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For the following activities

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Issue 1. Certified with SGS since March 2007

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UKAS
QUALITY
MANAGEMENT
005

SGS SGS

Certificate HK07/01779.00

The management system of

ECS MANUFACTURING
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Shenzhen City, Guangdong Province, China

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For the following activities

Design and Manufacture of Mainboards and Peripheral cards

This certificate is valid from 26 October 2007 until 25 October 2010
Issue 1. Certified since October 2007

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Preface

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Version 1.0A

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This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and the receiver
- Connect the equipment onto an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

Shielded interconnect cables and a shielded AC power cable must be employed with this equipment to ensure compliance with the pertinent RF emission limits governing this device. Changes or modifications not expressly approved by the system's manufacturer could void the user's authority to operate the equipment.

Declaration of Conformity

This device complies with part 15 of the FCC rules. Operation is subject to the following conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation

Canadian Department of Communications

This class B digital apparatus meets all requirements of the Canadian Interference-causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Réglement sur le matériel brouilieur du Canada.

About the Manual

The manual consists of the following:

Chapter 1

Introducing the Motherboard

Describes features of the motherboard.

Go to ⇨ page 1

Chapter 2

Installing the Motherboard

Describes installation of motherboard components.

Go to ⇨ page 7

Chapter 3

Using BIOS

Provides information on using the BIOS Setup Utility.

Go to ⇨ page 25

Chapter 4

Using the Motherboard Software

Describes the motherboard software

Go to ⇨ page 41

Chapter 5

VIA VT8237 SATA RAID

Setup Guide

Describes the information about SATA RAID Setup

Go to ⇨ page 47

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Chapter 1
Introducing the Motherboard

Introduction

Thank you for choosing this motherboard. This motherboard is a high performance, enhanced function motherboard that supports the LGA775 socket * Intel® Core™2 Quad/Intel® Core™ 2 Duo/Pentium® 4/Celeron® D processors for high-end business or personal desktop markets.

The motherboard incorporates the P4M900 CD Northbridge (NB) and VT8237S Southbridge (SB) chipsets. The Northbridge supports a Front Side Bus (FSB) frequency of 1066/800/533/400 MHz FSB and Hyper-Threading technology. The memory controller supports DDR2 memory DIMM frequencies of 667/533/400. It supports two DDR2 Sockets with up to maximum memory of 4 GB. Aside from the integrated Chrome9 HC 3D/2D Graphics & Video Controllers, one PCI Express x 16 slot, intended for Graphics Interface and fully compliant to the PCI Express Base Specification revision 1.1, provides users with high-performance along with superior image and video quality.

The VT8237S Southbridge is a highly integrated peripheral controller, it includes an integrated keyboard controller with PS2 mouse support, two-channel Serial ATA(S-ATA) PHY for support of up to two S-ATA devices directly, Dual channel hard disk controller supporting up to two enhanced IDE devices in Ultra DMA - 133/100/66 Mode and 8 USB 2.0 ports (4 USB ports and 2 USB headers support additional 4 USB ports) with integrated PHY.

This motherboard is equipped with advanced full set of I/O ports in the rear panel, including PS/2 mouse and keyboard connectors, COM1, one VGA port, four USB ports, one LAN port, and audio jacks for microphone, line-in and 6/8-channel (optional) line-out.

" * " stands for this motherboard is ready to support Intel® Core™2 Quad processor Q6700 (G0) and below.

Feature

Processor

This motherboard uses an LGA775 type of * Intel® Core™ 2 Quad/Intel® Core™ 2 Duo/Pentium® 4/Celeron® D that carries the following features:

- Accommodates * Intel® Core™ 2 Quad/Intel® Core™ 2 Duo/ Pentium® 4/Celeron® D processors
- Supports a system bus (FSB) of 1066/800/533/400 MHz
- Supports "Hyper-Threading" technology CPU
- * This motherboard is ready to support Intel® Core™2 Quad processor Q6700 (G0) and below.

"Hyper-Threading" technology enables the operating system into thinking it's hooked up to two processors, allowing two threads to be run in parallel, both on separate "logical" processors within the same physical processor.

Chipset

The P4M900 CD Northbridge (NB) and VT8237S Southbridge (SB) chipsets are based on an innovative and scalable architecture with proven reliability and performance.

P4M900 CD (NB)	• Supports 66 MHz, 4x and 8x transfer modes, Ultra V-Link Host interface with 1 GB/s total bandwidth • Supports up to two PCI Express ports, configured as one x16 and one x1 PCI Express lanes • Integrated Chrome9 HC 3D/2D Graphics & Video Controller • Advanced 64-bit DDR2 SDRAM controller • ACPI 2.0 and PCI Bus Power Management 1.1 complaint
VT8237S (SB)	• Supports 16-bit 66 MHz Ultra V-Link Host interface with total bandwidth of 1 GB/s • Compliant with PCI 2.3 specification at 33 MHz, supporting up to 6 PCI masters • Integrated SATA Controller with maximum transfer rate up to 3.0 Gb/s. • Integrated Dual channel Ultra DMA 133/100/66 Master Mode EIDE Controller • USB 2.0 Controller, supporting up to 8 USB 2.0 ports • Integrated keyboard Controller with PS2 mouse support

Memory

- Supports DDR2 667/533/400 DDR2 SDRAM DIMMs
- Accommodates two DDR2 unbuffered DIMMs
- Up to 2 GB per DIMM with maximum memory size up to 4 GB

Audio (Optional)

This motherboard may support the following Audio chipset:

•   8 Channels of DAC support 16/20/24-bit PCM Format for 7.1 Audio Solution •   All ADCs support 48K/192kHz Independent Sample Rate •   Exceeds Microsoft PC2001 Requirements •   High Quality Differential CD input •   Power Support: Digital:3.3V; Analog:3.3V/5.0V
•   7.1+2 channel High Definition Audio Codec •   All ADCs support 192k/96k/48k/44.1kHz DAC Sample Rate •   Software selectable 2.5V/3.75V VREFOUT •   Meets Microsoft WHQL/WLP 2.x audio requirements •   Direct Sound 3D™ compatible
•   7.1+2 channel High Definition Audio Codec •   All ADCs support 192k/96k/48k/44.1kHz DAC Sample Rate •   High-quality analog differential CD input •   Meets Microsoft WHQL/WLP 3.0 audio requirements •   Direct Sound 3D™ compatible
•   5.1 Channel High Definition Audio Codec •   ADCs support /44.1k/48k/96k sample rate •   High-quality analog differential CD input •   Meets Microsoft WHQL/WLP 3.0x audio requirements •   Direct Sound 3D™ compatible

Onboard LAN

The onboard LAN controller provides any of the following features:

- Supports 10 Mb/s and 100 Mb/s N-way Auto-negotiation operation
- Single Chip 100Base-TX/10Base-T Physical Layer Solution
- Half/Full Duplex capability

Expansion Options

The motherboard comes with the following expansion options:

- One PCI Express x16 slot for Graphics Interface
- One PCI Express x1 slot
- Two 32-bit PCI v2.3 compliant slots
- One 40-pin IDE connectors supporting up to 2 IDE devices
- Two 7-pin SATA connectors

This motherboard supports UltraDMA bus mastering with transfer rates of 133/100/66 MB/s.

Integrated I/O

The motherboard has a full set of I/O ports and connectors:

- Two PS/2 ports for mouse and keyboard
- One serial port
- One VGA port
- Four USB ports
- One LAN port
- Audio jacks for microphone, line-in and 6/8-channel (optional) line-out

Introducing the Motherboard

BIOS Firmware

This motherboard uses AMI BIOS that enables users to configure system features including the following:

- Power management
- Wake-up alarms
- CPU parameters
- CPU and memory timing

The firmware can also be used to set parameters for different processor clock speeds.

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

Motherboard Components
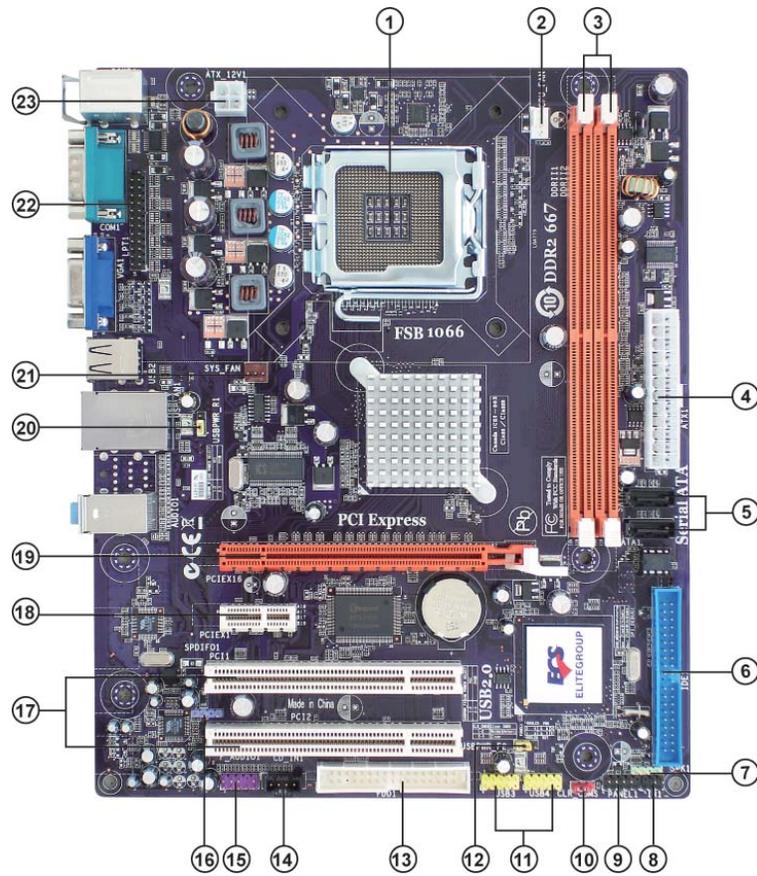
Table of Motherboard Components

LABEL	COMPONENTS
1. CPU Socket	LGA775 socket for * Intel® Core™2 Quad/Intel® Core™2 Duo/Pentium® 4/Celeron® D CPUs
2. CPU_FAN	CPU cooling fan connector
3. DDRII1~2	240-pin DDR2 SDRAM slots
4. ATX1	Standard 24-pin ATX power connector
5. SATA1~2	Serial ATA connectors
6. IDE1	Primary IDE connector
7. SPK1	Speaker header
8. IR1	Infrared header
9. PANEL1	Front panel switch/LED header
10. CLR_CMOS	Clear CMOS jumper
11. USB3~4	Front Panel USB headers
12. USBPWR_F2	Front Panel USB Power Select Jumper
13. FDD1	Floppy disk drive connector
14. CD_IN1	Analog audio input connector
15. F_AUDIO1	Front panel audio header
16. SPDIFO1	SPDIF out header
17. PCI1~2	32-bit add-on card slots
18. PCIEX1	PCI Express x1 slot
19. PCIEX16	PCI Express slot for graphics interface
20. USBPWR_R1	Real Panel USB PS/2 Power Select Jumper
21. SYS_FAN	System cooling fan connector
22. LPT1	Parallel port header
23. ATX_12V1	Auxiliary 4-pin power connector

This concludes Chapter 1. The next chapter explains how to install the motherboard.

Introducing the Motherboard

Chapter 2
Installing the Motherboard

Safety Precautions

- Follow these safety precautions when installing the motherboard
- Wear a grounding strap attached to a grounded device to avoid damage from static electricity
- Discharge static electricity by touching the metal case of a safely grounded object before working on the motherboard
- Leave components in the static-proof bags they came in
- Hold all circuit boards by the edges. Do not bend circuit boards

Choosing a Computer Case

There are many types of computer cases on the market. The motherboard complies with the specifications for the Micro ATX system case. First, some features on the motherboard are implemented by cabling connectors on the motherboard to indicators and switches on the system case. Make sure that your case supports all the features required. Secondly, this motherboard supports one floppy diskette drive and one enhanced IDE drive. Make sure that your case has sufficient power and space for all drives that you intend to install.

Most cases have a choice of I/O templates in the rear panel. Make sure that the I/O template in the case matches the I/O ports installed on the rear edge of the motherboard.

This motherboard carries a Micro ATX form factor of 244 x 200 mm. Choose a case that accommodates this form factor.

Installing the Motherboard in a Case

Refer to the following illustration and instructions for installing the motherboard in a case.

Most system cases have mounting brackets installed in the case, which correspond the holes in the motherboard. Place the motherboard over the mounting brackets and secure the motherboard onto the mounting brackets with screws.

Ensure that your case has an I/O template that supports the I/O ports and expansion slots on your motherboard.
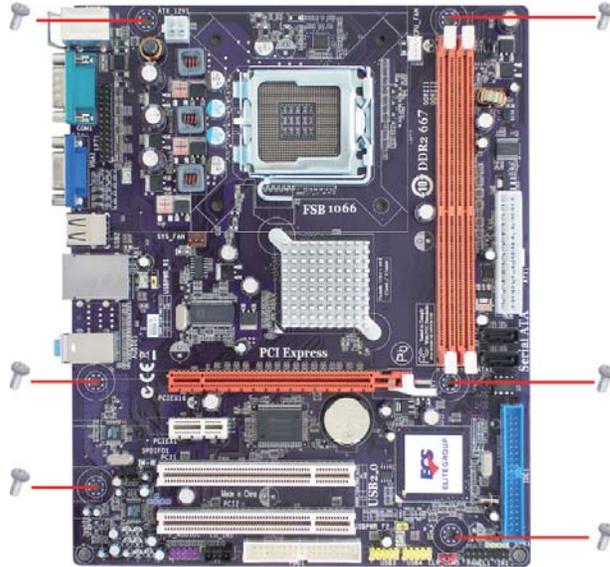
 Do not over-tighten the screws as this can stress the motherboard.

Checking Jumper Settings

This section explains how to set jumpers for correct configuration of the motherboard.

Setting Jumpers

Use the motherboard jumpers to set system configuration options. Jumpers with more than one pin are numbered. When setting the jumpers, ensure that the jumper caps are placed on the correct pins.

The illustrations show a 2-pin jumper. When the jumper cap is placed on both pins, the jumper is SHORT. If you remove the jumper cap, or place the jumper cap on just one pin, the jumper is OPEN.

SHORT   **OPEN**

This illustration shows a 3-pin jumper. Pins 1 and 2 are SHORT

Checking Jumper Settings

The following illustration shows the location of the motherboard jumpers. Pin 1 is labeled.
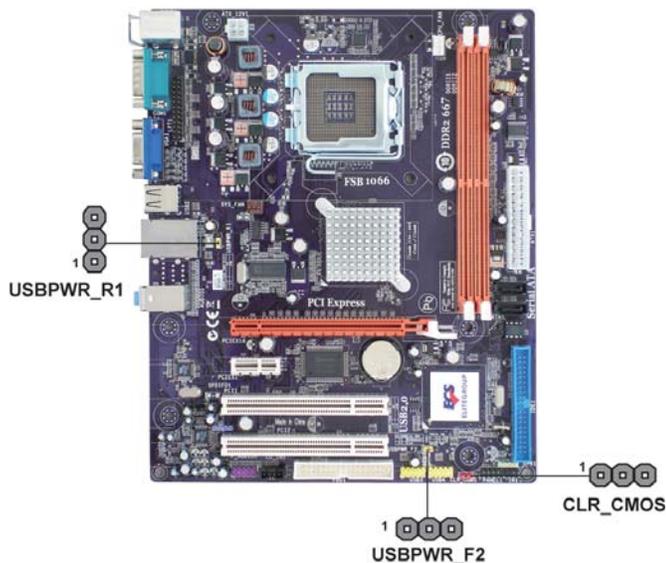
Jumper Settings

Jumper	Type	Description	Setting (default)	
CLR_CMOS	3-pin	Clear CMOS	1-2: NORMAL 2-3: CLEAR CMOS Before clearing the CMOS, make sure to turn off the system.	1 ▦ CLR_CMOS
USBPWR_F2	3-pin	Front Panel USBPower Select Jumper	1-2: VCC 2-3: 5VSB	1 ▦ USBPWR_F2
USBPWR_R1	3-pin	Rear USB PS/2 Power Select Jumper	1-2: VCC 2-3: 5VSB	1 USBPWR_R1

To avoid the system unstability after clearing CMOS, we recommend users to enter the main BIOS setting page to "Load Optimal Defaults" and then "Save Changes and Exit".

Installing the Motherboard

Connecting Case Components

After you have installed the motherboard into a case, you can begin connecting the motherboard components. Refer to the following:

1   Connect the CPU cooling fan cable to **CPU_FAN**.
2   Connect the system cooling fan connector to **SYS_FAN**.
3   Connect the case switches and indicator LEDs to the **PANEL1**.
4   Connect the standard power supply connector to **ATX1**.
5   Connect the auxiliary case power supply connector to **ATX_12V1**.
6   Connect the case speaker cable to **SPK1**.
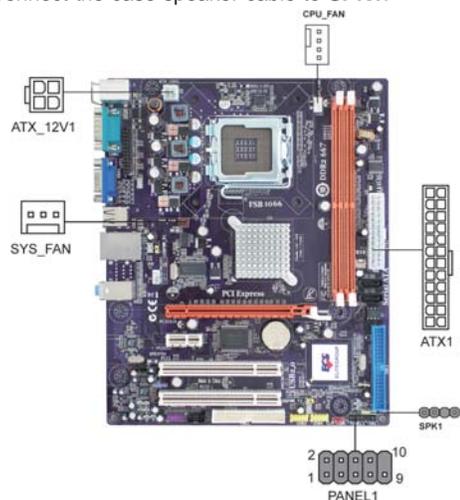
Connecting 20/24-pin power cable

Users please note that the 20-pin and 24-pin power cables can both be connected to the ATX1 connector. With the 20-pin power cable, just align the 20-pin power cable with the pin 1 of the ATX1 connector. However, using 20-pin power cable may cause the system to become unbootable or unstable because of insufficient electricity. A minimum power of 300W is recommended for a fully-configured system.

20-pin power cable

With ATX v1.x power supply, users please note that when installing 20-pin power cable, the latche of power cable clings to the left side of the ATX1 connector latch, just as the picture shows.
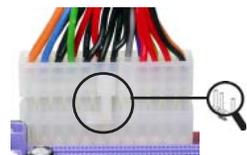
24-pin power cable

With ATX v2.x power supply, users please note that when installing 24-pin power cable, the latches of power cable clings to the right side of the ATX1 connector latch.

Installing the Motherboard

CPU_FAN: Cooling FAN Power Connectors

Pin	Signal Name	Function
1	GND	System Ground
2	+12V	Power +12V
3	Sense	Sensor
4	PWM	CPU FAN control

Users please note that the fan connector supports the CPU cooling fan of 1.1A~2.2A (26.4W max.) at +12V.

SYS_FAN: Cooling FAN Power Connectors

Pin	Signal Name	Function
1	GND	System Ground
2	+12V	Power +12V
3	Sense	Sensor

ATX1: ATX 24-pin Power Connector

Pin	Signal Name	Pin	Signal Name
1	+3.3V	13	+3.3V
2	+3.3V	14	-12V
3	Ground	15	Ground
4	+5V	16	PS_ON
5	Ground	17	Ground
6	+5V	18	Ground
7	Ground	19	Ground
8	PWRGD	20	-5V
9	+5VSB	21	+5V
10	+12V	22	+5V
11	+12V	23	+5V
12	+3.3V	24	Ground

ATX_12V1: ATX 12V Power Connector

Pin	Signal Name
1	Ground
2	Ground
3	+12V
4	+12V

SPK1: Speaker header

Pin	Signal Name
1	VCC
2	Key
3	NC
4	Signal

Installing the Motherboard

Front Panel Header

The front panel header (PANEL1) provides a standard set of switch and LED headers commonly found on ATX or micro-ATX cases. Refer to the table below for information:

PANEL1
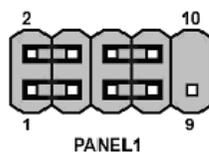
Pin	Signal	Function	Pin	Signal	Function
1	HD_LED_P	Hard disk LED(+)	2	FP PWR/SLP	*MSG LED(+)
3	HD_LED_N	Hard disk LED(-)	4	FP PWR/SLP	*MSG LED(-)
5	RST_SW_N	Reset Switch(-)	6	PWR_SW_P	Power Switch(+)
7	RST_SW_P	Reset Switch(+)	8	PWR_SW_N	Power Switch(-)
9	RSVD	Reserved	10	Key	No pin

* MSG LED (dual color or single color)

Hard Drive Activity LED

Connecting pins 1 and 3 to a front panel mounted LED provides visual indication that data is being read from or written to the hard drive. For the LED to function properly, an IDE drive should be connected to the onboard IDE interface. The LED will also show activity for devices connected to the SCSI (hard drive activity LED) connector.

Power/Sleep/Message waiting LED

Connecting pins 2 and 4 to a single or dual-color, front panel mounted LED provides power on/off, sleep, and message waiting indication.

Reset Switch

Supporting the reset function requires connecting pin 5 and 7 to a momentary-contact switch that is normally open. When the switch is closed, the board resets and runs POST.

Power Switch

Supporting the power on/off function requires connecting pins 6 and 8 to a momentary-contact switch that is normally open. The switch should maintain contact for at least 50 ms to signal the power supply to switch on or off. The time requirement is due to internal de-bounce circuitry. After receiving a power on/off signal, at least two seconds elapses before the power supply recognizes another on/off signal.

Installing Hardware

Installing the Processor

Caution: When installing a CPU heatsink and cooling fan make sure that you DO NOT scratch the motherboard or any of the surface-mount resistors with the clip of the cooling fan. If the clip of the cooling fan scrapes across the motherboard, you may cause serious damage to the motherboard or its components.

On most motherboards, there are small surface-mount resistors near the processor socket, which may be damaged if the cooling fan is carelessly installed.

Avoid using cooling fans with sharp edges on the fan casing and the clips. Also, install the cooling fan in a well-lit work area so that you can clearly see the motherboard and processor socket.

Before installing the Processor

This motherboard automatically determines the CPU clock frequency and system bus frequency for the processor. You may be able to change these settings by making changes to jumpers on the motherboard, or changing the settings in the system Setup Utility. We strongly recommend that you do not over-clock processors or other components to run faster than their rated speed.

Warning: Over-clocking components can adversely affect the reliability of the system and introduce errors into your system. Over-clocking can permanently damage the motherboard by generating excess heat in components that are run beyond the rated limits.

This motherboard has an LGA775 socket. When choosing a processor, consider the performance requirements of the system. Performance is based on the processor design, the clock speed and system bus frequency of the processor, and the quantity of internal cache memory and external cache memory.

CPU Installation Procedure

The following illustration shows CPU installation components.

A. Read and follow the instructions shown on the sticker on the CPU cap.

B. Unload the cap
    · Use thumb & forefinger to hold the lifting tab of the cap.
    · Lift the cap up and remove the cap completely from the socket.

C. Open the load plate
    · Use thumb & forefinger to hold the hook of the lever, pushing down and pulling aside unlock it.
    · Lift up the lever.
    · Use thumb to open the load plate. Be careful not to touch the contacts.

D. Install the CPU on the socket
    · Orientate CPU package to the socket. Make sure you match triangle marker to pin 1 location.

E. Close the load plate
    · Slightly push down the load plate onto the tongue side, and hook the lever.
    · CPU is locked completely.

F. Apply thermal grease on top of the CPU.

G. Fasten the cooling fan supporting base onto the CPU socket on the motherboard.

H. Make sure the CPU fan is plugged to the CPU fan connector. Please refer to the CPU cooling fan user's manual for more detail installation procedure.

1. *To achieve better airflow rates and heat dissipation, we suggest that you use a high quality fan with 3800 rpm at least. CPU fan and heatsink installation procedures may vary with the type of CPU fan/heatsink supplied. The form and size of fan/heatsink may also vary.*

2. *DO NOT remove the CPU cap from the socket before installing a CPU.*

3. *Return Material Authorization (RMA) requests will be accepted only if the motherboard comes with the cap on the LGA775 socket.*

Installing the Motherboard

Installing Memory Modules

This motherboard accommodates two memory modules. It can support two 240-pin DDR2 667/533/400. The total memory support capacity is 4 GB.

DDR2 SDRAM memory module table

Memory module	Memory Bus
DDR2 400	*200 MHz*
DDR2 533	*266 MHz*
DDR2 667	*333 MHz*

You must install at least one module in any of the two slots. Each module can be installed with 2 GB of memory; total support memory capacity is 4 GB.

> *Do not remove any memory module from its antistatic packaging until you are ready to install it on the motherboard. Handle the modules only by their edges. Do not touch the components or metal parts. Always wear a grounding strap when you handle the modules.*

Installation Procedure

Refer to the following to install the memory modules.

1. This motherboard supports unbuffered DDR2 SDRAM .
2. Push the latches on each side of the DIMM slot down.
3. Align the memory module with the slot. The DIMM slots are keyed with notches and the DIMMs are keyed with cutouts so that they can only be installed correctly.
4. Check that the cutouts on the DIMM module edge connector match the notches in the DIMM slot.
5. Install the DIMM module into the slot and press it firmly down until it seats correctly. The slot latches are levered upwards and latch on to the edges of the DIMM.
6. Install any remaining DIMM modules.
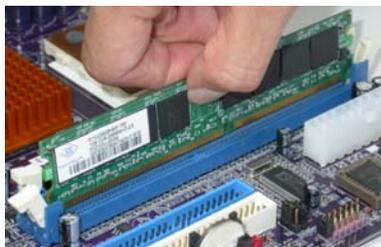
Installing the Motherboard

Table B: DDR2 (memory module) QVL (Qualified Vendor List)

The following DDR2 memory modules have been tested and qualified for use with this motherboard.

Type	Size	Vendor	Module Name
DDR2 400	256 MB	Samsung	M378T3354BZ0-CCC K4T51163QB-ZCCC
	512MB	Samsung	M378T6553BG0-CCC K4T51083QB-GCCC
		TwinMos	Samsung K4T51083QB-GCCC
DDR2 533	256 MB	Corsair	VC256MB533D2 4PB11D9CHM
		Elpida	Japan E2508AA-T7F-E
		Kingmax	Hynix HY5PS121621
		Nanya	Nanya NT5TU32M16AG-37B
		Ramaxel	Elpida D5116AF-5C-E
		Ramaxel	5PB32 D9DCN
		Twinmos	Elpida 8D22IB-ED
	512 MB	Aeneon	Aeneon AET93F370 SS
		Aeneon	Aeneon AET94F370 DS
		Corsair	VS512MB533D2 64M8CEC
		Corsair	Samsung K4T51083QB-ZCD5
		Elpida	Elpida 04180WB01
		Hynix	Hynix HY5PS12821
		Infineon	HY818T512800AF37 33346778
		Kingston	Hynix HYB18T512800AF37
		Kingston	Hynix HY5PS12821
		Kingston	Nanya NT5TU64M8AE037B
		Ramaxel	Elpida E5108AG-5C-E
		Ramaxel	6AD11 D9GCT
		Ramaxel	5PB32 D9DCN
		Samsung	PC2-4200U-4444-10-B1 K4T51083QF-ZCD5
		Samsung	PC2-4200U-4444-12-DS K4T51083QC
		Twinmos	Elpida E5108AB-5C-E
		Twinmos	Samsung 8D22JB-KM
	1 GB	Apacer	Elpida
		GEIL	A016E2864T2AG8AKT5H120001
		Infineon	HY818T512800AF37 33344539
		Kingmax	KKEA88E4AAKG-37
		PQI	PQB2648D38R0651
		UMAX	U2S12D30TP-5C
DDR2 667	256MB	Infineon	HYS64T325001HU-3-A HYB18T256
		Ramaxel	5NB31 D9DCG
	512MB	A-DATA	AD29608A88-3EG
		A-DATA	Eipida M20EL5G3H3160B100Z E5108AE-6E-E
		Apacer	Apacer AM4B5708AIJS0703 512MB
		Apacer	AU512E667C5KBGY
		APOGEE	AU51082-667P005
		Corsair	Corsair K4T5108QC
		Corsair	VALUESELECT 32M8CEC
		Corsair	64M8CFE PS1000545
		GEIL	GL2L64M088BA18W
		GEIL	GL2L64M088BA30AW
		Infineon	Infineon Aeneon HYS647128020HU-3S-A
		Infinity	0547W64M8 PC5300
		PSC	AL6E8E63B-6E1T
		Ramxel	5LB31 D9DCL
		Samsung	K4T51083QC
		Sync MAX	04400WB01 R050008A
		Transcend	JetRam J12Q3AB-6
		Transcend	SEL520ZCE6 K4T51083QC
		Twinmos	TMM6208G8M30B
	1 GB	Apacer	AM4B5708GQJS7E0631F
		Apacer	Elpida 1GB AM4B5708GEWS7E-0637F
		APOGEE	AU51082-667P005
		Infineon	Aeneon AET93E30RB-0650 1GB
		Infinity	HYB18T512800BF3S
		PQI	PQI PQB2648D38R0648 1GB
		PSC	AL6E8E63B-6E1T
	2GB	LeadMax	LeadMax LD5PS1G831

Installing the Motherboard

Installing a Hard Disk Drive/CD-ROM/SATA Hard Drive

This section describes how to install IDE devices such as a hard disk drive and a CD-ROM drive.

About IDE Devices

Your motherboard has one IDE channels interface. An IDE ribbon cable supporting two IDE devices is bundled with the motherboard.

You must orient the cable connector so that the pin1 (color) edge of the cable corresponds to the pin 1 of the I/O port connector.

IDE1: Primary IDE Connector

This motherboard supports two high data transfer SATA ports with each runs up to 3.0 Gb/s. To get better system performance, we recommend users connect the CD-ROM to the IDE channel, and set up the hard dives on the SATA ports.

IDE devices enclose jumpers or switches used to set the IDE device as MASTER or SLAVE. Refer to the IDE device user's manual. Installing two IDE devices on one cable, ensure that one device is set to MASTER and the other device is set to SLAVE. The documentation of your IDE device explains how to do this.

About SATA Connectors

Your motherboard features two SATA connectors supporting a total of two drives. SATA , or Serial ATA (Advanced Technology Attachment) is the standard interface for the IDE hard drives which are currently used in most PCs. These connectors are well designed and will only fit in one orientation. Locate the SATA connectors on the motherboard and follow the illustration below to install the SATA hard drives.

Installing Serial ATA Hard Drives

To install the Serial ATA (SATA) hard drives, use the SATA cable that supports the Serial ATA protocol. This SATA cable comes with an SATA power cable. You can connect either end of the SATA cable to the SATA hard drive or the connector on the motherboard.

SATA cable (optional)   **SATA power cable (optional)**

Installing the Motherboard

Refer to the illustration below for proper installation:

1   Attach either cable end to the connector on the motherboard.
2   Attach the other cable end to the SATA hard drive.
3   Attach the SATA power cable to the SATA hard drive and connect the
      other end to the power supply.

This motherboard supports the "Hot-Plug" function.

Installing a Floppy Diskette Drive

The motherboard has a floppy diskette drive (FDD) interface and ships with a diskette drive ribbon cable that supports one or two floppy diskette drives. You can install a 5.25-inch drive and a 3.5-inch drive with various capacities. The floppy diskette drive cable has one type of connector for a 5.25-inch drive and another type of connector for a 3.5-inch drive.

You must orient the cable connector so that the pin 1 (color) edge of the cable corresponds to the pin 1 of the I/O port connector.

FDD1: Floppy Disk Connector

This connector supports the provided floppy drive ribbon cable. After connecting the single end to the onboard floppy connector, connect the remaining plugs on the other end to the floppy drives correspondingly.

Installing the Motherboard

Installing Add-on Cards

The slots on this motherboard are designed to hold expansion cards and connect them to the system bus. Expansion slots are a means of adding or enhancing the motherboard's features and capabilities. With these efficient facilities, you can increase the motherboard's capabilities by adding hardware that performs tasks that are not part of the basic system.
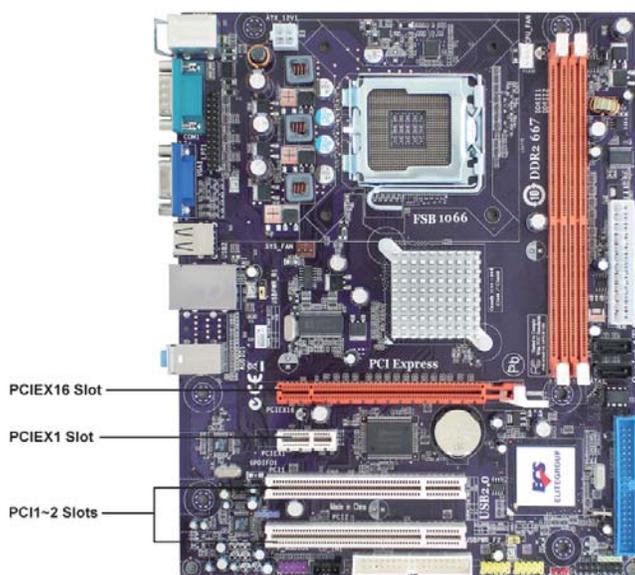
PCIEX16 Slot	The PCI Express x16 slot is used to install an external PCI Express graphics card that is fully compliant to the PCI Express Base Specification revision 1.1.
PCIEX1 Slot	The PCI Express x1 slot is fully compliant to the PCI Express Base Specification revision 1.1.
PCI1~2 Slots	This motherboard is equipped with two standard PCI slots. PCI stands for Peripheral Component Interconnect and is a bus standard for expansion cards, which for the most part, is a supplement of the older ISA bus standard. The PCI slots on this board are PCI v2.3 compliant.

Before installing an add-on card, check the documentation for the card carefully. If the card is not Plug and Play, you may have to manually configure the card before installation.

Follow these instructions to install an add-on card:

1   Remove a blanking plate from the system case corresponding to the slot you are going to use.
2   Install the edge connector of the add-on card into the expansion slot. Ensure that the edge connector is correctly seated in the slot.
3   Secure the metal bracket of the card to the system case with a screw.
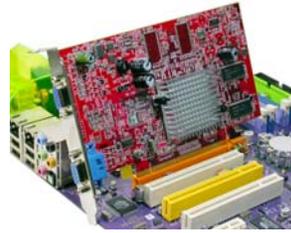
For some add-on cards, for example graphics adapters and network adapters, you have to install drivers and software before you can begin using the add-on card.

Connecting Optional Devices

Refer to the following for information on connecting the motherboard's optional devices:
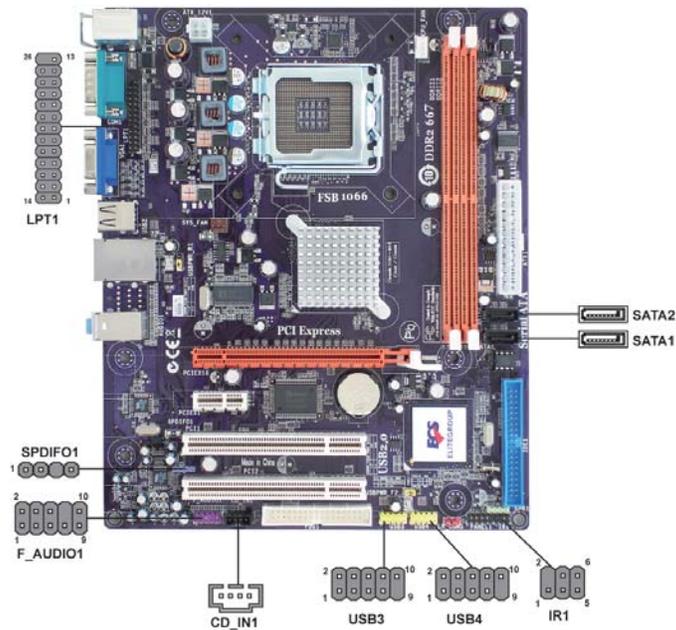
Installing the Motherboard

F_AUDIO1: Front Panel Audio header

This header allows the user to install auxiliary front-oriented microphone and line-out ports for easier access.

Pin	Signal Name	Function
1	AUD_MIC	Front Panel Microphone input signal
2	AUD_GND	Ground used by Analog Audio Circuits
3	AUD_MIC_BIAS	Microphone Power
4	AUD_VCC	Filtered+5V used by Analog Audio Circuits
5	AUD_F_R	Right Channel Audio signal to Front Panel
6	AUD_RET_R	Right Channel Audio signal to Rear Panel
7	REVD	Reserved
8	Key	No Pin
9	AUD_F_L	Left Channel Audio signal to Front Panel
10	AUD_RET_L	Left Channel Audio signal to Rear Panel

Pin	Signal Name	Pin	Signal Name
1	PORT 1L	2	AUD_GND
3	PORT 1R	4	PRESENCE#
5	PORT 2R	6	SENSE1_RETURN
7	SENSE_SEND	8	KEY
9	PORT 2L	10	SENSE2_RETURN

USB3~4: Front Panel USB headers

The motherboard has four USB ports installed on the rear edge I/O port array. Additionally, some computer cases have USB ports at the front of the case. If you have this kind of case, use auxiliary USB connector to connect the front-mounted ports to the motherboard.

Pin	Signal Name	Function
1	USBPWR	Front Panel USB Power
2	USBPWR	Front Panel USB Power
3	USB_FP_P0-	USB Port 0 Negative Signal
4	USB_FP_P1-	USB Port 1 Negative Signal
5	USB_FP_P0+	USB Port 0 Positive Signal
6	USB_FP_P1+	USB Port 1 Positive Signal
7	GND	Ground
8	GND	Ground
9	Key	No pin
10	USB_FP_OC0	Overcurrent signal

LPT1: Onboard parallel port header

This is a header that can be used to connect to the printer, scanner or other devices.

Pin	Signal Name	Pin	Signal Name
1	STROBE	14	ALF
2	PD0	15	ERROR
3	PD1	16	INIT
4	PD2	17	SLCTIN
5	PD3	18	Ground
6	PD4	19	Ground
7	PD5	20	Ground
8	PD6	21	Ground
9	PD7	22	Ground
10	ACK	23	Ground
11	BUSK	24	Ground
12	PE	25	Ground
13	SLCT	26	Key

SATA1~2: Serial ATA connectors

These connectors are use to support the new Serial ATA devices for the highest date transfer rates (3.0 Gb/s), simpler disk drive cabling and easier PC assembly. It eliminates limitations of the current Parallel ATA interface. But maintains register compatibility and software compatibility with Parallel ATA.

Pin	Signal Name	Pin	Signal Name
1	Ground	2	TX+
3	TX-	4	Ground
5	RX-	6	RX+
7	Ground	-	-

SPDIFO1: SPDIF out header

This is an optional header that provides an S/PDIF (Sony/Philips Digital Interface) output to digital multimedia device through optical fiber or coaxial connector.

Pin	Signal Name	Function
1	SPDIF	SPDIF digital output
2	+5VA	5V analog Power
3	Key	No pin
4	GND	Ground

CD_IN1: Analog audio input connector

Pin	Signal Name	Function
1	CD_L	Left CD-in signal
2	GND	Ground
3	GND	Ground
4	CD_R	Right CD-in signal

Installing the Motherboard

IR1: Infrared header

The motherboard supports an Infrared (IR1) data port. Infrared ports allow the wireless exchange of information between your computer and similarly equipped devices such as printers, laptops, Personal Digital Assistants (PDAs), and other computers.

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

Connecting I/O Devices

The backplane of the motherboard has the following I/O ports:
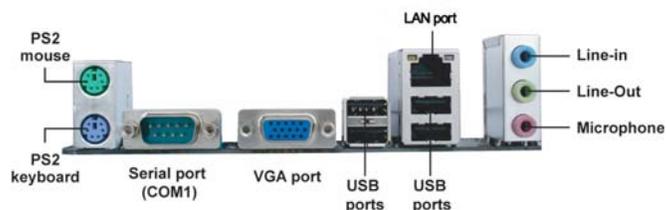
PS2 Mouse	Use the upper PS/2 port to connect a PS/2 pointing device.
PS2 Keyboard	Use the lower PS/2 port to connect a PS/2 keyboard.
Serial Port (COM1)	Use the COM port to connect serial devices such as mice or fax/modems.
VGA Port	Connect your monitor to the VGA port.
LAN Port	Connect an RJ-45 jack to the LAN port to connect your computer to the Network.
USB Ports	Use the USB ports to connect USB devices.
Audio Ports	Use the three audio ports to connect audio devices. The first jack is for stereo line-in signal. The second jack is for stereo line-out signal. The third jack is for microphone.
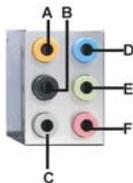
This motherboard may adopt 8-channel audio ports that correspond to the A,B,C, and E port respectively. In addition, all of the 3 ports, B,C, and E provide users with both right & left channels individually. User please refer to the following note for specific port function definition.

A: Center & Woofer	D: Line-in
B: Back Surround	E: Front Out
C: Side Surround	F: Mic_in Rear

The above port definition can be changed to audio input or audio output by changing the driver utility setting.

This concludes Chapter 2. The next chapter covers the BIOS.

Chapter 3

Using BIOS

About the Setup Utility

The computer uses the latest American Megatrends BIOS with support for Windows Plug and Play. The CMOS chip on the motherboard contains the ROM setup instructions for configuring the motherboard BIOS.

The BIOS (Basic Input and Output System) Setup Utility displays the system's configuration status and provides you with options to set system parameters. The parameters are stored in battery-backed-up CMOS RAM that saves this information when the power is turned off. When the system is turned back on, the system is configured with the values you stored in CMOS.

The BIOS Setup Utility enables you to configure:

- Hard drives, diskette drives and peripherals
- Video display type and display options
- Password protection from unauthorized use
- Power Management features

The settings made in the Setup Utility affect how the computer performs. Before using the Setup Utility, ensure that you understand the Setup Utility options.

This chapter provides explanations for Setup Utility options.

The Standard Configuration

A standard configuration has already been set in the Setup Utility. However, we recommend that you read this chapter in case you need to make any changes in the future.

This Setup Utility should be used:
- when changing the system configuration
- when a configuration error is detected and you are prompted to make changes to the Setup Utility
- when trying to resolve IRQ conflicts
- when making changes to the Power Management configuration
- when changing the password or making other changes to the Security Setup

Entering the Setup Utility

When you power on the system, BIOS enters the Power-On Self Test (POST) routines. POST is a series of built-in diagnostics performed by the BIOS. After the POST routines are completed, the following message appears:

Using BIOS

Press DEL/F1 to enter SETUP

Press the delete key or F1 to access the BIOS Setup Utility.

CMOS Setup Utility -- Copyright (C) 1985-2005, American Megatrends, Inc.

▶ Standard CMOS Setup	▶ Frequency/Voltage Control
▶ Advanced Setup	Load Default Settings
▶ Advanced Chipset Setup	▶ Supervisor Password
▶ Integrated Peripherals	▶ User Password
▶ Power Management Setup	Save & Exit Setup
▶ PCI / PnP Setup	Exit Without Saving
▶ PC Health Status	

↑↓←→· :Move   Enter : Select   +/-/: Value   F10: Save   ESC: Exit
F1:General Help   F9: Optimized Defaults

v02.59 (C)Copyright 1985-2005, American Mega trends, Inc.

BIOS Navigation Keys

The BIOS navigation keys are listed below:

KEY	FUNCTION
ESC	Exits the current menu
↑↓ ⟷	Scrolls through the items on a menu
+/-/PU/PD	Modifies the selected field's values
F1	Displays a screen that describes all key functions
F9	Loads an optimized setting for better performance
F10	Saves the current configuration and exits setup
ESC	Exits the current menu

Updating the BIOS

You can download and install updated BIOS for this motherboard from the manufacturer's Web site. New BIOS provides support for new peripherals, improvements in performance, or fixes for known bugs. Install new BIOS as follows:

1   If your motherboard has a BIOS protection jumper, change the setting to allow BIOS flashing.

2   If your motherboard has an item called Firmware Write Protect in Advanced BIOS features, disable it. (Firmware Write Protect prevents BIOS from being overwritten.

3   Create a bootable system disk. (Refer to Windows online help for information on creating a bootable system disk.)

4   Download the Flash Utility and new BIOS file from the manufacturer's Web site. Copy these files to the system diskette you created in Step 3.

5   Turn off your computer and insert the system diskette in your computer's diskette drive. (You might need to run the Setup Utility and change the boot priority items on the Advanced BIOS Features Setup page, to force your computer to boot from the floppy diskette drive first.)

6   At the A:\ prompt, type the Flash Utility program name and the filename of the new bios and then press <Enter>. Example: AMINF340.EXE 040706.ROM

7   When the installation is complete, remove the floppy diskette from the diskette drive and restart your computer. If your motherboard has a Flash BIOS jumper, reset the jumper to protect the newly installed BIOS from being overwritten. The computer will restart automatically.

Using BIOS

When you start the Setup Utility, the main menu appears. The main menu of the Setup Utility displays a list of the options that are available. A highlight indicates which option is currently selected. Use the cursor arrow keys to move the highlight to other options. When an option is highlighted, execute the option by pressing <Enter>.

Some options lead to pop-up dialog boxes that prompt you to verify that you wish to execute that option. Other options lead to dialog boxes that prompt you for information.

Some options (marked with a triangle ▶) lead to submenus that enable you to change the values for the option. Use the cursor arrow keys to scroll through the items in the submenu.

In this manual, default values are enclosed in parenthesis. Submenu items are denoted by a triangle ▶.

Standard CMOS Setup

This option displays basic information about your system.

```
                    CMOS Setup Utility - Copyright (C) 1985-2005, American Megatrends, Inc.
                                       Standard CMOS Setup
┌──────────────────────────────────────────────────────────────┬──────────────────┐
│ Date                              Wed 07/18/2007               │   Help Item      │
│ Time                              03:08:56                     │                  │
│                                                                ├──────────────────┤
│ ▶ Primary IDE Master              ATAPT CDROM                  │ While entering    │
│ ▶ Primary IDE Slave               Not Detected                 │ setup, BIOS auto  │
│ ▶ S-ATA 1                         Hard Disk                    │ detects the       │
│ ▶ S-ATA 2                         Hard Disk                    │ presence of IDE   │
│                                                                │ devices.          │
│   IDE BusMaster                   Enabled                      │ This displays the │
│                                                                │ status of auto    │
│   Drive A:                        1.44 MB 3 1/2"               │ detection of IDE  │
│                                                                │ devices.          │
│                                                                │                  │
└──────────────────────────────────────────────────────────────┴──────────────────┘
        ↑↓ ↔  :Move    Enter : Select    +/-/: Value    F10: Save    ESC: Exit
        F1:General Help                  F9: Optimized Defaults
```

Date and Time

The Date and Time items show the current date and time on the computer. If you are running a Windows OS, these items are automatically updated whenever you make changes to the Windows Date and Time Properties utility.

▶ Primary IDE Master/Slave, S-ATA 1~2

Your computer has one IDE channels and each channel can be installed with one or two devices (Master and Slave). In addition, this motherboard supports two SATA channels and each channel allows one SATA device to be installed. Use these items to configure each device on the IDE channel.

IDE BusMaster (Enabled)

This item enables or disables the DMA under DOS mode. We recommend you to leave this item at the default value.

Floppy A (1.44 MB $3^1/_2$")

This item sets up size and capacity of the floppy diskette drive(s) installed in the system.

Press <Esc> to return to the main menu setting page.

Advanced Setup

This page sets up more advanced information about your system. Handle this page with caution. Any changes can affect the operation of your computer.

```
          CMOS Setup Utility - Copyright (C) 1985-2005, American Megatrends, Inc.
                                  Advanced Setup
  ┌──────────────────────────────────────────────┬─────────────────────────┐
  │                                               │      Help Item          │
  │  TM Status                 TM1                 │                         │
  │  Limit CPUID MaxVal        Disabled           │                         │
  │  Hyper-Treading Technology Enabled            │ Disabled for WindowsXP  │
  │  Quick Power on Self Test  Enabled            │                         │
  │  Boot Up Numlock Status    On                 │                         │
  │  APIC Mode                 Enabled            │                         │
  │  Ist Boot Device           1st FLOPPY DRIVE   │                         │
  │  2nd Boot Device           ST3120023AS        │                         │
  │  3rd Boot Device           DVD-ROM DDU1632    │                         │
  │ ▶ Hard Disk Drives         Press Enter        │                         │
  │ ▶ Removable Drives         Press Enter        │                         │
  │ ▶ CD/DVD Drives            Press Enter        │                         │
  │  Boot Other Device         Yes                │                         │
  │  BIOS Protect              Disabled           │                         │
  │                                               │                         │
  │                                               │                         │
  └──────────────────────────────────────────────┴─────────────────────────┘
     ↑↓ ⇆  :Move    Enter : Select    +/-/: Value    F10: Save    ESC: Exit
     F1:General Help              F9: Optimized Defaults
```

TM Status (TM1/TM2)

This item displays CPU Thermal Monitor status.

Limit CPUID MaxVal (Disabled)

This item can support Prescott CPUs for old OS. Users please note that under NT 4.0, it must be set "Enabled", while under WinXP, it must be set "Disabled"

Hyper-Threading Technology (Enabled)

This item is only available when the chipset supports Hyper-Threading and you areusing a Hyper-Threading CPU.

Quick Power On Self Test (Enabled)

Enable this item to shorten the power on self testing (POST) and have your system start up faster. You might like to enable this item after you confident that your system hardware is operating smoothly.

Boot Up NumLock Status (On)

This item determines if the NumLock key is active or inactive at system start-up time.

APIC Mode (Enabled)

This item allows you to enable or disable the APIC (Advanced Programmable Interrupt Controller) mode. APIC provides symmetric multi-processing (SMP) for systems, allowing support for up to 60 processors.

1st/2nd/3rd Boot Device (1st FLOPPY DRIVE/ST3120023AS/DVD-ROM DDU1632)

Use these items to determine the device order the computer used to look for an operating system to load at start-up time. The devices showed here will be different depending on the exact devices installed on your motherboard.

Using BIOS

▶ **Hard Disk Drives (Press Enter)**

Enter this item, the system will show you the removable drives option.

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Hard Disk Drives

Hard Disk Drives		Help item
1st Drive	ST340016A	Specifies the boot sequence from the available devices.
2nd Drive	WDC WD2500JS-08NCB1	

↑↓ ↔ :Move   Enter : Select   +/-/: Value   F10: Save   ESC: Exit
F1:General Help   F9: Optimized Defaults

Press <Esc> to return to the Advanced Setup Page.

▶ **Removable Drives (Press Enter)**

Enter this item, the system will show you the removable drives option.

CMOS Setup Utility - Copyright (C) 1985-2005, American Megatrends, Inc.
Removable Drives

Removable Drives		Help item
1st Drive	1st FLOPPY DRIVE	Specifies the boot sequence from the available devices.

↑↓ ↔ :Move   Enter : Select   +/-/: Value   F10: Save   ESC: Exit
F1:General Help   F9: Optimized Defaults

Press <Esc> to return to the Advanced Setup Page.

Using BIOS

▶ **CD/DVD Drives (Press Enter)**

Enter this item, the system will show you the removable drives option.

CMOS Setup Utility - Copyright (C) 1985-2005, American Megatrends, Inc.
CD/DVD Drives

CD/DVD Drives		Help item
1st Drive	DVD-ROM DDU1632	Specifies the boot sequence from the available devices.

↑↓ ⟷ :Move   Enter : Select   +/-/: Value   F10: Save   ESC: Exit
F1:General Help   F9: Optimized Defaults

Press <Esc> to return to the Advanced Setup Page.

Boot Other Device (Yes)

If you enable this item, the system will also search for other boot devices if it fails to find an operating system from the first boot device.

BIOS Protect (Disabled)

This item enables or disables BIOS protect.

Press <Esc> to return to the main menu setting page.

Advanced Chipset Setup

This page sets up some critical timing parameters of the motherboard.

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Advanced Chipset Setup

		Help Item
DRAM Timing	Auto	
VGA Share Memory Size	256MB	Options
		Manual
		Auto
		Turbo
		Ultra

↑↓ ⟷ :Move   Enter : Select   +/-/: Value   F10: Save   ESC: Exit
F1:General Help   F9: Optimized Defaults

DRAM Timing (Auto)

This item allows you to enable or disable the DRAM timing defined by the Serial Presence Detect electrical. Users please note that if setting this item to auto, the following two items are not available.

Using BIOS

VGA Share Memory Size (256MB)

This item shows the VGA memory size borrowed from main memory capability. In this case, 256MB is borrowed, which in the meanwhile the same the main memory loses.

Press <Esc> to return to the main menu setting page.

Integrated Peripherals

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

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Integrated Peripherals

		Help Item
OnBoard Floppy Controller	Enabled	
Serial Port1 Address	3F8/IRQ4	
Serial Port2 Adress	2F8/IRQ3	Allow BIOS to Enable or
Serial Port2 Mode	Normal	Disable Floppy Control-
Parallel Port Address	378	ler.
Parallel Port Mode	ECP	
ECP Mode DMA Channel	DMA3	
Parallel Port IRQ	IRQ7	
SATA Controller	IDE	
HDAC Audio Controller	Auto	
LAN Controller	Enabled	
LAN Option ROM	Disabled	
OnBoard USB Function	Enabled	
USB Function For DOS	Enabled	

↑↓ <> :Move   Enter : Select   +/-/: Value   F10: Save   ESC: Exit
F1:General Help   F9: Optimized Defaults

OnBoard Floppy Controller (Enabled)

Use this item to enable or disable the onboard floppy disk drive interface.

Serial Port1/2 Address (3F8/IRQ4)/(2F8/IRQ3)

Use this item to enable or disable the onboard COM1 serial port, and to assign a port address.

Serial Port2 Mode (Normal)

If Serial Port 2 Address is not disabled, it allows you to set the Serial Port 2 Mode.

Parallel Port Address (378)

Use this item to enable or disable the onboard Parallel port, and to assign a port address.

Parallel Port Mode (ECP)

Use this item to select the parallel port mode. You can select Normal (Standard Parallel Port), ECP (Extended Capabilities Port), EPP (Enhanced Parallel Port), or BPP (Bi-Directional Parallel Port).

ECP Mode DMA Channel (DMA3)

Use this item to assign the DMA Channel under ECP Mode function.

Parallel Port IRQ (IRQ7)

Use this item to assign IRQ to the parallel port.

SATA Controller (IDE)

Use this item to enable or disable the onboard SATA controller.

HDAC Audio Controller (Auto)

Use this item to enable or disable the onboard Audio controller.

LAN Controller (Enabled)

This option allows you to enable or disable the onboard LAN controller.

LAN Option ROM (Disabled)

Use this item to enable or disable the booting from the onboard LAN with a remote boot ROM installed.

Onboard USB Function (Enabled)

Enable this item if you plan to use the USB ports on this motherboard.

USB Function For DOS (Enabled)

Enable this item if you plan to use the USB ports on this motherboard in a DOS environment.

Press <Esc> to return to the main menu setting page.

Using BIOS

Power Mangement Setup

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

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Power Management Setup

		Help Item
ACPI Suspend Type	S1	
Suspend Time Out	Disabled	Select the ACPI state
Resume on RTC Alarm	Disabled	used for System Sus-
Resume On Ring	Disabled	pend.
Resume On PME#	Enabled	
Resume by WOL	Disabled	
Resume On PS/2 Mouse	Disabled	
Resume by PCI-E PME	Disabled	
PWRON After PWR-Fail	Power Off	
Soft-Off by PWR-BTTN	Instant Off	
USB Device Wakeup Function	Enabled	
Resume On KBC	Disabled	
Wake-Up Key	Any Key	

↑↓ <> :Move   Enter : Select   +/-/: Value   F10: Save   ESC: Exit
F1:General Help   F9: Optimized Defaults

ACPI Suspend Type (S1)

Use this item to define how your system suspends. In the default, S3 (STR), the suspend mode is a suspend to RAM, i.e., the system shuts down with the exception of a refresh current to the system memory.

Suspend Time Out (Disabled)

This item sets up the timeout for Suspend mode in minutes. If the time selected passes without any system activity, the computer will enter power-saving Suspend mode.

Resume on RTC Alarm (Disabled)

The system can be turned off with a software command. If you enable this item, the system can automatically resume at a fixed time based on the system's RTC (realtime clock). Use the items below this one to set the date and time of the wake-up alarm. You must use an ATX power supply in order to use this feature.

Resume On Ring (Disabled)

The system can be turned off with a software command. If you enable this item, the system can automatically resume if there is an incoming call on the Modem. You must use an ATX power supply in order to use this feature.

Resume On PME# (Enabled)

The system can be turned off with a software command. If you enable this item, the system can automatically resume if there is an incoming call on the PCI Modem or PCI LAN card. You must use an ATX power supply in order to use this feature. Use this item to do wake-up action if inserting the PCI card.

Resume by WOL (Disabled)

This item specifies whether the system will be awakened from power saving modes when activity or input signal of the specified WOL device is detected.

Resume On PS/2 Mouse (Disabled)

This item enables or disables you to allow mouse activity to awaken the system from power saving mode.

Using BIOS

Resume by PCI-E PME (Disabled)

This item specifies whether the system will be awakened from power saving modes when activity or input signal of the specified WOL device is detected.

PWRON After PWR-Fail (Power Off)

This item enables your computer to automatically restart or return to its last operating status.

Soft-Off By PWR- BTTN (Instant Off)

If the item is set to Instant-Off, then the power button causes a software power down. If the item is set to Delay 4 Sec. then you have to hold the power button down for four seconds to cause power down.

USB Device Wakeup Function (Enabled)

This item allows you to enable or disable the USB device Wakeup function.

Resume On KBC (Disabled)

This item enables or disables you to allow keyboard activity to awaken the system.

- **Wake-Up key (Any Key)**: When Keyboard Power On is set to Enable, this item is available and users can enter any key, or hot key on the keyboard or type in the password.

Press <Esc> to return to the main menu setting page.

Using BIOS

PCI / PnP Setup

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

CMOS Setup Utility - Copyright (C) 1985-2005, American Megatrends, Inc.
PCI/PnP Setup

Init Display First	PCI	Help item
Allocation IRQ to PCI VGA	Yes	
		Options
		PCI
		PCI Express Card

↑↓ ⟷ :Move   Enter : Select   +/-/: Value   F10: Save   ESC: Exit
F1:General Help   F9: Optimized Defaults

Init Display First (PCI)

Use this item to decide which device to be the initial display device.

Allocate IRQ to PCI VGA (Yes)

If this item is enabled, an IRQ will be assigned to the PCI VGA graphics system. You set this value to No to free up an IRQ.

PC Health Status

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

CMOS SETUP UTILITY – Copyright (C) 1985-2005, American Megatrends, Inc.
PC Health Status

		Help Item
Hardware Health Event Monitoring		
Vcore	: 1.296V	**Options**
Vdimm	: 1.592V	
Vcc5V	: 1.296V	Disabled
CPU FAN Speed	: 1962 RPM	Enabled
CPU Temperature	: 62°C/143°F	
CPU SMART Fan Control	Disabled	

↑↓ ⟷ :Move   Enter : Select   +/-/: Value   F10: Save   ESC: Exit
F1:General Help   F9: Optimized Defaults

Using BIOS

System Component Characteristics

These fields provide you with information about the system's current operating status. You cannot make changes to these fields.

- Vcore
- Vdimm
- Vcc5V
- CPU FAN Speed
- CPU Temperature

CPU SMART Fan Control (Disabled)

This item allows users to enable or disable smart fan control function.

Press <Esc> to return to the main menu setting page.

Frequency/Voltage Control

This page helps you manually configure the CPU of this motherborad. The system will automatically detect the type of installed CPU and make the appropriate adjustments to these items on this page.

CMOS Setup Utility - Copyright (C) 1985-2005, American Megatrends, Inc.
Frequency/Voltage Control

		Help Item
Manufacturer : Intel		
Ratio Actual Value : 15		
DRAM Frequency	Auto	Options
CPU Over-clocking Func.:	Disabled	
CPU Frequency :	200MHz	Auto
Auto Detect DIMM/PCI Clk	Enabled	400 MHz
Spread Spectrum	Enabled	533 MHz
		667 MHz

↑↓ ⇔ :Move   Enter : Select   +/-/: Value   F10: Save   ESC: Exit
F1:General Help   F9: Optimized Defaults

Manufacturer (Intel)

This item indicates the brand of the CPU installed in your system.

Ratio Actual Value (15)

This item determinese the actual value of ratio.

DRAM Frequency (Auto)

This item enables users to adjust the DRAM frequency. The default setting is auto and we recommend users leave the setting unchanged. Modify it at will may cause the system to be unstable.

Using BIOS

CPU Over-clocking Func. (Disabled)

This item decides the CPU over-clocking function/frequencyinstalled in your system. If the over-clocking fails, please turn offthe system power. And then, hold the PageUp key (similar to theClear CMOS function) and turn on the power, the BIOS willrecover the safe default.

CPU Frequency (200MHz)

This item indicates the current CPU frequency. Users can not make any change to this item. Please noted that the frequency will be varied with different CPU.

Auto Detect DIMM/PCI Clk (Enabled)

When this item is enabled, BIOS will disable the clock signal of free DIMM/PCI slots.

Spread Spectrum (Enabled)

If you enable spread spectrum, it can significantly reduce the EMI (Electro-Magnetic interface) generated by the system.

Load Default Settings

This option opens a dialog box to ask if you are sure to install optimized defaults or not. You select [OK], and then press <Enter>, the Setup Utility loads all default values; or select [Cancel], and then press <Enter>, the Setup Utility does not load default values.

Supervisor Password

This page helps you install or change a password.

```
        CMOS Setup Utility - Copyright (C) 1985-2005, American Megatrends, Inc.
                                Supervisor Password
 ┌──────────────────────────────────────────────┬──────────────────────┐
 │                                                │    Help item         │
 │  Supervisor Password : Not Installed           │                      │
 │                                                ├──────────────────────┤
 │  Change Supervisor Password      Press Enter   │  Install or Change the│
 │                                                │  password.           │
 │                                                │                      │
 │                                                │                      │
 │                                                │                      │
 │                                                │                      │
 │                                                │                      │
 └──────────────────────────────────────────────┴──────────────────────┘
     ↑↓ ⟷    :Move    Enter : Select    +/-/: Value    F10: Save    ESC: Exit
     F1:General Help              F9: Optimized Defaults
```

Supervisor Password (Not Installed)

This item indicates whether a supervisor password has been set. If the password has benn installed, *Installed* displays. If not, *Not Installed* displays.

Change Supervisor Password (Press Enter)

You can select this option and press <Enter> to access the sub menu. You can use the sub menu to change the supervisor password.

Press <Esc> to return to the main menu setting page.

Using BIOS

User Password

This page helps you install or change a password.

```
            CMOS Setup Utility - Copyright (C) 1985-2005, American Megatrends, Inc.
                                    User Password

  ┌──────────────────────────────────────────────────┬─────────────────────────┐
  │                                                    │       Help item         │
  │  User  Password : Not Installed                    │                         │
  │  ──────────────────────────────────────────        │                         │
  │  Change User  Password            Press Enter      │  Install or Change the  │
  │                                                    │  password.              │
  │                                                    │                         │
  │                                                    │                         │
  │                                                    │                         │
  │                                                    │                         │
  │                                                    │                         │
  └──────────────────────────────────────────────────┴─────────────────────────┘
        ↑↓  ⟷     :Move    Enter : Select     +/-/: Value     F10: Save     ESC: Exit
           F1:General Help                  F9: Optimized Defaults
```

User Password (Not Installed)

This item indicates whether a user password has been set. If the password has been installed, *Installed* displays. If not, *Not Installed* displays.

Change User Password (Press Enter)

You can select this option and press <Enter> to access the sub menu. You can use the sub menu to change the user password.

Press <Esc> to return to the main menu setting page.

Save & Exit Setup

Highlight this item and press <Enter> to save the changes that you have made in the Setup Utility and exit the Setup Utility. When the Save and Exit dialog box appears, select <OK> to save and exit, or select <Cancel> to return to the main menu.

Exit Without Saving

Highlight this item and press <Enter> to discard any changes that you have made in the Setup Utility and exit the Setup Utility. When the Exit Without Saving dialog box appears, select <OK> to discard changes and exit, or select <Cancel> to return to the main menu.

> *If you have made settings that you do not want to save, use the "Exit Without Saving" item and press <OK> to discard any changes you have made.*

This concludes Chapter 3. Refer to the next chapter for information on the software supplied with the motherboard.

Memo

Chapter 4
Using the Motherboard Software

About the Software CD-ROM

The support software CD-ROM that is included in the motherboard package contains all the drivers and utility programs needed to properly run the bundled products. Below you can find a brief description of each software program, and the location for your motherboard version. More information on some programs is available in a README file, located in the same directory as the software. Before installing any software, always inspect the folder for files named README.TXT, INSTALL.TXT, or something similar. These files may contain important information that is not included in this manual.

> *1.Never try to install all software from folder that is not specified for use with your motherboard.*
> *2.The notice of Intel HD audio installation (optional): The Intel High Definition audio functionality unexpectedly quits working in Windows Server 2003 Service Pack 1 or Windows XP Professional x64 Edition. Users need to download and install the update packages from the Microsoft Download Center "before" installing HD audio driver bundled in the Driver CD. Please log on to http://support.microsoft.com/default.aspx?scid=kb;en-us;901105#appliesto for more information.*

Auto-installing under Windows 2000/XP/Vista

The Auto-install CD-ROM makes it easy for you to install the drivers and software for your motherboard.

> *If the Auto-install CD-ROM does not work on your system, you can still install drivers through the file manager for your OS (for example, Windows Explorer). Refer to the Utility Folder Installation Notes later in this chapter.*

The support software CD-ROM disc loads automatically under Windows 2000/XP/Vista. When you insert the CD-ROM disc in the CD-ROM drive, the autorun feature will automatically bring up the install screen. The screen has three buttons on it, Setup, Browse CD and Exit.
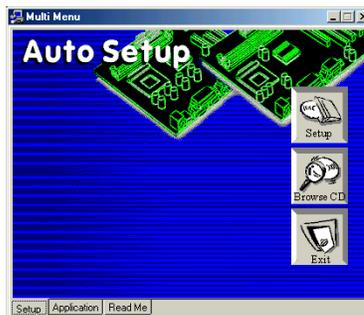
> *If the opening screen does not appear; double-click the file "setup.exe" in the root directory.*

Setup Tab

Setup	Click the **Setup** button to run the software installation program. Select from the menu which software you want to install.
Browse CD	The **Browse CD** button is the standard Windows command that allows you to open Windows Explorer and show the contents of the support CD.
	Before installing the software from Windows Explorer, look for a file named README.TXT, INSTALL.TXT or something similar. This file may contain important information to help you install the software correctly.
	Some software is installed in separate folders for different operating systems, such as Windows 2000/XP/Vista. Always go to the correct folder for the kind of OS you are using.
	In install the software, execute a file named SETUP.EXE or INSTALL.EXE by double-clicking the file and then following the instructions on the screen.
Exit	The **EXIT** button closes the Auto Setup window.

Application Tab

Lists the software utilities that are available on the CD.

Read Me Tab

Displays the path for all software and drivers available on the CD.

Running Setup

Follow these instructions to install device drivers and software for the motherboard:

1. Click **Setup.** *The installation program begins:*

☞ *The following screens are examples only. The screens and driver lists will be different according to the motherboard you are installing.*

The motherboard identification is located in the upper left-hand corner.

Using the Motherboard Software

2. *Click* ***Next.*** *The following screen appears:*
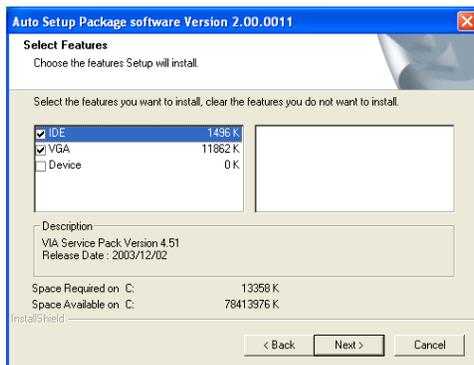
3. *Check the box next to the items you want to install. The default options are recommended.*

4. *Click* ***Next*** *run the Installation Wizard. An item installation screen appears:*
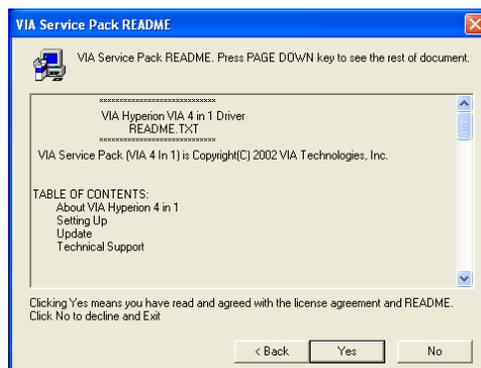
5. *Follow the instructions on the screen to install the items.*

1. Drivers and software are automatically installed in sequence. Follow the onscreen instructions, confirm commands and allow the computer to restart a few times to complete the installation.

2. During the Windows Vista Driver Auto Setup Procedure, users should use one of the following two methods to install the driver after the system restart.

Using the Motherboard Software

Method 1. Run Reboot Setup

Windows Vista will block startup programs by default when installing drivers after the system restart. You must select taskbar icon **Run Blocked Program** and run **Reboot Setup** to install the next driver, until you finish all drivers installation.
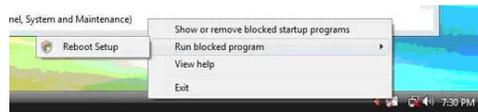
Method 2. Disable UAC (User Account Control)

* For administrator account only. Standard user account can only use Method 1.

Disable Vista UAC function before installing drivers, then use CD driver to install drivers, it will continue to install drivers after system restart without running blocked programs.

Follow these instructions to Disable Vista UAC function:

1. Go to **Control Panel**.
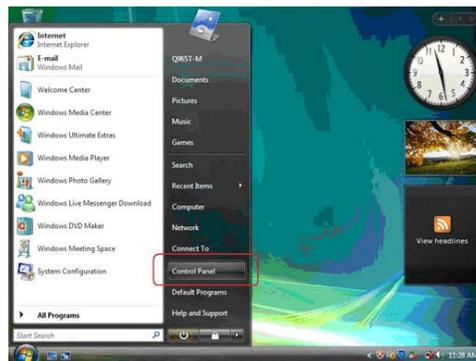
Using the Motherboard Software

2. Select **Classic View**.
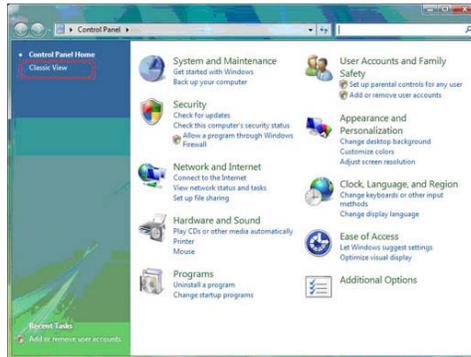
3. Set **User Account**.
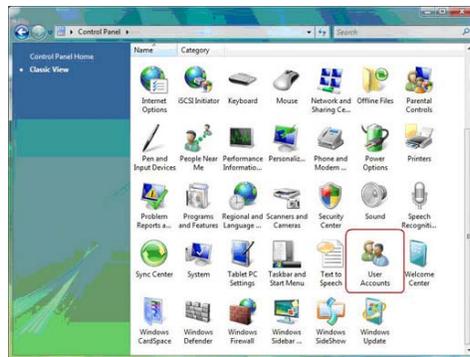
4. Select **Turn User Account Control on or off** and press **Continue**.
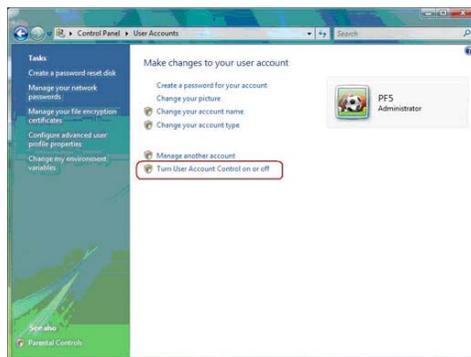
Using the Motherboard Software

> *5.* *Disable **User Account Control (UAC) to help protect your computer** item and press **OK**, then press **Restart Now**. Then you can restart your computer and continue to install drivers without running blocked programs.*
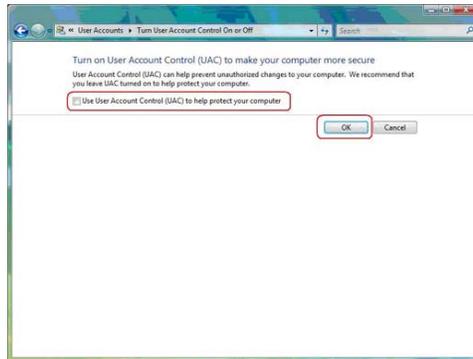
Manual Installation

Insert the CD in the CD-ROM drive and locate the PATH.DOC file in the root directory. This file contains the information needed to locate the drivers for your motherboard.

Look for the chipset and motherboard model; then browse to the directory and path to begin installing the drivers. Most drivers have a setup program (SETUP.EXE) that automatically detects your operating system before installation. Other drivers have the setup program located in the operating system subfolder.

If the driver you want to install does not have a setup program, browse to the operating system subfolder and locate the readme text file (README.TXT or README.DOC) for information on installing the driver or software for your operating system.

Utility Software Reference

All the utility software available from this page is Windows compliant. They are provided only for the convenience of the customer. The following software is furnished under license and may only be used or copied in accordance with the terms of the license.

> *These software(s) are subject to change at anytime without prior notice. Please refer to the support CD for available software.*

This concludes Chapter 4.

Chapter 5
VIA VT8237 SATA RAID Setup Guide

VIA RAID Configurations

The motherboard includes a high performance Serial ATA RAID controller integrated in the VIA VT8237 Southbridge chipset. It supports RAID 0, RAID 1 and JBOD with two independent Serial ATA channels.

RAID: (Redundant Array of Independent Disk Drives) use jointly several hard drives to increase data transfer rates and data security. It depends on the number of drives present and RAID function you select to fulfill the seurity or performance pruposes or both.

RAID 0 (called data striping) optimizes two identical hard disk drives to read and write data in parallel, interleaved stacks. Two hard disks perform the same work as a single drive but at a sustained data transfer rate, double that of a single disk alone, thus improving data access and storage.

RAID 1 (called data mirroring) copies and maintains an identical image of data from one drive to a second drive. If one drive fails, the disk array management software directs all applications to the surviving drive as it contains a complete copy of the data in the other drive. This RAID configuration provides data protection and increases fault tolerance to the entire system.

JBOD: (Just a Bunch of Drives) Also known as "Spanning". Two or more hard drives are required. Several hard disk types configured as a single hard disk. The hard drives are simply hooked up in series. This expands the capacity of your drive and results in a useable total capacity. However, JBOD will not increase any performance or data security.

Install the Serial ATA (SATA) hard disks

The VIA VT8237 Southbridge chipset supports Serial ATA hard disk drives. For optimal performance, install identical drives of the same model and capacity when creating a RAID set.

- If you are creating a RAID 0 (striping) array of performance, use two new drives.
- If you are creating a RAID 1 (mirroring) array for protection, you can use two new drives or use an existing drive and a new drive (the new drive must be of the same size or larger than the existing drive). If you use two drives of different sizes, the smaller capacity hard disk will be the base storage size. For example, one hard disk has an 80GB storage capacity and the other hard disk has 60GB storage capacity, the maximum storage capacity for the RAID 1 set is 60GB.

Follow these steps to install the SATA hard disks for RAID configuration.

- i   Before setting up your new RAID array, verify the status of your hard disks. Make sure the Master/Slave jumpers are configured properly.
- ii   Both the data and power SATA cables are new cables. You cannot use older 40-pin 80-conductor IDE or regular IDE power cables with Serial ATA drives. Installing Serial ATA (SATA) hard disks require the use of new Serial ATA cable (4-conductor) which supports the Serial ATA protocol and a Serial ATA power cable.

   iii   Either end of the Serial ATA data cable can be connected to the SATA hard disk or the SATA connector on the motherboard.

   1   Install the Serial ATA hard disks into the drive bays.

   2   Connect one end of the Serial ATA cable to the motherboard's primary Serial ATA connector (SATA1).

   3   Connect the other end of Serial ATA cable to the master Serial ATA hard disk.

   4   Connect one end of the second Serial ATA cable to the motherboard's secondary Serial ATA connector (SATA2).

   5   Connect the other end of Serial ATA cable to the secondary Serial ATA hard disk.

   6   Connect the Serial ATA power cable to the power connector on each drive.

   7   Proceed to section "Entering VIA Tech RAID BIOS Utility" for the next procedure.

Entering VIA Tech RAID BIOS Utility

   1   Boot-up your computer.

   2   During POST, press <Ctrl+Z> to enter VIA RAID configuration utility. The following menu options will appear.

The RAID BIOS information on the setup screen shown is for reference only. What you see on your screen may not by exactly the same as shown.

On the upper-right side of the screen is the message and legend box. The keys on the legend box allow you to navigate through the setup menu options. The message describes the function of each menu item. The following lists the keys found in the legend box with their corresponding functions.

F1	View Array
↑↓	Move to the next item
Enter	Confirm the selection
ESC	Exit

Create Array

1   In the VIA RAID BIOS utility main menu, select **Create Array** then press the <Enter> key. The main menu items on the upper-left corner of the screen are replaced with create array menu options.

```
                        VIA Tech. RAID BIOS Ver 0.96

   ▶ Auto Setup For Data Security        Create a RAID array with
   ▶ Array Mode RAID 1 (Mirroring)       the hard disk attached to
   ▶ Select Disk Drives                  VIA IDE controller
   ▶ Start Create Process
                                         F1   : View Array/Disk Status
                                         ↑,↓  : Move to next item
                                         Enter: Confirm the selection
                                         ESC  : Exit

     Channel        Drive Name    Array Name    Mode   Size(GB)  Status

     Channel0 Master   XXXXXXXXXX                XXXXX  XXX.XX    Hdd
     Channel0 Slave    XXXXXXXXXX                XXXXX  XXX.XX    Hdd
     Channel1 Master   No Drive
     Channel1 Slave    No Drive
```

RAID 0 for performance

1   Select the second option item **Array Mode**, then press the <Enter> key. The RAID system setting pop-up menu appears.

```
   RAID 0 for performance
   RAID 1 for data protection
   RAID SPAN for capacity
```
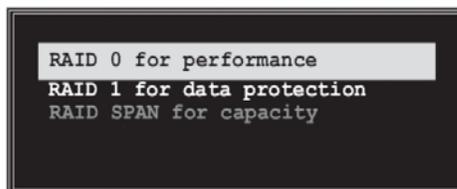
2   Select **RAID 0 for performance** from the menu and press <Enter>. From this point, you may choose to auto-configure the RAID array by selecting Auto Setup for Performance or manually configure the RAID array for stripped sets. If you want to manually configure the RAID array continue with next step, otherwise, proceed to step #5.

3   Select **Select Disk Drives**, then press <Enter>. Use arrow keys to select disk drive/s, then press <Enter> to mark selected drive. An asterisk is placed before the selected drive.

4   Select **Block Size**, then press <Enter> to set array block size. Lists of valid array block sizes are displayed on a pop-up menu.

```
   4K
   8K
   16K
   32K
   64K
```

Tip   *For server systems, it is recommended to use a lower array block size. For multimedia computer systems used mainly for audio and video editing, a higher array block size is recommended for optimum performance.*

Use arrow keys to move selection bar on items and press <Enter> to select.

5   Select Start Create Process and press <Enter> to setup hard disk for RAID system. The following confirmation appears:

The same confirmation message appears when the *Auto Setup for Performance* option is selected.

```
The data on the selected disks will
be destroyed. Continue? Press Y/N
```

Press "Y" to confirm or "N" to return to the configuration options.

RAID 1 for data protection

1   Select the second option item Array Mode, then press the <Enter> key. The RAID system setting pop-up menu appears.

```
RAID 0 for performance
RAID 1 for data protection
RAID SPAN for capacity
```

2   Select RAID 1 for data protection from the menu and press <Enter>. Select next task from pop-up menu. The task Create only creates the mirrored set without creating a backup. Create and duplicate creates both mirrored set and backup.

```
Create only
Create and duplicate
```

3   Select task and press <Enter>. The screen returns to Create Array menu items. From this point, you may choose to auto-configure the RAID array by selecting Auto Setup for Data Security or manually configure the RAID array for mirrored sets. If you want to manually configure the RAID array continue with next step, otherwise, proceed to step #5.
4   Select Select Disk Drives, then press <Enter>. Use arrow keys to select disk drive/s, then press <Enter> to mark selected drive. (An asterisk is placed before a selected drve.)
5   Select Start Create Process and press <Enter> to setup hard disk for RAID system. The following confirmation message appears:

The same confirmation message appears when the *Auto Setup for Performance* option is selected.

```
The data on the selected disks will
be destroyed. Continue? Press Y/N
```

Press "Y" to confirm or "N" to return to the configuration options.

Delete Array

1   In the VIA RAID BIOS utility main menu, select **Delete Array** then press the <Enter> key. The focus is directed to the list of channel used for IDE RAID arrays.

2   Press the <Enter> key to select a RAID array to delete. The following confirmation message appears.

```
The selected array will be destroyed.
Are you sure? Continue? Press Y/N
```

Press "Y" to confirm or "N" to return to the configuration options.

Select Boot Array

1   In the VIA RAID BIOS utility main menu, select Select Boot Array then press the <Enter> key. The focus is directed to the list of channel used for IDE RAID arrays.

2   Press the <Enter> key to select a RAID array for boot. The Status of the selected array will change to Boot. Press <ESC> key to go return to menu items. Follow the same procedure to deselect the boot array.

Serial Number View

1   In the VIA RAID BIOS utility main menu, select Serial Number View then press the <Enter> key. The focus is directed to the list of channel used for IDE RAID arrays. Move the selection bar on each item and the serial number is displayed at the bottom of the screen. This option is useful for identifying same model disks.

VIA VT8237 SATA RAID Setup Guide

Duplicate Critical RAID 1 Array

When booting up the system, BIOS will detect if the RAID 1 array has any inconsistencies between user data and backup data. If BIOS detects any inconsistencies, the status of the disk array will be marked as critical, and BIOS will prompt the user to duplicate the RAID 1 in order to ensure the backup data consistency with the user data.

If user selects **Continue to boot**, it will enable duplicating the array after booting into OS.

Rebuild Broken RAID 1 Array

When booting up the system, BIOS will detect if any member disk drives of RAID has failed or is absent. If BIOS detects any disk drive failures or missing disk drives, the status of the array will be marked as broken.

If BIOS detects a broken RAID 1 array but there is a spare hard drive available for rebuilding the broken array, the spare hard drive will automatically become the mirroring drive. BIOS will show a main interface just like a duplicated RAID 1. Selecting **Continue to boot** enables the user to duplicate the array after booting into operating system.

If BIOS detects a broken RAID 1 array but there is no spare hard drive available for rebuilding the array, BIOS will provide several operations to solve such problems.

VIA VT8237 SATA RAID Setup Guide

1. Power off and Check the Failed Drive:

This item turns off the computer and replaces the failed hard drive with a good one. If your computer does not support APM, you must turn off your computer manually. After replacing the hard drive, boot into BIOS and select **Choose replacement drive and rebuild** to rebuild the broken array.

2. Destroy the Mirroring Relationship:

This item cancels the data mirroring relationship of the broken array. For broken RAID 1 arrays, the data on the surviving disk will remain after the destroy operation. However, **Destroy the Mirroring Relationship** is not recommended because the data on the remaining disk will be lost when the hard drive is used to create another RAID 1 array.

3. Choose Replacement Drive and Rebuild:

This item enables users to select an already-connected hard drive to rebuild the broken array. After choosing a hard drive, the channel column will be activated.

Highlight the target hard drive and press <Enter>, a warning message will appear. Press **Y** to use that hard drive to rebuild, or press **N** to cancel. Please note selecting option **Y** will destroy all the data on the selected hard drive.

4. Continue to boot:

This item enables BIOS to skip the problem and continue booting into OS.

Installing RAID Software & Drivers

Install Driver in Windows OS

New Windows OS (2000/XP/NT4) Installation

The following details the installation of the drivers while installing Windows XP.

1   Start the installation:
     Boot from the CD-ROM. Press **F6** when the message "Press F6 if you need to install third party SCSI or RAID driver' appears.
2   When the Windows Setup window is generated, press **S** to specify an Additional Device(s).
3   Insert the driver diskette ***VIA VT8237 Disk Driver*** into drive A: and press <Enter>.
4   Depending on your operation system, choose **VIA Serial ATA RAID Controller (Windows XP), VIA Serial ATA RAID Controller (Windows 2000) or VIA Serial ATA RAID Controller (Windows NT4)** from the list that appears on Windows XP Setup screen, press the <Enter> key.
5   Press <Enter> to continue with installation or if you need to specify any additional devices to be installed, do so at this time. Once all devices are specified, press <Enter> to continue with installation.
6   From the Windows XP Setup screen press the <Enter> key. Setup will now load all device files and the continue the Windows XP installation.

Existing Windows XP Driver Installation

1   Insert the ECS CD into the CD-ROM drive.
2   The CD will auto-run and the setup screen will appear.
3   Under the Driver tab, click on **VIA SATA RAID Utility.**
4   The drivers will be automatically installed.

Confirming Windows XP Driver Installation

1   From Windows XP, open the **Control Panel** from **My Computer** followed by the System icon.
2   Choose the **Hardware** tab, then click the **Device manager** tab.
3   Click the "+" in front of the **SCSI and RAID Controllers** hardware type. The driver **VIA IDE RAID Host Controller** should appear.

Installation of VIA SATA RAID Utility

The VIA SATA RAID Utility is the software package that enables high-performance RAID 0 arrays in the Windows*XP operating system. This version of VIA SATA RAID Utility contains the following key features:

- Serial ATA RAID driver for Windows XP
- VIA SATA RAID utility
- RAID0 and RAID1 functions

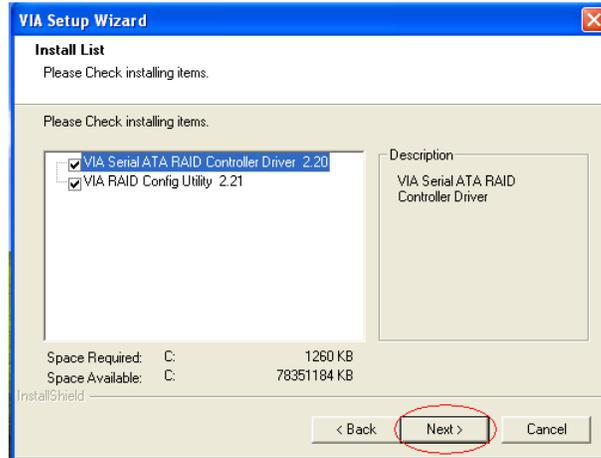Insert the ECS CD and click on the **Setup** to install the software.
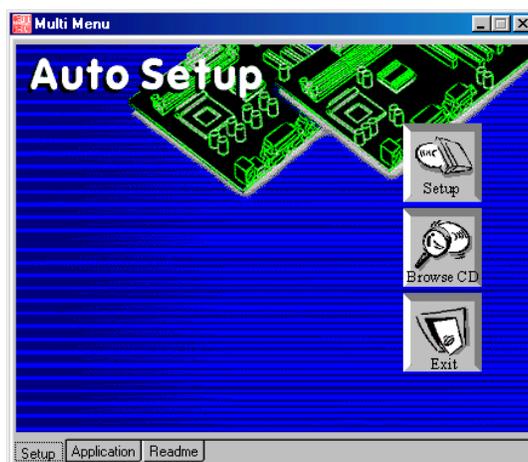
The **InstallShield Wizard** will begin automatically for installation. Click on the **Next** button to proceed the installation in the welcoming window.
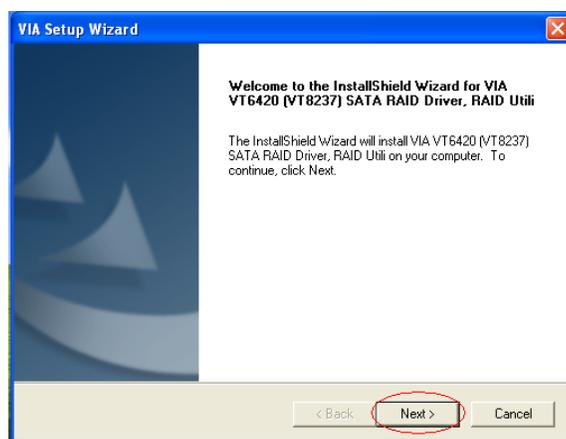
VIA VT8237 SATA RAID Setup Guide

Put a check mark in the check box to install the feature you want. Then click **Next** button to proceed the installation.

Using VIA RAID Tool

Once the installation is complete, go to Start---> Programs---> VIA---> raid_tool.exe to enable VIA RAID Tool.

After the software is finished installation, it will automatically started every time Windows is initiated. You may double-click on the icon shown in the system tray of the tool bar to launch the **VIA RAID Tool** utility.

The main interface is divided into two windows and the toolbar above contain the main functions. Click on these toolbar buttons to execute their specific functions. The left windowpane displays the controller and disk drives and the right window-pane displays the details of the controller or disk drives. The available features are as following:


View by Controller

View by Devices

View Event log

Help Topics

It means that VT8237 SATA RAID only has the feature of monitoring the statuses of RAID 0 and RAID 1.

Click on or button to determine the viewing type of left windowpane. There are two viewing types: By controllers and by device. Click on the object in the left windowpane to display the status of the object in the right windowpane. The following screen shows the status of Array 0-RAID 0.

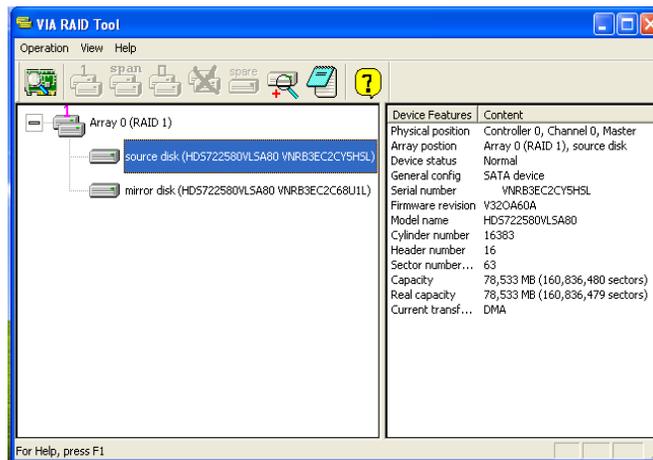**VIA VT8237 SATA RAID Setup Guide**
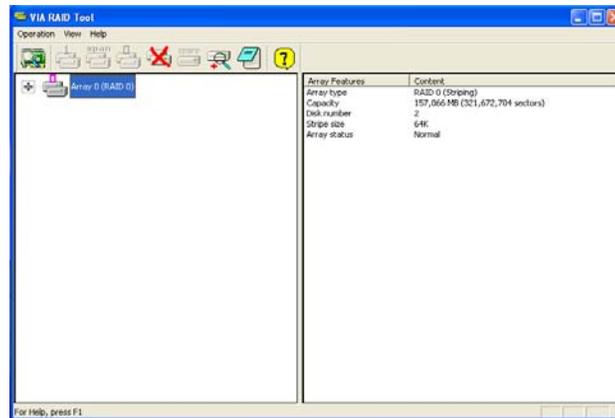
Click on the plus (+) symbol next to Array 0--RAID 0 to see the details of each disk.
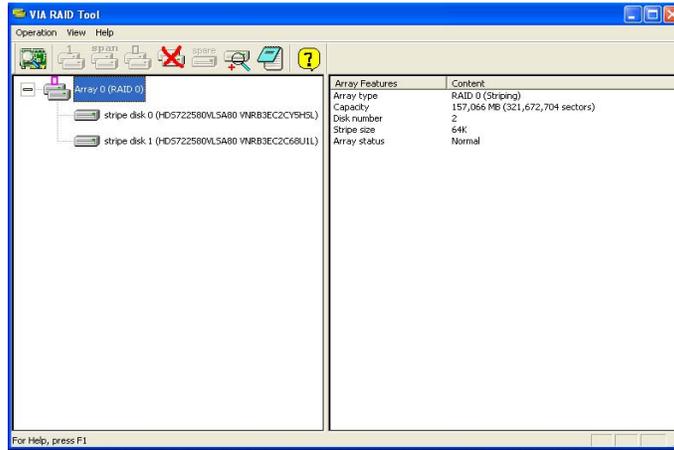
You may also use the same or button to view the statuses of Array 0-RAID 1.
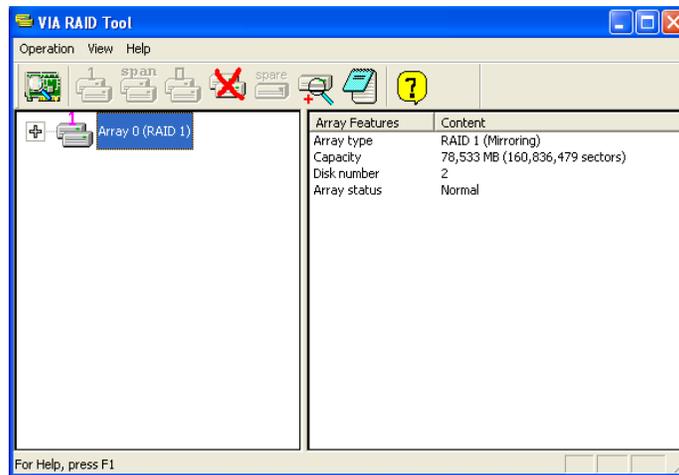
Click on the plus (+) symbol next to Array 0; RAID 1 to see the details of each disk.

Memo