

Mainboard User's Manual

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MS8308D/E Series, V3.0A
S73X/December 2001**

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Notice:

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. Just click the "Continue Anyway" button and go ahead the installation.



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Notice for AGP4X Slot:

This mainboard has an optional AGP4x slot. We recommend users should utilize one of the AGP VGA cards that we have tested. We will test more AGP VGA cards in the future. Users may get this information from our World Wide Web.

Model Chipset	Memory	Manufacture
3D BLASTER GeForce	32M	Creative CT6940
ATI PERMEDIA 2	8M	WinFast 3D L2300
GeForce 256	32M	ASUS V6600
GeForce 2 MX	32M	ASUS AGP-V7100
GeForce 2 GTS DDR	32M	ASUS AGP-7700D
GeForce 2 GTS DDR	32M	ELSA GLADIAC
GeForce 2 GTS	32M	WinFast
GeForce 2 MX	32M	WinFast
Matrox Productiva G100	8M	Matrox
Matrox Millennium G200	8M	TAGRAM
NVIDIA GeForce 256 DDR	32M	ASUS V6800
NVIDIA GeForce 256	32M	Creative CT6970
NVIDIA RIVA TNT2 Vanta	32M	Top solution
RIVA TNT2 M64	16M	PixelView
RIVA TNT	16M	WinFast 3D S320
RIVA TNT2	32M	ASUS AGP-V3800
RIVA TNT2	32M	Creative CT6810

Chapter 1

Introduction

This mainboard has a **Socket-462** processor socket for an **AMD K7** type CPUs. You can install any one of these processors on the mainboard.

The mainboard supports Socket-462 processor front-side bus speeds of **200/266MHz**.

This mainboard uses the **SiS730** chipset that integrates a **128-bit AGP Graphics Accelerator** and provides an optional **4X AGP** slot for highly graphics display, **CPU Plug & Play** through firmware, and **Ultra DMA 33/66/100** function. This mainboard has a built-in **AC97 Codec**, an **AMR** (Audio Modem Riser) slot to support Audio and Modem application and a built-in **10BaseT/100BaseTX Network Interface**. In addition, this mainboard has an extended set of **ATX I/O Ports** including PS/2 keyboard and mouse ports, two USB ports, an RJ-45 LAN port, a parallel port, one serial port, and one VGA port. Connecting the Extended USB Module to this mainboard can add two extra USB ports.

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

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Key Features

The key features of this mainboard include:

Socket-462 Processor Support

- ◆ Supports AMD **Athlon XP/Athlon/Duron** processors
- ◆ Supports 200/266 MHz Front-Side Bus

Processors are automatically configured using firmware and a synchronous Host/DRAM Clock Scheme.

Memory Support

- ◆ Two DIMM slots for 168-pin SDRAM memory modules
- ◆ Support for 100/133 MHz memory bus
- ◆ Maximum installed memory is 2 x 512MB = 1GB

Expansion Slots

- ◆ One AMR slot for a special audio/modem riser card
- ◆ One optional AGP4X 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 33/66/**100** modes

Power Supply and Power Management

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

1: Introduction

Built-in Graphics System

- ◆ Onboard 128-bit 2D/3D 100MHz Host interface **AGP Graphics Accelerator** Complies with AGP V2.0
- ◆ Shared memory architecture allows a maximum of 64 MB main memory to act as frame buffer
- ◆ Supports high resolutions up to 1920x1440 Hi-colors, up to 2048x2048 Texture size and Virtual screen up to 4096x4096
- ◆ Supports hardware DVD Accelerator

AC97 Codec

- ◆ Compliant AC97 2.1 specification
- ◆ Supports 18-bit ADC (Analog Digital Converter) and DAC (Digital Analog Converter) as well as 18-bit stereo full-duplex codec

Onboard I/O Ports

- ◆ Provides PC99 Color Connectors for easy peripheral device connections
- ◆ Floppy disk drive connector with 1Mb/s transfer rate
- ◆ Two serial ports (one for option) with 16550-compatible fast UART
- ◆ One parallel port with ECP and EPP support
- ◆ Two USB ports and optional two USB ports module
- ◆ Two PS/2 ports for keyboard and mouse
- ◆ One infrared port connector for optional module

Hardware Monitoring

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

Built-in Ethernet LAN

- ◆ Built-in **10BaseT/100BaseTX Ethernet LAN**
- ◆ LAN controller integrates Fast Ethernet MAC and PHY compliant with IEEE802.3u 100BASE-TX, 10BASE-T and ANSI X3.263 TP-PMD standards
- ◆ Compliant with ACPI 1.0 and the Network Device Class Power Management 1.0

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- ◆ High Performance provided by 100Mbps clock generator and data recovery circuit for 100Mbps receiver

Onboard Flash ROM

- ◆ Automatic CPU and board configuration
- ◆ Supports Plug and Play configuration of peripheral devices and expansion cards

Bundled Software

- ◆ **PC-Cillin2000** provides automatic virus protection under Windows 95/98/NT/2000
- ◆ **SuperVoice** is data, fax and voice communication software
- ◆ **MediaRing Talk** provides PC to PC or PC to Phone internet phone communication
- ◆ **3Deep** delivers the precise imagery and displays accurate color in your monitor
- ◆ **WinDVD2000** is a DVD playback application (optional)
- ◆ **Recovery Genius 21st V5.0** provides the function to recover, reserve and transfer hard disk data.
- ◆ **CD Ghost** is the software stimulating a real CD-ROM to perform equivalent function.
- ◆ **Language Genius 21st** is the software to provides learning tools of language and singing.

Dimensions

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

1: Introduction

Package Contents

Your mainboard package ships with the following items:

- ☐ The mainboard
- ☐ This User's Guide
- ☐ 1 UDMA/66 IDE cable
- ☐ 1 Floppy disk drive cable
- ☐ Support software on CD-ROM disk

Optional Accessories

You can purchase the following optional accessories for this mainboard.

- ☐ Extended USB module
- ☐ Serial port extension bracket

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Static Electricity Precautions

Static electricity could damage components on this mainboard. Take the following precautions while unpacking this mainboard and installing it in a system.

1. Don't take this mainboard and components out of their original static-proof package until you are ready to install them.
2. While installing, please 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. Carefully hold this mainboard by its edges. Do not touch those components unless it is absolutely necessary. Put this mainboard on the top of static-protection package with component side facing up while installing.

Pre-Installation Inspection

1. Inspect this mainboard whether there are any damages to components and connectors on the board.
2. If you suspect this mainboard has been damaged, do not connect power to the system. Contact your mainboard vendor about those damages.

Chapter 2

Mainboard Installation

To install this mainboard in a system, please follow these 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 connecting headers on the mainboard
- ❑ Install other devices and make the appropriate connections to the mainboard connecting headers.

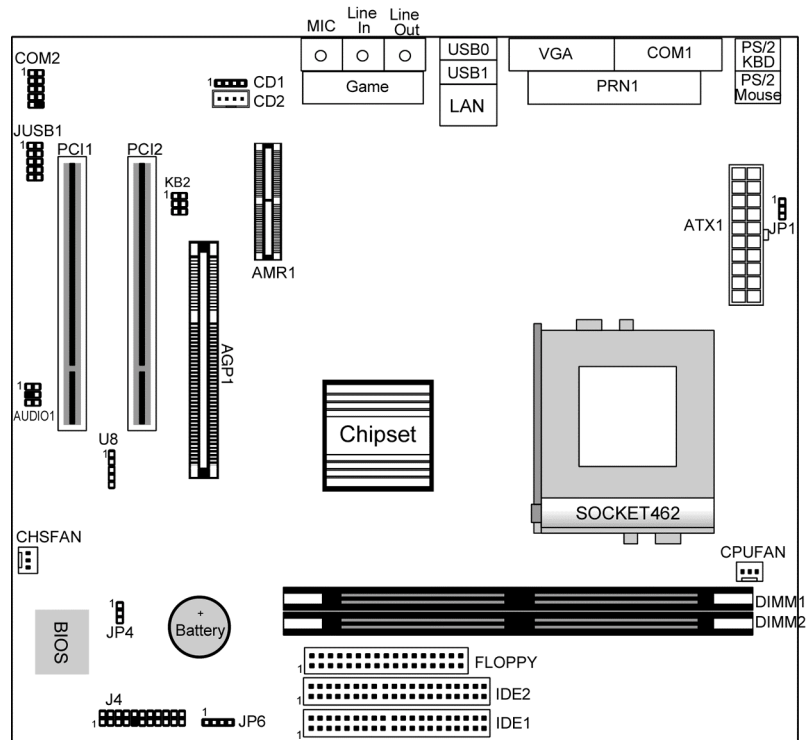
Note:

1. Before installing this mainboard, make sure jumper JP4 set to Normal setting. See this chapter for information on locating JP4 and the setting options.
2. Never connect power to the system during installation. Doing so may damage the mainboard.

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Mainboard Components

This diagram helps you identify major components on this mainboard.

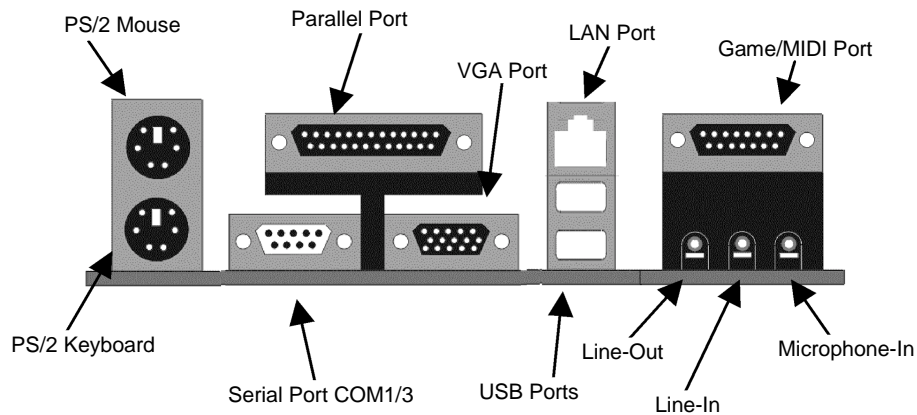


Note: Any jumpers on your mainboard but not appearing in this illustration are for testing only.

2: Mainboard Installation

I/O Ports

This illustration shown below is a side view of the built-in I/O ports on this 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: 1500+, 1600+, 1700+, 1800+; FSB: 266 MHz

Athlon: 650 MHz~1.4 GHz, FSB: 200 MHz, 266 MHz

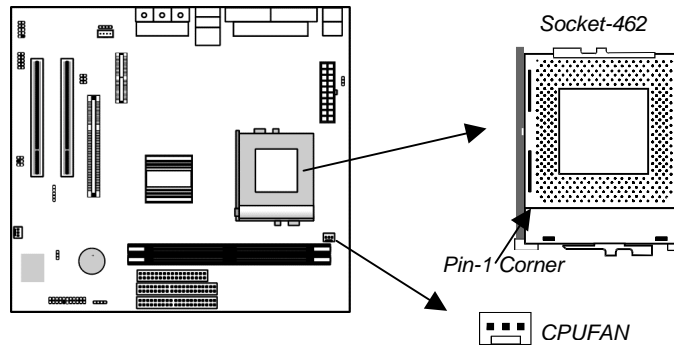
Duron: 550~850 MHz, FSB: 200 MHz

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Installing a Socket-462 Processor

Install a processor into the ZIF (Zero Insertion Force) Socket-462 on the mainboard.

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

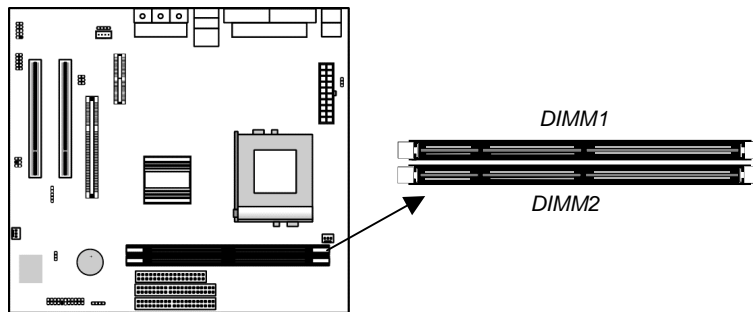


2. Identify the Pin-1 corner of the processor by its beveled edge.
3. Identify the Pin-1 corner on the Socket-462. The Pin-1 corner is at the top of the locking lever when it is locked.
4. Insert the processor into the socket matching the Pin-1 corner. The processor should drop into place freely without force.
5. Push locking lever down and hook it under the catch on the side of socket. This secures the CPU in the socket.
6. All processors should be installed together with a heatsink /cooling fan (the original fan is recommended, the others' fan is not), connecting the cable from the fan to the CPU fan power connector CPUFAN.

2: Mainboard Installation

Install Memory

The mainboard has two DIMM sockets for system memory modules. You must install at least one memory module in order to work out this mainboard.



For this mainboard, you must use 168-pin, 3.3V unbuffered PC100 or PC133 SDRAM memory modules. You can install any size memory module from 32 MB to 512MB, so the maximum memory size is $2 \times 512\text{MB} = 1\text{GB}$.

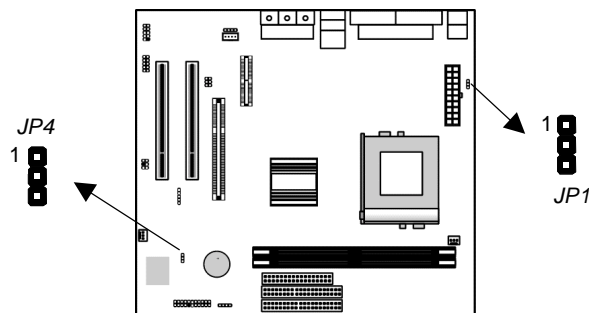
Edge connectors on the memory modules have cut outs coinciding with spacers in the DIMM sockets that memory modules can only be installed in the correct orientation.

To install a module, push the retaining latches at either end of the socket outwards. Position the memory module correctly and insert it into the DIMM socket. Press the module down into the socket so that the retaining latches rotate up and secure the module in place by fitting into notches on the edge of the module.

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Setting Jumper Switches

Jumpers are sets of pins connected together with caps. Jumper caps change the way of mainboard's operation by changing the electronic circuits on the mainboard. If a jumper cap connects two pins, we say those pins are **SHORT**; if the cap is removed, they are **OPEN**.



Jumper JP4: Clear CMOS Memory

This jumper is to clear the contents of CMOS memory. You may need to clear the CMOS memory if the settings in the Setup Utility are incorrect that prevents your mainboard from operating. To clear the CMOS memory, disconnect all the power cables from the mainboard and then move the jumper cap into the **CLEAR** setting for a few seconds.

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

Jumper JP1: Keyboard Power On Selector

If you enable the keyboard power on feature, you can use hot keys on your keyboard as a power on/off switch for the system.

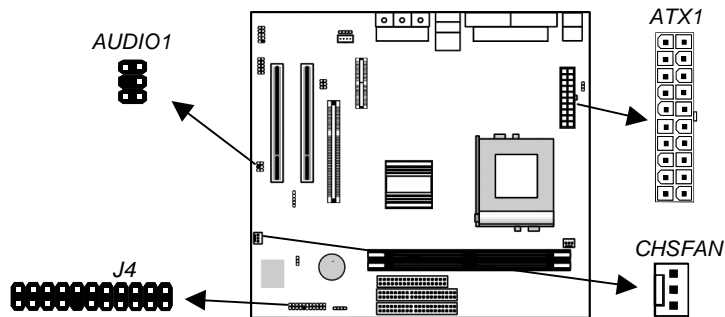
Note: The system must provide 1A on the +5VSB (+5V Standby) signal before using the Keyboard Power On function.

Function	Jumper Setting
Disable Keyboard Power On	Short Pins 1-2
Enable Keyboard Power On	Short Pins 2-3

2: Mainboard Installation

Install the Mainboard

Install this mainboard in a system chassis (case). This board is a Micro ATX size mainboard with a twin-tier of I/O ports. You can install this mainboard in any ATX case. Make sure your case has an I/O cover plate that matches the ports on this mainboard. Install this mainboard in a case. Follow these instructions of the case manufacturer to use the hardware and internal mounting points on the chassis.

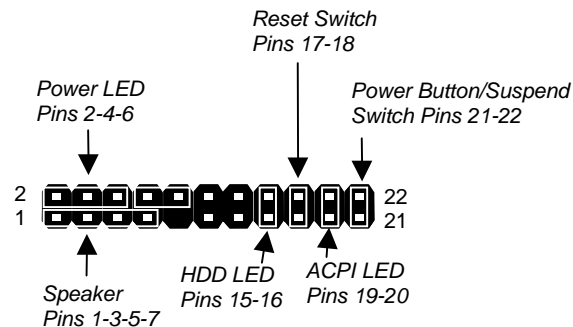


Connect the power connector from the power supply to the **ATX1** connector on the mainboard.

If there is a cooling fan installed in the system chassis, connect the cable from the cooling fan to the **CHSFAN** fan power connector on the mainboard.

If there are a headphone jack or/and a microphone jack on the front panel, connect the cables to the **AUDIO1** header on the mainboard. Connect the case switches and indicator LEDs to the **J4** header.

This illustration below gives you a guide of the header's pin assignment.



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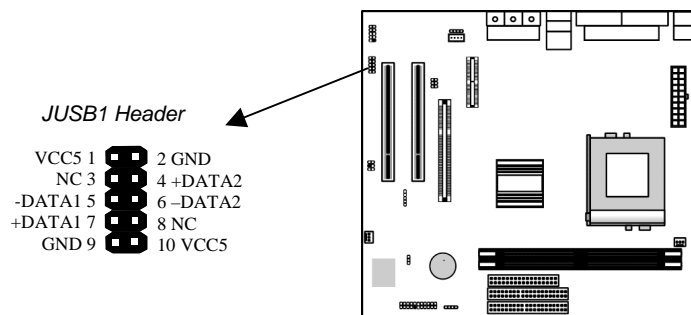
Optional Extension Brackets

For this mainboard, you can also obtain an USB module extension bracket and a serial port extension bracket. Install them by following these steps below.

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

This module bracket has two USB ports for more USB devices (USB port 3-4).

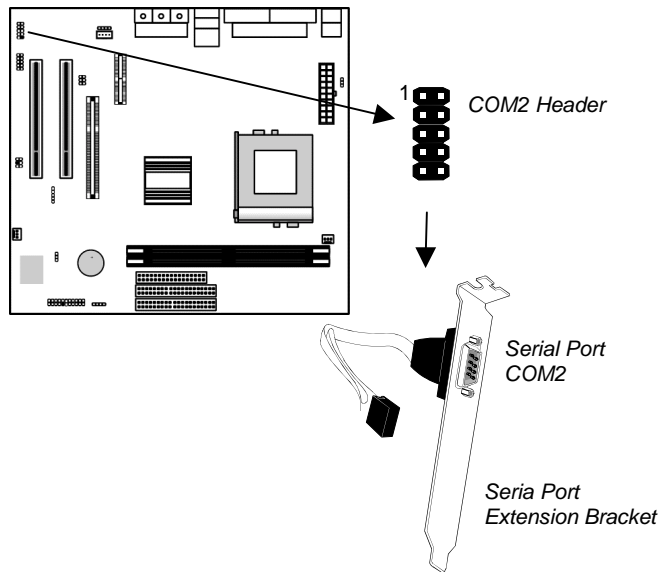


1. Locate the JUSB1 header on the mainboard.
2. Plug the bracket cable onto the JUSB1 header.
3. In the system chassis, remove a slot cover from one of the expansion slots, install the extension bracket in the opening, and then screw this bracket firmly to that slot

2: Mainboard Installation

Serial Port Extension Bracket

This bracket has one serial port – COM2 (9-pins).

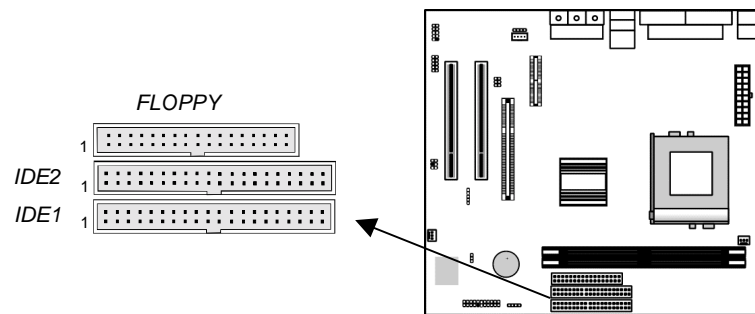


1. On the mainboard, locate the header COM2 for this bracket.
2. Plug the serial cable into COM2.
3. In the system chassis, remove a blanking plate from one of the expansion slots, install the extension bracket in that slot, and secure the bracket to the chassis with a screw.

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Install Other Devices

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



Floppy Disk Drive

This mainboard ships with a floppy disk drive cable that can support one or two drives. Drives is 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 enclosed cable to connect the drives to the floppy disk drive header **FLOPPY**.

IDE Devices

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

This 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 these drives as Master and the other as Slave. The documentation of the IDE device will tell you how to configure these devices as a Master or Slave device. The Master device connects to the end of the cable.

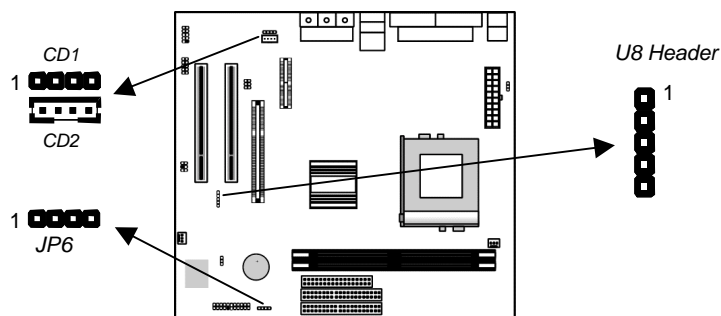
Install the device(s) and connect power from the system power supply. Use the enclosed cable to connect those device(s) to the Primary IDE channel connector **IDE1** on this mainboard.

2: Mainboard Installation

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 this mainboard. If you have two devices on the cable, one must be Master and the other 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 connectors because different brands of CD-ROM drive have different audio cable connectors. Connect the cable to the appropriate connector.



Infrared Port

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

1. Locate the infrared port **U8** header on the mainboard.
2. If you add an infrared port, connect the ribbon cable from the port to the header, and then secure the port to an appropriate place in your system chassis.

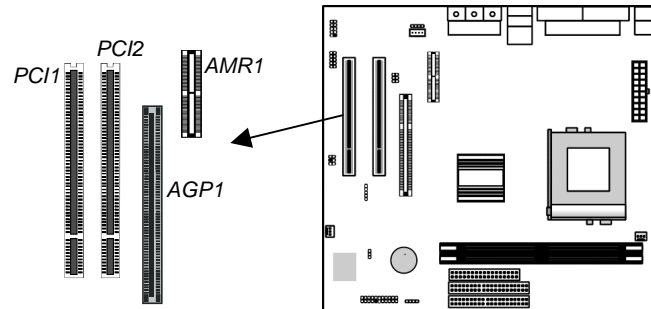
Onboard LAN LED Connections

If you have a set of indicator LEDs for the onboard LAN communication, you can connect the LED cable to the header **JP6**. Pins 1-2 are for Link LED, Pins 3-4 for 10/100 Mbps mode LED, and onboard LAN run in 100 Mbps mode when LED is lit.

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Expansion Slots

This mainboard has two 32-bit PCI expansion slots, one AMR slot and one optional AGP slot.



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

1. Locate the AGP, AMR or PCI slots on the mainboard.
2. Remove the slot cover from the system chassis.
3. Insert the edge connector of expansion card into the slot and press it firmly down into until fully inserted.
4. Secure the expansion card bracket to the system chassis with that slot cover's screw.

AMR Slot

The AMR (Audio Modem Riser) slot is an industry standard slot that allows the installation of a special audio/modem riser card. Different territories have different regulations regarding the specifications of a modem card. You can purchase an approved AMR card in your area and install it directly into the AMR slot.

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 those 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.

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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 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.

AMIBIOS SIMPLE SETUP UTILITY – VERSION 1.21.06 ©2000 American Megatrends, Inc. All Rights Reserved	
Standard CMOS Setup	Features Setup
Advanced Setup	CPU PnP Setup
Power Management Setup	Hardware Monitor
PCI / Plug and Play Setup	Change Password
Load Optimal Settings	Exit
Load Best Performance Settings	
ESC: Quit ↑↓←→: Select Item (Shift)F2: Change Color F5: Old Values F6: Optimal values F7: Best performance values F10: Save&Exit	
Standard CMOS setup for changing time, date, hard disk type, etc.	

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

Some options on the main menu page lead to tables of items with installed values that you can use cursor arrow keys to highlight one item, and press **PgUp** and **PgDn** keys to cycle through alternative values of that item. The other options on the main menu page lead to dialog boxes that require your answer Yes or No by hitting the **Y** or **N** keys.

If you have already changed 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.

3: BIOS Setup Utility

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.

AMIBIOS SETUP – STANDARD CMOS SETUP									
©2000 American Megatrends, Inc. All Rights Reserved									
Date (mm/dd/yy) : Tue Oct 23, 2001									
Time (hh/mm/ss) : 17:29:10									
	Type	Size	Cyln	Head	WPcom	Sec	LBA Mode	Blk Mode	PIO 32Bit Mode
Pri Master	: Not Installed								
Pri Slave	: Not Installed								
Sec Master	: Not Installed								
Sec Slave	: Not Installed								
Floppy Drive A : Not Installed									
Floppy Drive B : Not Installed									
Month : Jan – Dec						ESC : Exit			
Day : 01 – 31						↑↓ : Select Item			
Year : 1901 – 2099						PU/PD/+/- : Modify			
						(Shift)F2 : Color			
						F3 : Detect All HDD			

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

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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.

AMIBIOS SETUP – ADVANCED SETUP (C) 2000 American Megatrends, Inc. All Rights Reserved		
Quick Boot	Enabled	
1 st Boot Device	Floppy	
2 nd Boot Device	IDE-0	
3 rd Boot Device	CDROM	
Try Other Boot Devices	Yes	
S.M.A.R.T. for Hard Disks	Disabled	
BootUp Num-Lock	On	
Floppy Drive Swap	Disabled	
Floppy Drive Seek	Disabled	
Password Check	Setup	
Boot To OS/2 > 64MB	No	ESC : Quit ↑↓←→ : Select Item F1 : Help PU/PD/+/- : Modify F5 : Old Values (Shift)F2 : Color F6 : Load BIOS Defaults F7 : Load Setup Defaults
L1 Cache	Enabled	
L2 Cache	Enabled	
System BIOS Cacheable	Enabled	
Auto Detect DIMM/PCI Clk	Enabled	
CLK GEN Spread Spectrum	Disabled	

Quick Boot	If you enable this item, the system starts up more quickly by eliminating 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.

3: BIOS Setup Utility

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 (<i>Setup</i>) or required both at start-up and to enter the Setup Utility (<i>Always</i>).
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.
L1/L2 Cache	Leave these items enabled since all the processors that can be installed on this board have internal L1/L2 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.
Auto Detect DIMM/PCI Clk	When this item is enabled, BIOS will disable the clock signal of free DIMM/PCI slots.
CLK GEN Spread Spectrum	This item can set up the system bus spread spectrum for the installed processor.

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Power Management Setup Page

This page sets up some parameters for system power management operation.

AMIBIOS SETUP – POWER MANAGEMENT SETUP (C) 2000 American Megatrends, Inc. All Rights Reserved		
Power Management	APM/ACPI	
Standby Time Out	Disabled	
Suspend Time Out	Disabled	
Display Time Out	Disabled	
Hard Disk Time Out	Disabled	
Ring On Power On	Disabled	
Keyboard Power On	Disabled	
RTC Alarm Power On	Disabled	
RTC Alarm Date	Every Day	
RTC Alarm Hour	12	
RTC Alarm Minute	30	ESC : Quit ↑↓←→ : Select Item F1 : Help PU/PD/+/- : Modify F5 : Old Values (Shift)F2 : Color F6 : Load BIOS Defaults F7 : Load Setup Defaults
RTC Alarm Second	00	
Power On By LAN	Disabled	

Power Management	Use this item to enable or disable a power management scheme. If you enable power management, you can use the items below to set the power management operation. Both APM and ACPI are supported.
Standby Time Out	This sets the timeout for Standby mode in minutes. If the time selected passes without any system activity, the computer will enter power-saving Standby mode.
Suspend Time Out	This sets the timeout for Suspend mode in minutes. If the time selected passes without any system activity, the computer will enter power-saving Suspend mode.
Display Time Out	This sets the timeout for display device in minutes. If the time selected passes without any display activity, the display will enter power-saving mode.
Hard Disk Time Out	This sets the timeout for hard disk in minutes. If the time selected passes without any hard disk activity, the disk will enter power-saving mode.

3: BIOS Setup Utility

Ring On 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 Fax/Modem. You must use an ATX power supply in order to use this feature.
KeyBoard Power On	If you enable this item, you can turn the system on and off by pressing hot keys on the keyboard. You must enable the Keyboard Power On jumper in order to use this feature.
RTC Alarm Power On / 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.
Power On By LAN	The system can be turned off with a software command. If you enable this item, the system can automatically resume on LAN. You must use an ATX power supply in order to use this feature.

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PCI / Plug and Play Setup Page

This page sets up some parameters for devices installed on the PCI bus and those utilizing the system plug and play capability.

AMBIOS SETUP – PCI / PLUG AND PLAY SETUP (C) 2000 American Megatrends, Inc. All Rights Reserved		
Plug and Play Aware O/S	Yes	
Share Memory Size	N/A	
O/S Control	Normal	
Primary Graphics Adapter	PCI	
Allocate IRQ for PCI VGA	Yes	
		ESC : Quit ↑↓←→ : Select Item F1 : Help PU/PD/+/- : Modify F5 : Old Values (Shift)F2 : Color F6 : Load BIOS Defaults F7 : Load Setup Defaults

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 use by the onboard VGA display.
O/S Control	This item lets you select Japanese operating system or not.
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.

3: BIOS Setup Utility

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 recommended 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 up some parameters for peripheral devices connected to the system.

AMIBIOS SETUP – PERIPHERAL SETUP (C) 2000 American Megatrends, Inc. All Rights Reserved		
OnBoard FDC	Enabled	
OnBoard Serial PortA	3F8h/COM1	
OnBoard Serial PortB	2F8h/COM2	
Serial PortB Mode	Normal	
OnBoard Parallel Port	378h	
Parallel Port Mode	SPP	
Parallel Port IRQ	7	
Parallel Port DMA	N/A	
OnBoard Game Port	201h	
OnBoard MIDI Port	300h	
MIDI Port IRQ	10	
OnBoard PCI IDE	Both	
OnBoard AC'97 Sound	Enabled	
OnBoard AC'97 Modem	Auto	
OnBoard LAN	Enabled	ESC : Quit ↑↓←→ : Select Item F1 : Help PU/PD/+/- : Modify F5 : Old Values (Shift)F2 : Color F6 : Load BIOS Defaults F7 : Load Setup Defaults
USB Function Support	Enabled	
USB Function for DOS	Disabled	

OnBoard FDC	Use this item to enable or disable the onboard floppy disk drive interface.
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OnBoard Serial PortA	Use this item to enable or disable the onboard COM1 serial port, and to assign a port address.
OnBoard Serial PortB	Use this item to enable or disable the onboard COM2 serial port, and to assign a port address.
Serial PortB Mode	Use this item to allocate the resources of the second serial port. Under Normal, the resources are allocated to the onboard serial port. Under ASKIR or IrDA, the resources are allocated to the onboard IR port.
Onboard Parallel Port	Use this item to enable or disable the onboard LPT1 parallel port, and to assign a port address. The Auto setting will detect and available address.
Parallel Port Mode	Use this item to set 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	Use this item to assign either IRQ 5 or 7 to the parallel port.
Parallel Port DMA	Use this item to assign a DMA channel to the parallel port. The options are 0, 1 and 3.
OnBoard Game Port	Use this item to enable or disable the onboard game port, and to assign a port address.
OnBoard MIDI Port	Use this item to enable or disable the onboard MIDI port, and to assign a port address.
MIDI Port IRQ	Use this item to assign an IRQ to the MIDI port.
Onboard PCI IDE	Use this item to enable or disable either or both of the onboard Primary and Secondary IDE channels.
OnBoard AC'97 Sound	This item enables or disables the onboard AC'97 audio chip.
OnBoard AC'97 Modem	This item enables or disables the onboard AC'97 modem chip.
OnBoard LAN	This item enables or disables the onboard LAN chip.
USB Function Support	Enable this item if you plan to use the USB ports on this mainboard.
USB Function for DOS	Enable this item if you plan to use the USB ports on this mainboard in a DOS environment.

3: BIOS Setup Utility

CPU PnP Setup Page

This page helps you manually configure the CPU of this mainboard. The system will automatically detect the type of installed CPU and make appropriate adjustments of each item on this page.

AMIBIOS SETUP – CPU PnP SETUP ©2000 American Megatrends, Inc. All Rights Reserved		
CPU BRAND	AMD K7	
CPU Type	Athlon	
CPU Speed	700 MHz	
CPU Core Voltage	1.700 V	
CPU Ratio	7.0x	
CPU Frequency	100 MHz	
DRAM Frequency	100 MHz	
		ESC : Quit ↑↓←→ : Select Item F1 : Help PU/PD/+/- : Modify F5 : Old Values (Shift)F2 : Color F6 : Load Optimal values F7 : Load Best performance values

CPU BRAND/Type/ Core Voltage/Ratio /Frequency	These items show the kind, core voltage, ratio and frequency of CPU that has installed in your system.
CPU Speed	Use this item to set the CPU speed that has installed in your system.
DRAM Frequency	Use this item to set the frequency of DRAM that has installed in your system.

Note: If you manually set the wrong speed and the system won't run properly, press the **Page Up** key while the system is booting and a default setting will replace the incorrect CPU setting.

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Hardware Monitor Page

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

AMIBIOS SETUP – HARDWARE MONITOR (C) 2000 American Megatrends, Inc. All Rights Reserved		
--- Hardware Monitor ---		
CPU Temperature	39°C/102°F	
System Temperature	33°C/ 91°F	
CPU Fan Speed	5400 RPM	
System Fan Speed	0 RPM	
Vcore	1.616 V	
Vcc2.5V	2.496 V	
Vcc3.3V	3.392 V	
Vcc5.0V	4.972 V	
+12V	11.968 V	
-12V	-11.721 V	
SB3V	3.488 V	ESC : Quit ↑↓←→ : Select Item F1 : Help PU/PD/+/- : Modify F5 : Old Values (Shift)F2 : Color F6 : Load BUIOS Defaults F7 : Load Setup Defaults
SB5V	5.053 V	
Voltage Battery	3.488 V	

CPU / System 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.

3: BIOS Setup Utility

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

The software for this mainboard is supplied on a CD-ROM. The disk has some folders that can be used by many different mainboards, for example the **UTILITY** folders. Some folders can only be used by mainboards which have certain brands of chipsets, for example the **INTEL** and **SIS** folders. In addition, software that is specifically intended for one kind of mainboard is stored in a folder with the name of that board. The software for this mainboard is stored in the **MS8308D/E** folder.

***Note:** Never try to install software from a folder that is not specified for use with your mainboard.*

Folders for this Mainboard

For this board, you can install software from the following folders:

Utility Folder

You can use the software in the following sub-folders:

- ☐ **AMIFLASH:** Software to erase and install new revisions of the system BIOS
- ☐ **PC-CILLIN:** Anti-virus software
- ☐ **SUPER VIOCE:** Fax/Modem application software

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- ❑ **MediaRing Talk:** PC to PC base Internet phone application software
- ❑ **Sunny Mail:** Voice mail program

Running the Support CD-ROM

1. Place the disk in your CD-ROM drive. If you are running Windows with Autoplay enabled, the opening screen of the CD appears automatically. Click on READ ME to read the latest instructions.
2. Before installing the software, look for a file named README.TXT, or something similar. This file may contain important information to help you install the software correctly.
3. Some software is installed in separate folders for different operating systems, such as DOS, WIN NT, WIN95/98, and so on. Always log on to the correct folder for the kind of OS you are using.
4. To install the software, you usually execute a file named SETUP.EXE or INSTALL.EXE by double clicking on the filename.

Utility Folder Installation Notes

AMI Flash Memory Utility

This utility lets you erase the system BIOS stored on a Flash Memory chip on the mainboard, and lets you copy an updated BIOS to the chip. Take care how you use this program. If you erase the current BIOS and fail to write a new BIOS, or write a new BIOS that is incorrect, your system will malfunction.

There are several flash memory utilities. For this mainboard you must use the **AMINFxxx.EXE** utility. To use the utility, you must

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be in real-mode DOS (not the DOS box that is available in Windows 95/98/NT). If you are using WINDOWS 95/98, shut down your computer and select the option Restart in DOS in the shut-down dialog box. If you are running Windows NT, shut down your computer and boot from a DOS diskette temporarily in order to run the flash memory utility.

PC-CILLIN

The PC-CILLIN software program provides anti-virus protection for your system. This program is available for Windows 2000/ME/98SE and Windows NT. Be sure to check the readme.txt and install the appropriate anti-virus software for your operating system.

We strongly recommend users to install this free anti-virus software to help protect your system against viruses.

Note: Update your virus software regularly to protect against new viruses.

MediaRing Talk – Telephony Software

To install the MediaRing Talk voice modem software for the built-in modem, run MRTALK-SETUP72.EXE from the following directory:

\UTILITY\MEDIARING TALK

Super Voice – Fax/Modem Software

To install the Super Voice voice, fax, data communication application for use with the built-in fax/modem, run PICSHELL.EXE from the following directory:

\UTILITY\SUPER VOICE

CD Ghost

The CD Ghost software enables you to create a virtual cabinet of CD-ROM drives on your system to help you categorize and organize your CD collection. A user-friendly interface assists you in quickly creating images of both CDs and DVDs onto your

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system. To install the software, run SETUP.EXE from the following directory:

\UTILITY\CDGHOST\ENG\CDGHOST

Recovery Genius

The Recovery Genius software program is an innovative windows application system that protects your Hard Disk Drive from virus intrusion, accidental deletions, and system corruption. To install the Recovery Genius software program run SETUP.EXE from the following directory

\UTILITY\RECOVERY GENIUS\ENG\RECOVERYGENIUS

Language Genius

The Language Genius is a software-based product that helps you to learn new languages. To install the Language Genius software program run SETUP.EXE from the following directory

\UTILITY\LANGUAGE GENIUS\ENG\LANGUAGEGENIUS

PageABC

The PageABC application software enables you to create your own home page. To install the PageABC, run SETUP.EXE from the following directory:

\UTILITY\PageABC

Mainboard (MS8308D/E) Installation Notes

Most of the sub-folders in this folder are empty, with a short README file giving directions to alternate folders for the appropriate software.