

Mainboard User's Manual

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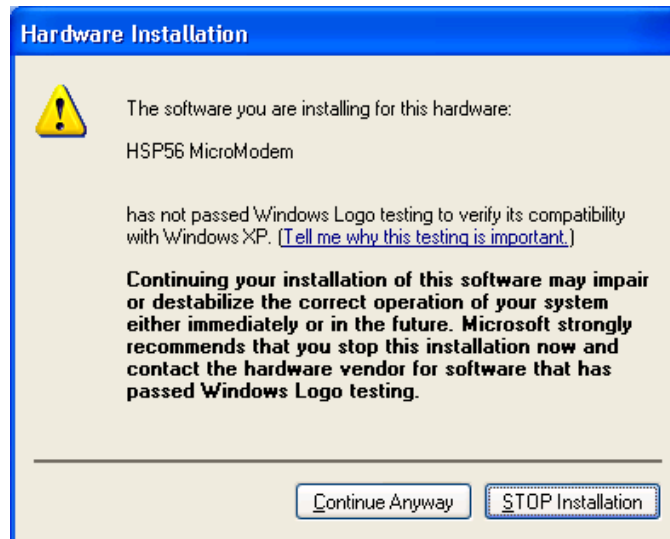
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M810 Series, V7.1F
S73X/July 2002**

Mainboard User's Manual

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.



Mainboard User's Manual

Table of Contents

Chapter 1: Introduction.....	1
Key Features.....	2
Package Contents.....	5
Static Electricity Precautions.....	6
Pre-Installation Inspection.....	6
Chapter 2: Mainboard Installation.....	7
Mainboard Components.....	8
I/O Ports.....	9
Install Memory.....	9
Setting Jumper Switches.....	10
Install the Mainboard.....	11
Optional Extension Brackets.....	12
Install Other Devices.....	14
Expansion Slots.....	17
Chapter 3: BIOS Setup Utility.....	19
Introduction.....	19
Running the Setup Utility.....	20
Standard CMOS Setup Page.....	21
Advanced Setup Page.....	22
Power Management Setup Page.....	23
PCI / Plug and Play Setup Page.....	25
Load Optimal Settings.....	25
Load Best Performance Settings.....	26
Features Setup Page.....	26
CPU PnP Setup Page.....	28
Hardware Monitor Page.....	29
Change Password.....	29
Exit.....	30
Chapter 4: Software & Applications.....	31
Introduction.....	31
Installing Support Software.....	32
Bundled Software Installation.....	34

Mainboard User's Manual

Notice for AGP4X Slot:

This mainboard provides an optional AGP4x slot. We recommend the user should use 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 at www.pchips.com.tw.

Model Chipset	Memory	Manufacture
GeForce 2 GTS	32M	Winfast
GeForce 2 GTS DDR	32M	MSI MS-8815
GeForce 2 GTS DDR PRO	64M	ELSA GLADIAC
GeForce 2 GTS DDR PRO	64M	GIGABYTE GV-GF2010
GeForce 2 MX	32M	ASUS AGP-V7100
GeForce 3 DDR	64M	ELSA GLADIAC 920
Matrox Millennium G400	32M	Matrox
NVIDIA RIVA TNT2 Vanta	32M	Top solution
RIVA TNT2	32M	ASUS AGP-V3800
Xaber 200	64M	ECS AG200T8-D64 V1.0 AGP Run 1X

Chapter 1

Introduction

This mainboard has an **AMD Duron** Processor. This mainboard uses the **SiS730S** chipset that integrates a **128-bit AGP Graphics Accelerator**, and provides an optional **2X/4X AGP** slot for highly graphics display, the **CPU Plug & Play** through firmware, **Ultra DMA 33/66/100** function. The mainboard has a built-in **AC'97 4Ch Codec**, provides an **AMR** (Audio Modem Riser) slot to support Audio and Modem application, and has a built-in **10BaseT/100BaseTX Network Interface**. In addition, the mainboard has an extended set of **ATX I/O Ports** including PS/2 keyboard and mouse ports, two USB ports, one LAN port, one parallel port, one serial port and one VGA port. Connecting the Extended USB Module to the mainboard makes two extra USB ports.

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.

Mainboard User's Manual

Key Features

The key features of this mainboard include:

CPU Type

- ◆ Supports AMD **Duron** processor

Memory Support

- ◆ Two DIMM slots for 168-pin SDRAM memory modules
- ◆ 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

AC'97 Audio Codec: VT1612A

- ◆ Compliant with AC'97 2.1 specification
- ◆ Three Audio Jacks – Line-Out, Line-In and Microphone-In
- ◆ Sound Blaster, Sound Blaster Pro Compatible
- ◆ Digital I/O compatible with consumer mode S/PDIF
- ◆ 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
- ◆ One serial port 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

Mainboard User's Manual

- ◆ 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 98/ME/NT/2000/XP
- ◆ **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
- ◆ **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.
- ◆ **PC DJ** is a dual-MP3 player that enables users to actually mix music right on their own personal computers.
- ◆ **Adobe Acrobat Reader V5.0** is the software to help users read .PDF files.

Dimensions

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

1: Introduction

Package Contents

Attention: This mainboard series includes two different models. They are M810LR (LAN Ready), and M810 (without LAN). Please contact your local supplier for your purchase model. Each model will support different specification, list as below:

Model	Specification
M810LR	Onboard LAN PHY(U17) and LAN (RJ45) connector
M810	---

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
- AMR v.90 Fax/Modem card

Mainboard User's Manual

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.

Chapter 2

Mainboard Installation

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

- ❑ Identify the mainboard components
- ❑ Install a CPU
- ❑ Install one or more system memory modules
- ❑ Verify that any jumpers or switches are set correctly
- ❑ Install the mainboard in a system chassis (case)
- ❑ Connect any extension brackets or cables to the mainboard connector headers
- ❑ Install any other devices and make the appropriate connections to the mainboard connector headers.

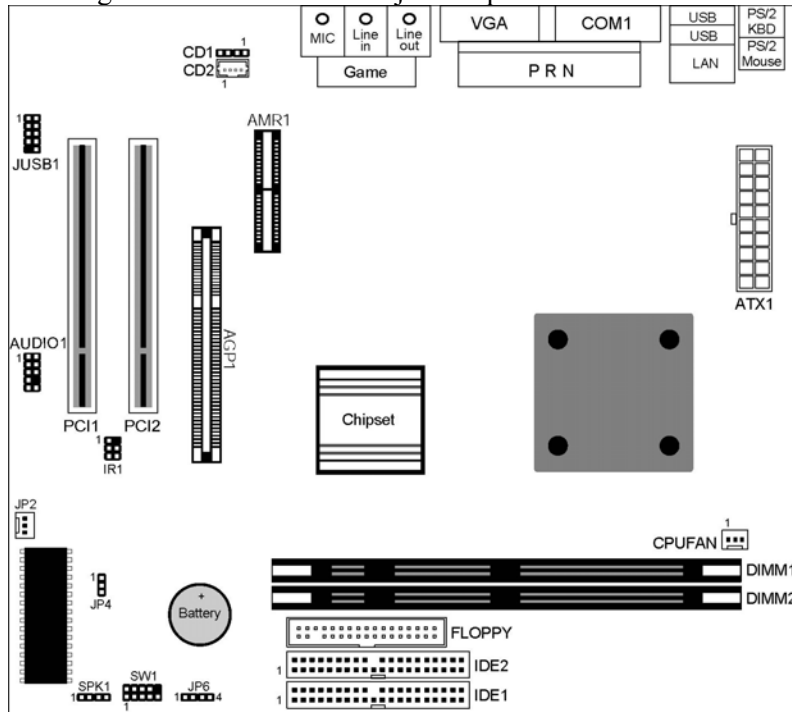
Note:

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.

Mainboard User's Manual

Mainboard Components

The 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.

CAUTION: Switching Power Supplier Limitation

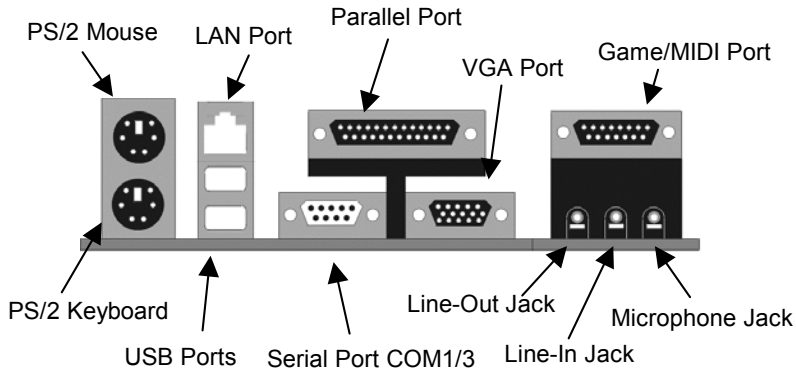
The switching power supplier **MUST** support the specification as the following table for AMD K7 CPUs.

CPU	Duron
SPS	150W(min)
+5V	14A(min)

2: Mainboard Installation

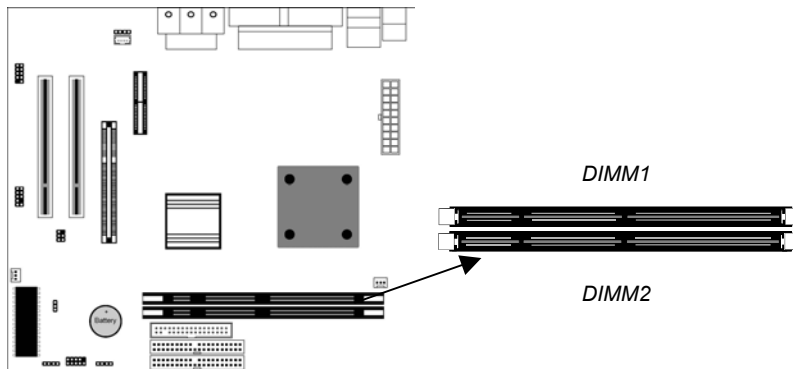
I/O Ports

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



Install Memory

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



Mainboard User's Manual

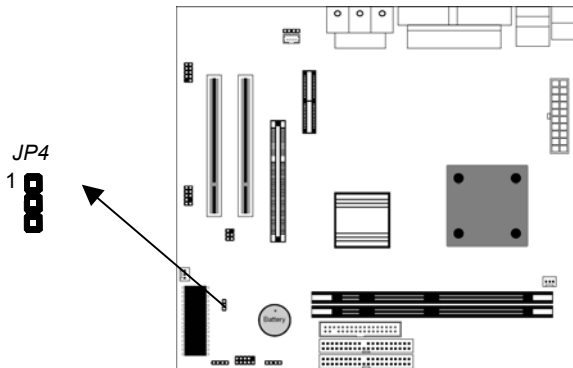
For this mainboard, you must use 168-pin, 3.3V unbuffered PC100 or PC133 SDRAM memory modules. You can install any size memory module from 32 MB to 512MB, so the maximum memory size is $2 \times 512\text{MB} = 1\text{GB}$.

The edge connectors on the memory modules have cut outs, which coincide with spacers in the DIMM sockets so 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.

Setting Jumper Switches

Jumpers are sets of pins which can be connected together with jumper caps. The jumper caps change the way the mainboard operates by changing the electronic circuits on the mainboard. If a jumper cap connects two pins, we say the pins are **SHORT**. If a jumper cap is removed from two pins, the pins are **OPEN**.



2: Mainboard Installation

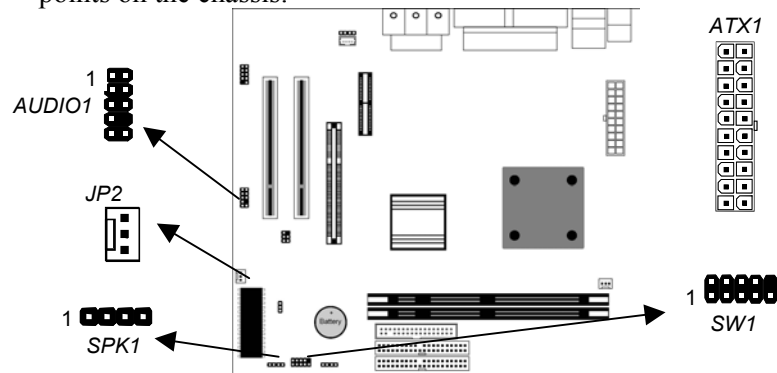
Jumper JP4: Clear CMOS Memory

Use this jumper to clear the contents of the CMOS memory. You may need to clear the CMOS memory if the settings in the Setup Utility are incorrect and prevent 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

Install the Mainboard

Install the mainboard in a system chassis (case). The board is a Micro ATX size mainboard with a twin-tier of I/O ports. You can install this mainboard in any 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 **JP2** fan power connector on the mainboard.

Mainboard User's Manual

Connect the cable from the PC speaker to the **SPK1** header on the mainboard.

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

Connect the case switches and indicator LEDs to the **SW1** header. Here is the list of SW1 pin assignment.

Pin	Signal	Pin	Signal
1	HDD LED	2	POWER(ACPI) LED
3	HDD LED	4	POWER(ACPI) LED
5	RESET SWITCH	6	POWER BUTTON
7	RESET SWITCH	8	POWER BUTTON
9	RSVD_DNU	10	KEY

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. Here is the list of AUDIO1 pin assignment.

Pin	Signal	Pin	Signal
1	MIC	2	GND
3	MIC-P	4	VCC
5	FPOUT-R	6	RET-R
7	NC	8	KEY
9	FPOUT-L	10	RET-L

Optional Extension Brackets

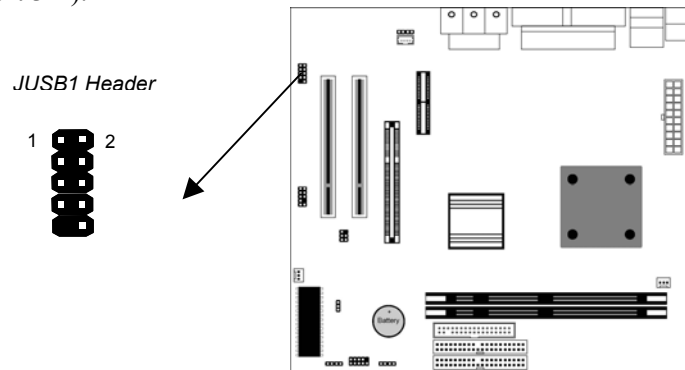
For this mainboard, you can also obtain a USB module extension bracket. Install them by following the steps below.

Note: All the ribbon cables used on the extension brackets have a red stripe on the Pin-1 side of the cable.

2: Mainboard Installation

Extended USB Module

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



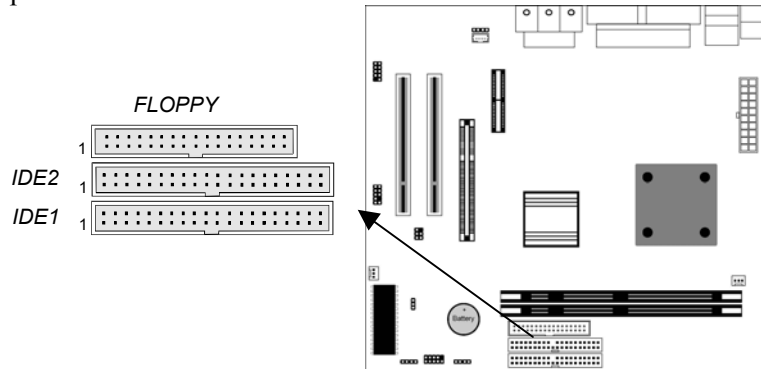
Pin	Signal	Pin	Signal
1	+5V	2	+5V
3	P0-	4	P1-
5	P0+	6	P1+
7	GND	8	GND
9	KEY	10	NC

1. Locate the JUSB1 header on the mainboard.
2. Plug the bracket cable onto the JUSB1 header.
3. In the system chassis, remove one of the expansion slot covers and install the extension bracket into the opening. Use the screw that held the slot cover to secure the extension bracket to the chassis.

Mainboard User's Manual

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 header **FLOPPY**.

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.

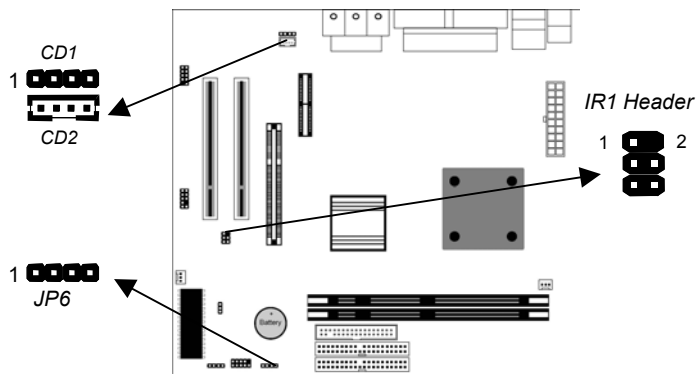
Install the device(s) and connect power from the system power supply. Use the cable provided to connect the device(s) to the Primary IDE channel connector **IDE1** on the mainboard.

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.

2: Mainboard Installation

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	CD IN L
2	GND
3	GND
4	CD IN R

CD2

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

Mainboard User's Manual

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	RESERVED	2	KEY
3	+5V	4	GND
5	IRTX	6	IRRX

1. Locate the infrared port **IR1** header on the mainboard.
2. If you are adding 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

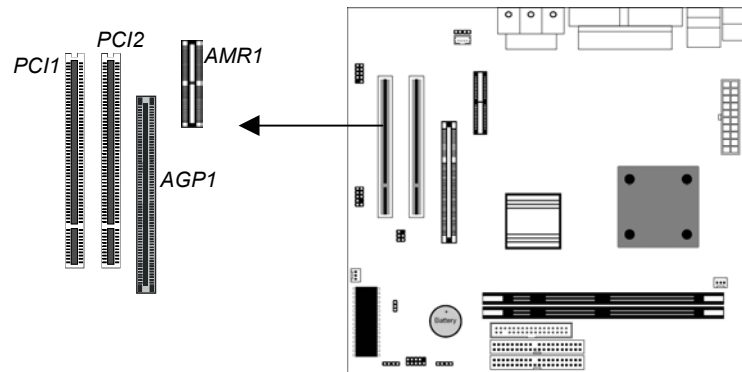
If you have a set indicator LEDs for the onboard LAN communication, you can connect the LED cable to the header **JP6**. Pins 1-2 are for Link LED. Pins 3-4 are for 10/100 Mbps mode LED, the onboard LAN run in 100 Mbps mode when the LED lit.

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

2: Mainboard Installation

Expansion Slots

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



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 expansion card edge connector into the slot and press it firmly down into until fully inserted.
4. Secure the expansion card bracket to the system chassis using the screw that held the slot cover.

AMR Slot

The AMR (Audio Modem Riser) slot is an industry standard slot that allows for 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 AMR card that is approved in your area and install it directly into the AMR slot.

Mainboard User's Manual

Chapter 3

BIOS Setup Utility

Introduction

The BIOS Setup Utility records settings and information about your computer, such as date and time, the type of installed hardware 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.

Mainboard User's Manual

Running the Setup Utility

Each 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 (C) 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	
Standards COMOS setup for changing time, date, hard disk type, etc.	

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 that require 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.

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										
(C) 2000 American Megatrends, Inc. All Rights Reserved										
Date (mm/dd/yy) : Wed May 8, 2002										
Time (hh/mm/ss) : 11:01:00										
	Type	Size	Cyln	Head	WPcom	Sec	LBA Mode	Blk Mode	PIO Mode	32Bit Mode
Pri Master	: Auto									On
Pri Slave	: Auto									On
Sec Master	: Auto									On
Sec Slave	: Auto									On
Floppy Drive A : 1.44 MB 3 1/2										
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	

Mainboard User's Manual

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	IDE-0	
2 nd Boot Device	Floppy	
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
L1 Cache	Enabled	F1 : Help PU/PD/+/- : Modify
L2 Cache	Enabled	F5 : Old Values (Shift)F2 : Color
System BIOS Cacheable	Enabled	F6 : Load Optimal values
Auto Detect DIMM/PCI Clk	Enabled	F7 : Load Best performance values
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	Use these items to determine the device order the computer uses to look for an operating system to load at start-up time.
2nd Boot Device	
3rd Boot Device	
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	Use this item to set the system bus spread spectrum for the installed processor.

Power Management Setup Page

This page sets some of the 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	ESC : Quit ↑↓←→ : Select Item
RTC Alarm Minute	30	F1 : Help PU/PD/+/- : Modify
RTC Alarm Second	00	F5 : Old Values (Shift)F2 : Color
Power On by LAN	Disabled	F6 : Load Optimal values
		F7 : Load Best performance values

Mainboard User's Manual

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.
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.

3: BIOS Setup Utility

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.

AMIBIOS SETUP – PCI / PLUG AND PLAY SETUP (C) 2000 American Megatrends, Inc. All Rights Reserved	
Plug and Play Aware O/S	Yes
Share Memory Size	16 MB
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 Optimal values	
F7 : Load Best performance values	

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.

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.

Mainboard User's Manual

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 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.

Features Setup Page

This page sets some of the 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 Port	3F8h/COM1	
OnBoard IR Port	Disabled	
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	ESC : Quit ↑↓←→ : Select Item
OnBoard AC'97 Sound	Enabled	F1 : Help PU/PD/+/- : Modify
OnBoard AC'97 Modem	Auto	F5 : Old Values (Shift)F2 : Color
Onboard LAN	Enabled	F6 : Load Optimal values
USB Function Support	Enabled	F7 : Load Best performance values
USB Function for DOS	Disabled	

OnBoard FDC	Use this item to enable or disable the onboard floppy disk drive interface.
OnBoard Serial Port	Use this item to enable or disable the onboard COM1 serial port, and to assign a port address.
OnBoard Ir Port	Use this item to define the protocol for an infrared port if you have installed an optional IR port. The choices are IrDA and ASKIR.
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.

3: BIOS Setup Utility

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.
AC'97 Sound	This item enables or disables the onboard AC'97 audio chip.
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.

Mainboard User's Manual

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.

AMIBIOS SETUP – CPU PnP SETUP	
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CPU BRAND	AMD K7
CPU Type	Duron
CPU Core Voltage	1.700 V
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	These items show the brand, type and core voltage of CPU 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.

3: BIOS Setup Utility

Hardware Monitor Page

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

AMIBIOS SETUP – HARDWARE MONITOR		
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--- Hardware Monitor ---		
CPU Temperature	38°C/100°F	
System Temperature	30°C/86°F	
CPU Fan Speed	4500 RPM	
System Fan Speed	0 RPM	
Vcore	1.616 V	
Vcc25v	2.464 V	
Vcc3	3.343 V	ESC : Quit ↑↓←→ : Select Item
Vcc5.0	4.945 V	F1 : Help PU/PD/+/- : Modify
+12V	12.000 V	F5 : Old Values (Shift)F2 : Color
-12V	-12.000 V	F6 : Load Optimal values
SB3V	3.300 V	F7 : Load Best performance values
SB5V	5.000 V	
Voltage Battery	3.360 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.

Mainboard User's Manual

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.

Mainboard User's Manual

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.

4: Software & Applications

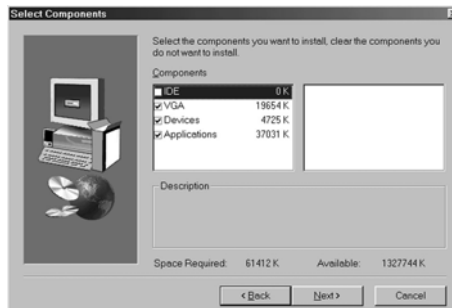
Auto-Installing under Windows 98/ME/2000/XP

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.

Mainboard User's Manual

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 Installation

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.