRRX

1. Locate the infrared port **SIR1** header on the mainboard.
2. If you are adding an infrared port, connect the ribbon cable from the port to the SIR1 header and then secure the port to an appropriate place in your system chassis.

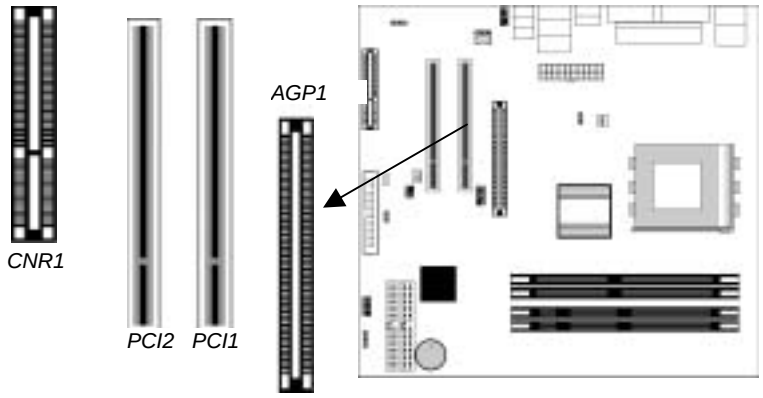
Onboard LAN LED Connections

If you have a set indicator LEDs for the onboard LAN communication, you can connect the LED cable to the header **J1**. Pins 1-2 are for Link LED. Pins 3-4 are for 10/100 Mbps mode LED, the onboard LAN run in 100 Mbps mode when the LED lit.

Pin	Signal	Pin	Signal
1	Link LED	2	LED+
3	LED+	4	10/100 Mbps mode LED

Expansion Slots

This mainboard has one AGP, one CNR and two 32-bit PCI slots.

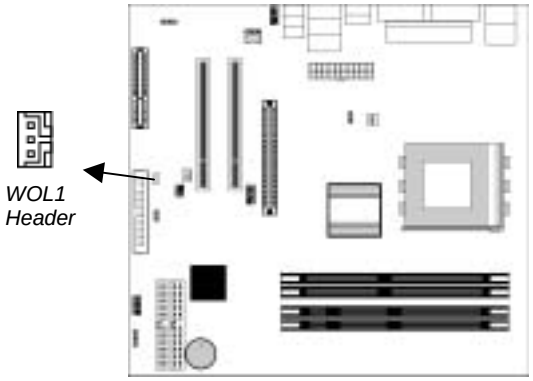


Follow the steps below to install a PCI/AGP/CNR expansion card.

1. Locate the CNR, AGP or PCI slots on the mainboard.
2. Remove the blanking plate of the slot from the system chassis.
3. Install the edge connector of the expansion card into the slot. Ensure the edge connector is correctly seated in the slot.
4. Secure the metal bracket of the card to the system chassis with a screw.

Wake On LAN (WOL)

If you have installed a LAN adapter expansion card, connect the card to the Wake On LAN connector **WOL1**. This allows incoming traffic to resume the system from a software power down. You need to enable this feature in the BIOS setup utility.



Pin	Signal
1	5VSB
2	GND
3	RIJ

Chapter 3

BIOS Setup Utility

Introduction

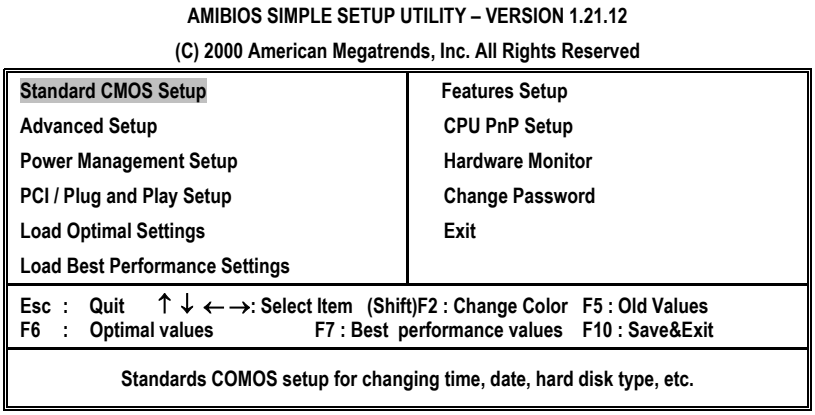
The BIOS Setup Utility records settings and information of your computer, such as date and time, the type of hardware installed, and various configuration settings. Your computer applies the information to initialize all the components when booting up and basic functions of coordination between system components.

If the Setup Utility configuration is incorrect, it may cause the system to malfunction. It can even stop your computer booting properly. If it happens, you can use the clear CMOS jumper to clear the CMOS memory which has stored the configuration information; or you can hold down the **Page Up** key while rebooting your computer. Holding down the **Page Up** key also clears the setup information.

You can run the setup utility and manually change the configuration. You might need to do this to configure some hardware installed in or connected to the mainboard, such as the CPU, system memory, disk drives, etc.

Running the Setup Utility

Every time you start your computer, a message appears on the screen before the operating system loading that prompts you to "*Hit <DEL>if you want to run SETUP*". Whenever you see this message, press the **Delete** key, and the Main menu page of the Setup Utility appears on your monitor.



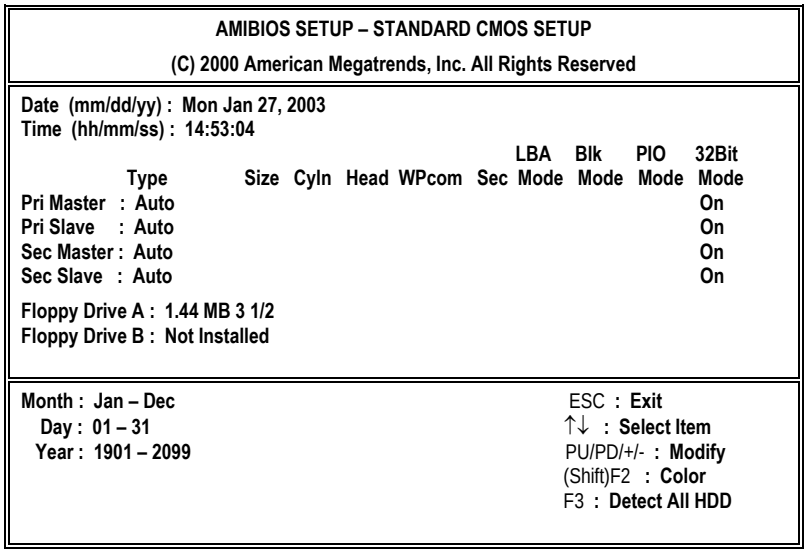
You can use the cursor arrow keys to highlight any of the options on the main menu page. Press **Enter** to select the highlighted option. To leave the setup utility, press the **Escape** key. To cycle through the Setup Utility's optional color schemes hold down the **Shift** key and press **F2**.

Some of the options on the main menu page lead to tables of items with installed values. In these pages, use the cursor arrow keys to highlight the items, and then use the **PgUp** and **PgDn** keys to cycle through the alternate values for each of the items. Other options on the main menu page lead to dialog boxes requiring you to answer Yes or No by hitting the **Y** or **N** keys.

If you have already made changes to the setup utility, press **F10** to save those changes and exit the utility. Press **F5** to reset the changes to the original values. Press **F6** to install the setup utility with a set of default values. Press **F7** to install the setup utility with a set of high-performance values.

Standard CMOS Setup Page

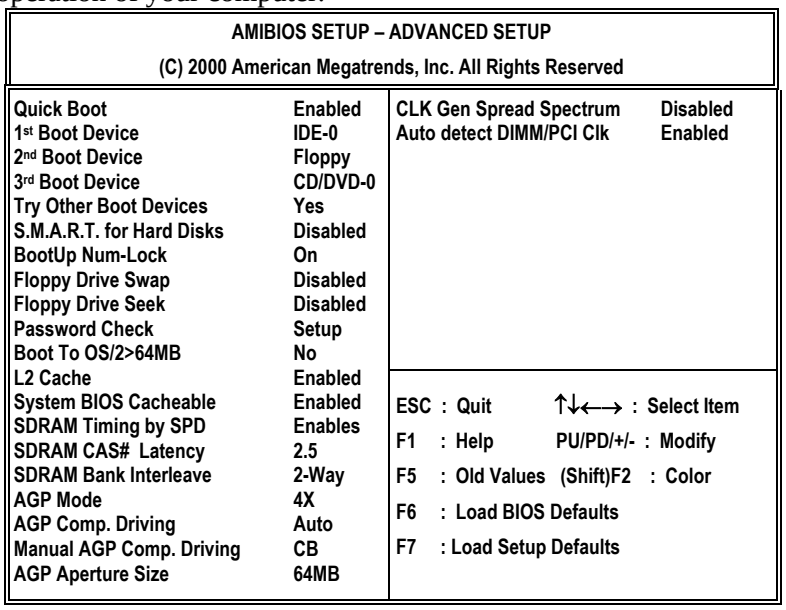
Use this page to set basic information such as the date, the time, the IDE devices, and the diskette drives. If you press the F3 key, the system will automatically detect and configure the hard disks on the IDE channels.



Date & Time	Use these items to set the system date and time
Pri Master **Pri Slave** **Sec Master** **Sec Slave**	Use these items to configure devices connected to the Primary and Secondary IDE channels. To configure an IDE hard disk drive, choose *Auto*. If the *Auto* setting fails to find a hard disk drive, set it to *User*, and then fill in the hard disk characteristics (Size, Cyls, etc.) manually. If you have a CD-ROM drive, select the setting *CDROM*. If you have an ATAPI device with removable media (e.g. a ZIP drive or an LS-120) select *Floptical*.
Floppy Drive A **Floppy Drive B**	Use these items to set the size and capacity of the floppy diskette drive(s) installed in the system.

Advanced Setup Page

Use this page to set more advanced information about your system. Take some care with this page. Making changes can affect the operation of your computer.



Quick Boot	If you enable this item, the system starts up more quickly be elimination some of the power on test routines.
1st Boot Device **2nd Boot Device** **3rd Boot Device**	Use these items to determine the device order the computer uses to look for an operating system to load at start-up time.
Try Other Boot Device	If you enable this item, the system will also search for other boot devices if it fails to find an operating system from the first two locations.
S.M.A.R.T. for Hard Disks	Enable this item if any IDE hard disks support the S.M.A.R.T. (Self-Monitoring, Analysis and Reporting Technology) feature.
BootUp Num-Lock	This item determines if the Num Lock key is active or inactive at system start-up time.
Floppy Drive Swap	If you have two diskette drives installed and you enable this item, drive A becomes drive B and drive B becomes drive A.

Floppy Drive Seek	If you enable this item, your system will check all floppy disk drives at start up. Disable this item unless you are using an old 360KB drive.
Password Check	If you have entered a password for the system, use this item to determine, if the password is required to enter the Setup Utility (*Setup*) or required both at start-up and to enter the Setup Utility (*Always*).
Boot to OS/2 > 64MB	Enable this item if you are booting the OS/2 operating system and you have more than 64MB of system memory installed.
L2 Cache	Leave these items enabled since all the processors that can be installed on this board have internal cache memory.
System BIOS Cacheable	If you enable this item, a segment of the system BIOS will be cached to main memory for faster execution.
SDRAM Timing by SPD	This item enables or disables the SDRAM timing defined by the Serial Presence Detect electrical.
SDRAM CAS# Latency	This item determines the operation of SDRAM memory CAS (column address strobe). It is recommended that you leave this item at the default value. The 2T setting requires faster memory that specifically supports this mode.
SDRAM Bank Interleave	Enable this item to increase SDRAM memory speed. When enabled, separate memory banks are set for odd and even addresses, and upcoming byte of memory is accessible while refreshing the current byte.
AGP Mode	This item provides the OnBoard VGA mode with three options of 1,2, 4 multiplied frequency.
AGP Comp. Driving	This item signals the auto or manual driving current on AGP cards. Some AGP cards need stronger driving current for operation. We recommend you set this item to be default value.

Manual AGP Comp. Driving	This item decides the AGP current driving value while AGP Driving is set to Manual.
AGP Aperture Size	This option determines the effective size of the AGP Graphic *Aperture*, where memory-mapped graphic data structures are located.
CLK Gen Spread Spectrum	This item enables the clock to generate spread spectrum.
Auto Detect DIMM/PCI Clk	When this item is enabled, BIOS will disable the clock signal of free DIMM/PCI slots.

Power Management Setup Page

This page sets some of the parameters for system power management operation.

AMIBIOS SETUP – POWER MANAGEMENT SETUP
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ACPI Aware O/S	Yes
Power Management	Enabled
Hard Disk Time Out	Suspend
Suspend Time Out (Minute)	Disabled
LAN/Ring Power On	Disabled
Keyboard Power On	Disabled
Wake-Up Key	Any Key
Wake-Up Password	N/A
PowerOn by RTC Alarm	Disabled
RTC Alarm Date	15
RTC Alarm Hour	12
RTC Alarm Minute	30
RTC Alarm Second	30

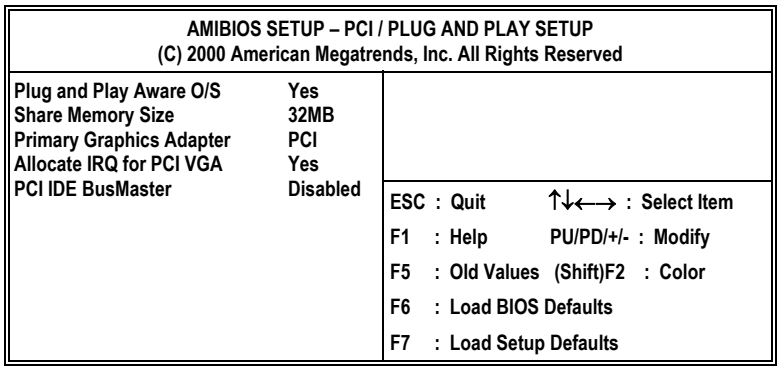
ESC : Quit ↑↓←→ : Select Item
F1 : Help PU/PD/+/- : Modify
F5 : Old Values (Shift)F2 : Color
F6 : Load BIOS Defaults
F7 : Load Setup Defaults

ACPI Aware O/S	This item supports ACPI (Advanced Configuration and Power management Interface). Use this item to enable or disable the ACPI feature.
Power Management	This item enables or disables a power management scheme. If you enable power management, there are some options for you to decide the power management operation. Both APM and ACPI are supported.
Hard Disk Time Out	This sets the timeout to power down the hard disk drive, if the time selected passes without any hard disk activity.

Suspend Time Out (Minute)	This item sets up the timeout (minutes) for the Suspend mode. The computer will be a power-saving Suspend mode if the system has been inactive after the setup time
LAN/Ring Power On	The system can be turned off with a software command. If you enable this item, the system can automatically resume if there is an incoming call on the Modem. You must use an ATX power supply in order to use this feature.
Keyboard Power On **Wake up key** **Wake up password**	If you enable this item, system can automatically resume by pressing hot keys on the keyboard or typing in the password. You must enable the Keyboard Power On jumper and use an ATX power supply in order to use this feature.
PowerOn by RTC Alarm / Date / Hour / Minute / Second	The system can be turned off with a software command. If you enable this item, the system can automatically resume at a fixed time based on the system's RTC (realtime clock). Use the items below this one to set the date and time of the wake-up alarm. You must use an ATX power supply in order to use this feature.

PCI / Plug and Play Setup Page

This page sets some of the parameters for devices installed on the PCI bus and devices that use the system plug and play capability.



Plug and Play Aware O/S	Enable this item if you are using an O/S that supports Plug and Play such as Windows 95 or 98.
Share Memory Size	This item lets you allocate a portion of the main memory for the onboard VGA display application with 8/16/32MB options.
Primary Graphics Adapter	This item indicates if the primary graphics adapter uses the PCI or the AGP bus. The default PCI setting still lets the onboard display work and allows the use of a second display card installed in a PCI slot.
Allocate IRQ for PCI VGA	If this item is enabled, an IRQ will be assigned to the PCI VGA graphics system. You set this value to No to free up an IRQ.
PCI IDE BusMaster	This item enables or disables the DMA under DOS mode. We recommend you to leave this item at the default value.

Load Optimal Settings

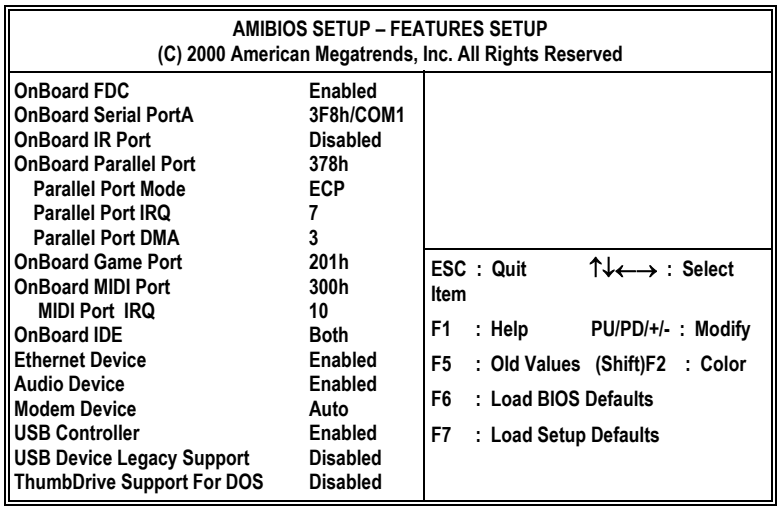
If you select this item and press **Enter** a dialog box appears. If you press **Y**, and then **Enter**, the Setup Utility loads a set of fail-safe default values. These default values are not very demanding and they should allow your system to function with most kinds of hardware and memory chips.
Note: It is highly recommend that users enter this option to load optimal values for accessing the best performance.

Load Best Performance Settings

If you select this item and press **Enter** a dialog box appears. If you press **Y**, and then **Enter**, the Setup Utility loads a set of best-performance default values. These default values are quite demanding and your system might not function properly if you are using slower memory chips or other low-performance components.

Features Setup Page

This page sets some of the parameters for peripheral devices connected to the system.

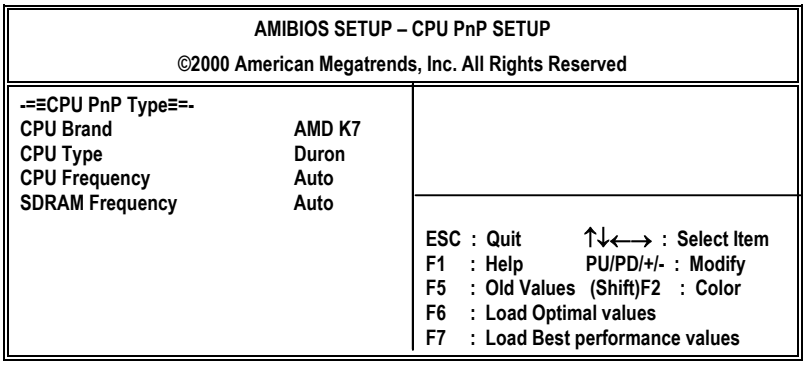


OnBoard FDC	This item enables or disables the onboard floppy disk drive interface.
OnBoard Serial PortA	These items enable or disable the onboard COM1 serial port, and assign a port address.
OnBoard IR Port	This item enables or disables the Infrared port, and assigns a port address. If you select a specific address, the resources are assigned to the IR port, and you can use the five items below to determine the operation of the IR port
Onboard Parallel Port	This item enables or disables the onboard LPT1 parallel port, and assigns a port address. The Auto setting will detect and available address.
Parallel Port Mode	This item decides the parallel port mode. You can select SPP (Standard Parallel Port), ECP (Extended Capabilities Port), EPP (Enhanced Parallel Port), or ECP + EPP.
Parallel Port IRQ	This item assigns either IRQ 5 or 7 to the parallel port.

Parallel Port DMA	This item assigns a DMA channel to the parallel port. The options are 0, 1 and 3.
OnBoard Game Port	This item enables or disables the I/O address for the game port.
OnBoard MIDI Port/IRQ	This item enables or disables the onboard MIDI port, and assigns a port address.
MIDI Port IRQ	This item assigns IRQ 5 to the parallel port.
OnBoard IDE	This item enables or disables either or both of the onboard Primary and Secondary IDE channels.
Ethernet Device	This item enables or disables the onboard Ethernet LAN.
Audio Device	This item enables or disables the onboard AC'97 audio chip.
Modem Device	This item enables or disables the onboard AC'97 modem chip.
USB Controller	Enable this item to select the USB ports or disable.
USB Device Legacy Support	This item enables the USB device, if you have installed a USB device on the system board.
ThumbDrive Support for DOS	Enable this item to make a small portion of memory storage device for the USB ports.

CPU PnP Setup Page

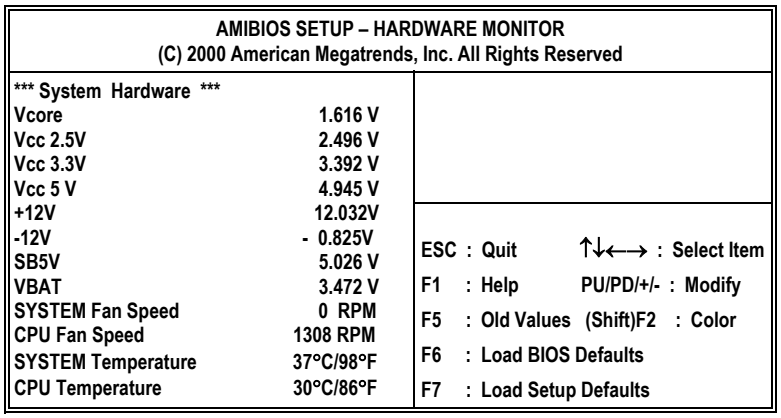
This page lets you manually configure the mainboard for the CPU. The system will automatically detect the kind of CPU that you have installed and make the appropriate adjustments to the items on this page.



CPU Brand/Type	These items show brand and type of the CPU installed in your system.
CPU / SDRAM Frequency	These items decide frequency of the CPU/SDRAM installed in your system.

Hardware Monitor Page

This page sets some of the parameters for the hardware monitoring function of this mainboard.



System / CPU Temperature	These items display CPU and system temperature measurement.
FANs & Voltage Measurements	These items indicate cooling fan speeds in RPM and the various system voltage measurements.

Change Password

If you highlight this item and press **Enter**, a dialog box appears which lets you enter a Supervisor password. You can enter no more than six letters or numbers. Press **Enter** after you have typed in the password. A second dialog box asks you to retype the password for confirmation. Press **Enter** after you have retyped it correctly. The password is then required to access the Setup Utility or for that and at start-up, depending on the setting of the Password Check item in Advanced Setup.

Change or Remove the Password

Highlight this item, press Enter and type in the current password. At the next dialog box, type in the new password, or just press Enter to disable password protection.

Exit

Highlight this item and press **Enter** to save the changes that you have made in the Setup Utility configuration and exit the program. When the Save and Exit dialog box appears, press **Y** to save and exit, or press **N** to exit without saving.

Chapter 4

Software & Applications

Introduction

This chapter describes the contents of the support CD-ROM that comes with the mainboard package.

The support CD-ROM contains all useful software, necessary drivers and utility programs to properly run our products. More program information is available in a README file, located in the same directory as the software.

To run the support CD, simply insert the CD into your CD-ROM drive. An Auto Setup screen automatically pops out, and then you can go on the auto-installing or manual installation depending on your operating system.

If your operating system is Windows 98/ME/2000/XP, it will automatically install all the drivers and utilities for your mainboard; if Windows NT or manual installation, please follow the instructions described as the Installing under Windows NT or Manual Installation section.

Installing Support Software

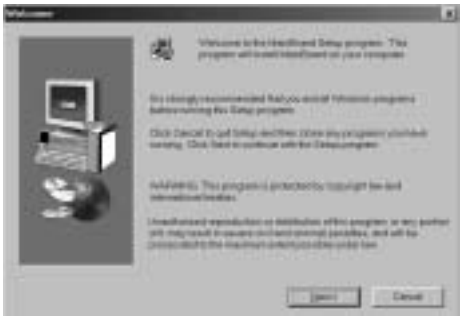
1.Insert the support CD-ROM disc in the CD-ROM drive.
2.When you insert the CD-ROM disc in the system CD-ROM drive, the CD automatically displays an Auto Setup screen.
3.The screen displays three buttons of **Setup**, **Browse CD** and **Exit** on the right side, and three others **Setup**, **Application** and **ReadMe** at the bottom. Please see the following illustration.

The **Setup** button runs the software auto-installing program as explained in next section.
The **Browse CD** button is a standard Windows command that you can check the contents of the disc with the Windows 98 file browsing interface.
The **Exit** button closes the Auto Setup window. To run the program again, reinsert the CD-ROM disc in the drive; or click the CD-ROM driver from the Windows Explorer, and click the Setup icon.
The **Application** button brings up a software menu. It shows the bundled software that this mainboard supports.
The **ReadMe** brings you to the Install Path where you can find out path names of software driver.

Auto-Installing under Windows 98/ME/2000/XP

If you are under Windows 98/ME/2000/XP, please click the **Setup** button to run the software auto-installing program while the Auto Setup screen pops out after inserting the support CD-ROM:

1. The installation program loads and displays the following screen. Click the **Next** button.



2. Select the items that you want to setup by clicking on it (the default options are recommended). Click the **Next** button to proceed.

3. The support software will automatically install.

Once any of the installation procedures start, software is automatically installed in sequence. You need to follow the onscreen instructions, confirm commands and allow the computer to restart as few times as needed to complete installing whatever software you selected. When the process is finished, all the support software will be installed and start working.

Installing under Windows NT or Manual Installation

If you are under Windows NT, the auto-installing program doesn't work out; or you have to do the manual installation, please follow this procedure while the Auto Setup screen pops out after inserting the support CD-ROM:

1. Click the **ReadMe** to bring up a screen, and then click the Install Path at the bottom of the screen.
2. Find out your mainboard model name and click on it to obtain its correct driver directory.
3. Install each software in accordance with the corresponding driver path.

Bundled Software Information

All bundled software available on the CD-ROM is for users' convenience. You can install bundled software as follows:

1. Click the **Application** button while the Auto Setup screen pops out after inserting the support CD-ROM.
2. A software menu appears. Click the software you want to install.
3. Follow onscreen instructions to install the software program step by step until finished.