
Introduction

1

The K7T266 Pro (MS-6380) ATX mainboard is a high-performance computer mainboard based on VIA® **Apollo KT266** chipset and designed for the AMD® Athlon™ or Duron™ (PGA) processor for inexpensive business/personal desktop markets.

The **Apollo KT266** chipset consists of the VT8366 Super Northbridge and the VT8233 Southbridge. VT8366 provides a PC1600/2100 DDR (Double Data Rate) solution with support for 200/266MHz Front Side Bus. By using PC2100 DDR technology, the VT8366 enables 2.1GB/second peak bandwidth between system memory and Northbridge. The chipset doubles the communication bandwidth between the North and South Bridge to 266MB/sec through a high-speed V-Link bus. With AGP 4X interface, VT8366 boosts system performance for 3D graphics and video program.

The VT8233 Southbridge integrates many peripheral controllers including dual channel UltraDMA-33/66/100 master mode EIDE controller, AC-link interface, LPC interface, USB controller etc. The VT8233 is compatible with PCI-2.2 specification and supports advanced power management.

The **Apollo KT266** chipset provides the optimized performance for the PC systems based on the latest AMD® processors.

This chapter includes the following topics:

Mainboard Specification	1-2
Mainboard Layout	1-4
Quick Components Guide	1-7
Key Features	1-8
MSI Special Features	1-9

Chapter 1

Mainboard Specification

CPU

- Support Socket A (Socket-462) for AMD® Athlon™ /Duron™ processor
- Support 600MHz up to 1.4GHz processor

Chipset

- VIA® VT8366 chipset (552 BGA)
 - FSB @200/266MHz
 - AGP 4X and PCI Advanced high performance memory controller
- VIA® VT8233 chipset (376 BGA)
 - High Bandwidth V-link Client controller
 - Integrated Faster Ethernet LPC (Optional CNR card support)
 - Integrated Hardware Sound Blaster/Direct Sound AC97 audio
 - Ultra DMA 33/66/100 master mode PCI EIDE controller
 - ACPI

Clock Generator

- 100/133MHz clocks are supported

Main Memory

- Support six memory banks using three 184-pin DDR DIMMs
- Support a maximum memory size up to 3GB
- Support 2.5v DDR SDRAM DIMM

Slots

- One AGP (Accelerated Graphics Port) or AGP PRO slot
 - AGP specification compliant
 - Support AGP 2.0 1x/2x/4x
- One CNR (Communication Network Riser) slot
- Five 32-bit Master PCI Bus slots
- Supports 3.3V/5V PCI bus Interface

On-Board IDE

- An IDE controller on the VIA® VT8233 chipset provides IDE HDD/CD-ROM with PIO, Bus Master and Ultra DMA 33/66/100 operation modes
- Can connect up to 4 IDE devices

Promise 20265R On-Board (Optional)

- Support IDE RAID 0 or 1

- Can connect a Master and a Slave drive to each IDE RAID connector
- The two connectors support hard disk drives only

Note: Only the two Master hard disk drives will adopt RAID function.

USB Interface

- USB 2.0 HC On Board (for **K7T266 Pro-RU** only)
 - Support 4 USB 2.0 ports via external bracket
- USB PC2PC Networking Function
 - Controlled by USB PC2PC Controller
 - Supported by the JUSB2 pin header
- 6 USB Ports (for **K7T266 Pro** & **K7T266 Pro-R**)
 - Controlled by VT8233 Soughbirdge
 - 2 rear ports and 4 ports supported by JUSB2 & JUSB3

Audio

- Chip integrated (2 channel S/W audio)
 - Direct Sound AC97 Audio

On-Board Peripherals

- On-Board Peripherals include:
 - 1 floppy port supports 2 FDD with 360K, 720K, 1.2M, 1.44M and 2.88Mbytes
 - 2 serial ports (COMA + COMB)
 - 1 parallel port supporting SPP/EPP/ECP mode
 - 1 IrDA connector for SIR/ASKIR/HPSIR
 - 1 Audio/Game port

BIOS

- The mainboard BIOS provides “Plug & Play” BIOS which detects the peripheral devices and expansion cards of the board automatically
- The mainboard provides a Desktop Management Interface (DMI) function which records your mainboard specifications

Dimension

- ATX Form Factor (30.4 cm X 23.5 cm)

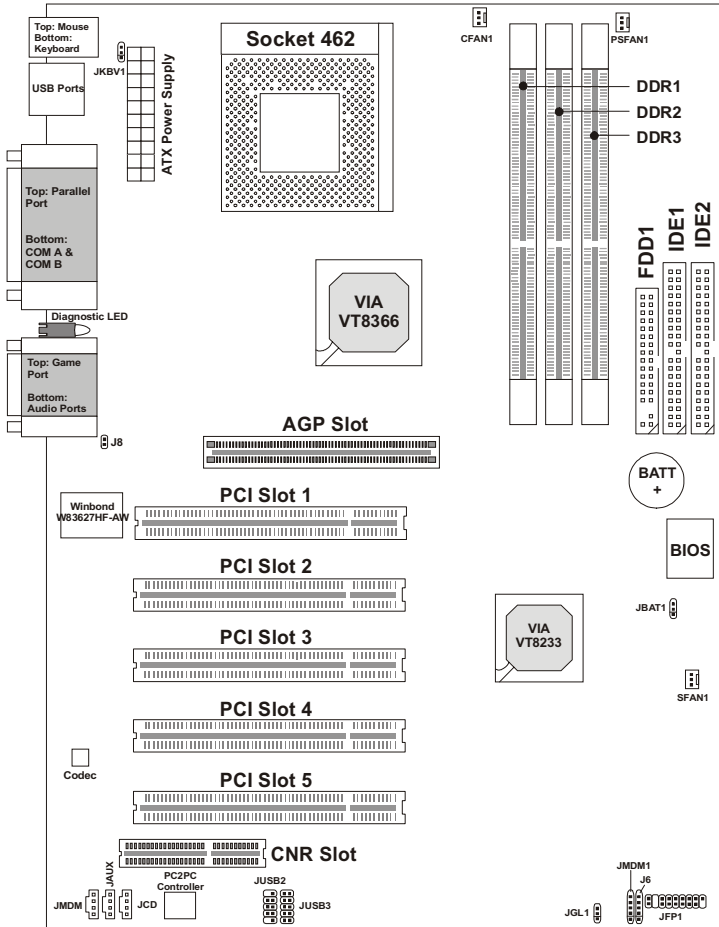
Mounting

- 6 mounting holes

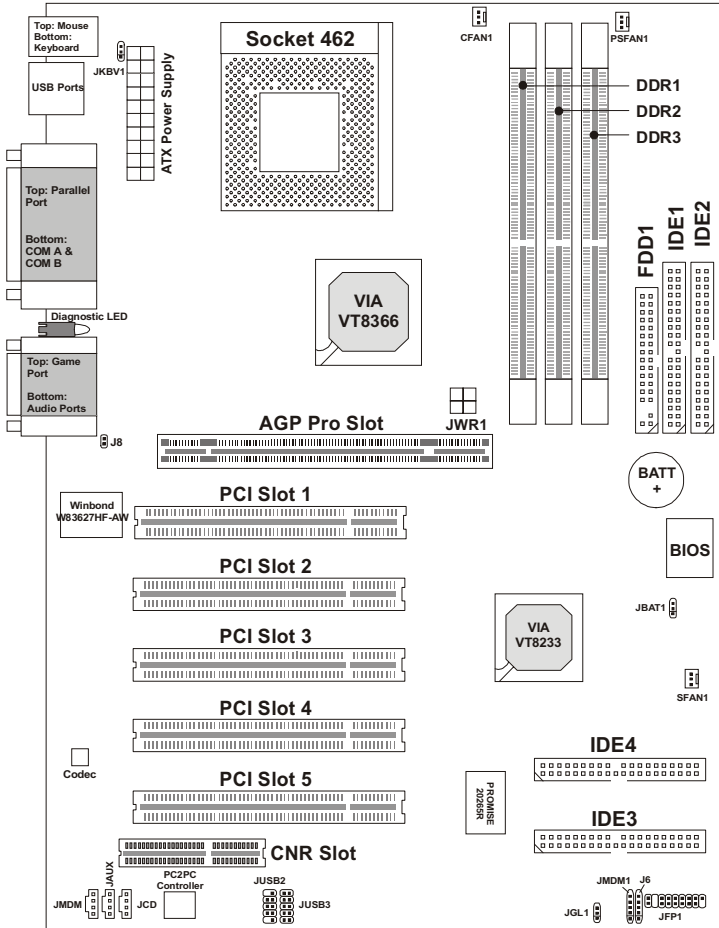
Chapter 1

Mainboard Layout

MS-6380 provides three types of models to meet consumers' diverse needs: K7T266 Pro, K7T266 Pro-R and K7T266 Pro-RU.

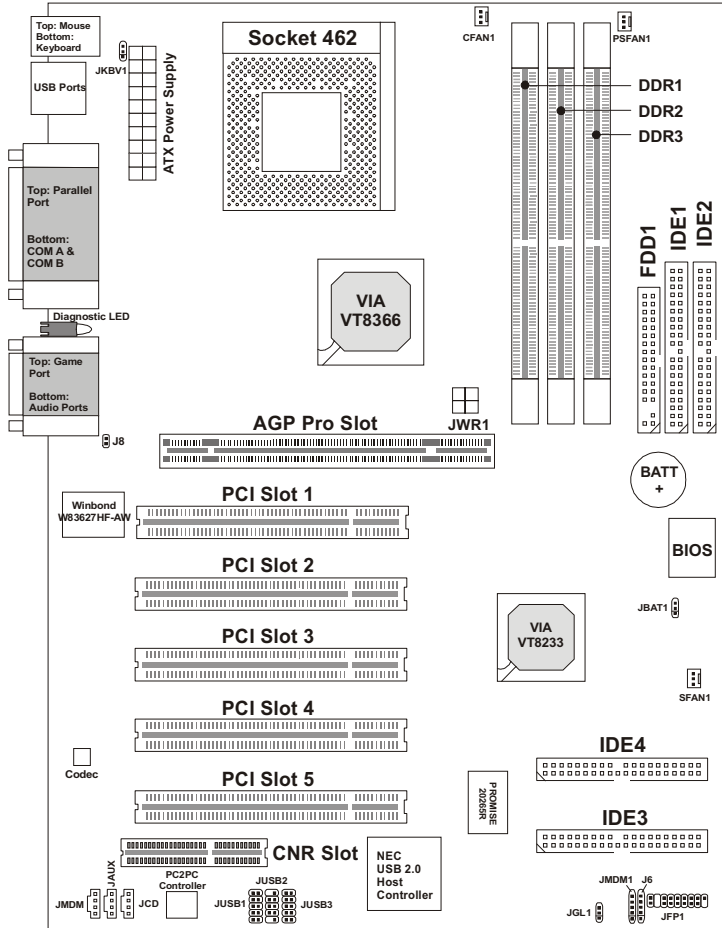


**MS-6380 ATX Mainboard
(K7T266 Pro)**



**MS-6380 ATX Mainboard
(K7T266 Pro-R)**

Chapter 1



MS-6380 ATX Mainboard (K7T266 Pro-RU)

Quick Components Guide

Component	Function	Reference
DDR1~3	Installing DDR SDRAM modules	See p. 2-5~2-6
Socket 462	Installing CPU	See p. 2-2~2-4
CFAN1	Connecting to CPUFAN	See p. 2-20
SFAN1	Connecting to SYSTEM FAN	See p. 2-20
PSFAN1	Connecting to Power Supply FAN	See p. 2-20
ATX Power Supply	Installing power supply	See p. 2-7
IDE1& IDE2	Connecting to IDE hard disk drive	See p.2-13
IDE3& IDE4	Connecting to IDE RAID HDD	See p.2-14
FDD1	Connecting to floppy disk drive	See p.2-12
JUSB1~3	Connecting to USB interfaces	See p. 2-22~2-26
PCI Slot 1~5	Installing expansion cards	See p. 2-30
AGP/AGP PRO Slot	Installing AGP (Pro) cards	See p. 2-30
CNR Slot	Installing expansion cards	See p. 2-30
JMDM1	Connecting to modem module	See p. 2-18
JBAT1	Clearing CMOS data	See p. 2-28
JFP1	Connecting to case	See p. 2-15
JGL1	Connecting to power saving LED	See p. 2-17
J6	Connecting to IR module	See p. 2-19
J8	Connecting to chassis intrusion switch	See p. 2-18
JWR1	Connecting to AGP Pro card's power cable	See p. 2-27
JKBV1	Enabling Keyboard wake up function	See p. 2-29

Chapter 1

Key Features

- ATX Form Factor
- CPU: Socket A for AMD® Duron™/Athlon™ Processor
- Memory: 3 PC1600/PC2100 DDR DIMMs
- Slot: 1 AGP/AGP PRO slot, 1 CNR slot, 5 PCI slots
- I/O: 2 serial ports, 1 parallel port, 6 USB 1.1 ports, 1 floppy port, 1 IrDA connector, 3 Audio/1 Game port (for **K7T266 Pro & K7T266 Pro-R**)
- I/O: 2 serial ports, 1 parallel port, 4 USB 1.1 & 4 USB 2.0 ports, 1 floppy port, 1 IrDA connector, 3 Audio/1 Game port (for **K7T266 Pro-RU**)
- USB Interface: USB 1.1 PC to PC Networking & USB 2.0 HC On-Board (Optional)
- 2 IDE RAID connectors (Optional)
- Fuzzy Logic™ III overclocking utility
- D-LED™ -- 4 LEDs embedded in the mainboard
- PC Alert™ III system hardware monitor
- Audio: 2 Channel S/W audio integrated
- PCI 2.2 LAN Wake up Function
- Modem (External/Internal) Ring Wake up Function

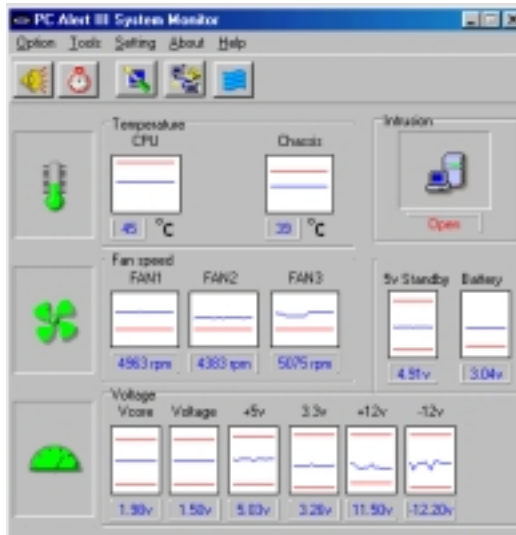
MSI Special Features

PC Alert™ III

The PC Alert™ III is an utility you can find in the CD-ROM disk. The utility is just like your PC doctor that can detect the following PC hardware status during real time operation:

- * monitor CPU & system temperatures
- * monitor fan speed(s)
- * monitor system voltage
- * monitor chassis intrusion

If one of the items above is abnormal, the program main screen will be immediately shown on the screen, with the abnormal item highlighted in red. This will continue to be shown, until user disables the warning.



Note: Items shown on PC Alert III vary depending on your system's status.

Chapter 1



Features:

- Network Management
 - Monitoring & remote control
- Basic System Utilities
 - Scandisk & Defragment to maintain your HDD
- 3D Graphics Design
 - Enables a more friendly user interface
- Software Utilities
 - SoftCooler Optimized Cooling

Fuzzy Logic™ III

The Fuzzy Logic™ III utility allows users to overclock the CPU FSB (Front Side Bus) frequency in the Windows environment. Select the CPU frequency you prefer and click Go to apply the frequency or click Save allowing the system to run at the specified frequency each time when the system is powered on.



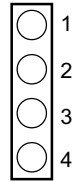
Features:

- Display Current System Status
 - CPU Fan
 - CPU Temp.
 - Vcore
 - Vio
 - Memory Clock
 - CPU Clock
 - AGP Clock
 - PCI Clock
- Adjust CPU FSB Frequency

Chapter 1

D-LED™











The D-LED™ uses graphic signal display to help users understand their system. Four LEDs embedded in the mainboard provide up to 16 combinations of signals to debug the system. The 4 LEDs can debug all problems that fail the system, such as VGA, RAM or other failures. This special feature is very useful for the overclocking users. These users can use the feature to detect if there are any problems or failures.



Diagnostic LED

● Red ○ Green

D-LED	Description
1 2 3 4 	System Power ON - The D-LED will hang here if the processor is damaged or not installed properly.
	Early Chipset Initialization
	Memory Detection Test - Testing onboard memory size. The D-LED will hang if the memory module is damaged or not installed properly.
	Decompressing BIOS image to RAM for fast booting.
	Initializing Keyboard Controller.
	Testing VGA BIOS - This will start writing VGA sign-on message to the screen.

	<p>Processor Initialization</p> <p>- This will show information regarding the processor (like brand name, system bus, etc...)</p>
	<p>Testing RTC (Real Time Clock)</p>
	<p>Initializing Video Interface</p> <p>- This will start detecting CPU clock, checking type of video onboard. Then, detect and initialize the video adapter.</p>
	<p>BIOS Sign On</p> <p>- This will start showing information about logo, processor brand name, etc....</p>
	<p>Testing Base and Extended Memory</p> <p>- Testing base memory from 240K to 640K and extended memory above 1MB using various patterns.</p>
	<p>Assign Resources to all ISA.</p>
	<p>Initializing Hard Drive Controller</p> <p>- This will initialize IDE drive and controller.</p>
	<p>Initializing Floppy Drive Controller</p> <p>- This will initializing Floppy Drive and controller.</p>
	<p>Boot Attempt</p> <p>- This will set low stack and boot via INT 19h.</p>
	<p>Operating System Booting</p>

Hardware Setup

2

This chapter provides you with the information about hardware setup procedures. While doing the installation, be careful in holding the components and follow the installation procedures. For some components, if you install in the wrong orientation, the components will not work properly.

Use a grounded wrist strap before handling computer components. Static electricity may damage the components.

This chapter contains the following topics:

Central Processing Unit (CPU)	2-2
Memory	2-5
Power Supply	2-7
Back Panel	2-8
Connectors	2-12
Jumpers	2-28
Slots	2-30

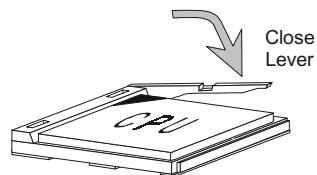
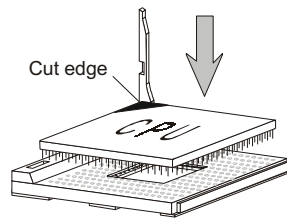
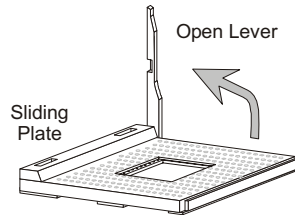
Chapter 2

Central Processing Unit: CPU

The mainboard supports AMD® Athlon™ and Duron™ processor. The mainboard uses a CPU socket called Socket A for easy CPU installation. **Make sure the CPU has a Heat Sink and a cooling fan attached on the top to prevent overheating.** If you do not find the Heat Sink and cooling fan, contact your dealer to purchase and install them before turning on the computer.

CPU Installation Procedures

1. Pull the lever sideways away from the socket. Then, raise the lever up to a 90-degree angle.
2. Look for the cut edge. The cut edge should point towards the lever pivot. The CPU will only fit in the correct orientation.
3. Hold the CPU firmly, and then press the lever down to complete the installation.





WARNING!

Thermal Issue for CPU

As processor technology pushes to faster speeds and higher performance, thermal management becomes increasingly crucial when building computer systems. Maintaining the proper thermal environment is key to reliable operation. As such, the processor must be maintained in the specified thermal requirements. AMD recommends the use of high performance thermal interface material.

AMD Athlon™/Duron™ processor with a speed of **600MHz and above** requires LARGER heatsink and fan. You also need to add thermal grease between the CPU and heatsink to improve heat dissipation. Then, make sure that the CPU and heatsink are securely fastened and in good contact with each other. These are needed to prevent damaging the processor and ensuring reliable operation.

You can check AMD's web site for more information on proper cooling: http://www.amd.com/products/cpg/athlon/pdf/cooling_guide.pdf

Chapter 2

CPU Core Speed Derivation Procedure

$$\begin{aligned} \text{If } \text{CPU Clock} &= 100\text{MHz} \\ \text{Core/Bus ratio} &= 7 \\ \text{then CPU core speed} &= \text{Host Clock} \times \text{Core/Bus ratio} \\ &= 100\text{MHz} \times 7 \\ &= 700\text{MHz} \end{aligned}$$

CPU Clock Frequency Selection through BIOS

To set the clock frequency of the CPU installed on the motherboard, refer to Hardware Monitor Setup of BIOS on page 3-26.

The default hardware configuration for CPU Clock Frequency is 100MHz. Therefore, to use a 133MHz CPU, you need to adjust the CPU clock up to 133MHz by changing the CPU clock in the BIOS Setup utility.

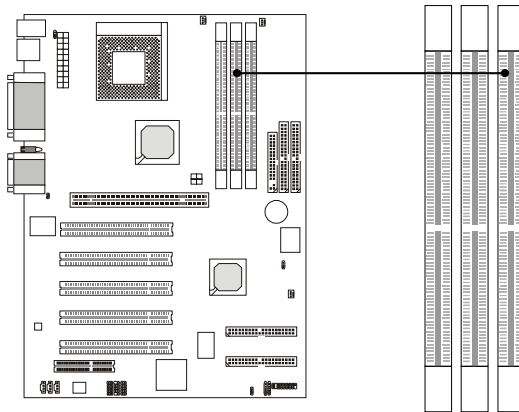


WARNING!

While replacing the CPU, always turn off the ATX power supply or unplug the power cable of the ATX power supply from grounded outlet first to ensure the safety of CPU.

Memory

The mainboard provides 3 sockets for 184-pin, 2.5V DDR DIMM with 6 memory banks. To operate properly, at least one DIMM module must be installed.



**DDR DIMM Slots
(DDR 1~3)**

You can install PC1600/PC2100 DDR SDRAM modules on the DDR DIMM slots (DIMM 1~3).

DDR (Double Data Rate) SDRAM is similar to conventional SDRAM, but doubles the rate by transferring data twice per cycle. It transfers data on both the rising and falling edges of the clock. Conventional SDRAM only uses the rising edge of the clock to transfer data. Therefore, conventional SDRAM is called SDR (Single Data Rate) SDRAM.

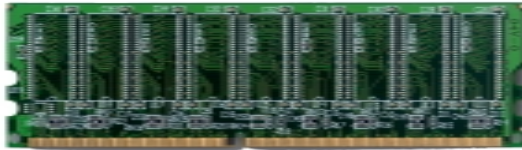
DDR SDRAM uses 2.5 volts as opposed to 3.3 volts used in SDR SDRAM, and requires 184-pin DIMM modules rather than 168-pin DIMM modules used by SDR SDRAM. DDR SDRAM is also known as SDRAM-II, DDR DRAM and DSDRAM (Double-Speed DRAM).

Two types of DDR are available at the time of writing: PC1600 & PC2100. PC1600 DDR SDRAM running at 100MHz will produce about 1.6GB/s memory bandwidth. PC2100 running at 133MHz will produce 2.1GB/s memory bandwidth. High memory bandwidth makes DDR an ideal solution for high performance PC, workstations and servers.

Chapter 2

DDR Module Installation

You can install either single sided or double sided 184-pin DDR DIMM modules into DDR DIMM slots to meet your needs. Different from the SDR DIMM, the DDR DIMM has only one notch on the center of module. The number of pins on either side of the breaks are different. The module will only fit in the right orientation.

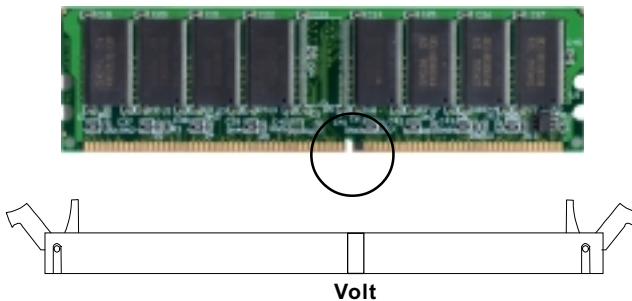


Single Sided DIMM



Double Sided DIMM

1. Insert the DIMM module vertically into the DDR DIMM slot. Make sure the notch is on the right orientation.
2. The plastic clips at sides of the DIMM slot will automatically close.

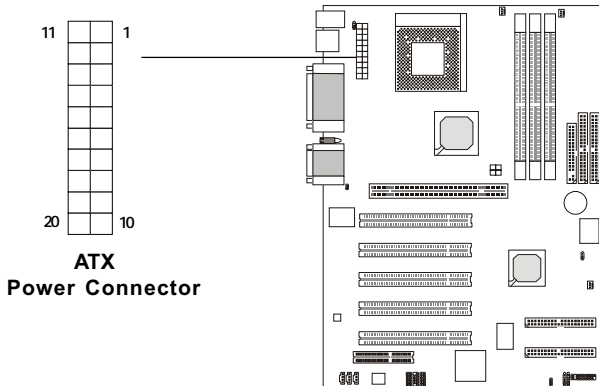


Power Supply

The mainboard supports ATX power supply for the power system. Before inserting the power supply connector, always make sure that all components are installed properly to ensure that no damage will be caused.

ATX 20-Pin Power Supply

This connector allows you to connect to an ATX power supply. To connect to the ATX power supply, make sure the plugs of the power supply is inserted in the proper orientation and the pins are aligned. Then push down the power supply firmly into the connector.



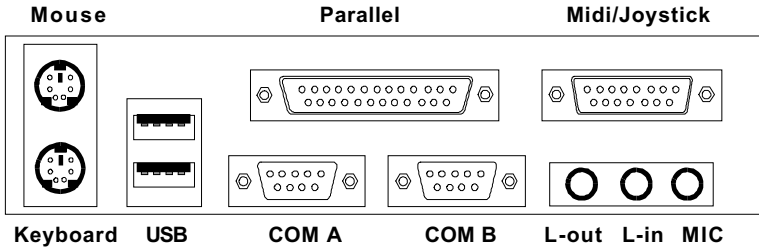
**ATX
Power Connector**

PIN	SIGNAL	PIN	SIGNAL
1	3.3V	11	3.3V
2	3.3V	12	-12V
3	GND	13	GND
4	5V	14	PS_ON
5	GND	15	GND
6	5V	16	GND
7	GND	17	GND
8	PW_OK	18	-5V
9	5V_SB	19	5V
10	12V	20	5V

Chapter 2

Back Panel

The Back Panel provides the following connectors:



Mouse Connector

The mainboard provides a standard PS/2[®] mouse mini DIN connector for attaching a PS/2[®] mouse. You can plug a PS/2[®] mouse directly into this connector.

Pin Definition

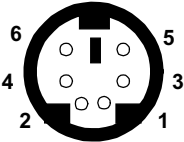
The diagram shows a 6-pin female PS/2 mouse connector. The pins are numbered 1 through 6. Pin 1 is at the bottom right, pin 2 is at the bottom left, pin 3 is on the right side, pin 4 is on the left side, pin 5 is at the top right, and pin 6 is at the top left.

PIN	SIGNAL	DESCRIPTION
1	Mouse DATA	Mouse DATA
2	NC	No connection
3	GND	Ground
4	VCC	+5V
5	Mouse Clock	Mouse clock
6	NC	No connection

PS/2 Mouse (6-pin Female)

Keyboard Connector

The mainboard provides a standard PS/2® keyboard mini DIN connector for attaching a PS/2® keyboard. You can plug a PS/2® keyboard directly into this connector.



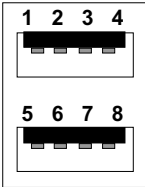
PS/2 Keyboard (6-pin Female)

Pin Definition

PIN	SIGNAL	DESCRIPTION
1	Keyboard DATA	Keyboard DATA
2	NC	No connection
3	GND	Ground
4	VCC	+5V
5	Keyboard Clock	Keyboard clock
6	NC	No connection

USB Connectors

The mainboard provides a UHCI (Universal Host Controller Interface) Universal Serial Bus root for attaching USB devices such as keyboard, mouse or other USB-compatible devices. You can plug the USB device directly into this connector.



USB Ports

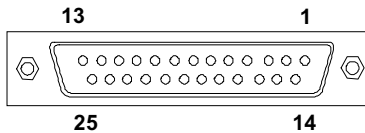
USB Port Description

PIN	SIGNAL	DESCRIPTION
1	VCC	+5V
2	-Data 0	Negative Data Channel 0
3	+Data0	Positive Data Channel 0
4	GND	Ground
5	VCC	+5V
6	+Data 1	Positive Data Channel 1
7	-Data 1	Negative Data Channel 1
8	GND	Ground

Chapter 2

Parallel Port Connector

The mainboard provides a 25-pin female centronic connector for LPT. A parallel port is a standard printer port that supports Enhanced Parallel Port (EPP) and Extended Capabilities Parallel Port (ECP) mode.

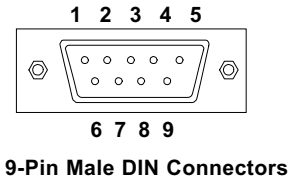


Pin Definition

PIN	SIGNAL	DESCRIPTION
1	STROBE	Strobe
2	DATA0	Data0
3	DATA1	Data1
4	DATA2	Data2
5	DATA3	Data3
6	DATA4	Data4
7	DATA5	Data5
8	DATA6	Data6
9	DATA7	Data7
10	ACK#	Acknowledge
11	BUSY	Busy
12	FE	Paper End
13	SELECT	Select
14	AUTO FEED#	Automatic Feed
15	ERR#	Error
16	INIT#	Initialize Printer
17	SLIN#	Select In
18	GND	Ground
19	GND	Ground
20	GND	Ground
21	GND	Ground
22	GND	Ground
23	GND	Ground
24	GND	Ground
25	GND	Ground1

Serial Port Connector: COM A & COM B

The mainboard has two 9-pin male DIN connectors for serial port COM A and COM B. You can attach a serial mouse or other serial devices.

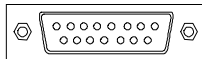


Pin Definition

PIN	SIGNAL	DESCRIPTION
1	DCD	Data Carry Detect
2	SIN	Serial In or Receive Data
3	SOUT	Serial Out or Transmit Data
4	DTR	Data Terminal Ready)
5	GND	Ground
6	DSR	Data Set Ready
7	RTS	Request To Send
8	CTS	Clear To Send
9	RI	Ring Indicate

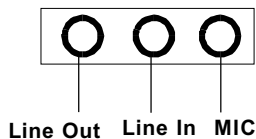
Joystick/Midi Connectors

You can connect a joystick or game pad to this connector.



Audio Port Connectors

Line Out is to connect speakers or headphones. *Line In* is a connector for external CD player, Tape player or other audio devices. *Mic* is used to connect to a microphone.



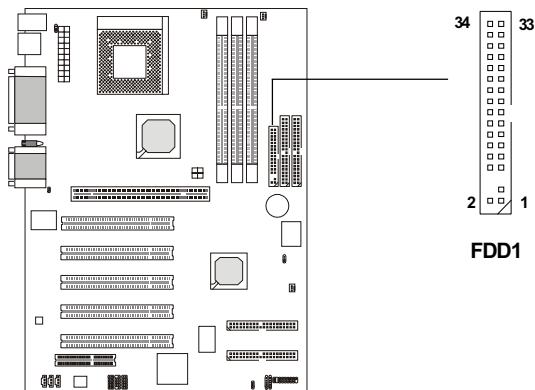
Chapter 2

Connectors

The mainboard provides connectors to connect to FDD, IDE HDD, case, modem, LAN, USB Ports, IR module and CPU/Power supply/System FAN.

Floppy Disk Drive Connector: FDD1

The mainboard provides a standard floppy disk drive connector that supports 360K, 720K, 1.2M, 1.44M and 2.88M floppy disk types.



Hard Disk Connectors: IDE1 & IDE2

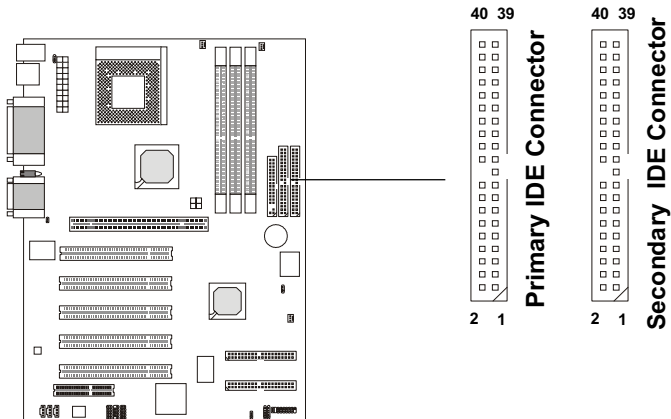
The mainboard uses an IDE controller on the VIA® VT8233 chipset that provides PIO mode 0-4, Bus Master, and Ultra DMA 33/66/100 modes. It has two HDD connectors IDE1 (Primary) and IDE2 (Secondary). You can connect up to four hard disk drives, CD-ROM or 120MB Floppy to IDE1 and IDE2.

IDE1 (Primary IDE Connector)

- The first hard disk drive should always be connected to IDE1. You can connect a Master and a Slave drive to IDE1.

IDE2 (Secondary IDE Connector)

- You can connect a Master and a Slave drive to IDE2.



TIP:

If you install two hard disks on cable, you must configure the second drive to Slave mode by setting its jumper. Refer to the hard disk documentation supplied by hard disk vendors for jumper setting instructions.

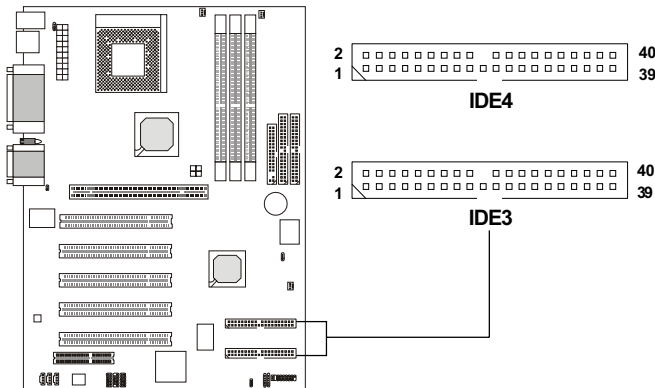
Chapter 2

IDE RAID Connectors: IDE3 & IDE4 (Optional)

The mainboard offers a low-cost RAID (Redundant Array of Independent Disks) solution by integrating two IDE RAID connectors that support PIO mode 0-4, Bus Master, and Ultra DMA 33/66/100 modes. The IDE RAID connectors allow you to connect Ultra ATA/DMA hard disks and use RAID technology for high performance, data security and fault tolerance. The connectors support RAID 0 (striping) and RAID 1 (mirroring).

IDE RAID Connectors

- You can connect a Master and a Slave drive to each IDE RAID connector.
- **For more information on IDE RAID, please refer to IDE RAID Manual.**

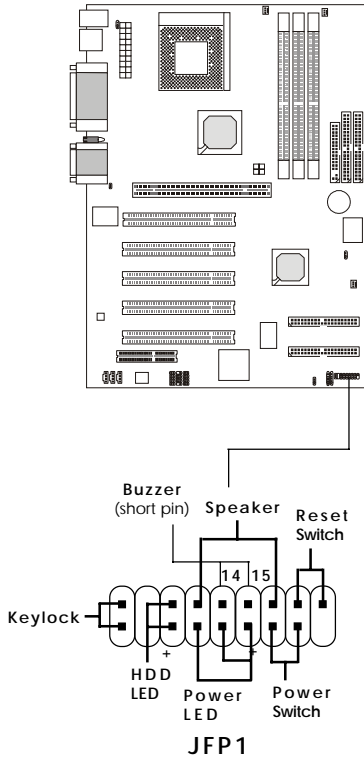


TIP:

If you install two hard disks on cable, you must configure the second drive to Slave mode by setting its jumper. Refer to the hard disk documentation supplied by hard disk vendors for jumper setting instructions.

Case Connector: JFP1

The case connector block JFP1 allows you to connect to the Power Switch, Reset Switch, Keylock, Speaker, Power LED, and HDD LED on the case.



Chapter 2

Power Switch

Connect to a 2-pin push button switch.

Reset Switch

Reset switch is used to reboot the system rather than turning the power ON/OFF. Avoid rebooting while the HDD is working. You can connect the Reset switch from the system case to this pin.

Power LED

The Power LED is lit while the system power is on.

Speaker

Speaker from the system case is connected to this pin.

If on-board Buzzer is available, then:

Always short pin 14-15 to enable on-board Buzzer

HDD LED

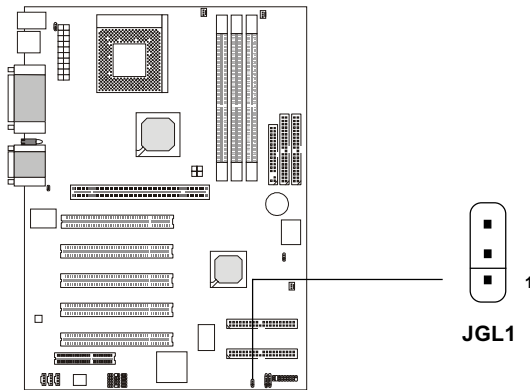
HDD LED shows the activity of a hard disk drive connected to the IDE1 or IDE2 connector. Avoid turning the power off while the HDD is working. You can connect the HDD LED from the system case to this pin.

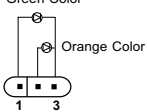
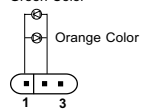
Keylock

Keylock allows you to disable the keyboard for security purpose. You can connect the keylock to this pin.

Power Saving LED Connector: JGL1

JGL1 is connected to a power saving LED. There are two types of LED that you can use: 3-pin or 2-pin (ACPI request) LED. If connected to a 2-pin LED, the LED light is green when system is turned on, and turns to orange color while entering the sleep state. For 3-pin LED, the LED is lit when system is on, and blinks during the sleep state.

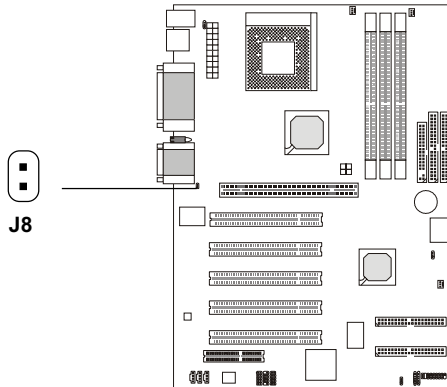


3-Pin LED	2-Pin LED
<p>Green Color</p>  <p>Orange Color</p>	<p>Green Color</p>  <p>Orange Color</p>
<p>1-2 Single Color 1-3 Blink</p>	<p>1-2 Dual Color</p>

Chapter 2

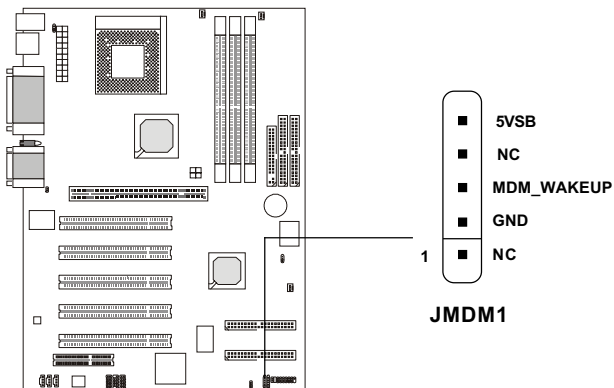
Chassis Intrusion Switch Connector: J8

This connector is connected to a 2-pin chassis switch. If the chassis is opened, the switch will be short. The system will record this status and show a warning message on the screen. To clear the warning, you must enter the BIOS utility and clear the record.



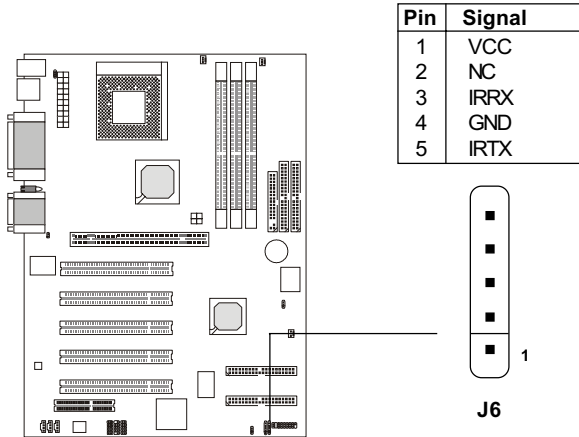
Wake On Ring Connector: JMDM1

This connector allows you to connect to a modem card with Wake On Ring function. The connector will power up the system when a signal is received through the modem card.



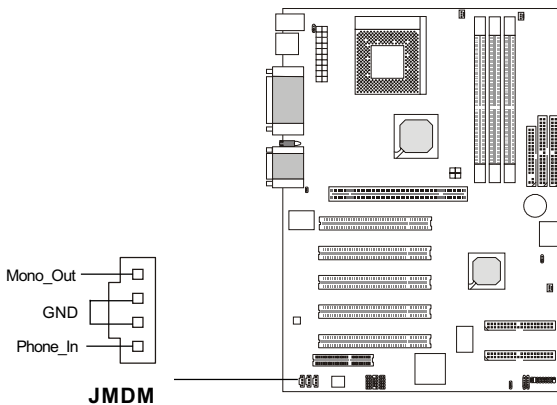
IrDA Infrared Module Connector: J6

This connector allows you to connect to an IrDA Infrared module. You must configure the setting through the BIOS setup to use the IR function.



Modem-In Connector: JMDM

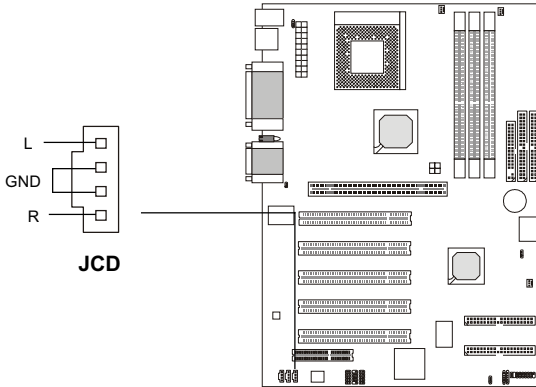
The connector is for modem with internal audio connector.



Chapter 2

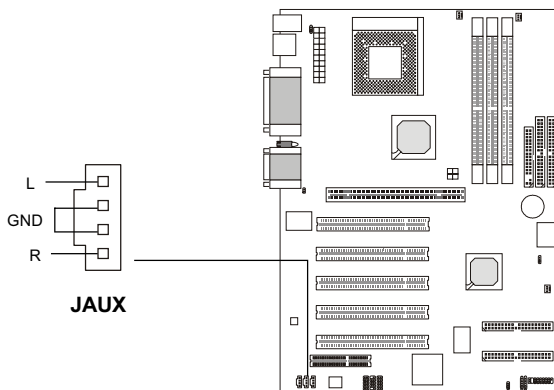
CD-In Connector: JCD

The connector is for CD-ROM audio connector.



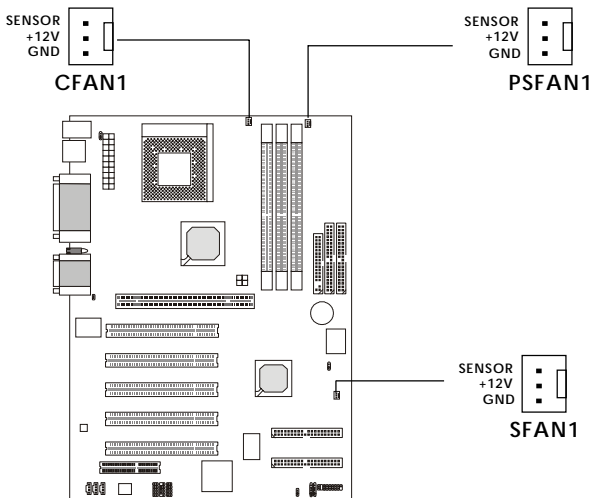
Aux Line-In Connector: J AUX

The connector is for DVD add-on card with Line-in connector.



Fan Power Connectors: CFAN1/SFAN1/PSFAN1

The CFAN1 (processor fan), SFAN1 (system fan) and PSFAN1 (power supply fan) support system cooling fan with +12V. It supports three-pin head connector. When connecting the wire to the connectors, always take note that the red wire is the positive and should be connected to the +12V, the black wire is Ground and should be connected to GND. If the mainboard has a System Hardware Monitor chipset on-board, you must use a specially designed fan with speed sensor to take advantage of the CPU fan control.



Note:

1. Always consult the vendor for proper CPU cooling fan.
2. CPU Fan supports the fan control. You can install the PC Alert utility that will automatically control the CPU Fan speed according to the actual CPU temperature.

Chapter 2

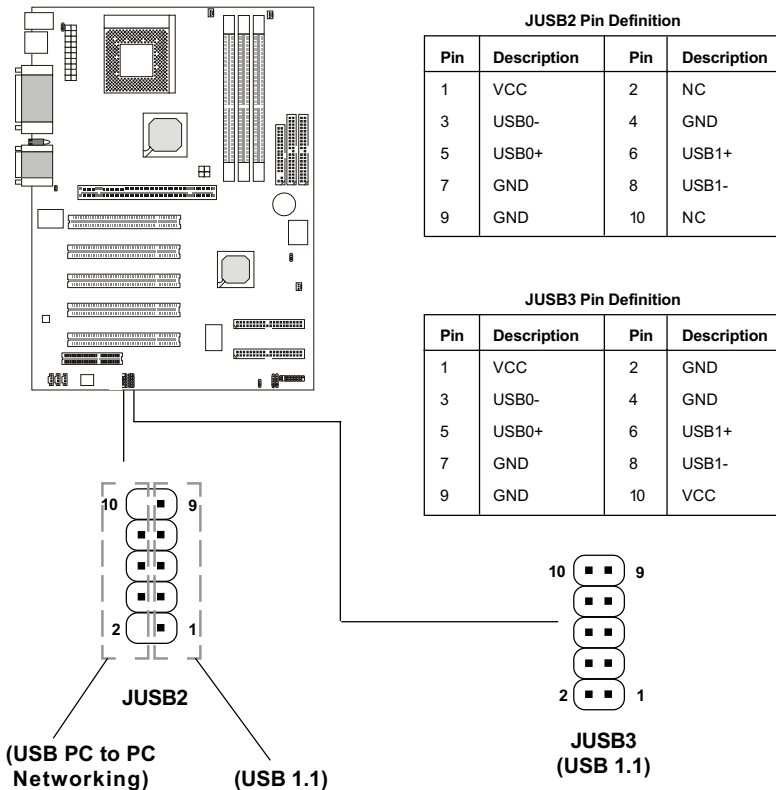
USB Rear Panel Connectors: JUSB1, JUSB2 & JUSB3

MS-6380 mainboard provides two or three USB (Universal Serial Bus) pin headers that allow you to connect optional USB ports for Rear Panel.

TWO USB Connectors: JUSB2/3 (for K7T266 Pro & K7T266 Pro-R)

If your mainboard comes with two USB pin headers, one of them will be compatible with USB 1.1 specification and the other will implement USB PC to PC Networking function.

The mainboard can offer **five USB 1.1 ports** and **one USB PC2PC port**.

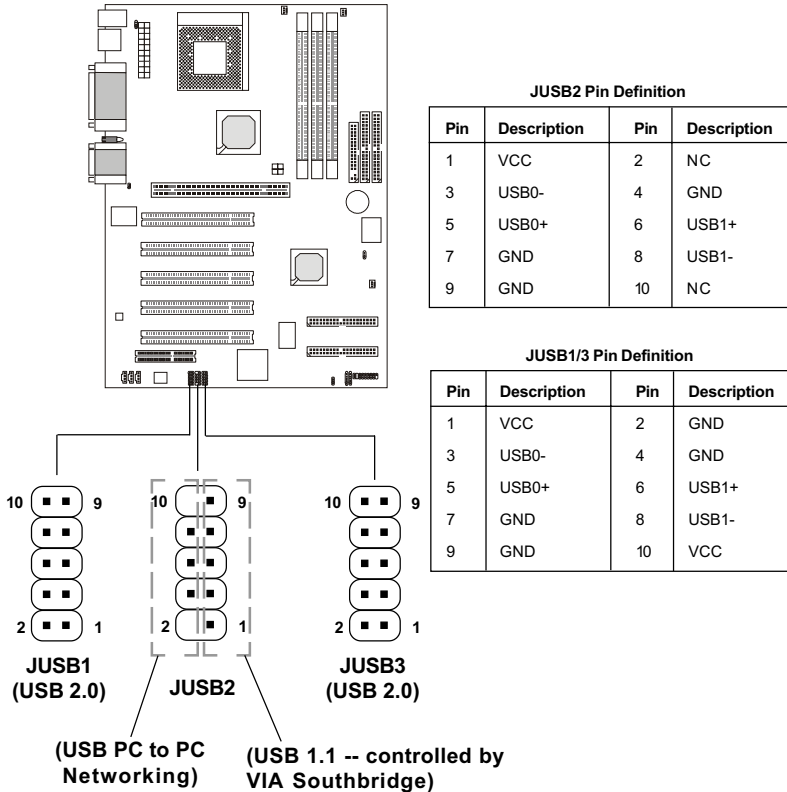


THREE USB Connectors: JUSB1/2/3 (for K7T266 Pro-RU)

If your mainboard comes with three USB pin headers along with the NEC USB 2.0 controller, two of them will comply with high-speed USB 2.0 specification and one will implement USB PC to PC Networking function.

USB 2.0 technology increases data transfer rate and is ideal for connecting to high-speed USB interface peripherals such as **USB HDD, digital cameras, MP3 players, printers, modems** and the like. It is not recommended to connect low-speed USB legacy keyboard and mouse to the USB 2.0 ports. Please connect these USB legacy devices to the USB rear ports.

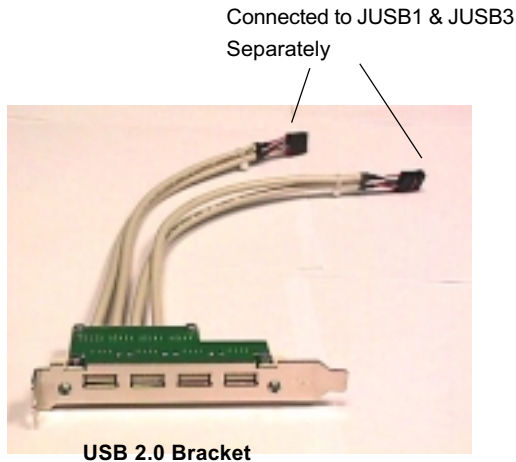
The mainboard can offer **seven USB 1.1 ports** and **one USB PC2PC port**.



Chapter 2

To Attach the Optional USB 2.0 Ports:

1. Take out the USB 2.0 bracket
2. Locate the JUSB1 and JUSB3 pin headers on the motherboard.
3. Connect the USB cables from USB 2.0 bracket to the JUSB1 and JUSB 3 connectors separately.

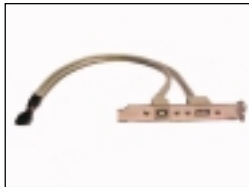


4. Place the USB 2.0 Bracket into the appropriate slot of the system case.

Note: USB PC to PC Networking feature allows users to transfer and receive data from other computers or share system resources with other computers without using any network adapter. See below for instructions.

To Attach the USB PC to PC cable

1. Check whether the package includes the following items. If any is missing, contact your dealer.

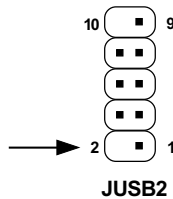
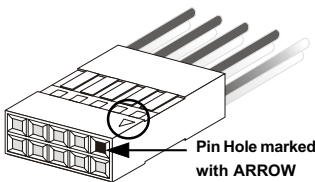


USB PC to PC Bracket

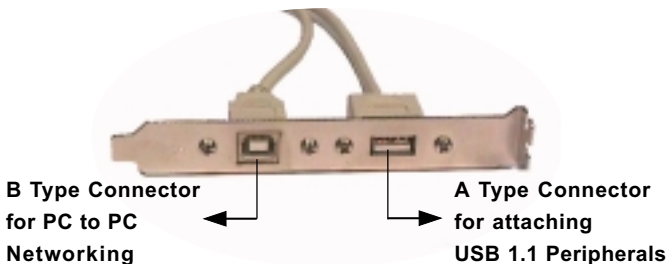


USB PC to PC Cable

2. Connect the USB Bracket cable to the JUSB2 pin header on the mainboard. Locate the pin hole marked with the ARROW on the connector of USB Bracket and Pin# 2 of JUSB2. Then align the pin hole with Pin# 2 to attach the USB Bracket.

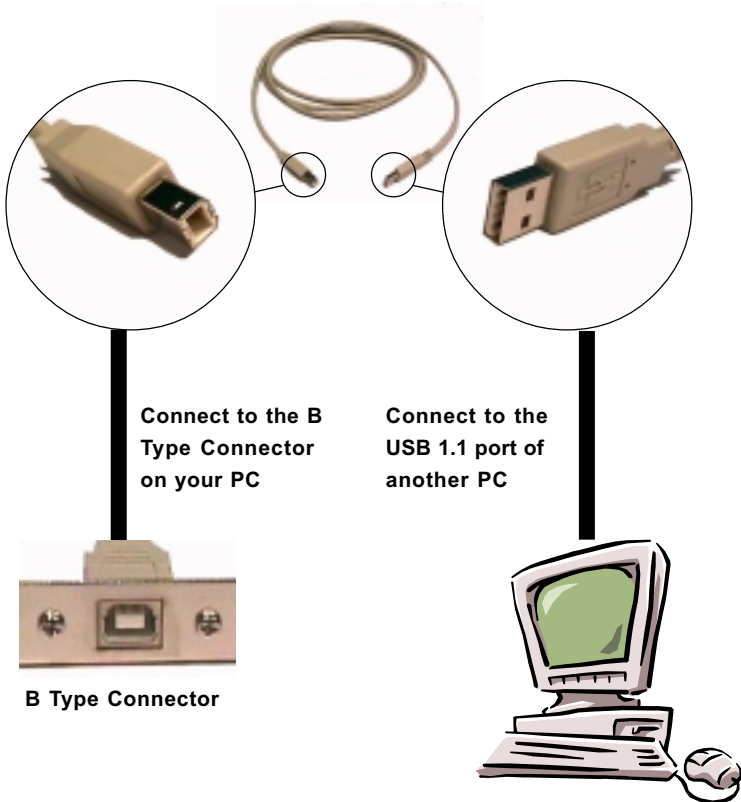


3. Identify the **B Type Connector** on the bracket used for PC to PC Networking function.



Chapter 2

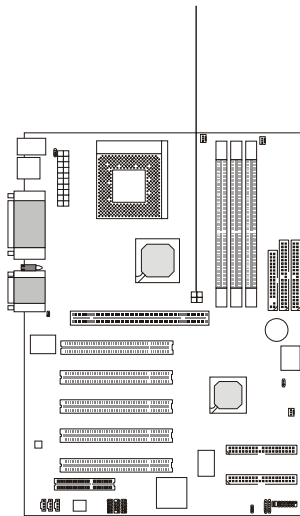
4. Connect your PC to another PC via USB PC to PC cable. The transfer rate will run at USB 1.1 speed (12Mbps/s).



For more information on USB PC to PC Networking function, refer to Appendix A: USB PC to PC Networking Function.

ATX 12V Power Connector: JWR1 (Optional)

This 12V power connector is used to connect the power cable of the AGP Pro card if the card comes with a power cable, and supply power to the installed card accordingly.



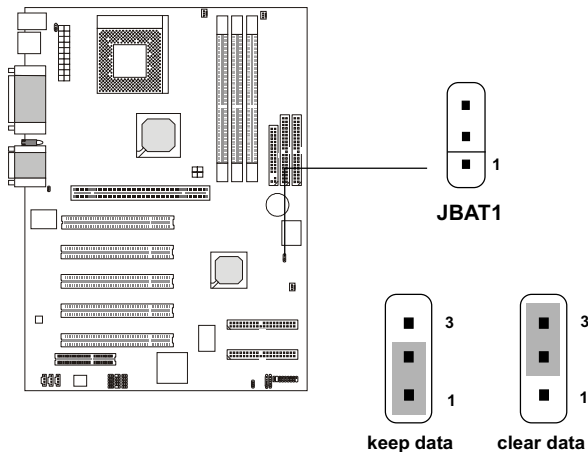
PIN	SIGNAL
1	GND
2	GND
3	12V
4	12V

Jumpers

The motherboard provides the following jumpers for you to set the computer's function. This section will explain how to change your motherboard's function through the use of jumpers.

Clear CMOS Jumper: JBAT1

There is a CMOS RAM on board that has a power supply from external battery to keep the data of system configuration. With the CMOS RAM, the system can automatically boot OS every time it is turned on. That battery has long life time for at least 5 years. If you want to clear the system configuration, use the JBAT1 (Clear CMOS Jumper) to clear data. Follow the instructions below to clear the data:

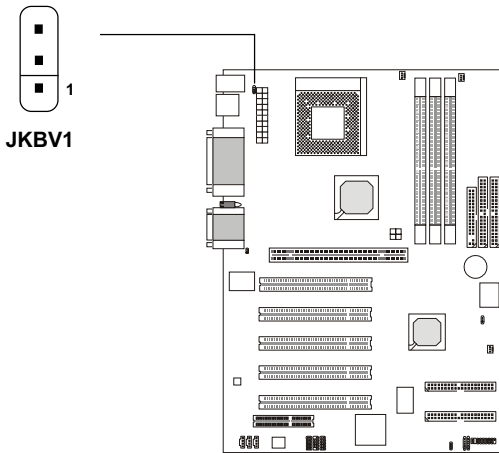


WARNING!

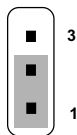
You can clear CMOS by shorting 2-3 pin while the system is off. Then return to 1-2 pin position. Avoid clearing the CMOS while the system is on; it will damage the mainboard.

Keyboard Wake-up Jumper: JKBV1

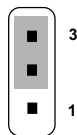
The JKBV1 jumper is used to set PS/2 keyboard/mouse wake-up function. To use the function, you should also go to BIOS to enable the PS/2 keyboard/mouse wake-up (power on) function.



JKBV1



VCC 5V --
Disable Keyboard
Power On Function



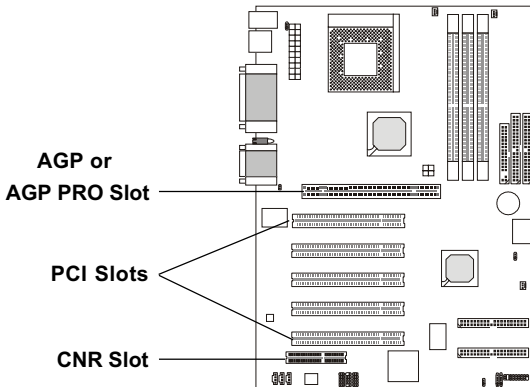
5V StandBy (Default)--
Enable Keyboard
Power On Function

Note: To be able to use this function, you need a power supply that provides enough power for this feature. (Power supply with 750mA 5V Stand-by)

Chapter 2

Slots

The MS-6380 motherboard provides one AGP or AGP PRO slot, five 32-bit Master PCI Bus Slots, and one CNR slot.



AGP (Accelerated Graphics Port) or AGP PRO Slot

Depending on the model you purchased, the mainboard will come with one AGP or AGP Pro slot, which allows you to insert the AGP or AGP Pro graphics card. AGP is an interface specification designed for the throughput demands of 3D graphics. It introduces a 66MHz, 32-bit channel for the graphics controller to directly access main memory and provides three levels of throughputs: 1x (266Mbps), 2x (533Mbps) and 4x (1.07Gbps).

PCI Slots

Five PCI slots allow you to insert the expansion cards to meet your needs. When adding or removing expansion cards, make sure that you unplug the power supply first. Meanwhile, read the documentation for the expansion card to make any necessary hardware or software settings for the expansion card, such as jumpers, switches or BIOS configuration.

CNR (Communication Network Riser)

The CNR specification is an open industry-standard specification that defines a hardware scalable Original Equipment Manufacturer (OEM) mainboard riser board and interface, which supports audio and modem only.

PCI Interrupt Request Routing

The IRQ, abbreviation of interrupt request line and pronounced I-R-Q, are hardware lines over which devices can send interrupt signals to the microprocessor. **To install a PCI expansion card on a PCI *shared* slot, you must make sure the card’s driver supports “IRQ shared” function or there is no need to assign an IRQ to the device.**

The “AGP/PCI/USB/Promise ATA100” IRQ pins are typically connected to the PCI bus INTA#-INTD# pins as follows:

	Order 1	Order 2	Order 3	Order 4
AGP	INT A#	INT B#	/	/
PCI Slot 1	INT A#	INT B#	INT C#	INT D#
PCI Slot 2	INT B#	INT C#	INT D#	INT A#
PCI Slot 3	INT C#	INT D#	INT A#	INT B#
PCI Slot 4	INT D#	INT A#	INT B#	INT C#
PCI Slot 5	INT A#	INT B#	INT C#	INT D#
NEC USB 2.0	INT A#	INT B#	INT C#	/
Promise ATA 100	INT B#	/	/	/

The mainboard supports PCI Slot 1~5 Bus Master.

AMI® BIOS Setup

3

The mainboard uses AMI® BIOS ROM that provides a Setup utility for users to modify the basic system configuration. The information is stored in a battery-backed CMOS RAM so it retains the Setup information when the power is turned off.

This chapter provides you with the overview of the BIOS Setup program. It contains the following topics:

Entering Setup	3-2
Control Keys	3-2
Getting Help	3-3
The Main Menu	3-4
Standard CMOS Features	3-6
Advanced BIOS Features	3-8
Advanced Chipset Features	3-12
Power Management Setup	3-16
PNP/PCI Configurations	3-20
Integrated Peripherals	3-22
Hardware Monitor Setup	3-26
Load Performance/Optimized Defaults	3-28
Supervisor/User Password	3-30
IDE HDD Auto Detection	3-32
Save & Exit Setup	3-33
Exit without Saving	3-34

Chapter 3

Entering Setup

Power on the computer and the system will start POST (Power On Self Test) process. When the message below appears on the screen, press key to enter Setup.

Hit DEL if you want to run SETUP

If the message disappears before you respond and you still wish to enter Setup, restart the system by turning it OFF and On or pressing the RESET button. You may also restart the system by simultaneously pressing <Ctrl>, <Alt>, and <Delete> keys.

Control Keys

<↑>	Move to the previous item
<↓>	Move to the next item
<←>	Move to the item in the left hand
<→>	Move to the item in the right hand
<Enter>	Select the item
<Esc>	Jumps to the Exit menu or returns to the main menu from a submenu
<+ /PU>	Increase the numeric value or make changes
<- /PD>	Decrease the numeric value or make changes
<F5>	Restore the previous CMOS value from CMOS, only for Option Page Setup Menu
<F6>	Load the default CMOS value from Fail-Safe default table, only for Option Page Setup Menu
<F7>	Load Optimized defaults
<F10>	Save all the CMOS changes and exit

Getting Help

After entering the Setup utility, the first screen you see is the Main Menu.

Main Menu

The main menu displays the setup categories the BIOS supplies. You can use the arrow keys (↑↓) to select the item. The on-line description for the selected setup category is displayed on the bottom of the screen.

Default Settings

The BIOS setup program contains two kinds of default settings: the Optimized and Performance defaults (High System Performance). Optimized defaults provide optimum and stable performance settings for all devices and the system. (The “default” value described in the chapter usually refers to the Optimized defaults unless otherwise specified.) Performance defaults provide the best system performance but may affect the system stability.

Chapter 3

The Main Menu

Once you enter AMIBIOS SIMPLE SETUP UTILITY, the Main Menu will appear on the screen. The Main Menu displays twelve configurable functions and two exit choices. Use arrow keys to move among the items and press <Enter> to enter the sub-menu.

AMIBIOS SIMPLE SETUP UTILITY - VERSION 1.44 (C)2001 American Megatrends, Inc. All Rights Reserved	
Standard CMOS Features	High System Performance
Advanced BIOS Features	Load Optimized Defaults
Advanced Chipset Features	Supervisor Password
Power Management Setup	User Password
PNP/PCI Configurations	IDE HDD AUTO Detection
Integrated Peripherals	Save & Exit Setup
Hardware Monitor Setup	Exit Without Saving
ESC : Quit	↑↓←→ : Select Item
F10 : Save & Exit	
Time, Date, Hard Disk Type...	

Standard CMOS Features

Use this menu for basic system configurations, such as time, date etc.

Advanced BIOS Features

Use this menu to setup the items of AMI® special enhanced features.

Advanced Chipset Features

Use this menu to change the values in the chipset registers and optimize your system's performance.

Power Management Setup

Use this menu to specify your settings for power management.

PNP/PCI Configuration

This entry appears if your system supports PnP/PCI.

Integrated Peripherals

Use this menu to specify your settings for integrated peripherals.

Hardware Monitor Setup

This entry shows your PC's current status, and allows you to adjust CPU clock, core voltage, ratio and DDR voltage.

High System Performance

Use this menu to load the BIOS values for the best system performance, but the system stability may be affected.

Load Optimized Defaults

Use this menu to load factory default settings into the BIOS for optimal and stable system performance operations.

Supervisor Password

Use this menu to set Supervisor Password.

User Password

Use this menu to set User Password.

Save & Exit Setup

Save changes to CMOS and exit setup.

Exit Without Saving

Abandon all changes and exit setup.

Chapter 3

Standard CMOS Features

The items inside STANDARD CMOS SETUP menu are divided into 9 categories. Each category includes none, one or more setup items. Use the arrow keys to highlight the item you want to modify and use the <PgUp> or <PgDn> keys to switch to the value you prefer.

AMIBIOS SETUP - STANDARD CMOS SETUP (C)2001 American Megatrends, Inc. All Rights Reserved								
Date (mm/dd/yyyy) : Tue May 08, 2001								
Time (hh/mm/ss) : 00:00:00								
	TYPE	SIZE	CYLS	HEAD	PRECOMP	LANDZ	SECTOR	MODE
Pri Master	: Auto							
Pri Slave	: Auto							
Sec Master	: Auto							
Sec Slave	: Auto							
Floppy Drive A : 1.44 MB 3½				Base Memory : 640 Kb Other Memory : 384 Kb Extended Memory : 127 Mb Total Memory : 128 Mb				
Floppy Drive B : Not Installed								
Boot Sector Virus Protection : Disabled								
Month: Jan - Dec		ESC : Exit						
Day: 01 - 31		↑ ↓ : Select Item						
Year: 1901 - 2099		PU/PD/+/-:Modify						
		(Shift) F2 : Color						

Date

This allows you to set the system to the date that you want (usually the current date). The format is <day><month> <date> <year>.

- day** Day of the week, from Sun to Sat, determined by BIOS. Read-only.
- month** The month from Jan. through Dec.
- date** The date from 1 to 31 can be keyed by numeric function keys.
- year** The year depends on the year of the BIOS.

Time

This allows you to set the system time that you want (usually the current time). The time format is <hour> <minute> <second>.

Pri Master/Pri Slave/Sec Master/Sec Slave

Press PgUp/<+> or PgDn/<-> to select the hard disk drive type. The specification of hard disk drive will show up on the right hand according to your selection.

<u>TYPE</u>	Type of the device.
<u>SIZE</u>	Capacity of the device.
<u>CYLS</u>	Number of cylinders.
<u>HEAD</u>	Number of heads.
<u>PRECOMP</u>	Write precompensation.
<u>LANDZ</u>	Cylinder location of Landing zone.
<u>SECTOR</u>	Number of sectors.
<u>MODE</u>	Access mode.

Floppy Drive A/B

This item allows you to set the type of floppy drives installed. Available options are *Not Installed*, *360 KB 5¼*, *1.2 MB 5¼*, *720 KB 3½*, *1.44 MB 3½*, or *2.88 MB 3½*. The default value for Floppy Drive A is *1.44 MB 3½*, and for Floppy Drive B is *Not Installed*.

Boot Sector Virus Protection

The item is to set the Virus Warning feature for IDE Hard Disk boot sector protection. When *Enabled*, BIOS will issue a virus warning message and beep if a write to the boot sector or the partition table of the HDD is attempted. Setting options are *Disabled* and *Enabled*. Default value is *Disabled*.

Note: *This feature only protects the boot sector, not the whole hard disk.*

Chapter 3

Advanced BIOS Features

AMIBIOS SETUP - BIOS FEATURES SETUP (C)2001 American Megatrends, Inc. All Rights Reserved	
Quick Boot	:Enabled
1st Boot Device	:Floppy
2nd Boot Device	:IDE-0
3rd Boot Device	:CDROM
Try Other Boot Devices	:Yes
Initial Display Mode	:BIOS
S.M.A.R.T. for Hard Disks	:Disabled
BootUp Num-Lock	:On
Floppy Drive Swap	:Disabled
Floppy Drive Seek	:Disabled
Primary Display	:VGA/EGA
Password Check	:Setup
Boot To OS/2	:No
L1 Cache	:Enabled
L2 Cache	:Enabled
System BIOS Cacheable	:Enabled
C000, 32k Shadow	:Cached

ESC : Quit ↑↓←→ : Select Item
F1 : Help PU/PD/+/-: Modify
F5 : Load Previous Values
F6 : Load Fail-Safe Defaults
F7 : Load Optimized Defaults

Quick Boot

Setting the item to *Enabled* allows the system to boot within 5 seconds since it will skip some check items. Available options are *Enabled* and *Disabled*. The default value is *Enabled*.

1st/2nd/3rd Boot Device

The items allow you to set the sequence of boot devices where AMIBIOS attempts to load the operating system. The settings are:

<i>IDE0</i>	The system will boot from the first HDD.
<i>IDE1</i>	The system will boot from the second HDD.
<i>IDE2</i>	The system will boot from the third HDD.
<i>IDE3</i>	The system will boot from the fourth HDD.
<i>Floppy</i>	The system will boot from floppy drive.
<i>ARMD-ZIP</i>	The system will boot from LS-120/ZIP-100/ZIP-250

	drive.
<i>CDROM</i>	The system will boot from the CD-ROM.
<i>SCSI</i>	The system will boot from the SCSI.
<i>Network</i>	The system will boot from the Network drive.
<i>Disabled</i>	Disable this sequence.

Try Other Boot Devices

Setting the option to *Yes* allows the system to try to boot from other devices if the system fails to boot from the 1st/2nd/3rd boot device.

Initial Display Mode

This item enables you to show the company logo on the bootup screen.

Settings are:

<i>BIOS (default)</i>	Shows the POST messages at boot.
<i>Silent</i>	Shows a still image (logo) on the full screen at boot.

S.M.A.R.T. for Hard Disks

This allows you to activate the S.M.A.R.T. (Self-Monitoring Analysis & Reporting Technology) capability for the hard disks. S.M.A.R.T is a utility that monitors your disk status to predict hard disk failure. This gives you an opportunity to move data from a hard disk that is going to fail to a safe place before it becomes offline. Settings are *Enabled* and *Disabled* (default).

BootUpNum-Lock

This item is to set the Num Lock status when the system is powered on. Setting to *On* will turn on the Num Lock key when the system is powered on. Setting to *Off* will allow end users to use the arrow keys on the numeric keypad. Setting options are *On* and *Off*. Default value is *On*.

Floppy Drive Swap

Setting to *Enabled* will swap floppy drives A: and B:. The default value is *Disabled*.

Floppy Drive Seek

Setting to *Enabled* will make BIOS seek floppy drive A: before booting the system. Settings are *Disabled* and *Enabled*. The default value is *Disabled*.

Chapter 3

Primary Display

This configures the primary display subsystem in the computer. Available options are *Mono (monochrome)*, *CGA40x25*, *CGA80x25*, *VGA/EGA* and *Absent*. The default value is *VGA/EGA*.

Password Check

This specifies the type of AMIBIOS password protection that is implemented. Setting options are described below.

Option	Description
Setup (default)	The password prompt appears only when end users try to run Setup.
Always	A password prompt appears every time when the computer is powered on or when end users try to run Setup.

Boot to OS/2 > 64MB

This allows you to run the OS/2[®] operating system with DRAM larger than 64MB. When you choose the default value *No*, you cannot run the OS/2[®] operating system with DRAM larger than 64MB. But it is possible if you choose *Yes*. The default value is *No*.

L1/L2 Cache

The items enable or disable the L1 (internal) and L2 (external) cache memory for CPU. Setting to *Enabled* will speed up the system performance.

System BIOS Cacheable

AMIBIOS always copies the system BIOS from ROM to RAM for faster execution. Selecting *Enabled* allows the contents of F0000h RAM memory segment to be written to and read from cache memory. Settings are *Enabled* and *Disabled*. The default value is *Enabled*.

C000, 32k Shadow

This item specifies how the contents of the adapter ROM named in the item are handled. Settings are described below:

Option	Description
Disabled (default)	The specified ROM is not copied to RAM.
Enabled	The contents of specified ROM are copied to RAM for faster system performance.
Cached	The contents of specified ROM are not only copied to RAM, the contents of the ROM area can be written to and read from cache memory.

Advanced Chipset Features

AMIBIOS SETUP - CHIPSET FEATURES SETUP (C)2001 American Megatrends, Inc. All Rights Reserved	
Configure SDRAM Timing by	:SPD
SDRAM Frequency	:HCLK
SDRAM CAS# Latency	:2.5
SDRAM Bank Interleave	:Disabled
SDRAM 1T Command	:Disabled
AGP Mode	:Auto
AGP Comp. Driving	:Auto
Manual AGP Comp. Driving	:CB
AGP Fast Write	:Disabled
AGP Read Synchronization	:Disabled
AGP Aperture Size	:64MB
AGP Master 1 W/S Write	:Disabled
AGP Master 1 W/S Read	:Disabled
Search for MDA Resources	:Yes
PCI Delay Transaction	:Disabled
BIOS Protection	:Enabled
ESC : Quit ↑↓←→ : Select Item F1 : Help PU/PD/+/-:Modify F5 : Load Previous Values F6 : Load Fail-Safe Defaults F7 : Load Optimized Defaults	

Note: Change these settings only if you are familiar with the chipset.

Configure SDRAM Timing by

Selects whether DRAM timing is controlled by the SPD (Serial Presence Detect) device on the DRAM module. Setting to *SPD* enables SDRAM Frequency, SDRAM CAS# Latency and SDRAM Bank Interleave automatically to be determined by BIOS based on the configurations on the SPD. Selecting *User* allows user to configure the three fields manually. The default value is *SPD*.

SDRAM Frequency

Use this item to configure the clock frequency of the installed SDRAM. Settings are:

HCLK The DRAM clock will be equal to the Host Clock.

<i>HCLK+33</i>	The DRAM clock will be equal to the Host Clock plus 33MHz. For example, if the Host Clock is 100MHz, the DRAM clock will be 133MHz.
<i>HCLK-33</i>	The DRAM clock will be equal to the Host Clock minus 33MHz. For example, if the Host Clock is 133MHz, the DRAM clock will be 100MH
<i>SPD</i>	<i>SPD</i> will set the clock frequency by reading the contents of the SPD device.

When the installed CPU is 100MHz, this field has three setting options: *HCLK*, *HCLK+33* and *SPD*. When the installed one is 133MHz, the three setting options will be *HCLK*, *HCLK-33* and *SPD*.

SDRAM CAS# Latency

This controls the time delay (in clock cycles) before SDRAM starts a read command after receiving it. Settings are *2* and *2.5*. *2* increases the system performance while *2.5* provides more stable performance. The default value is *2.5*.

SDRAM Bank Interleave

This field selects 2-bank or 4-bank interleave for the installed SDRAM. Disable the function if 16MB SDRAM is installed. Settings are *Disabled*, *2-Way* and *4-Way*. The default value is *Disabled*.

SDRAM 1T Command

This item controls the SDRAM command rate. Selecting *Enabled* allows SDRAM signal controller to run at 1T (T=clock cycles) rate. Selecting *Disabled* makes SDRAM signal controller run at 2T rate. *1T* is faster than *2T*. The default value is *Disabled*.

AGP Mode

The item sets an appropriate mode for the installed AGP card. Settings are *1x*, *2x*, *4x* and *Auto* (default). Select *4x* only if your AGP card can support it.

AGP Comp. Driving

This field is used to adjust the AGP driving force. Selecting *Manual* allows

Chapter 3

you to select an AGP driving force in **Manual AGP Comp. Driving**. It is strongly suggested to select *Auto* to avoid causing any system error.

Manual AGP Comp. Driving

This item specifies an AGP driving force.

AGP Fast Write

The field enables or disables the AGP Fast Write feature. The Fast Write technology allows CPU to write directly to the graphics card without passing anything through the system memory and improves the AGP 4X speed. Select *Enabled* only when the installed AGP card supports the function. The default value is *Disabled*.

AGP Read Synchronization

The field allows you to enable or disable the AGP Read Synchronization feature. Settings are *Enabled* and *Disabled*.

AGP Aperture Size

The field selects the size of the Accelerated Graphics Port (AGP) aperture. Aperture is a portion of the PCI memory address range dedicated for graphics memory address space. Host cycles that hit the aperture range are forwarded to the AGP without any translation. Settings are *4MB*, *8MB*, *16MB*, *32MB*, *64MB*, *128MB* and *256MB*.

AGP Master 1 W/S Write

The field allows users to insert one wait state into the AGP master write cycle. Settings are *Enabled* and *Disabled* (default).

AGP Master 1 W/S Read

The field allows users to insert one wait state into the AGP master read cycle. Settings are *Enabled* and *Disabled* (default).

Search for MDA Resources

MDA stands for Mono Display Adapter. Select *Yes* only when you install and use mono display adapter card.

PCIDelay Transaction

The chipset has an embedded 32-bit posted write buffer to support delayed transactions cycles. Select *Enabled* to support compliance with PCI specification version 2.1. Settings are *Enabled* and *Disabled* (default).

BIOS Protection

Setting to *Enabled* will prevent BIOS from performing any BIOS update/flash utility. Settings are *Enabled* (default) and *Disabled*.

Chapter 3

Power Management Setup

AMIBIOS SETUP - POWER MANAGEMENT SETUP (C)2001 American Megatrends, Inc. All Rights Reserved			
IPCA Function	:Yes	Wake Up On Ring	:Disabled
ACPI Standby State	:S1/POS	Wake Up On PME#	:Disabled
USB Wakeup From S3	:Disabled	Resume By Alarm	:Disabled
Power Management/ APM	:Enabled	Alarm Date	:15
Green PC LED Status	:Dual Color	Alarm Hour	:12
Suspend Time Out (Minute)	:Disabled	Alarm Minute	:30
Display Activity	:Ignore	Alarm Second	:30
IRQ3	:Monitor		
IRQ4	:Monitor		
IRQ5	:Ignore		
IRQ7	:Monitor		
IRQ9	:Ignore		
IRQ10	:Ignore		
IRQ11	:Ignore		
IRQ13	:Ignore		
IRQ14	:Monitor		
IRQ15	:Ignore		
CPU Critical Temperature	:Disabled	ESC : Quit	↑↓←→ : Select Item
Power Button Function	:Suspend	F1 : Help	PU/PD/+/-:Modify
Restore on AC/Power Loss	:Last State	F5 : Load Previous Values	
		F6 : Load Fail-Safe Defaults	
		F7 : Load Optimized Defaults	

IPCA Function

This item is to activate the ACPI (Advanced Configuration and Power Management Interface) Function. If your operating system is ACPI-aware, such as Windows 98SE/2000/ME, select *Yes*. Available options are *Yes* and *No*. The default value is *Yes*.

ACPI Standby State

This item specifies the power saving modes for ACPI function. Options are:

- S1/POS* The S1 sleep mode is a low power state. In this state, no system context is lost (CPU or chipset) and hardware maintains all system context.
- S3/STR* The S3 sleep mode is a lower power state where the information of system configuration and open applications/files is saved to main memory that remains

powered while most other hardware components turn off to save energy. The information stored in memory will be used to restore the system when an “wake up” event occurs.

The default value is *SI/POS*.

USB Wakeup From S3

This item allows the activity of the USB device to wake up the system from S3 sleep states. S3 is one of the system states for ACPI, which saves different amount of system power. S3 is STR (Suspend to RAM) mode. Settings are *Enabled* and *Disabled*. The default value is *Disabled*.

Power Management/APM

Setting to *Enabled* will activate the Advanced Power Management (APM) features to enhance power saving modes. Settings are *Enabled* and *Disabled*. The default value is *Enabled*.

Green PC LED Status

This item configures how the system uses sleep state LED on the case to indicate the sleep state. Available options are:

- Blinking* The sleep state LED blinks to indicate the sleep state.
- Not Changed* The sleep state LED remains the same color.
- Dual Color* The sleep state LED changes its color to indicate the sleep state.

The default value is *Dual Color*.

Display Activity/IRQ3/IRQ4/IRQ5/IRQ7/IRQ9/IRQ10/IRQ11/IRQ13/IRQ14/IRQ15

These items specify if the BIOS will monitor the activity of the specified hardware peripheral or component. If set to *Monitor*, any activity detected on the specified hardware peripheral or component will wake up the system or prevent the system from entering the power saving modes. Settings are *Monitor* and *Ignore*. The default values for different items are listed below:

Chapter 3

Display Activity	<i>Ignore</i>
IRQ3	<i>Monitor</i>
IRQ4	<i>Monitor</i>
IRQ5	<i>Ignore</i>
IRQ7	<i>Monitor</i>
IRQ9	<i>Ignore</i>
IRQ10	<i>Ignore</i>
IRQ11	<i>Ignore</i>
IRQ13	<i>Ignore</i>
IRQ14	<i>Monitor</i>
IRQ15	<i>Ignore</i>

Note: *IRQ (Interrupt Request) lines are system resources allocated to I/O devices. When an I/O device needs to gain attention of the operating system, it signals this by causing an IRQ to occur. After receiving the signal, when the operating system is ready, the system will interrupt itself and perform the service required by the I/O device.*

CPU Critical Temperature

This item is used to specify a thermal limit for CPU. If CPU temperature reaches the specified limit, the system will issue a warning to prevent the CPU overheat problem. Settings are *Disabled*, *70°C/158°*, *75°C/167°F*, *80°C/176°F*, *85°C/185°F*, *90°C/194°F* and *95°C/203°F*.

Power Button Function

This feature sets the function of the power button. Settings are:

<i>On/Off</i>	The power button functions as normal on/off button.
<i>Suspend</i>	When you press the power button, the computer enters the suspend/sleep mode, but if the button is pressed for more than four seconds, the computer is turned off.

Restore on AC/Power Loss

This item specifies whether you system will reboot after a power failure or interrupt occurs. Available options are:

<i>Power Off</i>	Leaves the computer in the power off state.
<i>Power On</i>	Reboots the computer.
<i>Last State</i>	Restores the system to the former status before the power failure or interrupt occurred.

Wake Up On Ring/PME#

When setting to *Enabled*, the features allow your system to be awakened from the power saving modes through an incoming call from the modem or any event on PME (Power Management Event). Settings are *Enabled* and *Disabled* (default).

Note: You need to install a modem supporting power on function for Wake Up On Ring function.

Resume By Alarm

This is used to enable or disable the feature of booting up the system on a scheduled time/date from the soft off (S5) state. Settings are *Enabled* and *Disabled*.

Alarm Date/Hour/Minute/Second

If **Resume By Alarm** is set to *Enabled*, the system will automatically resume (boot up) on a specific date/hour/minute/second specified in these fields.

Available settings for each item are:

Alarm Date	01 ~ 31, Every Day
Alarm Hour	00 ~ 23
Alarm Minute	00 ~ 59
Alarm Second	00 ~ 59

Note: If you change these settings, you must reboot the system until it enters the operating system and then power off the system. By doing so, the changed settings will come into effect next time you power on the system.

Chapter 3

PNP/PCI Configurations

This section describes configuring the PCI bus system and PnP (Plug & Play) feature. PCI, or Personal Computer Interconnect, is a system which allows I/O devices to operate at speeds nearing the speed the CPU itself uses when communicating with its special components. This section covers some very technical items and it is strongly recommended that only experienced users should make any changes to the default settings.

AMIBIOS SETUP-PNP/PCI CONFIGURATION (C)2001 American Megatrends, Inc. All Rights Reserved	
Plug and Play Aware O/S	:No
Clear NVRAM	:No
Primary Graphics Adapter	:PCI
DMA Channel 0	:PnP
DMA Channel 1	:PnP
DMA Channel 3	:PnP
DMA Channel 5	:PnP
DMA Channel 6	:PnP
DMA Channel 7	:PnP
IRQ3	:PCI/PnP
IRQ4	:PCI/PnP
IRQ5	:PCI/PnP
IRQ7	:PCI/PnP
IRQ9	:PCI/PnP
IRQ10	:PCI/PnP
IRQ11	:PCI/PnP
IRQ14	:PCI/PnP
IRQ15	:PCI/PnP
ESC : Quit ↑↓←→ : Select Item F1 : Help PU/PD/+/-:Modify F5 : Load Previous Values F6 : Load Fail-Safe Defaults F7 : Load Optimized Defaults	

Plug and Play Aware O/S

When set to *YES*, BIOS will only initialize the PnP cards used for booting (VGA, IDE, SCSI). The rest of the cards will be initialized by the PnP operating system like Windows® 98, 2000 or ME. When set to *NO*, BIOS will initialize all the PnP cards. Select *Yes* if the operating system is Plug & Play aware.

Clear NVRAM

The ESCD (Extended System Configuration Data) NVRAM (Non-volatile Random Access Memory) is where the BIOS stores resource information for both PNP and non-PNP devices in a bit string format. When the item is set to *Yes*, the system will reset ESCD NVRAM right after the system is booted up and then set the setting of the item back to *No* automatically. The default value is *No*.

Primary Graphics Adapter

This item specifies which VGA card is your primary graphics adapter. Settings are *AGP* and *PCI*. The default value is *PCI*.

DMA Channel 0/1/3/5/6/7

These items specify the bus that the system DMA (Direct Memory Access) channel is used.

The settings determine if AMIBIOS should remove a DMA from the available DMAs passed to devices that are configurable by the system BIOS. The available DMA pool is determined by reading the ESCD NVRAM. If more DMAs must be removed from the pool, the end user can reserve the DMA by assigning an *ISA/EISA* setting to it. The default value is *PnP*.

IRQ 3/4/5/7/9/10/11/14/15

These items specify the bus where the specified IRQ line is used.

The settings determine if AMIBIOS should remove an IRQ from the pool of available IRQs passed to devices that are configurable by the system BIOS. The available IRQ pool is determined by reading the ESCD NVRAM. If more IRQs must be removed from the IRQ pool, the end user can use these settings to reserve the IRQ by assigning an *ISA/EISA* setting to it. Onboard I/O is configured by AMIBIOS. All IRQs used by onboard I/O are configured as *PCI/PnP*. If all IRQs are set to *ISA/EISA*, and IRQ 14/15 are allocated to the onboard PCI IDE, IRQ 9 will still be available for PCI and PnP devices. Available settings are *ISA/EISA* and *PCI/PnP*. The default value is *PCI/PnP*.

Chapter 3

Integrated Peripherals

AMIBIOS SETUP- INTEGRATED PERIPHERALS (C)2001 American Megatrends, Inc. All Rights Reserved			
FDC Function	:Auto	USB Controller	:All USB Port
Serial Port1	:Auto	USB Legacy Support	:Disabled
Serial Port2	:Auto	USB Port 64/60 Emulation	:Disabled
Serial Port2 Mode	:Normal		
IR Duplex Mode	:Half Duplex		
IR Pin Select	:IRRX/IRTX		
Parallel Port	:Auto		
Parallel Port Mode	:ECP		
EPP Version	:N/A		
Parallel Port IRQ	:Auto		
Parallel Port DMA	:Auto		
OnBoard Midi Port	:Disabled		
Midi IRQ Select	:5		
OnBoard Game Port	:200		
Keyboard PowerOn Function	:Disabled		
Specific Key for PowerOn	:N/A		
Mouse PowerOn Function	:Disabled	ESC: Quit	↑↓←→: Select Item
IDE Function	:Both	F1: Help	PU/PD/+/-:Modify
OnChip AC'97 Audio	:Enabled	F5: Load Previous Values	
OnChip MC'97 Modem	:Auto	F6: Load Fail-Safe Defaults	
		F7: Load Optimized Defaults	

FDC Function

This is used to enable or disable the onboard Floppy controller.

Option	Description
Auto (default)	BIOS will automatically determine whether to enable the onboard Floppy controller or not.
Enabled	Enables the onboard Floppy controller.
Disabled	Disables the onboard Floppy controller.

Serial Port1/2

These items specify the base I/O port addresses of the onboard Serial Port 1 (COM A)/Serial Port 2 (COM B). Selecting *Auto* allows AMIBIOS to

automatically determine the correct base I/O port address. Settings are *Auto*, *3F8h/COM1*, *2F8h/COM2*, *3E8h/COM3*, *2E8h/COM4* and *Disabled*. The default value is *Auto*.

Serial Port2 Mode

This item sets the operation mode for Serial Port 2. Settings are *Normal*, *1.6uS*, *3/16 Baud* and *ASKIR* (the last three operation modes are setting options for IR function). The default value is *Normal*.

IR Duplex Mode

This field specifies a duplex value for the IR device connected to COM B. Full-Duplex mode permits simultaneous two-direction transmission. Half-Duplex mode permits transmission in one direction only at a time. Settings are *Half Duplex* and *Full Duplex*. The default is *Half Duplex*.

IR Pin Select

Set to *IRRX/IRTX* when using an internal IR module connected to the IR (J6) connector. Set to *SINB/SOUTB*. when connecting an IR adapter to COM B.

Parallel Port

This field specifies the base I/O port address of the onboard parallel port. Selecting *Auto* allows AMIBIOS to automatically determine the correct base I/O port address. Settings are *Auto*, *378*, *278*, *3BC* and *Disabled*. The default value is *Auto*.

Parallel Port Mode

This item selects the operation mode for the onboard parallel port: *ECP*, *Normal*, *Bi-Dir* or *EPP*. The default is *ECP*.

EPP Version

The item selects the EPP version used by the parallel port if the port is set to *EPP* mode. Settings are *1.7* and *1.9*.

Parallel Port IRQ

When **Parallel Port** is set to *Auto*, the item shows *Auto* indicating that BIOS

Chapter 3

determines the IRQ for the parallel port automatically.

Parallel Port DMA

This feature needs to be configured only when **Parallel Port Mode** is set to the *ECP* mode. When **Parallel Port** is set to *Auto*, the field will show *Auto* indicating that BIOS automatically determines the DMA channel for the parallel port.

OnBoard Midi Port

The field specifies the base I/O port address of the onboard Midi Port. Settings are *Disabled*, *330*, *300*, *310* and *320*.

Midi IRQ Select

The item is used to select the IRQ line for onboard Midi port.

OnBoard Game Port

This item is used to specify the address for the onboard Game Port.

Keyboard PowerOn Function

This controls how and whether the PS/2 keyboard is able to power on the system. Settings are *Disabled*, *PowerKey*, *Any Key* and *Specific Key*.

Specific Key for PowerOn

This item allows you to specify a password for powering on the system when the **Keyboard PowerOn Function** is set to *Specific Key*.

Mouse PowerOn Function

This controls how and whether the PS/2 mouse is able to power on the system. Settings are *Disabled*, *Left-button* and *Right-button*. No matter which button is selected, you need to **DOUBLE CLICK** on the button to wake up the system.

IDE Function

This allows you to enable or disable on-chip IDE controller. Settings are *Disabled*, *Primary*, *Secondary* and *Both*. The default value is *Both*.

OnChip AC'97 Audio

This item is used to enable or disable the onboard AC'97 (Audio Codec'97) feature. Disable the function if you want to use other controller cards to connect an audio device. Settings are *Disabled* and *Enabled*. The default value is *Enabled*.

OnChip MC'97 Modem

This item is used to enable or disable the onboard MC'97 feature. Selecting *Auto* allows the mainboard to detect whether a modem is used. If a modem is detected, the onboard MC'97 (Modem Codec'97) controller will be enabled; if not, the controller is disabled. Disable the controller if you want to use other controller cards to connect modems. Settings are *Auto*, *Disabled* and *Enabled*. The default value is *Auto*.

USB Controller

This is used to enable or disable the USB ports. Settings are *All USB Port*, *Disabled*, *USB 1*, *USB 2*, *USB 1&2*, *USB 3*, *USB 1&3* and *USB 2&3*. The default is *All USB Port*.

USB Legacy Support

Set to *Keyboard* or *Keyb+Mouse* if your need to use an USB keyboard/mouse in the operating system that does not support or have any USB driver installed, such as DOS and SCO Unix. Default is *Disabled*.

USB Port 64/60 Emulation

This field allows you to enable or disable the USB Port 64/60 Emulation function. When the function is enabled, the USB keyboard is allowed to type some special combination keys.

Chapter 3

Hardware Monitor Setup

This section describes how to set the Chassis Intrusion feature, CPU FSB frequency, monitor the current hardware status including CPU/system temperatures, CPU/System Fan speeds, Vcore etc. Monitor function is available only if there is hardware monitoring mechanism onboard.

AMIBIOS SETUP - HARDWARE MONITOR SETUP (C)2001 American Megatrends, Inc. All Rights Reserved		
Spread Spectrum	±0.25%	Battery
CPU FSB CLK	100	+5V SB
CPU FSB/PCI Overclocking	ByH/W	
CPU Ratio	Auto	
CPU Vcore (V)	Auto	
DDR Voltage (V)	Auto	
Chassis Intrusion	Disabled	
CPU Temperature		
System Temperature		
CPU Fan Speed		
System Fan Speed		
Power Fan Speed		
Vcore		
VTT		
VIO		
+ 5.0V		ESC : Quit ↑↓←→ : Select Item
+12.0V		F1 : Help PU/PD/+/-:Modify
-12.0V		F5 : Load Previous Values
- 5.0V		F6 : Load Fail-Safe Defaults
		F7 : Load Optimized Defaults

Spread Spectrum

This item allows you to configure the clock generator's Spread Spectrum feature. When overclocking the processor, always set it to *Disabled*.

CPU FSB CLK

This item allows you to select the CPU Front Side Bus clock frequency. Settings are *100* and *133* (MHz). If you install 133MHz CPU, you should change the setting to 133 in the field; otherwise, the CPU will run at 100MHz.

CPU FSB/PCI Overclocking

This item is used to set clock frequencies (in MHz) for CPU FSB (Front Side Bus) and PCI bus. Selecting *By H/W* will enable the CPU FSB to follow the hardware configurations. If the installed CPU is **100MHz**, you are allowed to

adjust the clock frequency from **100 to 120MHz**. If the installed one is **133MHz**, you are allowed to bring its frequency down to **100~131MHz** or adjust it up to **133~164MHz**. The item makes overclocking possible.

***Note:** Changing CPU FSB frequency could result in unstable system; therefore, it is not recommended to change the default setting for long-term purpose.*

CPU Ratio/Vcore (V)

The items are used to adjust the CPU frequency multiplier (ratio) and CPU voltage (Vcore). The items make overclocking possible.

***Note:** Changing CPU Ratio/Vcore could result in unstable system; therefore, it is not recommended to change the default setting for long-term purpose.*

DDR Vcore (V)

The item is to adjust the DDR voltage (DDR Vcore) to increase the DDR rate. Modifying the setting may lead to unstable system, so changing the DDR Vcore for long-term use is not recommended.

Chassis Intrusion

The field enables or disables the feature of recording the chassis intrusion status and issuing a warning message if the chassis is opened. To clear the warning message, set the field to *Reset*. The setting of the field will automatically return to *Enabled* later on. Settings are *Enabled*, *Reset* and *Disabled*. The default value is *Disabled*.

CPU Temperature/System Temperature/CPU Fan Speed/System Fan Speed/ Power Fan Speed/Vcore/Vtt/Vio/+5.0V/+12.0V/-12.0V/-5.0V/Battery/+5V SB

These items display the current status of all of the monitored hardware devices/components such as system voltages, temperatures and fan speeds.

Chapter 3

Load Performance/Optimized Defaults

The two options on the main menu allow users to restore all of the BIOS settings to the default Performance or Optimized defaults. The Performance Defaults are the default values set by the mainboard manufacturer for the best system performance but probably will cause a stability issue. The Optimized Defaults are the default values also set by the mainboard manufacturer for both optimized and stable performance of the mainboard.

When you select High System Performance, a message as below appears:

AMIBIOS SIMPLE SETUP UTILITY - VERSION 1.44 (C)2001 American Megatrends, Inc. All Rights Reserved	
Standard CMOS Features	High System Performance
Advanced BIOS Features	Load Optimized Defaults
Advanced Chipset Features	Supervisor Password
Power Management	Load Performance Defaults (Y/N)? N
PNP/PCI Configuration	
Integrated Peripherals	Save & Exit Setup
Hardware Monitor Setup	Exit Without Saving
ESC : Quit	↑↓←→ : Select Item
F10 : Save & Exit	
After enabling this item failed, please clear CMOS	

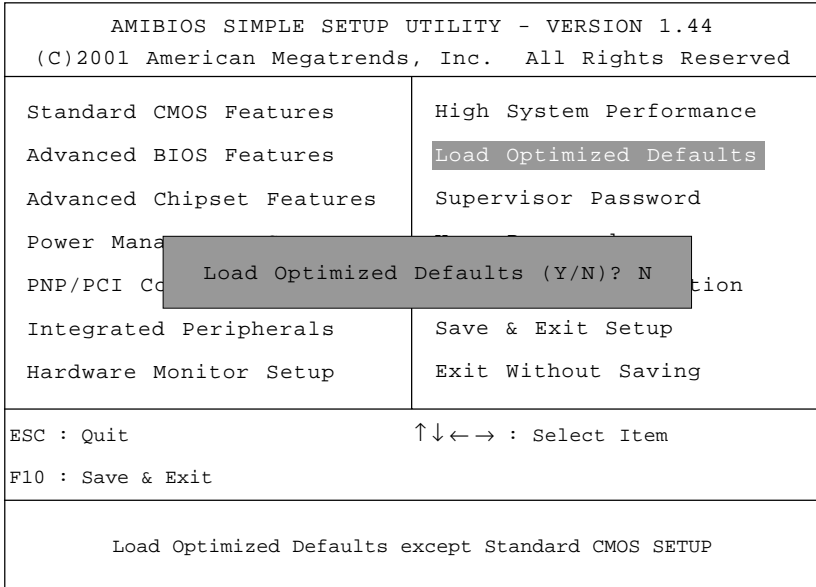
Pressing 'Y' loads the default BIOS values that enable the best system performance (better than the Optimized Defaults) but may result in the instability of system.



WARNING!

The option is for powerful or overclocking users only. If the system crashes or hangs after enabling the feature, please CLEAR CMOS DATA to resolve the problem. For more information, refer to Clear CMOS Jumper:JBAT1 on page 2-30.

When you select Load Optimized Defaults, a message as below appears:



Pressing 'Y' loads the default values that are factory settings for optimal and stable system performance.

Additionally, when a password is enabled, you can also have AMIBIOS to request a password each time the system is booted. This would prevent unauthorized use of your computer. The setting to determine when the password prompt is required is the PASSWORD CHECK option of the ADVANCED BIOS FEATURES menu. If the PASSWORD CHECK option is set to *Always*, the password is required both at boot and at entry to Setup. If set to *Setup*, password prompt only occurs when you try to enter Setup.

About Supervisor Password & User Password:

Supervisor password : Can enter and change the settings of the setup menu.

User password: Can only enter but do not have the right to change the settings of the setup menu.

Chapter 3

IDE HDD AUTO Detection

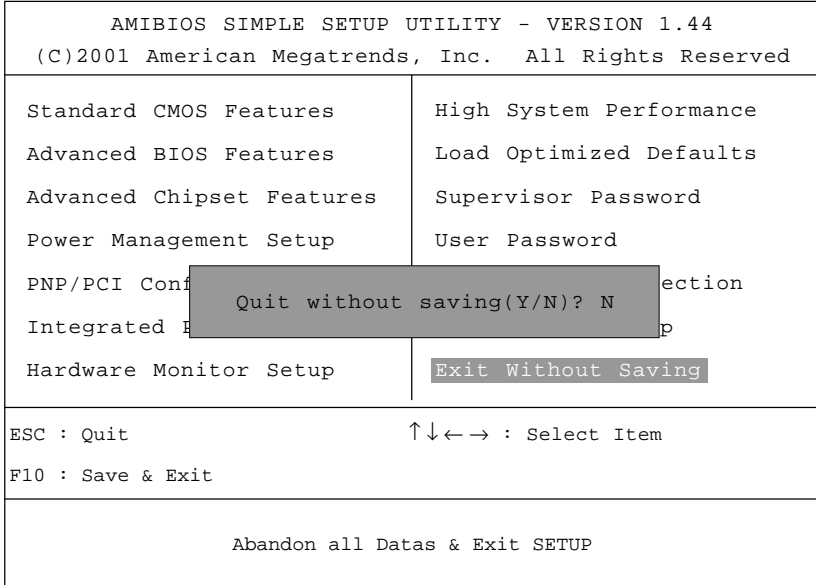
You can use this utility to AUTOMATICALLY detect the characteristics of most hard drives.

AMIBIOS SETUP - STANDARD CMOS SETUP (C)2001 American Megatrends, Inc. All Rights Reserved								
Date (mm/dd/yyyy) : Tue May 08, 2001								
Time (hh/mm/ss) : 00:00:00								
TYPE	SIZE	CYLS	HEAD	PRECOMP	LANDZ	SECTOR	MODE	
Pri Master : Auto								
Pri Slave : Auto								
Sec Master : Auto								
Sec Slave : Auto								
Floppy Drive A : 1.44 MB 3½				Base Memory : 640 Kb Other Memory : 384 Kb Extended Memory : 127 Mb Total Memory : 128 Mb				
Floppy Drive B : Not Installed								
Boot Sector Virus Protection : Disabled								
Detecting drive parameters:				ESC : Exit				
Press ESC to abort				↑ ↓ : Select Item				
				PU/PD/+/-:Modify				
				(Shift) F2 : Color				

Chapter 3

Exit Without Saving

When you want to quit the Setup menu, you can select this option to abandon the changes. A message as below will appear on the screen.



Typing *Y* will allow you to quit the Setup Utility without saving any changes to RTCMOS.

Typing *N* will return to the Setup Utility.

VIA® Chipset Driver

4

The chapter describes how to install the VIA chipset and AC97 audio drivers and the basic system requirements.

This chapter contains the following topics:

Overview	4-2
Driver Installation	4-3

Chapter 4

Overview

The MS-6380 is paired with the VIA® KT266 chipset. Highly advanced, the chipset combines an integrated 2D/3D engine with DVD hardware acceleration, AC-97 audio support for SoundBlaster Pro and FM synthesis legacy audio.

Audio Features

- AC'97 audio support for SoundBlaster Pro
- FM synthesis legacy audio

System Requirements

This section describes system requirements for the VIA driver installation and usage.

Computer	AMD® Athlon™/Duron™ processor or higher
Monitor	VGA Support, minimum 640x480 resolution
Operating system	DOS 5.0 or higher, Windows® 95/98SE, Windows® NT3.51 or 4.0, or OS/2®, Windows® 2000, or Windows® ME
CD-ROM	Double Speed or higher
Chipset	VIA®VT8366/VT8233 chipset

Driver Installation

Insert the CD disk into your CD-ROM drive. The CD will auto-run and display “VIA Chipset Drivers”, “VIA AC97 PCI Sound Drivers” and “Download VIA Drivers” on the screen. Click on the appropriate button for installation.

Note: Always install the VIA Chipset drivers before VIA AC97 PCI Sound driver.

Windows® 98SE

Installing VIA® Chipset Driver:

1. Insert the supplied CD disk into the CD-ROM drive.
2. The CD will auto-run and the setup screen will appear.
3. Click on “Via Chipset Drivers” and the screen will show “VIA Service Pack 4.XX”.
4. Click “Next” and the screen will show a “VIA Service Pack 1 README” dialog box.
5. Click “Next” and the screen will show four drivers: “VIA Atapi Vendor Support Driver”, “AGP VxD Driver”, “IRQ Routing Miniport Driver” and “VIA INF Driver 1.XX”. Select all four drivers and click on “Next”.
6. The setup program will request you to choose “Install VIA Atapi Vendor Support Driver”. Select “Install” and click “Next” to continue.
7. Select “Click to enable DMA Mode” and click “Next” to continue.
8. The setup program will request you to choose “Install VIA AGP VxD in turbo mode”, “Install VIA AGP VxD in normal mode” or “Uninstall VIA AGP VxD”. Select “Install VIA AGP VxD in turbo mode” and click on “Next”.
9. Please select “Install VIA IRQ Routing Miniport Driver” and then click “Next”.
10. The setup program will request you to choose whether to restart the computer or not. Please select “Yes, I want to restart my computer now” and click “Finish”. The computer will restart and finish the VIA Chipset Drivers installation.

Chapter 4

Installing VIA® AC97 PCI Sound Driver:

1. Make sure the supplied CD disk is in the CD-ROM drive.
2. Go to **My Computer** and double click the CD-ROM icon. The setup screen will appear again.
3. Click on “VIA AC97 PCI Sound Drivers” and the screen will show “VIA Audio Driver Setup Program 1.XX”.
4. Click “Next” to proceed and the screen will show “Install” or “Uninstall”. Select “Install” and then click on “Next”.
5. Click “Finish” to complete the AC97 Audio Driver Installation.

Windows® 2000

Installing VIA® Chipset Driver:

1. Insert the supplied CD disk into the CD-ROM drive.
2. The CD will auto-run and the setup screen will appear.
3. Click on “Via Chipset Drivers” and the screen will show “VIA Service Pack 4.XX”.
4. Click “Next” and the screen will show a “VIA Service Pack 1 README” dialog box.
5. “VIA Bus Master Ultra ATA Driver (Windows 2000)”, “AGP VxD Driver” and “VIA INF Driver 1.XX”. Select all and click “Next” to proceed.
6. The screen will show a “VIA Bus Master Ultra ATA Driver” dialog box. Select “Install” and click “Next”.
7. The screen will show a “VIA GART AGP Driver 4.XX” dialog box. Select “Install AGP 4X/133 driver” and click “Next”.
8. There is a “Read Only File Detected” dialog box. Click “Yes”. A dialog box “Digital Signature Not Found” will appear and ask you “Do you want to continue the installation of the VIA Bus Master Ultra ATA Controller”. Click “Yes” to continue.
9. Select “Yes” and then click “Finish” to restart the system.
10. After restart, the system will find a new hardware device and the “Found New Hardware Wizard” dialog box will appear. Click “Next” to the next screen and a “VIA BM Ultra DMA Channel” device will be found.
11. Click “Next” and the driver search result will be shown on the screen. Click “Next”.
12. A dialog box “Digital Signature Not Found” will appear. Click “Yes”.

13. Click “Finish” and then click “Yes” to restart the system.
14. Repeat **Step 10 through Step 13** again.
15. After restart, the VIA Chipset driver installation will be complete.

Installing VIA® AC97 PCI Sound Driver:

1. Make sure the supplied CD disk is in the CD-ROM drive.
2. Go to **My Computer** and double click the CD-ROM icon. The setup screen will appear again.
3. Click on “VIA AC97 PCI Sound Drivers” and the screen will show “VIA AC97 PCI Sound Drivers.”
4. Click “Next” to proceed and the screen will show “Install” or “Uninstall”. Select “Install” and then click on “Next”.
5. A window “Digital Signature Not Found” will appear and ask “Do you want to continue the installation of the VIA AC’97 Audio Controller (WDM) Driver?” Click “Yes” to proceed.
6. Click “Finish” to complete setup.

Windows® ME

Installing VIA® Chipset Driver:

1. Insert the supplied CD disk into the CD-ROM drive.
2. The CD will auto-run and the setup screen will appear.
3. Click on “VIA Chipset Drivers” and the screen will show “VIA Service Pack 4.XX”.
4. Click “Next” and the screen will show a “VIA Service Pack 1 README” dialog box.
5. Click “Yes” and the screen will show two drivers: “AGP VxD Driver” and “VIA INF Driver 1.0x”. Select all and click “Next” to proceed.
6. The screen will show a “VIA_GART AGP Driver 4.XX” dialog box. Select “Install VIA AGP VxD in Turbo mode” and click on “Next”.
7. The setup program will request you to choose whether to restart the computer or not. Please select “Yes, I want to restart my computer now” and click “Finish”. The computer will restart and finish the VIA Chipset Drivers installation.

Chapter 4

Installing VIA® AC97 PCI Sound Driver:

1. Make sure the supplied CD disk is in the CD-ROM drive.
2. Go to **My Computer** and double click the CD-ROM icon. The setup screen will appear.
3. Click on “VIA AC97 PCI Sound Drivers”.
4. Then restart the system manually to make it work.

*Note: In Windows 2000/ME, you may see the **One Touch Setup** button appear on the setup screen. Choosing the button will help you to install more than one driver into the system without going through the installation process step by step and save a lot of time. After clicking on **One Touch Setup**, a window will show up listing what drivers will be installed. Install other drivers not included by One Touch Setup manually if any.*

Windows® NT4.0

Note: Install Windows® NT4.0 Service Pack 6 or above before installing the VIA drivers in Windows® NT.

Installing VIA® Chipset Driver:

1. Insert the provided CD disk into the CD-ROM drive.
2. The CD will auto-run and the setup screen will appear.
3. Click on “VIA Chipset Drivers” and the screen will show “VIA Service Pack 4.XX”.
4. Click “Next” and the screen will show the “VIA Service Pack 1 README” dialog box.
5. Click “Yes” to proceed and then select “Install” to enable (Ultra DMA for IDE Driver).
6. The “Choose Destination Location” dialog box appears. Click “Next”.
7. The “Select Program Folder” dialog box appears. Click “Next”.
8. Please click on “Yes, I want to restart my computer” and then click “Finish” to restart your computer and complete installation.

Installing VIA® AC97 PCI Sound Driver:

1. Make sure the provided CD disk is in the CD-ROM drive.
2. Go to My Computer and double click the CD-ROM icon. The setup screen will appear.
3. Click on “VIA AC97 PCI Sound Drivers” and the screen will show “VIA PCI Audio Drivers” setup screen. Click “Next” to continue.
4. The setup program will show “Install” or “Uninstall” in the screen. Select “Install” and click “Next”.
5. The setup program will show the following message on the screen:

Please choose “Add” from the next window
and add the following device:
VIA PCI Audio Controller
VIA MIDI External Port

- Then click “OK”.
6. Follow the steps shown in **Step 5** to finish the VIA AC97 PCI Audio Drivers Installation.
 7. A window will appear asking “Do you want to install the joystick driver for the Microsoft Sidewinder 3D Pro Joystick?”. Please click “No” to continue.
 8. Please click “Finish” to restart your computer and complete installation.

USB PC to PC Networking Function



USB PC to PC is the best solution for providing the easiest network connection service to you. By connecting multiple PCs through USB PC to PC port, you can build up a local area network without any network adapter. We give this Ethernet emulation environment a name — USB PC to PC. USB PC to PC supports TCP/IP, NetBEUI and IPX protocols. These features make your PCs able to share their resources such as files or printers to each other. Furthermore, USB PC to PC also gives you the ability of connecting to your existing Home or Office LAN for network resource or Internet sharing.

The section includes the following topics:

Installing GeneLink™ LAN Driver	A-2
Using USB PC to PC Networking Function	A-4

Appendix A

Installing GeneLink™ LAN Driver

Before you use the function, you need to install the GeneLink™ LAN Driver to all PCs connected via USB PC to PC cables.

Step 1. Installing driver

1. Insert the driver CD and click “USB PC to PC” button to install the driver.
2. The welcome dialog box appears and click Next > button.
3. Choose the destination folder and click Next > button.
4. Select components that you want to install and then click Next > button.
(GeneLink™ LAN Driver is used only for those PCs connected via USB PC to PC port so that resources are shared between these PCs;
GeneLink™ Software Router allows your PC to connect to another existing Home/Office LAN for network resource or Internet sharing.)
5. The Setup Program will install all necessary components automatically.
6. Setup completes. Then select ‘Yes, I want to restart my computer now’ and click “FInish” button to reboot your computer for updating your driver configuration.

After you complete the installation procedures, you’ll find Setup Program has installed GeneLink™ network driver in your computer. It binds TCP/IP, NetBEUI and IPX protocols to GeneLink™ device.

Step 2 – Connect your PCs via the USB PC to PC cable

Step 3 - Network Login

When you restart your computer, you will be prompted for a user name and password to login your network. Please enter an unique name for your PC.

Step 4 – Sharing your resources and Connecting to Internet

You need to manually share your resources (files, folders, drives and printers) to make them accessible for other computers. For Internet accessing, you must define which computer (That has already been connected to Internet) should install GeneLink™ Software Router. And all clients accessing Internet resources through GeneLink™ USB port should have installed GeneLink™ LAN driver.

USB PC to PC Networking Function

Notice:

- 1. You should use the same network protocol (TCP/IP, NetBEUI or IPX) for connecting GeneLink™ LAN to existing Home/Office LAN.*
- 2. If you've already configured your [IPX/SPX] and [Client for Netware Networks] before installing GeneLink™ driver, we strongly recommend that you should also install **Software Router** while installing GeneLink™ driver into your system.*

Appendix A

Using USB PC to PC Networking Function

How to share your files, folders, drives and printers

- a. Go to the file, folder, drive or printer that you want to share.
- b. Right click your mouse pointer on the resource you want to share, you'll see a POP-UP Menu.



- c. Select “ Sharing” and you'll see another POP-UP Menu.



USB PC to PC Networking Function

- d. In “Sharing” tag, select “Share As”.
- e. Enter a name to help others recognize your sharing file or device (optional).
- f. Select “Access Type”. If you select “ Depend on Password”, your need to assign an access password for this device.
- g. Click “OK” button.

How to check if you have already shared your resources

Go to the resource and check if Windows had added a hand on its icon or not. If yes, it means you’ve successfully shared your resource and others can access it through USB PC to PC; if not, you need to repeat the steps described in “**How to share your files, folders, drives and printers**” to complete your sharing processes.

Connecting to your existing Home or Office LAN

To connect your USB PC to PC to another existing Home or Office LAN via USB PC to PC port, you need to install **GeneLink™ Software Router** in addition to GeneLink™ LAN driver. GeneLink™ Software Router is responsible for handling all network packets between USB PC to PC and your Home/Office LAN. So only the computer that is physically connected to both LANs needs to install GeneLink™ Software Router (i.e., this computer should install both GeneLink™ LAN and one network adapter for Home/Office LAN). For those computers on USB PC to PC, you only need to follow installation procedures on the manual to install GeneLink™ LAN driver. The following procedures will show you how to install drivers to the computer that will link both PC and your existing Home/Office LAN:

Notice: If you want to connect your GeneLink™ LAN to your existing Home/Office LAN, you should use the same protocol for the two LANs. For example, if your Home/Office LAN uses TCP/IP protocol, you should also use TCP/IP protocol for your GeneLink™ LAN. Otherwise, these two LANs cannot communicate to each other. The Setup Program installs TCP/IP, NetBEUI and IPX protocols for GeneLink™ LAN by default. If your Home/Office LAN uses other protocol, please install the same protocol for those computers within GeneLink™ LAN.

Appendix A

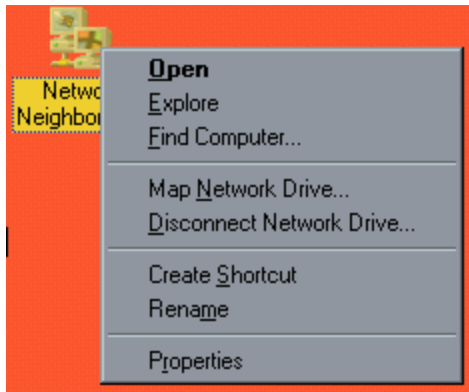
Connecting to Internet through USB PC to PC & Office/Home LAN

If you would like to access Internet resources through USB PC to PC, here are some things you should notice:

- a. You must define which computer should install GeneLink™ Software Router.
- b. The computer which has installed GeneLink™ Software Router should have already been connected to internet.
- c. All clients which would like to access Internet resources through USB cable should have installed GeneLink™ driver.

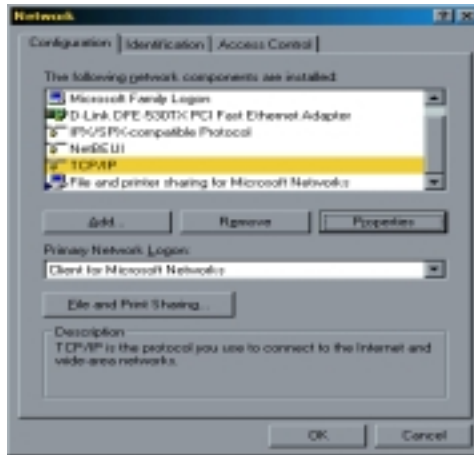
Now we need to make some network configurations on the Desktop/ Notebook which connect to GeneLink™ Software Router to make your Internet access possible (maybe you need to consult you Network Administrator for doing that):

- a. If your existing home/office network is NOT using DHCP to assign client's IP address, your need to:
 - Move your mouse pointer on Network Neighborhood icon and right click on it. You'll see a pop-up menu.



USB PC to PC Networking Function

- Click on “Properties”, you’ll see another menu.



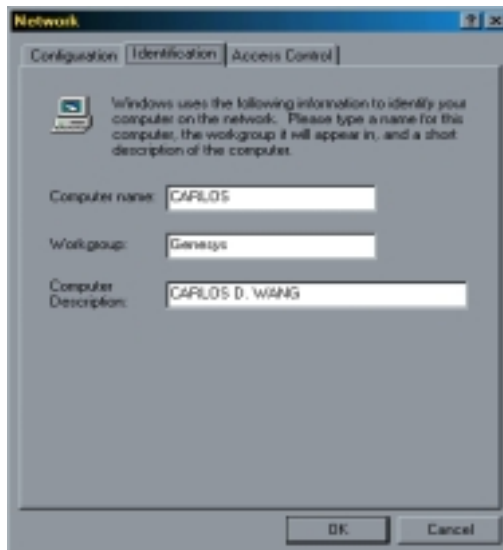
- Choose TCP/IP in Configuration tag, and then press “Properties” button. You’ll see “TCP/IP Properties” menu.



Appendix A

- Now you need to navigate between “IP Address”, “Gateway”, and “DNS Configuration” tags to specify “IP Address”, “Subnet Mask”, “Gateway” and “DNS Server”. If you don’t know their values, please consult your Network Administrator.

- Press “OK” button to go back to “Network” pop-up menu. Choose “Identification” tag. Specify an unique name for your computer if it doesn’t have and fill in the name of your workgroup. If you are not sure what’s the name of your computer or Workgroup, please consult your Network Administrator.



- Press “OK” to complete your network configuration. Restart your computer and you’ll be ready to connect to Internet.

- b. If your existing HOME/OFFICE network is using DHCP to assign client’s IP address, your Network Sever will configure your network configuration automatically. So you can skip those procedures described in the previous session.

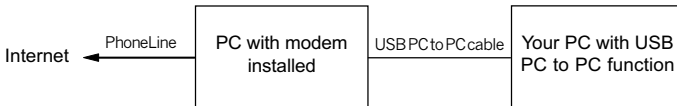
SPECIAL NOTICE for those users who have already installed Network Adapter in their system:

If you've already configured your [IPX/SPX] and [Client for Netware Networks] before installing GeneLink™ driver, we strongly recommend that you should also install **Software Router** when you install GeneLink™ driver into your system. If you decide not to install **Software Router**, then the OS will not allow two IPX/SPX configurations co-exist in the same system. This will cause GeneLink™ Driver Install Program overwrite your original IPX/SPX configuration and make your original network configuration malfunction.

Appendix A

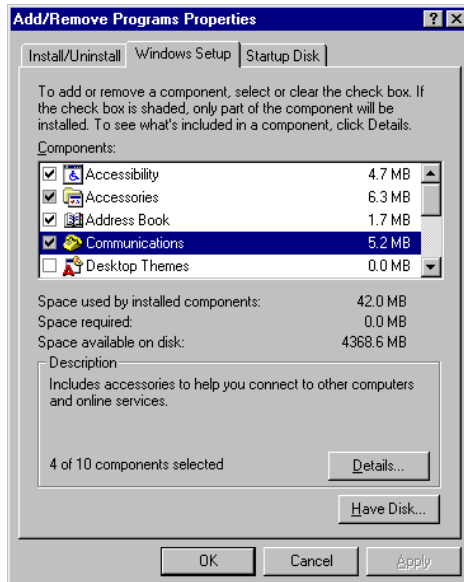
Connecting to internet through USB PC to PC & remote modem

If there is no existing Office/Home LAN and your computer does not have a modem, you still can connect USB PC to PC to internet through another computer with a modem installed. **The function is available in Windows® 98SE and ME.**



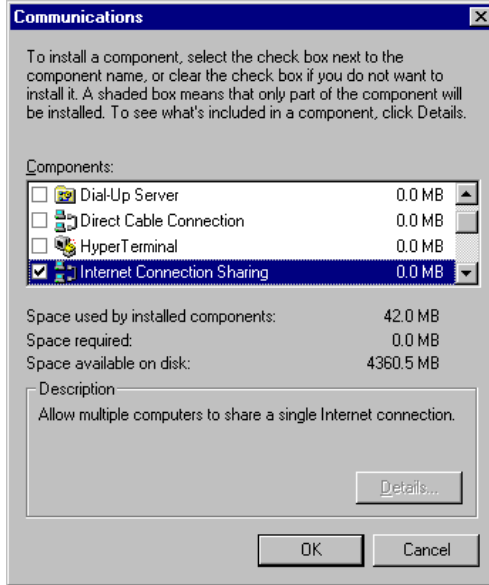
To access internet through another computer with modem, you need to setup “Internet Connection Sharing” on all computers connected via USB PC to PC cables. Instructions are as follows:

- a. Go to “Control Panel”.
- b. Double click “Add/Remove Programs” and the “Add/Remove Programs Properties” window appears.
- c. Select “Windows Setup” tag and double click



USB PC to PC Networking Function

- d. “Communications”. The “Communications” window appears.
- d. Check “Internet Connection Sharing” and click “OK”.

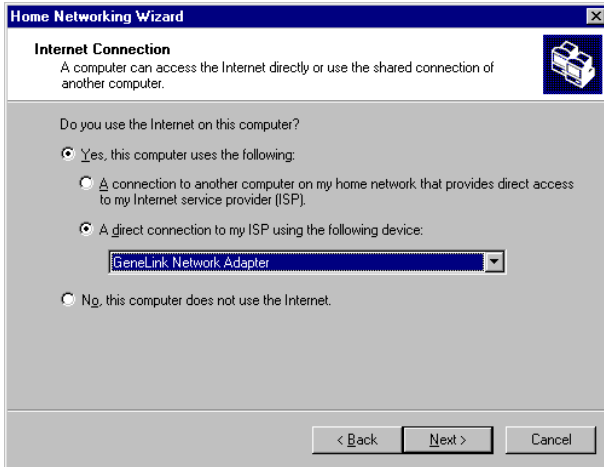


- e. The “Home Networking Wizard” starts. Click “Next”.



Appendix A

- f. Click “A direct connection to my ISP using the following device”, and select “GeneLink Network Adapter” from the pull-down menu. Click “Next”.

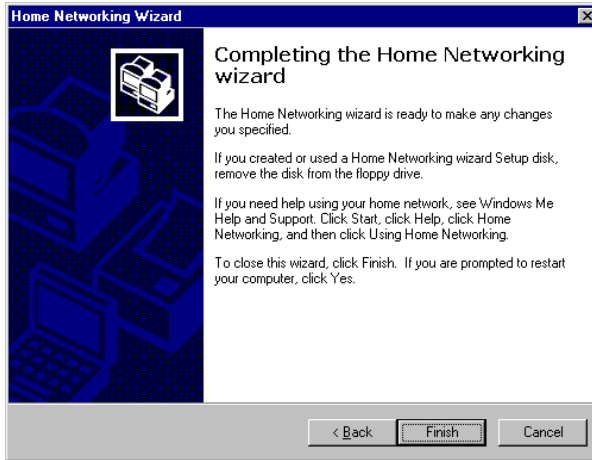


Note: For the computer with a modem installed, you need to select “My Connection” instead of “GeneLink Network Adapter” on the step, and after finishing installation of “My Connection”, select “GeneLink Network Adapter” when the above window returns.

- g. Continue to click “Next”.

USB PC to PC Networking Function

- h. Click “Finish.”



- i. Restart the computer.

Note: In Windows® 98SE, you can access internet through the shared connection of another computer, but it is unable for you to control the remote modem. However, in *Windows® ME*, you are allowed to dial the remote modem of another computer using the dialing program built in Windows®.

D-Bracket™ Connector -- J11 (Optional)

B

If your motherboard comes with J11 connector, you can connect a D-Bracket™ to J11. D-Bracket™ is a USB Bracket integrating four LEDs whose functions are similar to D-LED™ and allows users to identify system problem through 16 various combinations of LED signals. For definitions of 16 signal combinations, refer to page 1-12 *D-LED™*.

