USER'S MANUAL
Of
NVIDIA
MCP73D
Platform Processor Chipset

M/B for LGA775 Quad Core Ready
Intel Core Processor Family

NO. G03-IN73DA2-F
Rev: 2.0

Release date: Aug.,2009

Environmental Protection Announcement

Do not dispose this electronic device into the trash while discarding. To minimize pollution and ensure environment protection of mother earth, please recycle.

TABLE OF CONTENT

USER'S NOTICE

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Manual Revision Information

Reversion	Revision History	Date
2.0	Second Edition	Aug., 2009

Item Checklist

- ☑ NVIDIA MC73D Chipset motherboard
- ☑ Cable for IDE
- ☑ CD for motherboard utilities
- ☑ Cable for Serial ATA IDE Port
- ☑ NVIDIA MCP73D Chipset User's Manual
- ☑ Back panel

Chapter 1

Introduction of NVIDIA MCP73D Motherboard Series

1-1 Features of motherboard

The NVIDIA MCP73D chipset motherboard series are based on MCP73D (Media and Communication Processor) chipset technology which supports the innovative 65nm Quad-Core, Dual-Core Intel® Core 2 Quad, Core 2 Duo (Code Name: Conroe) processors, 90nm Dual-Core Intel® Pentium® D Processor 8 and 9 Series processors , Pentium 4 and Celeron D with Intel® Hyper-Threading Technology.

The motherboard supports the stunning video playback in all formats and with superb picture clarity that brings the best visual experience and ultra-realistic effects to the users. NVIDIA MCP73D Platform Processor Chipset motherboard series are the real cost-effective and powerful integrated multimedia platform solutions and meet the demanding usage of computing now and future.

The motherboard series support new generation Intel LGA 775 processors which provides with 200MHz / 266MHz / 333MHz memory clock frequency for DDRII400 / DDRII533 / DDRII667 /DDRII800 Module up to 4 GB. And it also accommodates ULTRA ATA 133 connectors and Serial ATA2 with RAID 0, 1, 5 functions which support up to one IDE and four Serial ATA2 devices to accelerate hard disk drives and guarantee the data security without failure in advanced computing performance.

The motherboards provide Gigabit LAN function with Realtek RTL8111C-VC Gigabit LAN which supports 10 / 100 / 1000Mbps data transfer rate. Embedded 6-channel Azalia High Definition Audio CODEC is fully compatible with Sound Blaster Pro® standard that provides you with the home cinema quality and absolutely software compatibility.

The NVIDIA MCP73D motherboard series offer one 16-LANE PCI-Express x16 graphics slot of 4Gbyte/sec data transfer rate at each relative direction which get 3.5 times of bandwidth more than AGP8X and it's up to a peak concurrent bandwidth of 8Gbyte/sec at full speed to guarantee the performance and compatibility of GPU graphics add-in cards. The whole series carry three 32-bit PCI slots guarantee the rich connectivity for the I/O peripheral devices. One PCI Express x1 I/O slot offers 512Mbyte/sec concurrently, over 3.5 times more bandwidth than PCI at 133Mbye/sec.

Embedded USB controller as well as capability of expanding to 8 USB2.0 functional ports delivering 480Mb/s bandwidth and rich connectivity, these motherboards meet the future USB demands which are also equipped with hardware monitor function on system to monitor and protect your system and maintain you non-stop business computing.

Some special features---***CPU Thermal Throttling/ CPU Vcore 7-shift*** in this motherboard are designed for power user to use the over-clocking function in more flexible ways. But please be caution that the over-clocking maybe causes the fails in system reliabilities. This motherboard provides the guaranteed performance and meets the demands of the next generation computing. But if you insist to gain more system performance with variety possibilities of the components you choose, please be careful and make sure to read the

detailed descriptions of these value added product features, please get them in the coming section.

1-1.1 Special Features of Motherboard

CPU Thermal Throttling Technology--- (The CPU Overheat Protection Technology)
To prevent the increasing heat from damage of CPU or accidental shutdown while at high workload, the CPU Thermal Throttling Technology will force CPU to enter partially idle mode from 87.5% to 12.5% according to preset CPU operating temperature in BIOS (from 40℃ to 90℃). When the system senses the CPU operating temperature reaching the preset value, the CPU operating bandwidth will be decreased to the preset idle percentage to cool down the processor. When at throttling mode the beeper sound can be optionally selected to indicate it is in working.

CPU Vcore 7-Shift--- (Shift to Higher Performance)
The CPU voltage can be adjusted up by 14 steps for the precisely over-clocking of extra demanding computing performance.

OC-CON capacitors
The working temperature is from 55 degrees centigrade below zero to 125 degrees centigrade, OC-CON capacitors possess superior physical characteristics that can be while reducing the working temperature between 20 degrees centigrade each time, intact extension 10 times of effective product operation lives, at not rising degrees centigrade of working temperatures each time a relative one, life of product decline 10% only too.

1-2 Specification

Spec	Description
Design	* ATX form factor 4 layers PCB size: 29.5cm*18.0cm
Chipset	* NVIDIA MCP73D
CPU LGA775	* Support Intel Pentium 4, Celeron D, Pentium D, Core 2 Duo and Core 2 Quad 775-Land LGA Package utilizes Flip-Chip Land Grid Array package processor * Support FSB Frequency 533 / 667/ 800 / 1066/1333MHz
Memory Socket	* 240-pin DDR2 Module socket x 2 * Support 2 pcs DDR2 533 / 667 / 800 Modules * Expandable to 4GB
Expansion Slot	* PCI-Express x16 slot 1pcs * PCI-Express x1slot 1pcs * 32-bit PCI slot x 3pcs
Integrate IDE and Serial ATA2 RAID	* One IDE controllers support PCI Bus Mastering, ATA PIO/DMA and the ULTRA DMA 33/66/100/133 functions that deliver the data transfer rate up to 133 MB/s. * Four Serial ATA2 ports provide 300 MB/sec data transfer rate with RAID 0, 1, 5 functions
LAN	* Integrated Realtek RTL8111C-VC 10/100/Gigabit LAN * Supports Fast Ethernet LAN function provide 10 / 100 / 1000 Mb p/s
HD Audio	* Integrated Realtek ALC662 HD Azalia 6-channel * 6-channel 3D surround& Positioning Audio * Audio driver and utility included
BIOS	* Award 8MB SPI Flash ROM
Multi I/O	* PS/2 keyboard and PS/2 mouse connectors * Floppy disk drive connector x1 * Serial port header x1 * HDMI SPDIF Out header x1 * USB2.0 port x 4 and headers x2 * Audio connector

1-3 Performance List

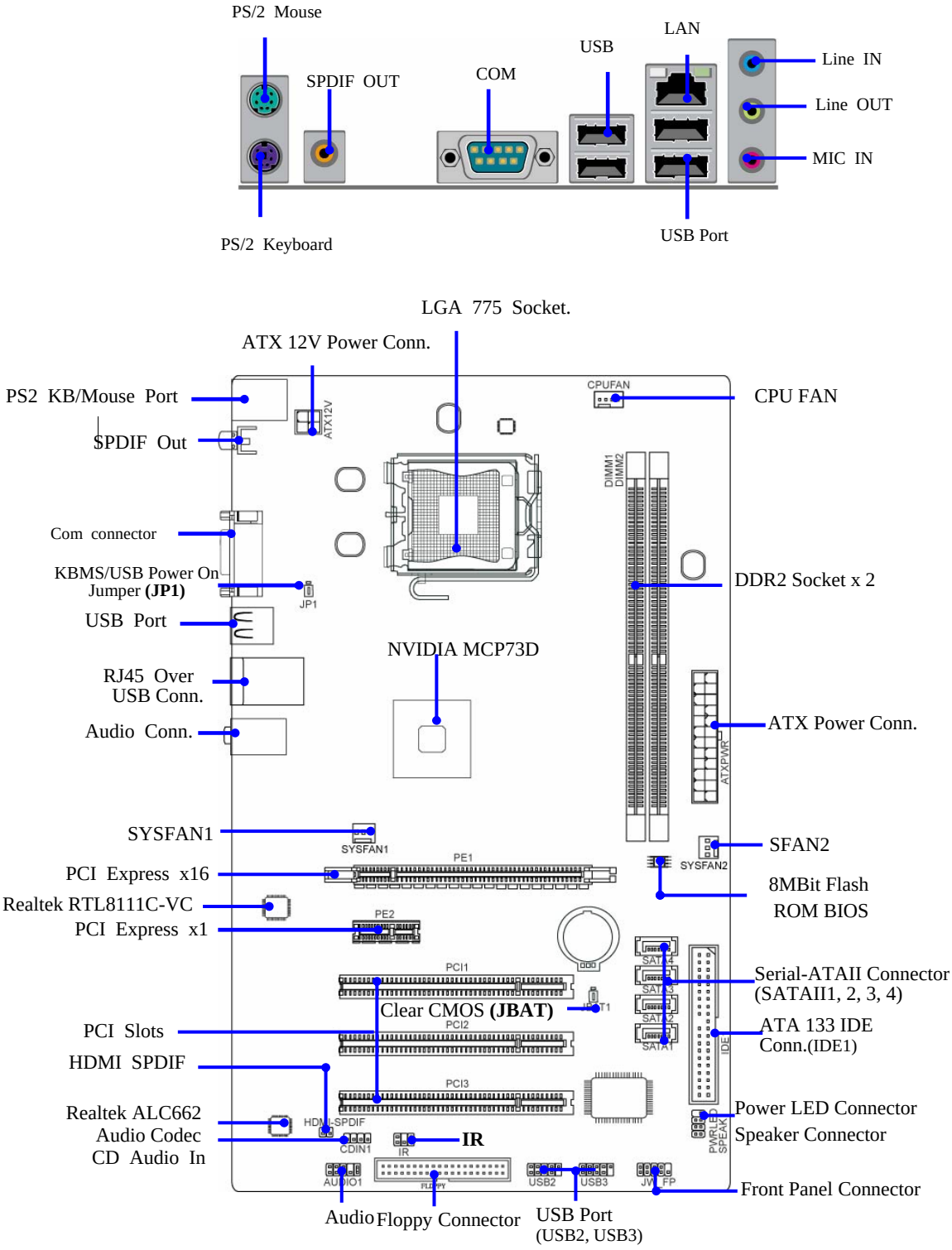
The following performance data list is the testing result of some popular benchmark testing programs. These data are just referred by users, and there is no responsibility for different testing data values gotten by users (the different Hardware & Software configuration will result in different benchmark testing results.)

Performance Test Report

CPU: core 2 E4400 2.0
DRAM: GEIL 800Hz 2.00
VGA Card : 8.411.0.0
Hard Disk Driver: **Seagate SATA 80GB**
BIOS: IN73DT01
OS: Windows XP Professional (SERVICE PACK 2)

	IN73DA2
3D Mark 2001SE	27599
3D Mark 2003	15484
3D Mark 2005	9402
AQUAMRK3	N/A
PCMark2004	
System / CPU / Memory	5841/5115/4157
Graph / HDD	6576/5111
Content Creation Winstone 2004	34
Business Winstone 2004	24
Winbench 99 V2.0:	
Business/Hi-end Disk Winmark99	5510/28800
Business/Hi-end Graphic	N/A
SISMark 2004: SISMark Rating(Internet Content Creation / Office Productivity)	
SISMark 2004	321/209
3D Creation / 2D Creation	285/395
/ Web publication	295
Communication / Document	158/262
/ Data Analysis	221
SISOFT Sandra 2004 : 1.CPU Arithmetic Benchmark 2.Memory bandwidth Benchmark 3.CPU Multi-Media Benchmark	
1.Dhrystone ALU MIPS	18369
Whetstone FPU iSSE2 FLOPS	12750
2.Int/Float Buffered MB/S	3889/3870
3.Integer/Floating-Point IT/S	110202/59614
UT2003 Benchmark	340.858826/113.565048
Quake3 DEMO1 / FPS	478.2/468.2
Return to Castle FPS	**n / a**
Super Pi (1M) Second	28.07S
CPUZ System / CPU Clock	2.0GB/800

1-4 Layout Diagram & Jumper Setting



Jumpers

Jumper	Name	Description	Page
JBAT	CMOS RAM Clear	3-pin Block	P.7
JP1	Keyboard/USB Power On Enabled/Disabled	3-pin Block	P.8

Connectors

Connector	Name	Description	Page
ATXPWR	ATX Power Connector	24-pin Block	P.12
ATX12V1	ATX 12V Power Connector	8-pin Block	P.12
KB	PS/2 Mouse & PS/2 Keyboard Connector	6-pin Female	P.12
USB1	USB Port Connector	4-pin Connector	P.13
UL1	Gigabit-LAN Port Connector	RJ-45 Connector	P.13
CN1	6-CH Audio Connector	6 phone jack Connector	P.13
FDD	Floppy Driver Connector	34-pin Block	P.13
IDE1	Primary/Secondary IDE Connector	40-pin Block	P.14
SATAII1~4	Serial ATAII IDE Connector	7-pin Connector	P.14

Headers

Header	Name	Description	Page
AUDIO	SPEAKER, MIC header	9-pin Block	P.14
USB1, USB2,	USB Port Headers	9-pin Block	P.15
SPEAK	PC Speaker connector	4-pin Block	P.15
PWR LED	Power LED	3-pin Block	P.15
JW_FP (Power LED/Reset/ IDE LED/Power Button)	Front Panel Header(including Power LED/ IDE activity LED/Reset switch / Power On Button lead)	9-pin Block	P.15
SYSFAN1, SYSFAN2 CPUFAN,CHAFAN	FAN Headers	3-pin Block	P.16
CDIN	CD Audio-In Header	4-pin Block	P.16
HDMI-SPDIF	HDMI-SPDIF	5-Pin block	P.17

Expansion Sockets

Socket/Slot	Name	Description	Page
ZIFLGA775 Socket	CPU Socket	LGA775 CORE2 FAMILY	P.9
DIMM1~2	DDRII Module Socket	240-pin DDRII Module Socket	P.9
PCI1~ PCI3	PCI Slot	32-bit PCI Local Bus Expansion slots	P.10
PE1	PCI-Express x16 Slot	PCI-Express x16 Expansion Slot	P.11
PE2	PCI-Express x1 Slot	PCI-Express x1 Expansion Slot	P.11

Chapter 2
Hardware Installation

2-1 Hardware installation Steps

Before using your computer, you had better complete the following steps:

1. Check motherboard jumper setting
2. Install CPU and Fan
3. Install System Memory (DIMM)
4. Install Expansion cards
5. Connect IDE, Front Panel /Back Panel cable
6. Connect ATX Power cable
7. Power-On and Load Standard Default
8. Reboot
9. Install Operating System
10. Install Driver and Utility

2-2 Checking Motherboard's Jumper Setting

(1) CMOS RAM Clear (3-pin): JBAT

A battery must be used to retain the motherboard configuration in CMOS RAM short 1-2 pins of JBAT to store the CMOS data.

To clear the CMOS, follow the procedure below:

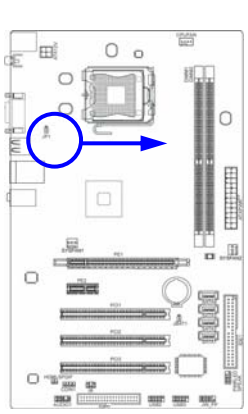
1. Turn off the system and unplug the AC power
2. Remove ATX power cable from ATX power connector
3. Locate JBAT and short pins 2-3 for a few seconds
4. Return JBAT to its normal setting by shorting pins 1-2
5. Connect ATX power cable back to ATX power connector

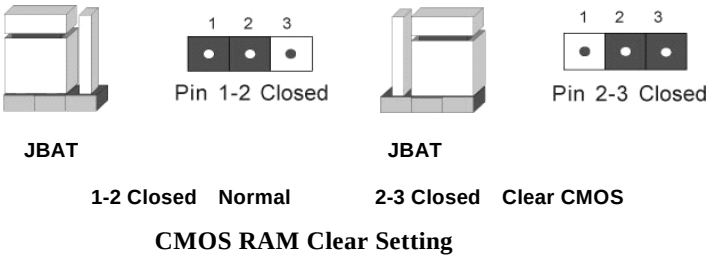
Note: When should clear CMOS

1. Troubleshooting

2. Forget password

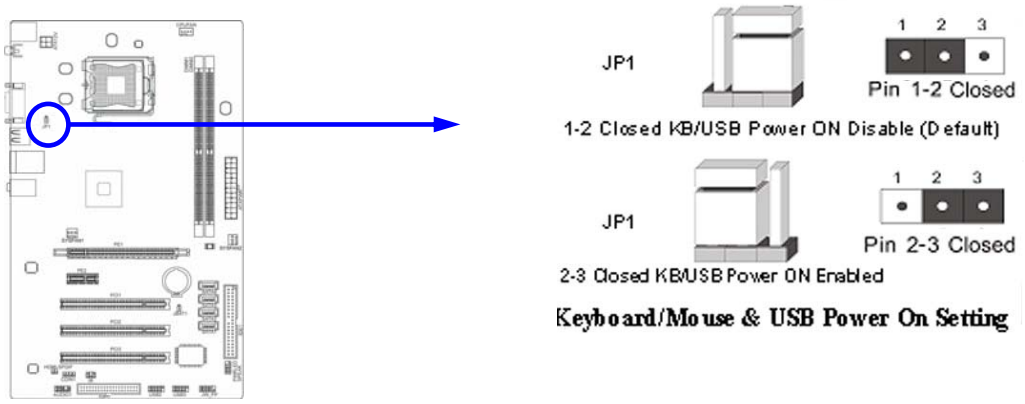
3. After over clocking system boot fail





CMOS RAM Clear Setting

(2) Keyboard function Enabled/Disabled: JP1



2-3 Install CPU

2-3-1 Glossary

Chipset (or core logic) - two or more integrated circuits which control the interfaces between the system processor, RAM, I/O devises, and adapter cards.

Processor slot/socket - the slot or socket used to mount the system processor on the motherboard.

Slot (PCI-E, PCI, RAM) - the slots used to mount adapter cards and system RAM.

AGP - **A**ccelerated **G**raphics **P**ort - a high speed interface for video cards; runs at 1X (66MHz), 2X (133MHz), or 4X (266MHz), or 8X (533MHz).

PCI - **P**eripheral **C**omponent **I**nterconnect - a high speed interface for video cards, sound cards, network interface cards, and modems; runs at 33MHz.

PCI Express- Peripheral Component Interconnect Express- a high speed interface for video cards, sound cards, network interface cards, and modems.

Serial Port - a low speed interface typically used for mouse and external modems.

Parallel Port - a low speed interface typically used for printers.

PS/2 - a low speed interface used for mouse and keyboards.

USB - **U**niversal **S**erial **B**us - a medium speed interface typically used for mouse, keyboards, scanners, and some digital cameras.

Sound (interface) - the interface between the sound card or integrated sound connectors and speakers, MIC, game controllers, and MIDI sound devices.

LAN (interface) - **L**ocal **A**rea **N**etwork - the interface to your local area network.

BIOS (**B**asic **I**nput/**O**utput **S**ystem) - the program logic used to boot up a computer and establish the relationship between the various components.

Driver - software, which defines the characteristics of a device for use by another device or other software.

Processor - the "central processing unit" (CPU); the principal integrated circuit used for doing the "computing" in "personal computer"

Front Side Bus Frequency - the working frequency of the motherboard, which is generated by the clock generator for CPU, DRAM and PCI BUS.

CPU L2 Cache - the flash memory inside the CPU, normal it depend on CPU type.

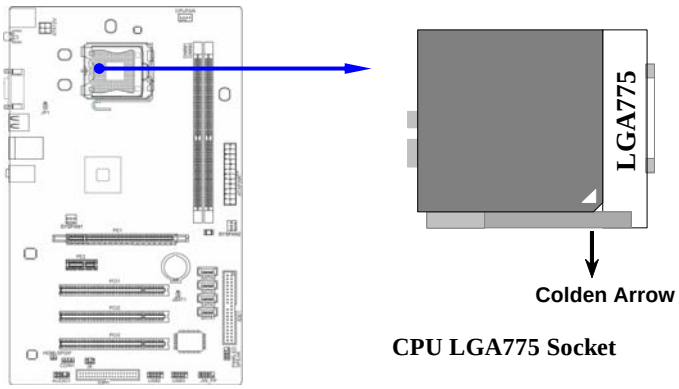
2-3-2 About Intel LGA775 CPU

This motherboard provides a 775-pin surface mount, LGA775 Land Grid Array socket, referred to as the LGA775 socket supports Intel Core family processor in the 775 Pin package utilizes Flip-Chip Land Grid Array (FC-LGA) package technology.

The CPU that comes with the motherboard should have a cooling FAN attached to prevent overheating. If this is not the case, then purchase a correct cooling FAN before you turn on your system.

WARNING!	Be sure that there is sufficient air circulation across the processor's heat sink and CPU cooling FAN is working correctly, otherwise it may cause the processor and motherboard overheat and damage, you may install an auxiliary cooling FAN, if necessary.

To install a CPU, first turn off your system and remove its cover. Locate the LGA775 socket and open it by first pulling the level sideways away from the socket then upward to a 90-degree angle. Insert the CPU with the correct orientation as shown below. The notched corner should point toward the end of the level. Because the CPU has a corner pin for two of the four corners, the CPU will only fit in the orientation as shown.



CPU LGA775 Socket

When you install the CPU into the LGA775 socket, there's no force required CPU insertion; then presses the level to locate position slightly without any extra force.

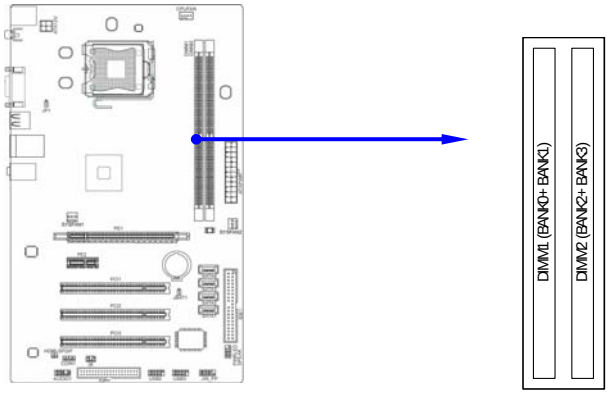
2-4 Install Memory

This motherboard provides two 240-pin DDR DUAL INLINE MEMORY MODULES (DIMM) sides for DDR memory expansion available from minimum memory size of 128MB to maximum memory size of 4GB DDR SDRAM.

Valid Memory Configurations

Bank	240-pin DDR DIMM	PCS	Total Memory
Bank 0, 1 (DIMM1)	DDRII 800/667/ 533 DDR DRAM Module	X1	128MB~2GB
Bank 2, 3 (DIMM2)	DDRII 800/667/553 DDR DRAM Module	X1	128MB~2GB
Total	System Memory (Max. 4GB)	X2	128MB~4GB

Generally, installing DDR SDRAM modules to your motherboard is very easy, you can refer to figure 2-4 to see what a 240-pin DDR SDRAM module looks like.



NOTE!	When you install DIMM module fully into the DIMM socket the eject tab should be locked into the DIMM module very firmly and fit into its indention on both sides.

2-5 Expansion Cards

WARNING!	Turn off your power when adding or removing expansion cards or other system components. Failure to do so may cause severe damage to both your motherboard and expansion cards.

2-5-1 Procedure For Expansion Card Installation

1. Read the documentation for your expansion card and make any necessary hardware or software setting for your expansion card such as jumpers.
2. Remove your computer's cover and the bracket plate on the slot you intend to use.
3. Align the card's connectors and press firmly.
4. Secure the card on the slot with the screen you remove above.
5. Replace the computer system's cover.
6. Set up the BIOS if necessary.
7. Install the necessary software driver for your expansion card.

2-5-2 Assigning IRQs For Expansion Card

Some expansion cards need an IRQ to operate. Generally, an IRQ must exclusively assign to one use. In a standard design, there are 16 IRQs available but most of them are already in use.

Standard Interrupt Assignments

IRQ	Priority	Standard function
0	N/A	System Timer
1	N/A	Keyboard Controller
2	N/A	Programmable Interrupt
3 *	8	Communications Port (COM2)
4 *	9	Communications Port (COM1)
5 *	6	Sound Card (sometimes LPT2)
6 *	11	Floppy Disk Controller
7 *	7	Printer Port (LPT1)
8	N/A	System CMOS/Real Time Clock
9 *	10	ACPI Mode when enabled
10 *	3	IRQ Holder for PCI Steering
11 *	2	IRQ Holder for PCI Steering
12 *	4	PS/2 Compatible Mouse Port

13	N/A	Numeric Data Processor
14 *	5	Primary IDE Channel
15 *	1	Secondary IDE Channel

* These IRQs are usually available for ISA or PCI devices.

2-5-3 Interrupt Request Table For This Motherboard

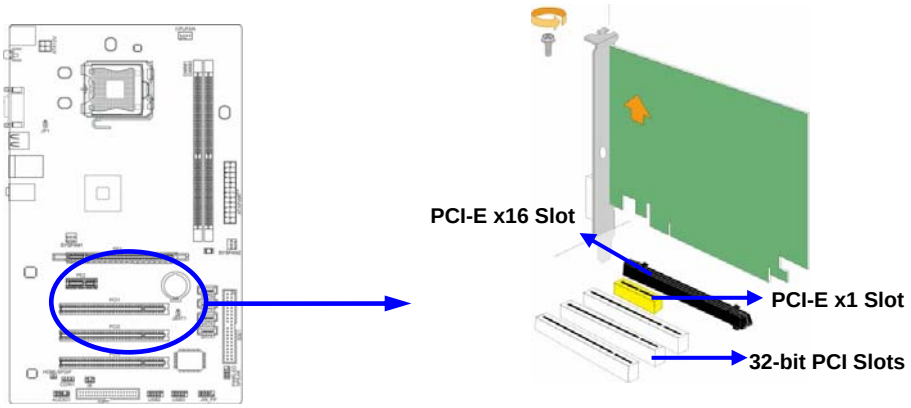
Interrupt request are shared as shown the table below:

	INT A	INT B	INT C	INT D	INT E	INT F	INT G	INT H
Slot 1		√						
Slot 2			√					
Onboard USB 1	√							
Onboard USB 2		√						

IMPORTANT! If using PCI cards on shared slots, make sure that the drivers support "Shared IRQ" or that the cards don't need IRQ assignments. Conflicts will arise between the two PCI groups that will make the system unstable or cards inoperable.

2-5-4 Expansion Card

The NVIDIA MCP73D motherboard series offer one 16-LANE PCI-Express x16 graphics slot of 4Gbyte/sec data transfer rate at each relative direction which get 3.5 times of bandwidth more than AGP8X and it's up to a peak concurrent bandwidth of 8Gbyte/sec at full speed to guarantee the performance and compatibility of GPU graphics add-in cards. The whole series carry three 32-bit PCI slots guarantee the rich connectivity for the I/O peripheral devices. One PCI Express x1 I/O slot offers 512Mbyte/sec concurrently, over 3.5 times more bandwidth than PCI at 133Mbye/sec.



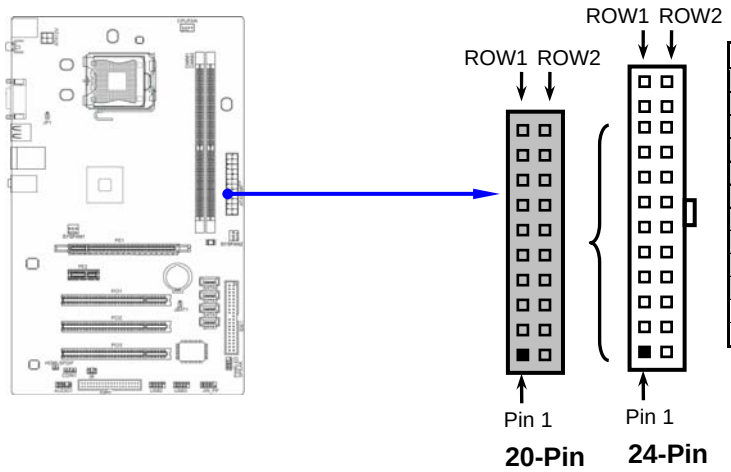
2-6 Connectors

(1) Power Connector (24-pin block): ATXPWR1

ATX Power Supply connector: This is a new defined 24-pins connector that usually comes with ATX case. The ATX Power Supply allows using soft power on momentary switch that connect from the front panel switch to 2-pins Power On jumper pole on the motherboard. When the power switch on the back of the ATX power supply turned on, the full power will not come into the system board until the front panel switch is momentarily pressed. Press this switch again will turn off the power to the system board.

** We recommend that you use an ATX 12V Specification 2.0-compliant power supply unit (PSU) with a minimum of 350W power rating. This type has 24-pin and 4-pin power plugs.

** If you intend to use a PSU with 20-pin and 4-pin power plugs, make sure that the 20-pin power plug can provide at least 15A on +12V and the power supply unit has a minimum power rating of 350W. The system may become unstable or may not boot up if the power is inadequate.



PIN	ROW1	ROW2
1	3.3V	3.3V
2	3.3V	-12V
3	GND	GND
4	5V	Soft Power On
5	GND	GND
6	5V	GND
7	GND	GND
8	Power OK	-5V
9	+5V (for Soft Logic)	+5V
10	+12V	+5V
11	+12V	+5V
12	+3V	GND

(2) ATX 12V Power Connector (8-pin block) : ATX12V1

This is a new defined 8-pins connector that usually comes with ATX Power Supply. The ATX Power Supply which fully supports AM2 processor must including this connector for support extra 12V voltage to maintain system power consumption. Without this connector might cause system unstable because the power supply can not provide sufficient current for system.

(3) PS/2 Mouse & PS/2 Keyboard Connector: KB1

The connectors are for PS/2 keyboard and PS/2 Mouse.

(4) USB Port connector:

The connectors are 4-pin connector that connects USB devices to the system board.

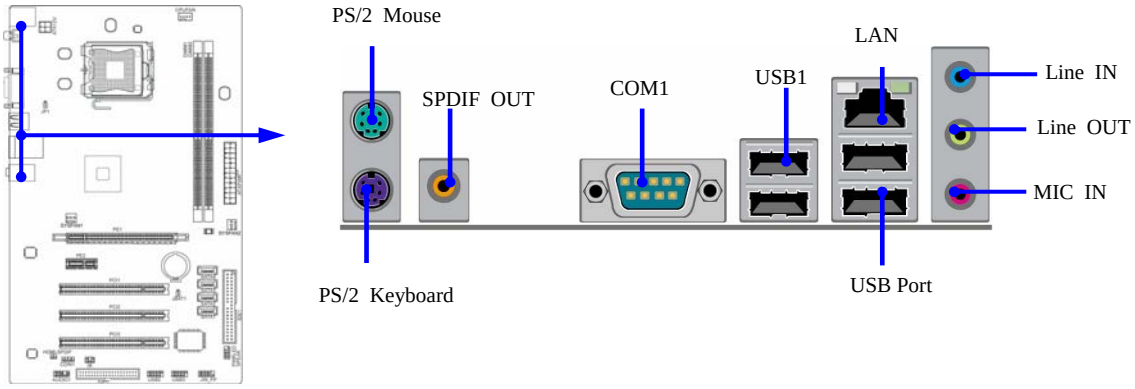
(5) LAN Port connector: UL1

This connector is standard RJ45 connector for Network
The USBLAN1 support 10Mb/100Mb/1000Mb p/ s data transfer rate

(6) Audio Line-In, Lin-Out, MIC Connector: SURROUND1 / CN1

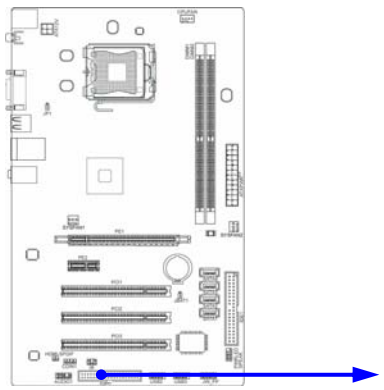
This Connector are three phone Jack for LINE-OUT, LINE-IN, MIC

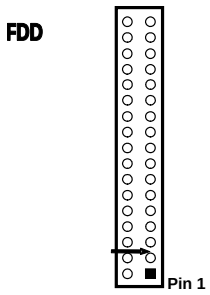
Line-in: (BLUE) Audio input to sound chip
Line-out: (GREEN) Audio output to speaker
MIC: (PINK) Microphone Connector



(7) Floppy drive Connector (34-pin block): FDD1

This connector supports the provided floppy drive ribbon cable. After connecting the single plug end to motherboard, connect the two plugs at other end to the floppy drives.



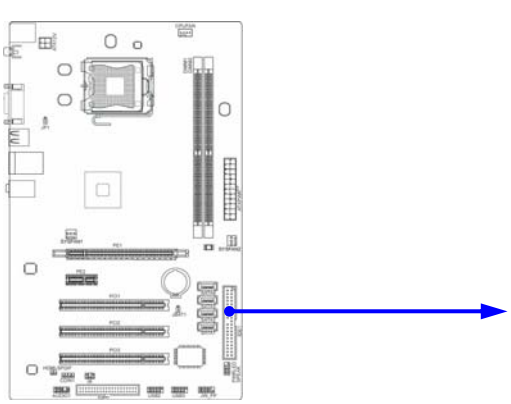


Floppy Drive Connector

(8) Secondary IDE Connector (40-pin block): IDE1

This connector connects to the next set of Master and Slave hard disks. Follow the same procedure described for the primary IDE connector. You may also configure two hard disks to be both Masters using one ribbon cable on the primary IDE connector and another ribbon cable on the secondary IDE connector.

- Two hard disks can be connected to each connector. The first HDD is referred to as the "Master" and the second HDD is referred to as the "Slave".
- For performance issues, we strongly suggest you don't install a CD-ROM or DVD-ROM drive on the same IDE channel as a hard disk. Otherwise, the system performance on this channel may drop.

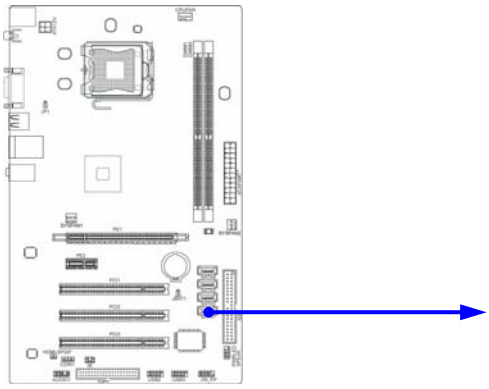


Primary IDE Connector

(9) Serial-ATA Port connector:

SATA1 / SATA2 / SATA3 / SATA4

This connector supports the provided Serial ATA and Serial ATA2 hard disk cable to connect the motherboard and serial ATA hard disk.

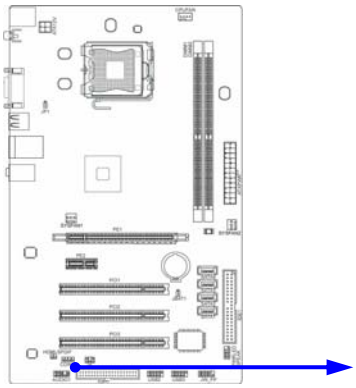


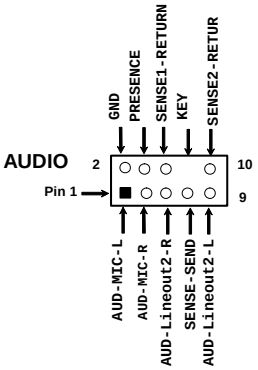
Serial-ATA1, 2, 3, 4 Compatible Connectors

2-7 Headers

(1) Line-Out/MIC Header for Front Panel (9-pin): AUDIO1

This header connects to Front Panel Line-out, MIC connector with cable.





Line-Out, MIC Headers

(2) Speaker connector: SPEAK1

This 4-pin connector connects to the case-mounted speaker. See the figure below.

(3) Power LED: PWR LED1

The Power LED is light on while the system power is on. Connect the Power LED from the system case to this pin.

(4) IDE Activity LED: HD LED

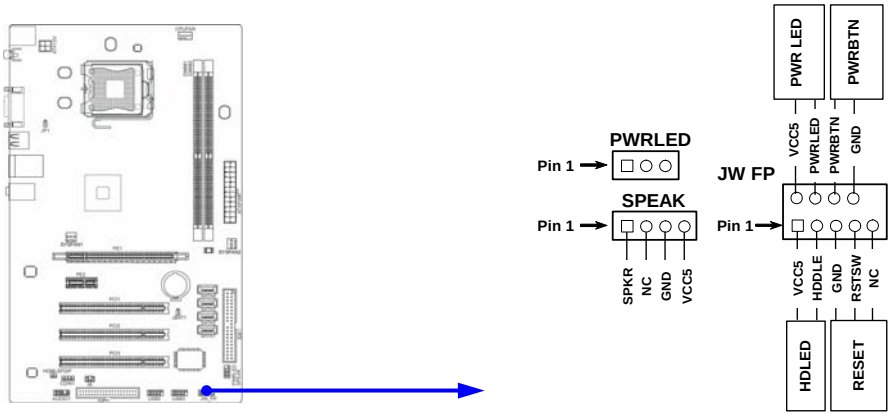
This connector connects to the hard disk activity indicator light on the case.

(5) Reset switch lead: RESET

This 2-pin connector connects to the case-mounted reset switch for rebooting your computer without having to turn off your power switch. This is a preferred method of rebooting in order to prolong the lift of the system's power supply. See the figure below.

(6) Power switch: PWR BTN

This 2-pin connector connects to the case-mounted power switch to power ON/OFF the system.

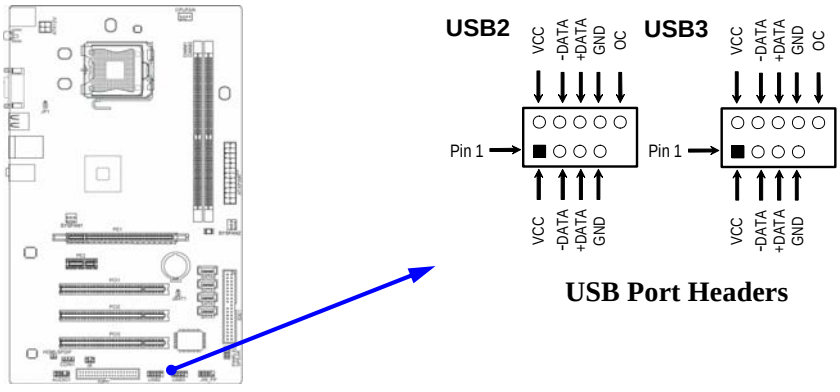


System Case Connections

(7)USB Port Headers (9-pin) :

USB2/USB3 (Optional)

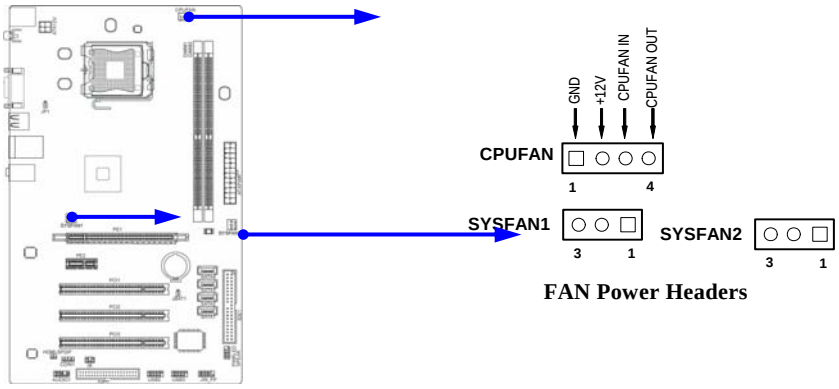
These headers are used for connecting the additional USB port plug. By attaching an option USB cable, your can be provided with two additional USB plugs affixed to the back panel.



USB Port Headers

(8) FAN Power Headers: SYSFAN1, SYSFAN2 (3-pin), CPUFAN1 (4-pin)

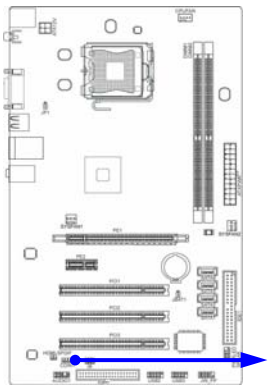
These connectors support cooling fans of 350mA (4.2 Watts) or less, depending on the fan manufacturer, the wire and plug may be different. The red wire should be positive, while the black should be ground. Connect the fan's plug to the board taking into consideration the polarity of connector.

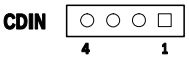


FAN Power Headers

(9) CD Audio-In Headers (4-pin): CDIN

CDIN are the connectors for CD-Audio Input signal. Please connect it to CD-ROM CD-Audio output connector.

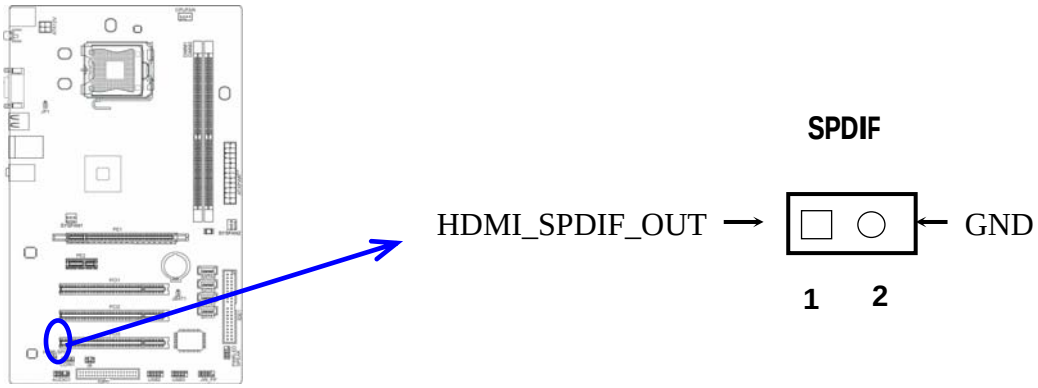




CD Audio-In Headers

(11) HDMI SPDIF:

The SPDIF output is capable of providing digital audio to external speakers or compressed AC3 data to an external Dolby digital decoder. Use this feature only when your stereo system has digital input function.



2-8 Starting Up Your Computer

1. After all connection is made, close your computer case cover.
2. Be sure all the switch are off, and check that the power supply input voltage is set to proper position, usually in-put voltage is 220V~240V or 110V~120V depending on your country's voltage used.
3. Connect the power supply cord into the power supply located on the back of your system case according to your system user's manual.
4. Turn on your peripheral as following order:
   a. Your monitor.
   b. Other external peripheral (Printer, Scanner, External Modem etc…)
   c. Your system power. For ATX power supplies, you need to turn on the power supply and press the ATX power switch on the front side of the case.
5. The power LED on the front panel of the system case will light. The LED on the monitor may light up or switch between orange and green after the system is on. If it complies with green standards or if it is has a power standby feature. The system will then run power-on test. While the test is running, the BIOS will alarm beeps or additional message will appear on the screen.

   If you do not see any thing within 30 seconds from the time you turn on the power. The system may have failed on power-on test. Recheck your jumper settings and connections or call your retailer for assistance.

Beep	**Meaning**
One short beep when displaying logo	No error during POST
Long beeps in an endless loop	No DRAM install or detected
One long beep followed by three short beeps	Video card not found or video card memory bad
High frequency beeps when system is working	CPU overheated System running at a lower frequency

6. During power-on, press <Delete> key to enter BIOS setup. Follow the instructions in BIOS SETUP.
7. **Power off your computer:** You must first exit or shut down your operating system before switch off the power switch. For ATX power supply, you can press ATX power switching after exiting or shutting down your operating system. If you use Windows 9X, click **"Start"** button, click **"Shut down"** and then click **"Shut down the computer?"** The power supply should turn off after windows shut down.

Chapter 3

Introducing BIOS

The BIOS is a program located on a Flash Memory on the motherboard. This program is a bridge between motherboard and operating system. When you start the computer, the BIOS program gains control. The BIOS first operates an auto-diagnostic test called POST (power on self test) for all the necessary hardware, it detects the entire hardware device and configures the parameters of the hardware synchronization. Only when these tasks are completed done it gives up control of the computer to operating system (OS). Since the BIOS is the only channel for hardware and software to communicate, it is the key factor for system stability, and in ensuring that your system performance as its best.

In the BIOS Setup main menu of Figure 3-1, you can see several options. We will explain these options step by step in the following pages of this chapter, but let us first see a short description of the function keys you may use here:

- Press <Esc> to quit the BIOS Setup.
- Press ↑↓←→ (up, down, left, right) to choose, in the main menu, the option you want to confirm or to modify.
- Press <F10> when you have completed the setup of BIOS parameters to save these parameters and to exit the BIOS Setup menu.
- Press Page Up/Page Down or +/– keys when you want to modify the BIOS parameters for the active option.

3-1 Entering Setup

Power on the computer and by pressing <Del> immediately allows you to enter Setup.
If the message disappears before your respond and you still wish to enter Setup, restart the system to try again by turning it OFF then ON or pressing the "RESET" button on the system case. You may also restart by simultaneously pressing <Ctrl>, <Alt> and <Delete> keys. If you do not press the keys at the correct time and the system does not boot, an error message will be displayed and you will again be asked to

Press <F1> to continue, <Ctrl-Alt-Esc> or <Del> to enter Setup

3-2 Getting Help

Main Menu

The on-line description of the highlighted setup function is displayed at the bottom of the screen.

Status Page Setup Menu/Option Page Setup Menu

Press F1 to pop up a small help window that describes the appropriate keys to use and the possible selections for the highlighted item. To exit the Help Window, press <Esc>.

3-3 The Main Menu

Once you enter Award® BIOS CMOS Setup Utility, the Main Menu (Figure 3-1) will appear on the screen. The Main Menu allows you to select from fourteen setup functions and two exit choices. Use arrow keys to select among the items and press <Enter> to accept or enter the sub-menu.

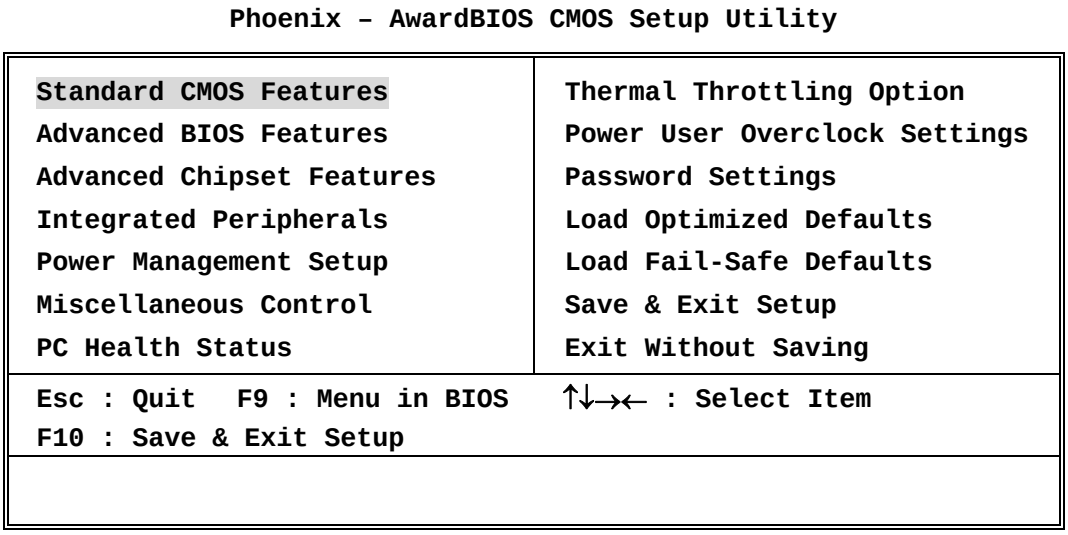


Figure 3-1

Standard CMOS Features
Use this Menu for basic system configurations.

Advanced BIOS Features
Use this menu to set the Advanced Features available on your system.

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

Integrated Peripherals
Use this menu to specify your settings for integrated peripherals.

Power Management Setup
Use this menu to specify your settings for power management.

Miscellaneous Control
Use this menu to specify your settings for Miscellaneous control.

PC Health Status
This entry shows your PC health status.

Thermal Throttling Options
The selection is set for activating the active CPU Thermal Protection by flexible CPU loading adjustment in the arrangement of temperature you define.

Power User Overclock Settings
Use this menu to specify your settings (frequency, Voltage) for overclocking demand

Password Settings
This entry for setting Supervisor password and User password

Load Optimized Defaults
Use this menu to load the BIOS default values these are setting for optimal performances system operations for performance use.

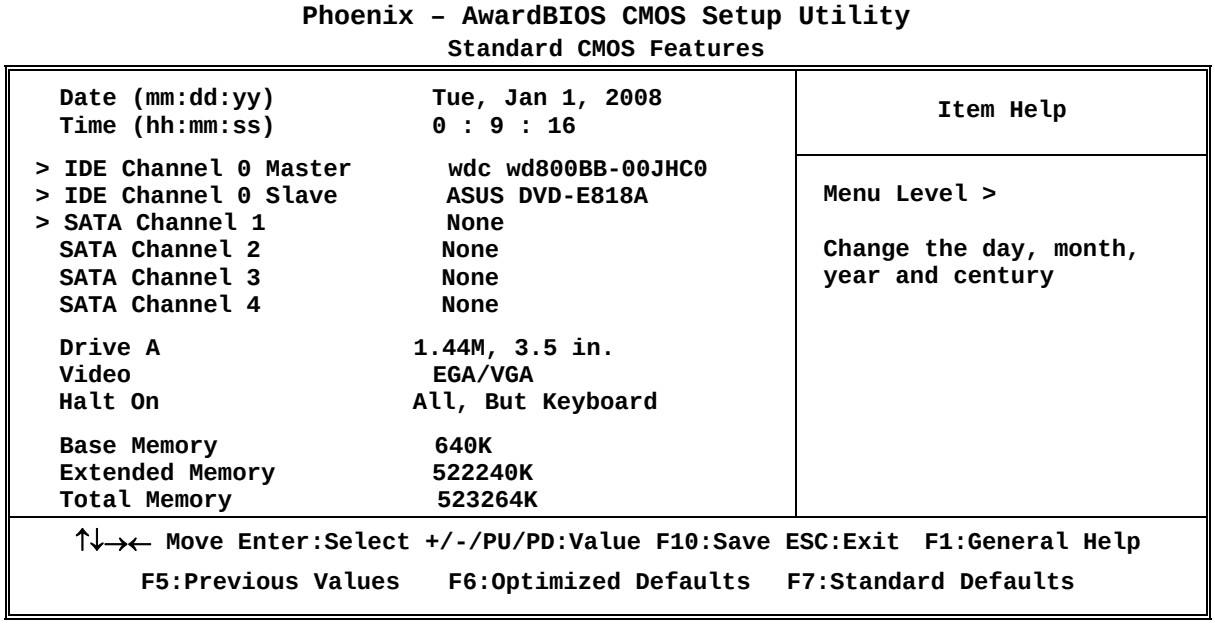
Load Fail-safe Defaults
This menu uses a minimal performance setting, but the system would run in a stable way.that are factory settings for normal use.

Save & Exit Setup
Save CMOS value changes to CMOS and exit setup.

Exit Without Saving
Abandon all CMOS value changes and exit setup.

3-4 Standard CMOS Features

The items in Standard CMOS Setup Menu are divided into several categories. Each category includes no, one or more than one setup items. Use the arrow keys to highlight the item and then use the <PgUp> or <PgDn> keys to select the value you want in each item.



Date
The date 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
The time format is <hour><minute><second>.

IDE Channel 0 Master / Channel 0 Slave
SATA Channel 1, 2, 3, 4

Press PgUp/<+> or PgDn/<–> to select Manual, None, Auto type. Note that the specifications of your drive must match with the drive table. The hard disk will not work properly if you enter improper information for this category. If the type of hard disk drives is not matched or listed, you can use Manual to define your own drive type manually.
If you select Manual, related information is asked to be entered to the following items. Enter the information directly from the keyboard. This information should be provided in the documentation from your hard disk vendor or the system manufacturer.
If the controller of HDD interface is SCSI, the selection shall be "None".
If the controller of HDD interface is CD-ROM, the selection shall be "None"

Access Mode The settings are Auto Normal, Large, and LBA.
Cylinder number of cylinders
Head number of heads
Precomp write precomp
Landing Zone landing zone
Sector number of sectors

3-5 Advanced BIOS Features

Phoenix – AwardBIOS CMOS Setup Utility

Advanced BIOS Features

CPU Feature	Normal	Item Help
Removable Device Priority	Press Enter	
Hard Disk Boot Priority	Press Enter	
Virus Warning	Disabled	Menu Level >
CPU L3 Cache	Enabled	
Quick Power On Self Test	Enabled	
First Boot Device	Hard Disk	
Second Boot Device	CD-ROM	
Third Boot Device	Removabled	
Boot other Device	Enabled	
Boot Up Floppy Seek	Enabled	
Boot Up NumLock Status	On	
Gate A20 Option	Fast	
Typematic Rate Setting	Disabled	
Typematic Rate (Chars/Sec)	6	
Typematic Delay (Msec)	250	
Security Option	Setup	
APIC Mode	Enabled	
MPS Version Control For OS	1.4	
OS Select For DRAM > 64MB	Non-OS2	
HDD S.M.A.R.T. Capability	Disabled	
Full Screen LOGO show	Disabled	
Small LOGO(EPA) Show	Disabled	

↑↓→← Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values F6:Optimized Defaults F7:Standard Defaults

Removable Device Priority
The selection is for you to choose the removable devices (Such as USB floppy or other related accessories) priorities to boot from.
Hard Disk Boot Priority
The selection is for you to choose the hard disk drives priorities to boot from.
Virus Warning

Allows you to choose the VIRUS Warning feature for IDE Hard Disk boot sector protection. If this function is enabled and someone attempt to write data into this area, BIOS will show a warning message on screen and alarm beep.

Disabled (default) No warning message to appear when anything attempts to access the boot sector or hard disk partition table.

Enabled Activates automatically when the system boots up causing a warning message to appear when anything attempts to access the boot sector of hard disk partition table.

Quick Power On Self-Test

This category speeds up Power On Self Test (POST) after you power on the computer. If this is set to Enabled. BIOS will shorten or skip some check items during POST.

Enabled (default) Enable quick POST

Disabled Normal POST

First/Second/Third Boot Device

The BIOS attempts to load the operating system from the devices in the sequence selected in these items. The settings are Floppy, LS/ZIP, HDD-0/HDD-1/HDD-3, SCSI, CDROM, LAD and Disabled.

Swap Floppy Drive

Switches the floppy disk drives between being designated as A and B. Default is Disabled.

Boot Up Floppy Seek

During POST, BIOS will determine if the floppy disk drive installed is 40 or 80 tracks. 360K type is 40 tracks while 760K, 1.2M and 1.44M are all 80 tracks.

Boot Up NumLock Status

The default value is On.

On (default) Keypad is numeric keys.

Off Keypad is arrow keys.

Gate A20 Option

Normal The A20 signal is controlled by keyboard controller or chipset hardware.

Fast (default) The A20 signal is controlled by port 92 or chipset specific method.

Typematic Rate Setting

Keystrokes repeat at a rate determined by the keyboard controller. When enabled, the typematic rate and typematic delay can be selected. The settings are: Enabled/Disabled.

Typematic Rate (Chars/Sec)

Set the number of times a second to repeat a keystroke when you hold the key down. The settings are: 6, 8, 10, 12, 15, 20, 24, and 30.

Typematic Delay (Msec)

Set the delay time after the key is held down before is begins to repeat the keystroke. The settings are 250, 500, 750, and 1000.

Security Option

This category allows you to limit access to the system and Setup, or just to Setup.

System The system will not boot and access to Setup will be denied if the correct password is not entered at the prompt.

Setup (default) The system will boot, but access to Setup will be denied if the correct password is not entered prompt.

3-6 Advanced Chipset Features

The Advanced Chipset Features Setup option is used to change the values of the chipset registers. These registers control most of the system options in the computer.

Phoenix – AwardBIOS CMOS Setup Utility

Advanced Chipset Features

Spread spectrum control	Press Enter	Item Help
System BIOS Cachable	Disabled	
		Menu Level >
↑↓→← Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Optimized Defaults F7:Standard Defaults		

System BIOS Cacheable

Selecting Enabled allows caching of the system BIOS ROM at F0000h-FFFFFh, resulting in better system performance. However, if any program writes to this memory area, a system error may result. The settings are: Enabled and Disabled.

3-6-1 DRAM Configuration

Phoenix – AwardBIOS CMOS Setup Utility

Spread spectrum control

CPU Spread Spectrum	Disabled	Item Help
SATA Spread Spectrum	Disabled	
PCIE Spread Spectrum	Disabled	Menu Level >>
↑↓→← Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Optimized Defaults F7:Standard Defaults		

3-7 Integrated Peripherals

Phoenix – AwardBIOS CMOS Setup Utility

Integrated Peripherals

> IDE Function Setup	Press Enter	Item Help
> Onboard Device	Press Enter	
> Super IO Function Setup	Press Enter	Menu Level >
↑↓→← Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Optimized Defaults F7:Standard Defaults		

OnChip IDE Function

Please refer to section 3-7-1

OnChip Device Function

Please refer to section 3-7-2

OnChip Super IO Function

Please refer to section 3-7-3

3-7-1 IDE Function Setup

Phoenix – AwardBIOS CMOS Setup Utility

OnChip IDE Function

MCP Storage Config	Press Enter	Item Help
OnChip IDE Channel0	Enabled	
Primary Master PIO	Auto	Menu Level >>
Primary Slave PIO	Auto	
Primary Master UDMA	Auto	
Primary Slave UDMA	Auto	
IDE DMA Transfer Access	Enabled	
Serial-ATA Controller	Enabled	
IDE Prefetch Mode	Enabled	
IDE HDD Block Mode	Enabled	

↑↓→← Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values F6:Optimized Defaults F7:Standard Defaults

OnChip IDE Channal0

The integrated peripheral controller contains an IDE interface with support for two IDE channels. Select *Enabled* to activate each channel separately. The settings are: Enabled and Disabled.

Primary Master/Slave PIO

The four IDE PIO (Programmed Input/Output) fields let you set a PIO mode for each of the four IDE devices that the onboard IDE interface supports.

Primary Master/Slave UDMA

Ultra DMA/33 implementation is possible only if your IDE hard drive supports it and the operating environment includes a DMA driver (Windows 95 OSR2 or a third-party IDE bus master driver). If your hard drive and your system software both support Ultra DMA/33 and Ultra DMA/66, select Auto to enable BIOS support. The settings are: Auto, Disabled.

IDE Prefatch

The selection is for you to set the IDE device as the first priority to activate.

IDE HDD Block Mode

Block mode is also called block transfer, multiple commands, or multiple sector read/write. If your IDE hard drive supports block mode (most new drives do), select Enabled for automatic detection of the optimal number of block read/writes per sector the drive can support. The settings are: Enabled, Disabled.

3-7-2 Onboard Device

```
                Phoenix – AwardBIOS CMOS Setup Utility
                          Onboard  Device
```

Onboard Lan Enable Onboard Lan Boot ROM Disabled Onchip USB V1.1+V2.0 USB Memory Type Shadow USB Keyboard/Storage Support Enabled HD Audio Auto	Item Help Menu Level >>
↑↓→← Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Optimized Defaults F7:Standard Defaults	

HD Audio

This item allows you to decide to enable/disable the chipset family to support HD Audio. The settings are: Enabled, Disabled.

USB Keyboard Support

Select *Enabled* if your system contains a Universal Serial Bus (USB) controller and you have a USB keyboard. The settings are: Enabled, Disabled.

3-7-3 Super IO Function Setup

```
                Phoenix – AwardBIOS CMOS Setup Utility
                          Super IO Function
```

Onboard FDC Controller Enabled Onboard Serial Port 1 3F8/IRQ4 UART Mode Select IrDA IrDA Duplex Mode Half PWRON After PWR-Fail Off	Item Help Menu Level >>
↑↓→← Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Optimized Defaults F7:Standard Defaults	

Onboard FDC Controller

Select Enabled if your system has a floppy disk controller (FDD) installed on the system board and you wish to use it. If you install add-on FDC or the system has no floppy drive, select Disabled in this field. The settings are: Enabled and Disabled.

Onboard Serial Port 1

Select an address and corresponding interrupt for the first and the second serial ports. The settings are: 3F8/IRQ4, 2E8/IRQ3, 3E8/IRQ4, 2F8/IRQ3, Disabled, Auto.

3-8 Power Management Setup

The Power Management Setup allows you to configure your system to most effectively save energy saving while operating in a manner consistent with your own style of computer use.

Phoenix – AwardBIOS CMOS Setup Utility

Power Management Setup

ACPI Function	Enabled	Item Help
ACPI Suspend Type	S1(POS)	
Power Management	User Define	Menu Level >
Video off Method	DPMS Support	
HDD Power Down	Disabled	
HDD Down in Suspend	Disabled	
Soft-off by PBTN	Instant-OFF	
WOL<PME#> From Soft-off	Disabled	
Power-on by alarm	Disabled	
* Day of Month Alarm	0	
* Time<hh:mm:ss> Alarm	0	
HPET Support	Disabled	
Wake up BY mouse	Disabled	
Wake up By Keyboard	Disabled	

↑↓→← Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help
F5:Previous Values F6:Optimized Defaults F7:Standard Defaults

ACPI Function

This item allows you to Enabled/Disabled the Advanced Configuration and Power Management (ACPI). The settings are Enabled and Disabled.

Video Off Option

This determines the manner in which the monitor is blanked. The choice are Suspend → off, All Modes → Off, and Always On.

Video Off Method

This determines the manner in which the monitor is blanked.

DPMS (default)	Initial display power management signaling.
Blank Screen	This option only writes blanks to the video buffer.
V/H SYNC+Blank	This selection will cause the system to turn off the vertical and horizontal synchronization ports and write blanks to the video buffer.

Modem Use IRQ

This determines the IRQ in which the MODEM can use.
The settings are: 3, 4, 5, 7, 9, 10, 11, NA.

Power Button Function

Pressing the power button for more than 4 seconds forces the system to enter the Soft-Off state. The settings are: Delay 4 Sec, Instant-Off.

3-9 Miscellaneous Control

This section is for setting CPU Frequency/Voltage Control.

```
                Phoenix – AwardBIOS CMOS Setup Utility
                        Miscellaneous Control
```

Flash write protect	Enabled	Item Help
Init Display First	PCIEx	
Reset Configuration Data	Disabled	
Resource controlled by	Auto<ESCD>	Menu Level >
IRQ Resources	Press Enter	
PCI/VGA Palette Snoop	Disabled	
PCI Express Relative Items		
Maximum Payload Size	4096	

```
↑↓→← Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit  F1:General Help
     F5:Previous Values   F6:Optimized Defaults   F7:Standard Defaults
```

IRQ Resources

When resources are controlled manually, assign each system interrupt a type, depending on the type of device using the interrupt.

Please refer to section 3-9-1

Resources Controlled By

BIOS can automatically configure all the boot and plug and play compatible devices. If you choose Auto, you can not select IRQ DMA and memory base address fields, since BIOS automatically assigns them.

3-10 PC Health Status

This section shows the Status of you CPU, Fan, Warning for overall system status. This is only available if there is Hardware Monitor onboard.

```
                Phoenix – AwardBIOS CMOS Setup Utility
                          PC Health Status
```

Show H/W Health in Post	Enabled	Item Help
Shutdown Temperature	Disabled	
Smart FAN configurations	Press Enter	Menu Level >
Vcore	1.29V	
NB	1.32V	
+5V	5.31V	
+12V	12.09V	
5VSB	5.40V	
VDIMM	1.86V	
3.3VSB	3.39V	
Voltage Battery	3.45v	
CPU Temperature	35c	
System Temperature	32c	
CPU FAN Speed	3000RPM	
SYSFAN1 Speed	0 RPM	
SYSFAN2 Speed	0 RPM	

```
↑↓→← Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit  F1:General Help
     F5:Previous Values   F6:Optimized Defaults   F7:Standard Defaults
```

Shutdown Temperature

This item can let users setting the Shutdown temperature, when CPU temperature over this

setting the system will auto shutdown to protect CPU.

Show H/W Health in Post

During Enabled, it displays information list below. The choice is either Enabled or Disabled

Smart FAN Configurations

Please refer to section 3-10-1

3-11 Thermal Throttling Options

Phoenix – AwardBIOS CMOS Setup Utility

Thermal Throttling Options

CPU Thermal-Throttling	Disabled	Item Help
CPU Throttling Temp	50	
CPU Throttling Duty	30	Menu Level >
↑↓→← Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Optimized Defaults F7:Standard Defaults		

CPU Thermal Throttling Temp

This item allows you to activate the CPU Thermal Throttling function when the CPU temperature is over the value which you set to low down the CPU temperature when at high workload to protect processor from damage or accidental shutdown.

3-12 Power User Overclock Settings

Phoenix – AwardBIOS CMOS Setup Utility

Power User Overclock Settings

FSB&Memory Config	Press Ente	Item Help
VDIMM Select	1.90v(Default)	Menu Level >
↑↓→← Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Optimized Defaults F7:Standard Defaults		

VDIMM Select

This item allows you to select 1.85V of the DDR Module. The choices are: 1.85V, 1.90V, 1.95V, 2.000V

3-13 Password Settings

Phoenix – AwardBIOS CMOS Setup Utility

Password Settings

		Item Help
Set Supervisor Password	Press Enter	
Set User Password	Press Enter	Menu Level >
↑↓→← Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Optimized Defaults F7:Standard Defaults		

You can set either supervisor or user password, or both of them. The differences are:

Supervisor password: Can enter and change the options of the setup menus.

User password: Can only enter but do not have the right to change the options of the setup menus. When you select this function, the following message will appear at the center of the screen to assist you in creating a password.

ENTER PASSWORD:

Type the password, up to eight characters in length, and press <Enter>. The password typed now will clear any previously entered password from CMOS memory. You will be asked to confirm the password. Type the password again and press <Enter>. You may also press <Esc> to abort the selection and not enter a password.

To disable a password, just press <Enter> when you are prompted to enter the password. A message will confirm that the password will be disabled. Once the password is disabled, the system will boot and you can enter Setup freely.

PASSWORD DISABLED.

When a password has been enabled, you will be prompted to enter it every time you try to enter Setup. This prevents an unauthorized person from changing any part of your system configuration.

Additionally, when a password is enabled, you can also require the BIOS to request a password every time your system is rebooted. This would prevent unauthorized use of your computer.

You determine when the password is required within the BIOS Features Setup Menu and its Security option. If the Security option is set to "System", the password will be required both at boot and at entry to Setup. If set to "Setup", prompting only occurs when trying to enter Setup.

3-14 Load Optimized Defaults

Load Optimized Defaults

When you press <Enter> on this item, you get a confirmation dialog box with a message similar to:

Load Optimized Defaults (Y/N)? N

Pressing <Y> loads the default values that are factory settings for optimal performance system operations.

Chapter 4

DRIVER & FREE PROGRAM INSTALLATION

Check your package and there is A MAGIC INSTALL CD included. This CD consists of all DRIVERS you need and some free application programs and utility programs. In addition, this CD also include an auto detect software which can tell you which hardware is installed, and which DRIVERS needed so that your system can function properly. We call this auto detect software MAGIC INSTALL.

MAGIC INSTALL supports WINDOWS 9X/NT/2K/XP

Insert CD into your CD-ROM drive and the MAGIC INSTALL Menu should appear as below. If the menu does not appear, double-click MY COMPUTER / double-click CD-ROM drive or click START / click RUN / type X:\SETUP.EXE (assuming X is your CD-ROM drive).

From MAGIC INSTALL MENU you may take 9 selections:

1. nFORCE install nFORCE integrated driver
2. SOUND install ALC662 6-Channel HDAudio Codec driver
3. LAN install LAN driver
4. USB2.0 install USB 2.0 driver
5. PC-CILLIN install PC-CILLIN2006 anti-virus program
6. PC-HEALTH install My Guard PC-Health utility
7. RAIDDISK install MCP55 WINXP RAID DRIVER DISK
8. BROWSE CD to browse the contents of the CD
9. EXIT to exit from MAGIC INSTALL menu

4-1 nForce Install nForce Integrated Driver

*** nForce Integrated driver pack include following device driver:**

NVIDIA GART driver : If you are using an AGP VGA Card, please install NVIDIA AGP GART driver which provides service routines to your

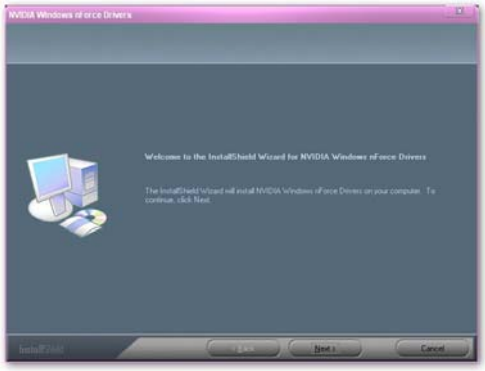
VGA driver and interface directly to the hardware for speedy graphic access.

NVIDIA SMBUS driver : Install NVIDIA SMBUS driver

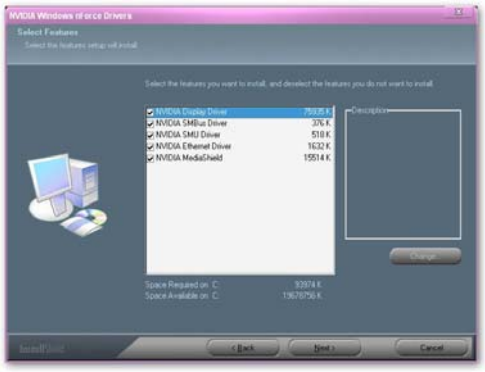
NVIDIA ETHERNET driver : Install NVIDIA 10/100/1000 Fast Ethernet device driver.

NVIDIA IDE driver : Install NVIDIA IDE driver

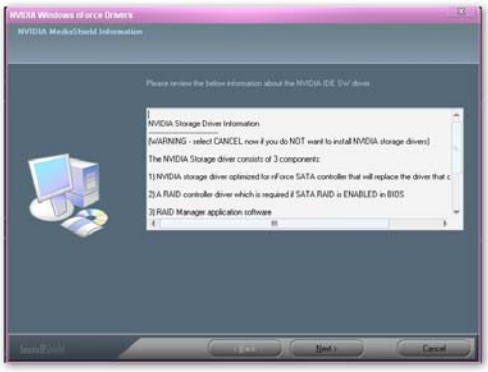
1. Click nForce in the MAGIC INSTALL MENU



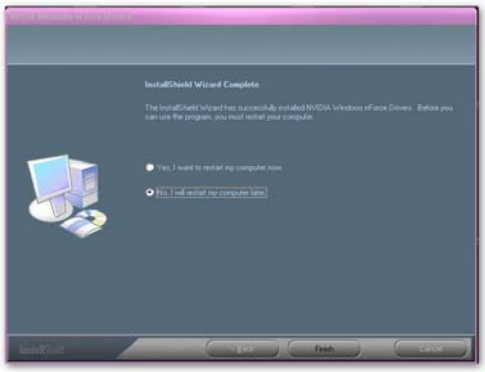
2. Click NEXT when nForce Integrated driver Install windows appears



3. Please select the features you wish to install .



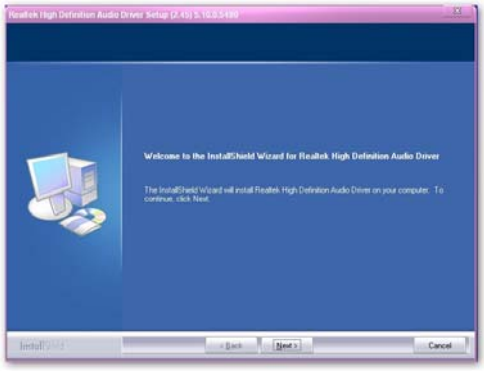
4. Click NEXT to install IDE driver and click “Yes” to proceed while system asking “Do you want to install the NVIDIA IDE SW Driver?”



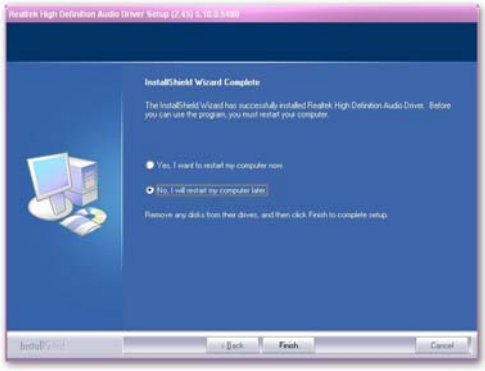
5. Select Finish and restart your computer

4-2 SOUND install ALC662 6-Channel HD Audio Driver

1. Click SOUND when MAGIC INSTALL MENU appears



2. Click NEXT When Realtek AC97Audio driver windows appears



3. Click FINISH and restart your computer

4. Manual Sound Effect Setting

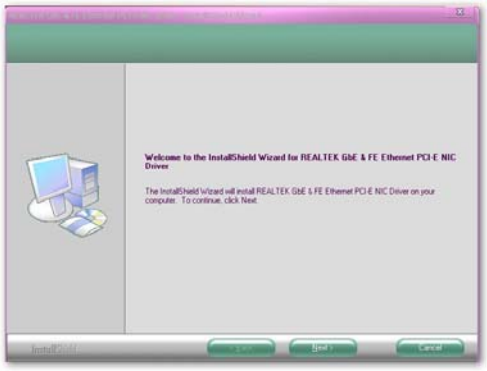
5. Mixer

6. Audio I/O

5. Micophone

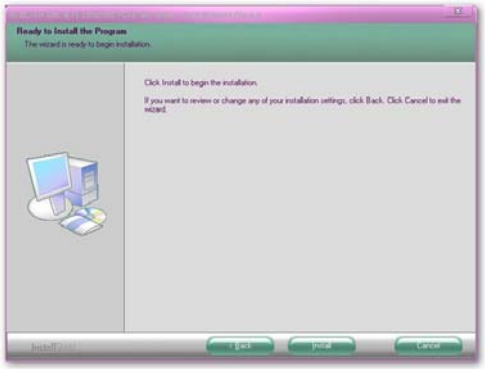
6. 3D Audio Demo

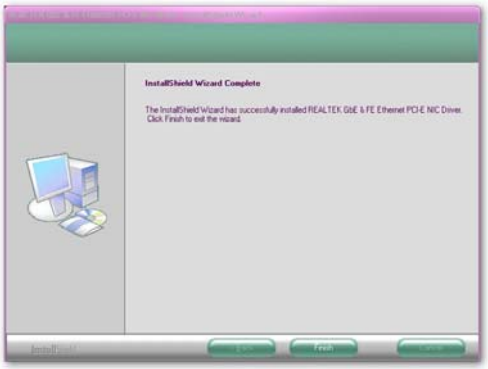
4-3 LAN RealTek Gigabit Ethernet NIC Driver



1. Click LAN when Magic Install Menu appear

2. Click Next to install RealTek LAN driver





3. Please Accept the license agreement and read the “Readme” file for detailed information , then click Next to proceed.

4. Click Install to install driver and Click Finish end the installation

4-4 USB2.0 Install Intel USB2.0 DRIVER

Windows XP OS

Please install Windows XP service pack 2 or later .

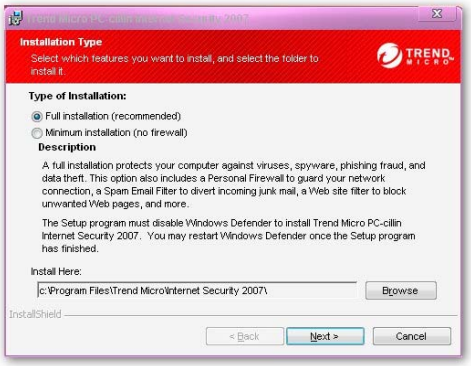
1. Install USB2.0

4-5 PC-CILLIN Install PC-CILLIN 2007 Anti-virus program

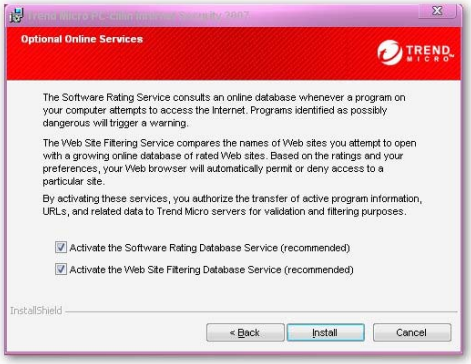
1. Click PC-CILLIN when MAGIC INSTALL MENU appears

2. Please select “Install program” when the "Trend Micro internet security" installshield wizard windows appears

3. This is license agreement, select "I Accept the terms" and Click NEXT



4. Click NEXT or choose Change to change the path for the file to be stored

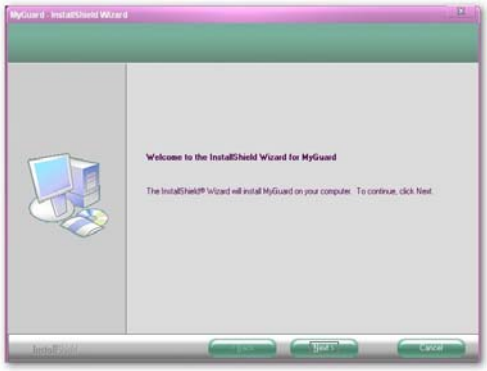


5. Click INSTALL, Start to install the software

6.Setup Complete and click FINISH

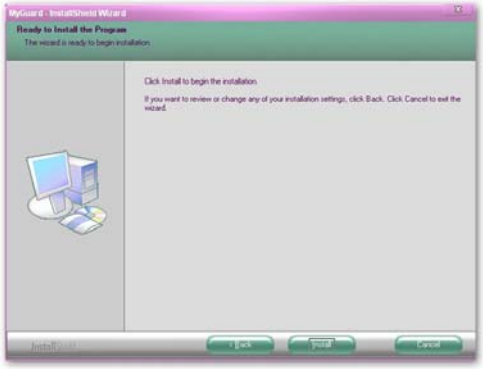
Note : Please install ACROBAT READER for reading PC-CILLIN 2006 User Manual which locates at the path "X:\acrobat\adberdr6_enu_full.exe".

4-6 PC-HEALTH Install MyGuard Hardware monitor Utility



1. Click PC-HEALTH when MAGIC INSTALL MENU appears

2. Click Next when Install shield wizard Window appears, Choose destination location and click Next, when the start copy file windows appear, click next



3. Select Install to begin the installation.

4. Setup Complete and click FINISH

NOTE:

MAGIC INSTALL will auto detect file path X:\NFORCE4\MYGUARD\SETUP.EXE

4-7 RAIDDISk Install MCP55 WINXP RAID DRIVER DISK

1.Click RAIDDISK when MAGIC INSTALL
MENU appears

NOTE:
MAGIC INSTALL will auto detect file path X:\NFORCE4\MYGUARD\SETUP.EXE

4-8 HOW TO UPDATE BIOS

Before updating the BIOS, users have to "Disable" the "Flash Part Write Protect" selection in "Miscellaneous Control" of BIOS SETUP. Otherwise the system the will not allow you to upgrade BIOS by Award Flash Utility.

STEP 1. Prepare a boot disc. (you may make one by click START click RUN type SYS A: click OK)

STEP 2. Copy utility program to your boot disc. You may copy from DRIVER CD X:\FLASH\AWDFLASH.EXE or download from our web site.

STEP 3. Download and make a copy of the latest BIOS for M25GT6-SG/M25GT6-SGE motherboard series from the web site to your boot disc.

STEP 4. Insert your boot disc into A:,
start the computer, type "Awdflash A:\IN73DA2xxx.BIN /SN/PY/CC/R"
IN73DA2xxx.BIN is the file name of latest BIOS it can be IN73DA203.BIN or IN73DA202.BIN
SN means don't save existing BIOS data
PY means renew existing BIOS data
CC means clear existing CMOS data
R means restart computer

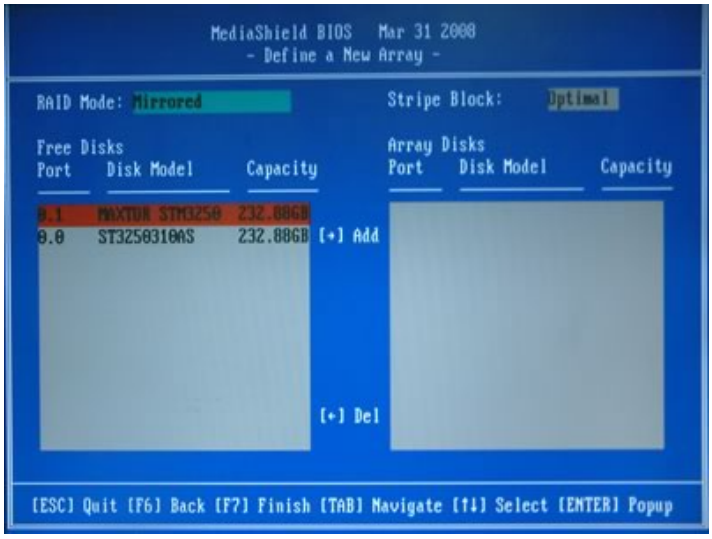
STEP 5. Push ENTER to update and flash the BIOS, then the system will restart automatically.

4-9 NVIDIA MCP73D Platform RAID Function Installation

Step 1.

Please get into the location: BIOS setup \ Integrated Peripherals \ Onchip IDE function \ MCP Storage config/SATA Operation Mode , select RAID and enable the RAID function. After the System reboots, you can find the AMD RAID IDE ROM BIOS windows appear. It will ask you to “Press F10 to enter RAID setup utility …“ ?

Please press “F10” key to RAID utility in the Media Shield BIOS—Define a New Array shown up:



Select the disks you want to enable the RAID function. Add then from Free Disks to Array Disks with navigate key →or +. You could remove the added disks from Array Disks with navigate key ←or -, if you want to cancel the previous setting.

Users can select RAID Mold from the following items with navigate keys： ↑ or ↓ .

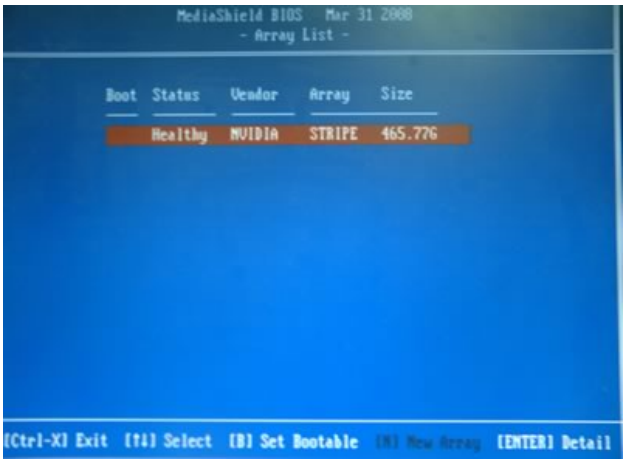
1. Mirrored（RAID 1） 2. Stripped (RAID 0）

3. Stripped Mirrorred（RAID 0+1） 4. Spanned （RAID 5）

And when Stripe Block is highlighted, users can choose from 8K/16K/32K/64K/128K/Optimal with the navigate key: ↑， ↓

Then press F7 and the following dialogue should appear: All data on new(or added)disks may be overwritten. Continue? Press Enter to overwrite the data:

Another dialogue: Clear MBR? appears, press Enter and the second window should appear:



Type B to boot the disks enabled the RAID function, or press Enter to have a view of Array Detail information

Step 3.

Making RAID driver diskette before Install WindowsXP/2000

Before you install the Windows XP or Windows 2000, you will need to make a RAID driver diskette before you start to install the Operating System.

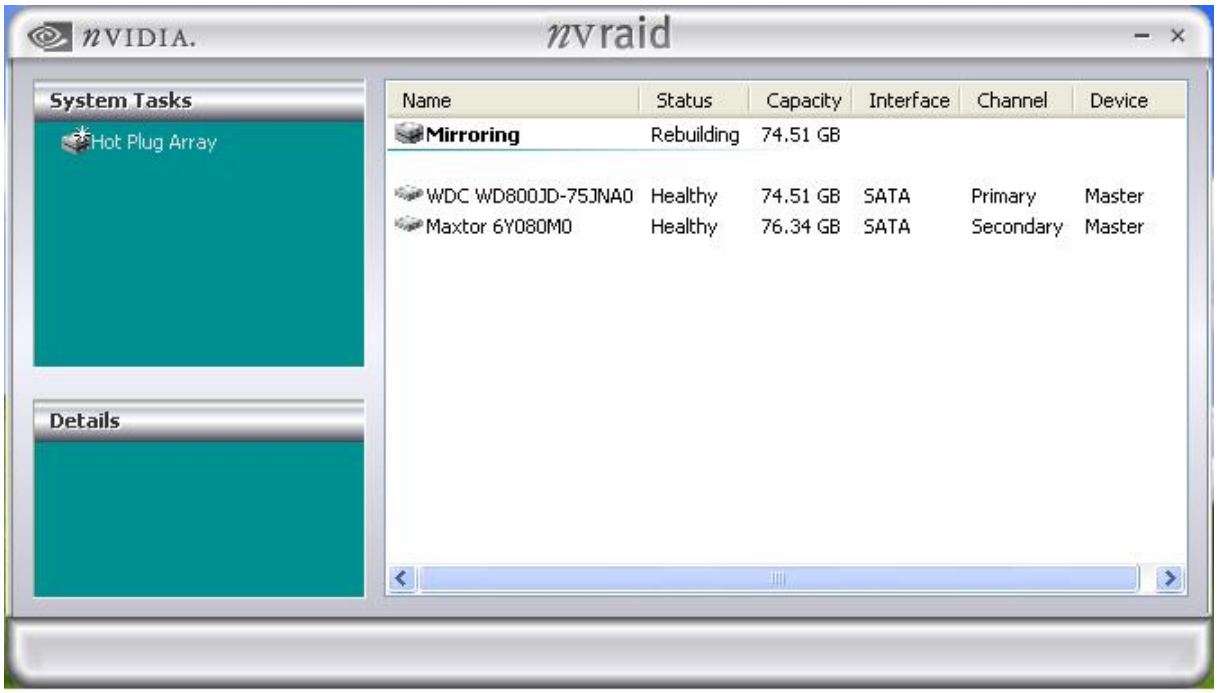
How to make a RAID driver diskette?

1: Insert the diskette which is being formatted in floppy drive on a system which can start OS.
2: After booting OS insert the bundle CD in your CD-ROM
3: Copy all the files from \Nforce4\RAIDDisk to floppy diskette
Once you have the SATA driver diskette ready, you may start to install Windows XP or Windows 2000 on your System.

Installation of Windows XP/ Windows 2000

For installation of Windows XP or Windows 2000, please insert Windows XP or Windows 2000 CD into the CD-ROM drive. Then remove the floppy diskette, and boot the system. At the very beginning, you will see the message at the bottom of screen, “Press F6 if you need to install a third party SCSI or RAID driver….”
At this moment, please press <F6> key and follow the instructions of Windows XP or Windows 2000 for the proper installation.

Execute Start → programs → NVIDIA corporation → RAID manager , you can view RAID function status or rebuild RAID function from Windows OS



4-10 Pro Magic Plus Function Introduction

What's Pro Magic Plus?

Tired of reinstalling OS each time when it doesn't work? Does your computer often crash down or unable to work after installing new software? Have you had great loses and troubles because of computer problems? Still using time-consuming backup software that occupies lots of HD space?

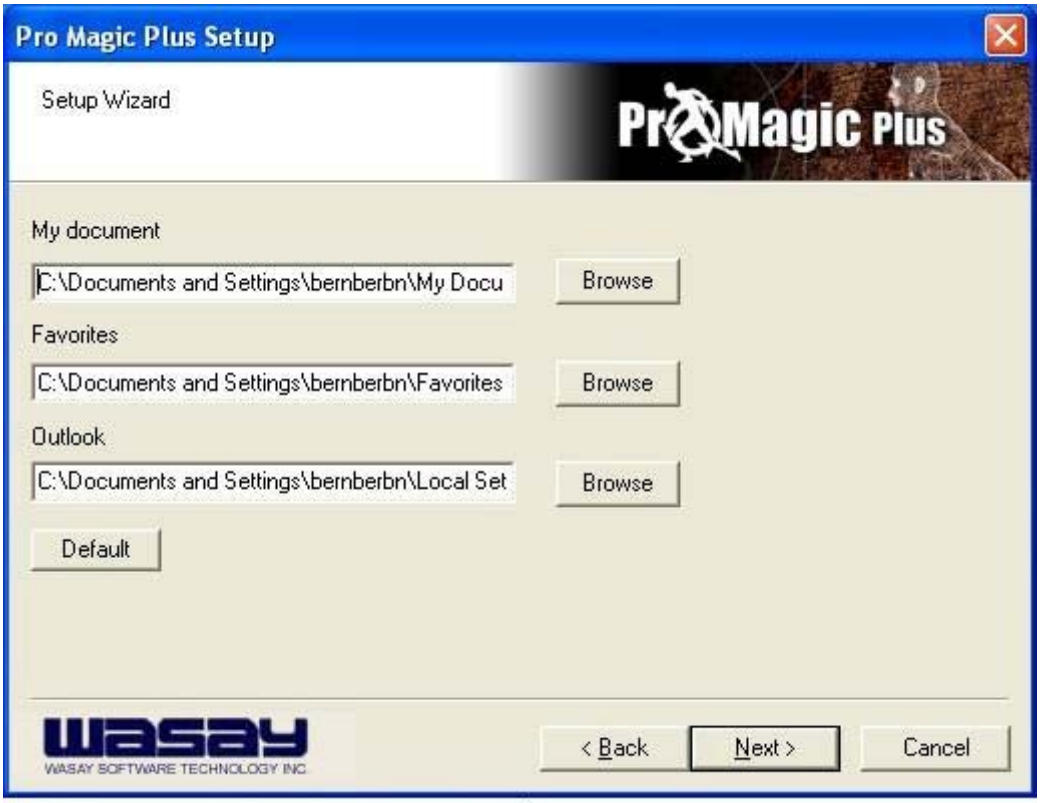
Pro Magic Plus- an instant system recovery software tailored to solve these problems for you. It combines various application tools (e.g. anti-virus, backup software, uninstall software, multi-boot software) to satisfy your needs of all sorts of system protections.

What functions does Pro Magic Plus have?

1. **Instant System Restoration** – Regardless of mis-operation or system crash, install Pro Magic Plus beforehand would allow you to instantly restore your system back by simply reboot your computer.
2. **Easy-to-use** – Auto installation from CD ROM; Supports Mouse
3. **System Uninstall** – Pro Magic provides a protection mode, which allows user to freely test any software. If user does not want to keep the software, just reboot the computer to restore back to the previous state, and Pro Magic will remove it completely from you computer.
4. **Password Security** – Pro Magic provides double password protection, including user password for entering each OS and manager password for managing 'Pro Magic', which can effectively prevent others from using your computer without permission or data from being stolen. (disable item for OEM version)
5. **Complete Protection** – Pro Magic not only protects the system disk, but also can

protect your data disk, and does not require to reboot when backup or restore data disk.

6. **Multipoint Save/Restore** – You can backup your system whenever you need and restore them back to anytime you wish, 1 hour, 1 day or 1 month ago. Restore points are unlimited. (disable item for OEM version)
7. **Data Disk Protection** – Pro Magic Plus now comes with data disk protection, provides complete protection for your computer! (disable item for OEM version)
8. **You can choose to change the default path of 'My Document', 'My Favorite' and 'Outlook Express'**, so that when you are restoring the system, data in these folders will not be restored as well. (This is optional, you can leave it as it is).



graph 4

NOTE: Functions of each version will differ from each other, and will be based on the function descriptions of each version.

System Requirements

- ◇ First OS must be Windows 98 SE/ME/2000/XP
- ◇ Support Only Windows OS (No Linux)
- ◇ Windows server OS and Windows NT not supported
- ◇ Minimum of Intel 486 or above, 16MB of memory or above
- ◇ Minimum of 500MB free/usable space or above
- ◇ Support for SCSI & SATA Hard disk

Pro Magic Plus only supports SCSI hard disk with Windows 2000 or OS above

Notice Before Installation

1. Before install Pro Magic Plus, turn off all anti-virus software. (Include BIOS anti-virus function)
2. Pro Magic Plus does not support multiple PRI partitions. If you have multiple PRI partitions, please repartition your HD before installation.
3. If your HDD is not fully partitioned (with un-partitioned/unused space at end of HDD), please repartition the HDD before install Pro Magic Plus.