



Electronic Emission Notices

Federal Communications Commission (FCC) Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of 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 instructions contained in this manual, may cause harmful interference to radio and television 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 INTO AN OUTLET ON A CIRCUIT DIFFERENT FROM THAT OF THE RECEIVER
- CONSULT THE DEALER OR AN EXPERIENCED AUDIO/TELEVISION TECHNICIAN

NOTE: Connecting this device to peripheral devices that do not comply with Class B requirements, or using an unshielded peripheral data cable, could also result in harmful interference to radio or television reception.

The user is cautioned that any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

To ensure that the use of this product does not contribute to interference, it is necessary to use shielded I/O cables.

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HARDWARE CONFIGURATION

Key Features :

Chipset

- SiS® 662+966 Chipset.

Processor

- Supports Intel® Celeron® , Pentium® 4, Pentium® D, core 2 Duo processors in the LGA775 -pin package (**with 0.8V~1.6V voltage**).
- Supports 64-bit PSB (Processor System Bus) frequency of 533MHz /800MHz/1066MHz (133MHz/200MHz/266MHz bus clock).
- Supports Hyper-Threading Technology.

System Memory

- Supports two DIMMS.
- Up to 1GB Per DIMM with maximum memory size up to 2GB.
- Supports un-buffered DIMMS only.
- Supports DDRII667/DDRII533/DDRII400.
- 1.8V DRAM interface for DDRII SDRAM.

PCIE x 16 Controller

- Compliant with PCI Express SPEC 1.1.
- 4GB/s Bandwidth for each direction.
- Support Lane Reversal.

PCIE x 1 Controller

- Compliant with PCI Express 1.0a
- One general purpose ports
- Supports Module Based hot-plug and hot-swap
- Supports Active State Power Management
- Supports Enhanced Configuration Mechanism

Onboard I/O

- Onboard two PCI fast IDE port supporting up to 4 ATA, ATA2 , Ultra ATA33/66/100/133 IDE HDDs, CD-ROMs, ZIP drives and LS-120 drives as boot drive.
- Four SATA ports (optional).
- One ECP/EPP parallel port.
- One 16550 Compatible UART serial port.
- One floppy port, supports two FDD of 1.44MB and 2.88MB capacity.
- PS/2 keyboard connector.
- PS/2 mouse is supported.
- One Front Panel Sound Connector.
- Eight USB 2.0/1.1 ports (rear x 4, front x 4 via cable).
- Infrared (IrDA) is supported via a header (optional).

Onboard Fast Ethernet Controller

- Supports full duplex 10base-T, 100base-T,1000base-T, 1 Mb/s&10 Mb/s&100MB/s&1000MB/s Home Networking.
- One RJ45 port.

System BIOS

- PnP, APM, ATAPI and Windows 2000/XP.
- Full support of ACPI & DMI.
- Auto detects and supports LBA harddisks with capacities over 8.4GB.
- Easy to upgrade BIOS by end-user.

Plug-and-Play

- Supports Plug and Play specification 1.1.
- Plug and Play for Windows®2000 as well as Windows®XP.
- Fully steerable PCI interrupts.

Power Management

- Support SMM, APM, ACPI
- Break switch for instant suspend/resume on system operations.
- Energy star “ Green PC ” compliant.
- Hardware monitoring circuit is supported, provide voltage, fan speed, etc. monitoring(optional).
- Support STR(suspend to RAM)(optional)

Onboard VGA

- Built-in SiS® 662 Chipset.
- Optimized Shared Memory Architecture (SMA).
- Transfer Rate up to 2.7GB/sec.
- 128/256-bit Single Cycle 2D/3D Graphic Engines
- 32/64/128MB frame buffer using system memory.
- 32-bit true color rendering.
- Microsoft DirectX texture compression.
- High quality DVD video playback.
- MPEG-2 video textures.

Onboard AC97 Sound

- Integrated AC97 controller with standard AC97 Code.
 - Direct Sound and Sound Blaster compatible.
 - Full-Duplex 16-Bit record and play back..
 - PnP and APM 1.2 support.
 - Win2000/XP drivers ready.
 - Supports ALC655 AC97 Code for six sound channel output (optional)
 - Supports Line In ; Line Out ; MIC In.
 - CD In connection.
-

Onboard Serial ATA host Controller

- Independent DMA operation on four ports (optional).
- Data transfer rates of 150Mb/s.
- RAID feature support.

Expansion Slots

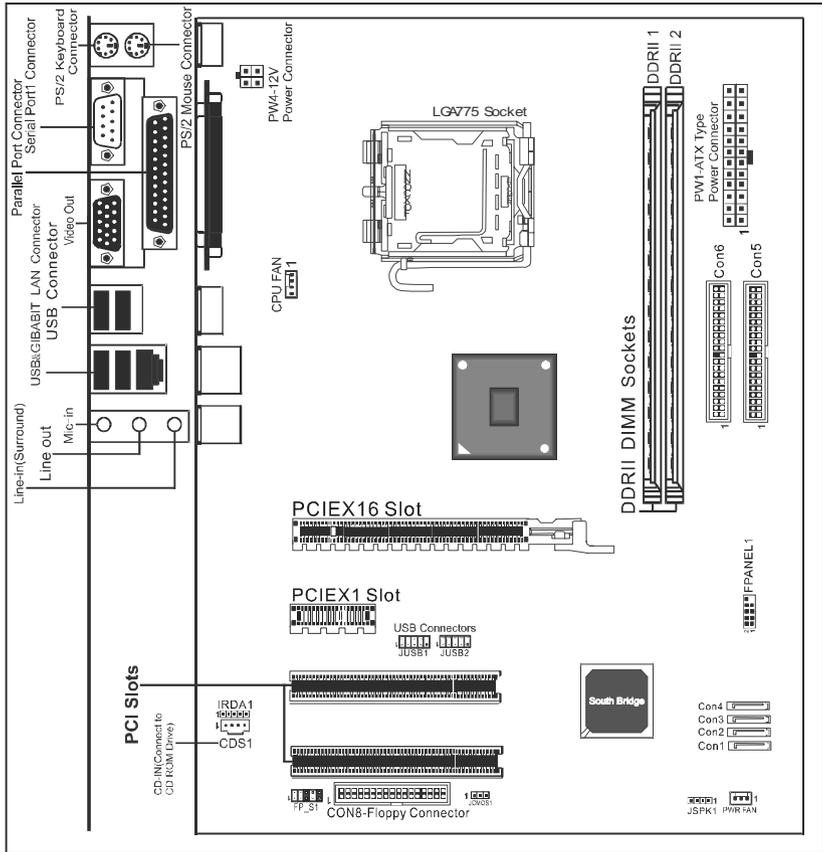
- 1 PCI Express X16 slot.
- 1 PCI Express X1 slots (optional).
- 2 PCI bus master slots - ver. 2.3 compliant (optional).



Static electricity can harm delicate components of the motherboard. To prevent damage caused by static electricity, discharge the static electricity from your body before you touch any of the computers electronic components.

Motherboard Layout

The following diagram shows the relative positions of the jumpers, connectors, major components and memory banks on the motherboard.

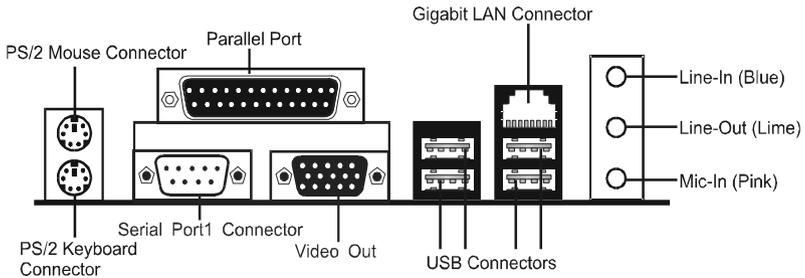


NOTE :

- 1) Be sure to check the HDD cable orientation in order to match the colored strip to the pin 1 end of the connector.
- 2) When you start up the system, please wait for 5 seconds after you power on AC.
- 3) Adding a metal spaced plate to the back of the Socket 775 is not recommended as this will short motherboard components and damage the system.

Rear Panel

The back panel provides the following connectors:



Mouse Connector

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

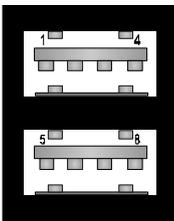
Keyboard Connector

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

USB 2.0 Connector

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

USB 2.0 Connector



USB 2.0 Connector Description

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

Serial Port Connector: COM1

The Port is 16550A high speed communication ports that send/receive 16 bytes FIFOs. You can attach a serial mouse or other serial devices directly to the connectors.

Video Out Connector

The motherboard provides a Video out port to connect a 15-pin analog video monitor.

RJ-45 LAN Jack (Optional)

The motherboard provides one standard RJ-45 jack for connection to Local Area Network(LAN).You can connect a network cable to the LAN jack.

Parallel Port Connector:LPT1

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

Audio Port Connector

SPK_Out is a connector for Speakers or Headphones. Line In is used for external CD player, Tape player, or other audio devices. Mic In is a connector for microphones. The ALC655 embeds an internal analog switch (by driver software) to share LINE input with Surround output, and share MIC input with CENTER/LFE output.

AUDIO CONFIGURATION

After installing the audio driver, you can select 2/4/6 channel surround audio output in the software utility and then connect surround speakers to appropriate audio ports.

There are two ways to obtain 4/6 channel surround audio output:

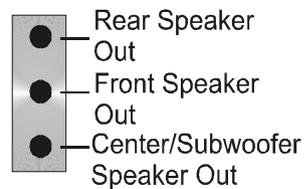
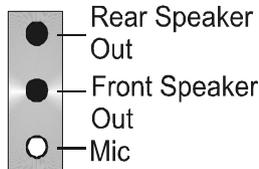
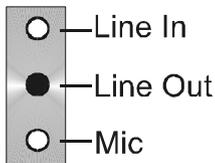
1. Using the 4/6 surround audio output of the back panel only. All surround speakers connect to this audio connector.
2. Using the S-Bracket (optional cable). You have install the S-Bracket into the computer. Connect two front speakers to back panel's "Line Out" port, and the rest of speakers to S-Bracket. For connection details, please refer to page 15.

SPEAKER CONFIGURATION

Method 1:

Using the 4/6 surround audio output of the back panel only

After installing the audio drivers, you can attach the speakers for 2-/4-/6- channel audio output. Please connect the speakers to the LINE OUT connectors. Different connector configurations for 2-/4-/6-channel options are listed below:



2-Channel

In 2-channel configuration, Line Out, Line In and MIC functions all exist.

4-Channel

When set to 4-channel configuration, Line In is replaced by Rear Speaker Out. The Line in function does not exist.

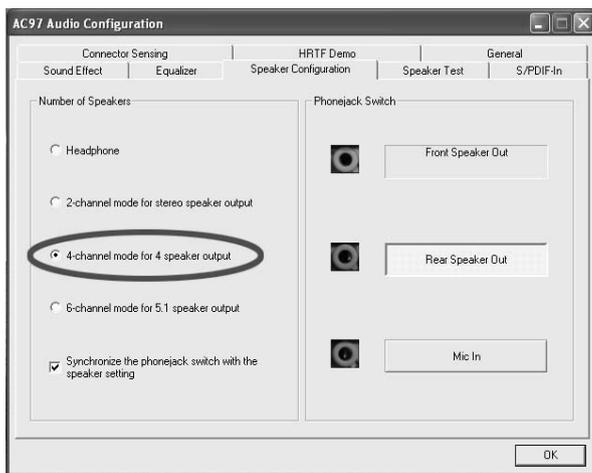
6-Channel

When set to 6-channel configuration, Line In is replaced by Rear Speaker Out. Mic is replaced by Center/Subwoofer Speaker Out. Line in and Mic functions do not exist.

In the software utility, double click the “AC97 Audio configuration” icon  from the window tray on the right bottom.

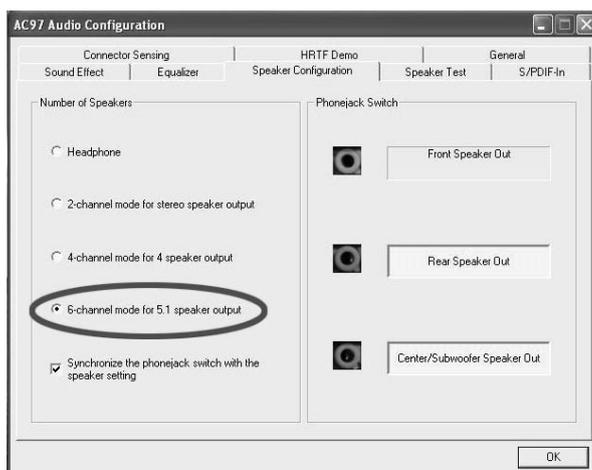
The “AC97 Audio Configuration” box will appear. Click on the **Speaker Configuration** tab to select the audio mode.

- A. When you choose 4-channel mode for 4 speaker output, the selected item is shown (Figure 1).



(Figure 1)

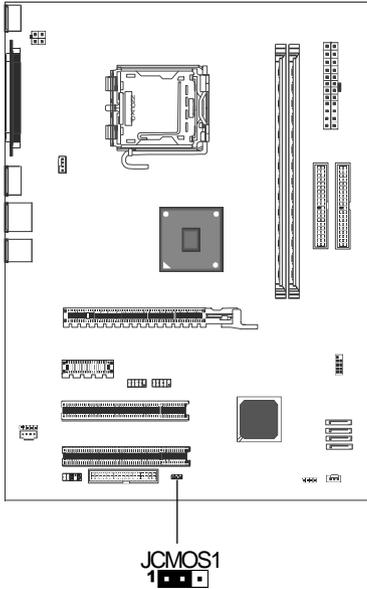
- B. When you choose 6-channel mode for 5.1 speaker output, the selected item is shown (Figure 2).



(Figure 2)

Jumper Setting

This chapter explains how to configure the motherboard's hardware. Before using your computer, make sure all jumpers and DRAM modules are set correctly. Refer to this chapter whenever in doubt.



JCMOS1-CMOS Clear

JCMOS1	Selection
1 <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 1-2*	Normal*
1 <input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> 2-3	CMOS Clear

Close Open * = Default setting.

CPU Speed Selection

In this motherboard, jumperless feature is implemented such that no jumper is required to be set for different type of CPU installed.

Notice:

1. Be sure to save the CMOS setting when exit the CMOS.
2. If the CPU is frequency multiplier locked, no CPU speed change will be seen even if the frequency multiplier setting in CMOS setup is changed.

CONNECTORS

The motherboard provides connectors to connect to the FDD, IDE HDD, USB Ports and to CPU/System FAN etc.

Floppy Disk Drive Connector - CON8

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

Hard Disk Connectors: CON5 & CON6

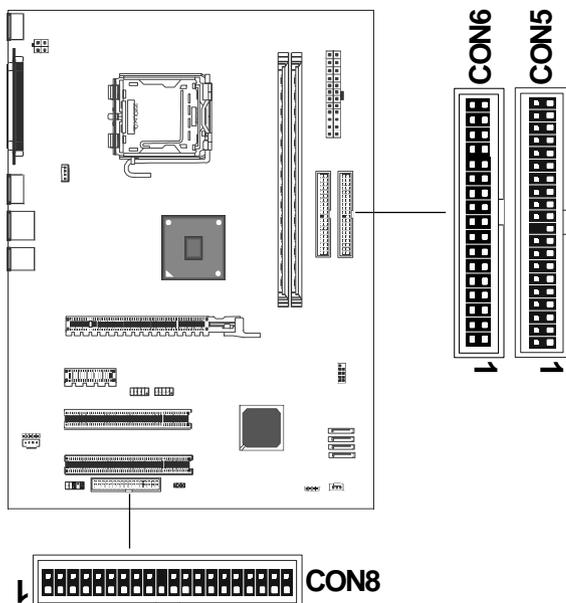
The motherboard has a 32-bit Enhanced PCI IDE and Ultra DMA 66/100/133 controller that provides PIO mode 0~4, Bus Master, and Ultra DMA 66/100/133 function. You can connect up to four hard disk drives, CD-ROM, 120MB Floppy (reserved for future BIOS) and other devices.

CON5 (Primary IDE Connector)

The first hard drive should always be connected to CON5. CON5 can connect a Master and a Slave drive. You must configure the second hard drive to Slave mode by setting the jumper accordingly.

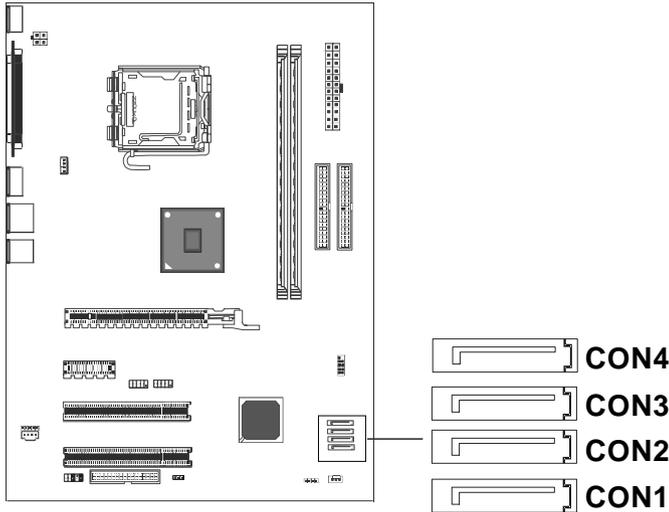
CON6 (Secondary IDE Connector)

CON6 can also connect a Master and a Slave drive.



**Serial ATA Hard Disk Connectors -
CON1(SATA1), CON2(SATA2), CON3(SATA3)&CON4(SATA4) (optional)**

The motherboard has four SATA connectors. The motherboard provides optional dual high-speed Serial ATA interface ports, SATA-1, SATA-2, SATA-3, SATA4. Each supports 1st generation serial ATA data rates of 150MB/s. All connector types are fully compliant with Serial ATA 1.0 specifications. Each Serial ATA connector can connect to 1 hard disk device. Please refer to STAT Raid Setup for details on software installation procedure.

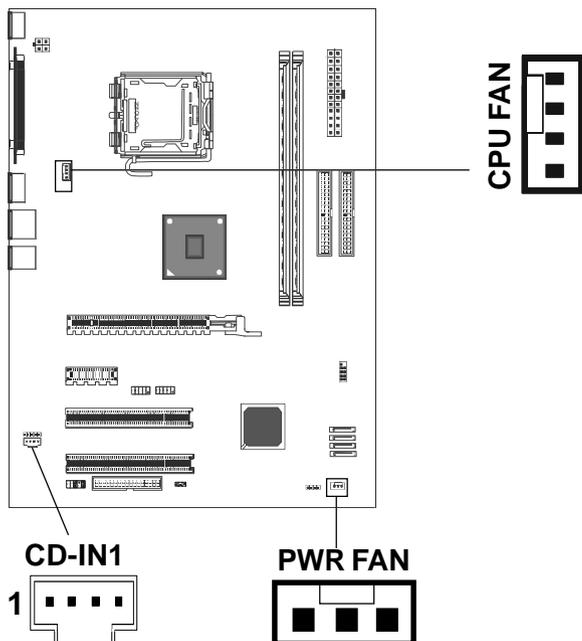


CON1, CON2, CON3, CON4 - Pin Definition

PIN	SIGNAL
1	GND
2	TXP
3	TXN
4	GND
5	RXN
6	RXP
7	GND

Fan Power Connectors - CPUFAN / SYSFAN / AUXFAN (optional)

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



CD-IN Connector

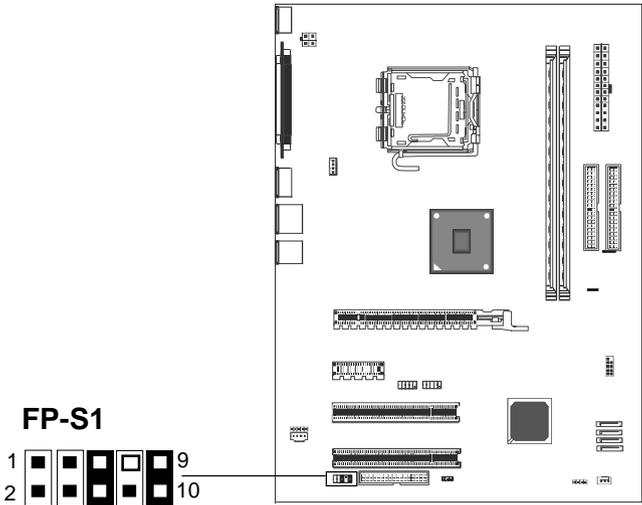
The connector is for CD-ROM Drive.

CD-IN1 Pin Definition

PIN	Assignment
1	CD-L
2	GND
3	GND
4	CD-R

Front Panel Audio Header: FP-S1

This motherboard supports front panel microphone and speaker out ports. If your computer case has these ports, connect them to FP-S1.



FP-S1 Pin Definition

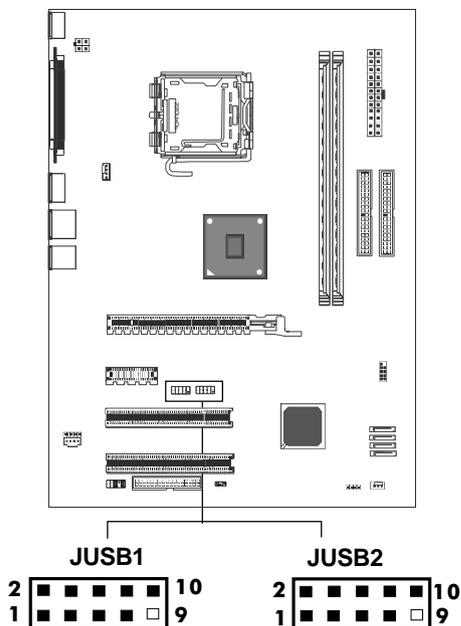
PIN	Assignment
1	MIC
2	GND
3	REF
4	POWER
5	Front Audio (R)
6	Rear Audio (R)
7	Key (No pin)
8	Reserved
9	Front Audio (L)
10	Rear Audio (L)

Note:

If you want to use the "Front Audio" connector, you must remove the 5-6, 9-10 pin jumpers. In order to utilize the front audio header, your chassis must have front audio connector. Also please make sure the pin assignment on the cable is the same as the pin assignment on the mainboard header. To find out if the chassis you are buying supports a front audio connector, please contract your dealer.

USB Connectors - JUSB1 / JUSB2 (optional)

This motherboard has eight USB ports. Some computer cases have a special module that mounts USB ports at the front of the case. If you have this kind of case, use the auxiliary USB connectors JUSB1/JUSB2 to connect the front mounted ports to the motherboard.

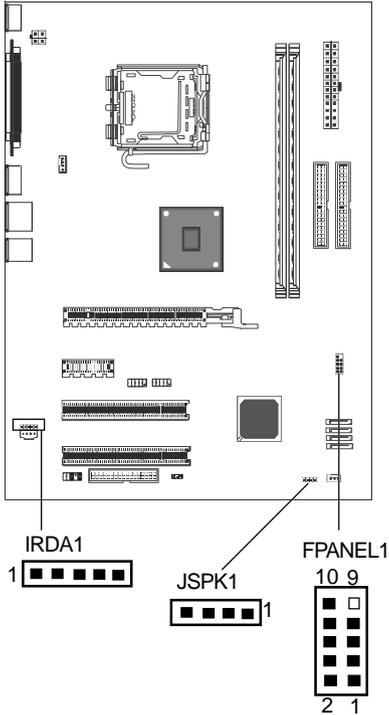


JUSB1/JUSB2 Connector

PIN	Assignment
1	VCC
2	VCC
3	USBP0-
4	USBP1-
5	USBP0+
6	USBP1+
7	GND
8	GND
9	KEY
10	GND

Front Panel Header: FPANEL1, JSPK1, IRDA1

The motherboard provides one front panel connector and one speaker connector.



FPANEL1 - Pin Definition

PIN	Assignment
1	HDD LED+
2	PWR LED+
3	HDD LED-
4	PWR LED-
5	GND
6	PWR SW
7	RST SW
8	GND
9	KEY(No pin)
10	NC

JSPK1 - Pin Definition

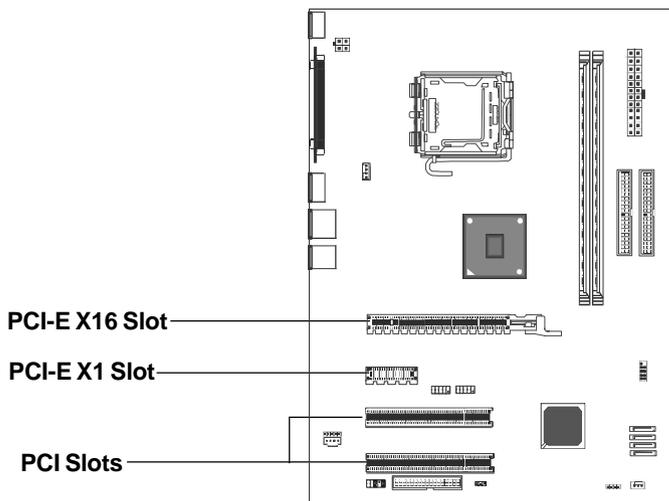
PIN	Assignment
1	SPEAKER
2	NC
3	GND
4	VCC

IRDA1 - Pin Definition

PIN	Assignment
1	VCC
2	NC
3	IRRX
4	GND
5	IRTX

Slots

The motherboard provides one PCI-E X16 slot , one PCI-E X1 slots and two 32-bit PCI slots.

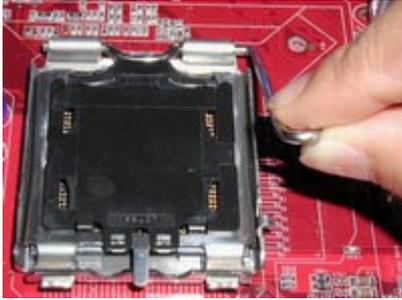


PCI (Peripheral Component Interconnect) Slots

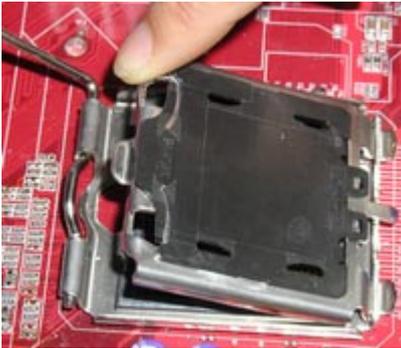
The PCI slots allow you to insert expansion cards to meet your needs. When adding or removing expansion cards, make sure that you unplug the power supply first. Read the documentation for the expansion card and make any necessary hardware or software settings for the expansion card, such as jumpers,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

CPU Installation

Please follow the steps below to install the CPU.



1. Use index finger and thumb to move metal lever so it is separated from the bottom steel shell grip hook.



2. Use index finger to lift the top steel shell.



3. Use index finger and thumb to place the CPU onto the plastic body (look for the gold arrow on the CPU. The gold arrow should point away from the lever pivot).



4. Use index finger and thumb to press down metal lever, the cap will be pushed up by the CPU; this may also be done by removing the cap beforehand.

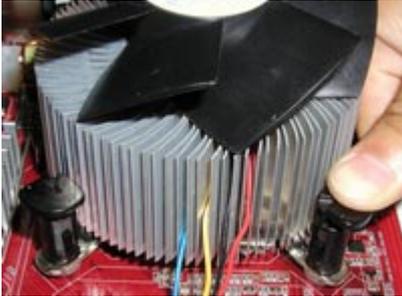


5. Press the metal lever so it is secured in the bottom steel shell grip hook.

6. It's recommended that the CPU heatsink should be an approval by Intel corporation design for Prescott CPU. Choose the orientation of the thermal solution for optimal wire routing to the fan header on the motherboard, Position the thermal solution over the processor. Ensure the fan wiring is positioned to prevent wire pinching between the heatsink and the processor, or between the heatsink clip and the socket.



7. Align the fastener tips with the motherboard hole pattern, insert the fastener tips into the holes, guiding the wires to avoid pinching. The fasteners will slide through the motherboard holes with no insertion force.



8. Engage the fasteners caps. Apply thumb pressure to the top of each of the 4 fastener caps, there is no specific order of engagement, you will hear a “click” upon full engagement.



9. Gently rotate the cap clockwise 1/4 turn.

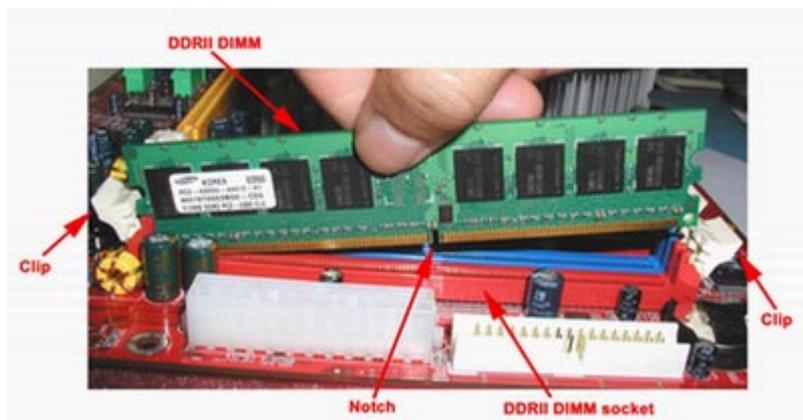


10. At last, attach the fan wire connector to the 4 pin fan header connector on the motherboard labeled CPU FAN.

Install DDRII DIMMs

Please follow the steps below to install DDRII DIMMs.

1. Locate the DDRII DIMM sockets.
2. Holding the DDRII DIMM by the edges, remove it from its antistatic package.
3. Make sure the clips at either end of the socket are pushed away from the socket.



4. Position the DDRII DIMM above the socket. Align the middle notch in the bottom edge of the DDRII DIMM with the key in the socket.
5. Insert the bottom edge of the DDRII DIMM into the socket.
6. When the DDRII DIMM is seated, push down on the top edge of the DDR II DIMM until the retaining clips at the ends of the socket snap into place.

Note: Please turn the system off before installing or removing any device, otherwise system damage can occur.

BIOS SETUP

About the Setup Utility

The motherboard uses the latest Award 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 to prevent 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:

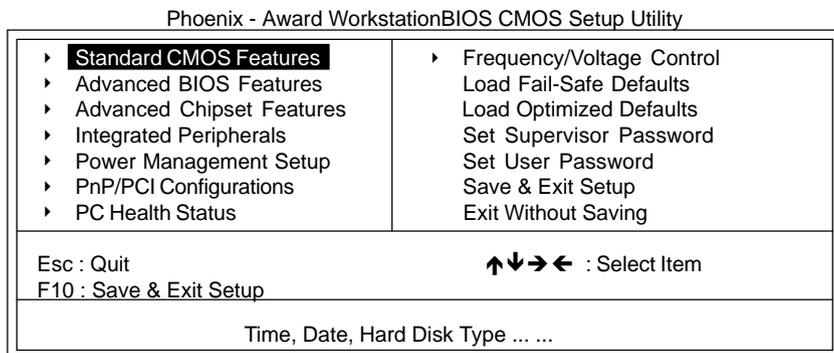
- when changing the system configuration
- when a configuration error is detected and you are prompted to make changes to the Setup Utility
- when trying to resolve IRQ conflicts
- when making changes to the Power Management configuration
- when changing the password or making other changes to the Security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

Main Menu

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



(Note : The sample BIOS Setup Menu included here only shows a typical case, and may not be exactly the same as the one on your unit.)

Note that a brief description of each highlighted item will appear at the bottom of the screen.

Standard CMOS Features This setup page includes all the items of Award™ special standard features.

Advanced BIOS Features This setup page includes all the items of Award™ special enhanced features.

Advanced Chipset Features This setup page includes all the items of chipset special features.

Integrated Peripherals This section page includes all the items of IDE hard drive and Programmed Input / Output features.

Power Management Setup This entry only appears if your system supports Power Management “Green PC” standards.

PNP/PCI Configurations This entry appears if your system supports PNP/PCI.

PC Health Status Display CPU and Case Fan Speed etc.

**Frequency/
Voltage Control** CPU speed setting are settings of CPU speed. You should refer to your CPU marking.

Load Fail-Safe Defaults The BIOS defaults have been set by the manufacturer and represent settings which provide the minimum requirements for your sys to operate

Load Optimized Defaults The chipset defaults are settings which provide for maximum system performance. While Award has designed the custom BIOS to maximize performance, the manufacturer has the right to change these defaults to meet its needs.

**Set Supervisor/
User Password** Changes, sets, or disables password. It allows you to limit access to the system and the Setup Program.

Save & Exit Setup Saves value changes to CMOS and exits setup.

Exit Without Saving Abandons all CMOS value changes and exits setup.

Standard CMOS Features

The items in Standard CMOS Setup Menu are divided into 10 categories. Each category includes one or more setup items. Use the arrow keys to highlight the item and then use the <PgUp> or <PgDn> key to select the desired value in each item.

Phoenix - Award WorkstationBIOS CMOS Setup Utility
Standard CMOS Features

Date (mm :d d :yy)	Sat. Jan 01 2005	Item Help
Time (h h :mm:ss)	11 : 1 : 35	
▶ IDE Primary Master	[Press Enter 4303 MB]	Menu Level ▶
▶ IDE Primary Slave	[None]	Change the day, month, year and century
▶ IDE Secondary Master	[None]	
▶ IDE Secondary Slave	[None]	
Drive A	[1.44M, 3.5 in.]	
Drive B	[None]	
Video	[EGA/VGA]	
Halt on	[All, but keyboard]	
Base Memory	640K	
Extended Memory	30720K	
Total Memory	31744K	

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

(Note : The sample BIOS Setup Menu included here only shows a typical case, and may not be exactly the same as the one on your unit.)

Date	The date format is <day-of-the-week>. <month> <day> <year>.
Time	The time format is <hour> <Minute> <second> displayed in 24-hour military-time clock. For example, 1 p. m. is displayed as 13:00:00.
Primary Master/Primary Slave/Secondary Master/Secondary	These categories identify the types of the two channels that have been installed in the computer. If the controller of the HDD interface is SCSI, the selection shall be "None".
Drive A Type / Drive B Type	This category identifies the drive types which have been installed in the computer.
Video	The default setting is EGA/VGA.
Halt on	You can select which type of error will cause the system to halt.

Advanced BIOS Features

This section allows you to configure your system for basic operation. You have the opportunity to select the system's default speed, boot-up sequence, keyboard operation, shadowing and security.

Advanced Chipset Features

The 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.

This section allows you to configure the system based on the specific features of the installed chipset. This chipset manages bus speeds and access to system memory resources, such as DRAM and the external cache. It must be stated that these items should not be altered. The default settings have been chosen because they provide the best operating conditions for your system.

Integrated Peripherals

The Integrated Peripherals Setup allows the user to configure the onboard IDE controller, floppy disk controller, the printer port and the serial ports.

Power Management Setup

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

PNP/PCI Configurations

This section describes how to configure the PCI bus system. This section covers some very technical items and it is recommended that only experienced users should make any changes to the default settings.

PC Health Status

The PC Health Status displays CPU and Case Fan Speed.

Frequency/Voltage Control

This section allows you to set CPU Speed.

Set Supervisor/User Password

When this function is selected, the following message appears at the center of the screen to assist you in creating a password.

ENTER PASSWORD

Type the password, up to eight characters, 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. To disable password, just press <Enter> when you are prompted to enter password. A message will confirm the password being disabled. Once the password is disabled, the system will boot and you can enter BIOS Setup freely.

PASSWORD DISABLED

If you have selected "**System**" in "Security Option" of "BIOS Features Setup" menu, you will be prompted for the password every time the system reboots or any time you try to enter BIOS Setup. If you have selected "**Setup**" at "Security Option" from "BIOS Features Setup" menu, you will be prompted for the password only when you enter BIOS Setup.

Supervisor Password has higher priority than User Password. You can use Supervisor Password when booting the system or entering BIOS Setup to modify all settings. Also you can use User Password when booting the system or entering BIOS Setup but can not modify any setting if Supervisor Password is enabled.

Save & Exit Setup

Navigate to this option 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, press <Y> to save and exit, or press <N> to return to the main menu.

Exit Without Saving

Navigate to this option 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, press <Y> to discard changes and exit, or press <N> to return to the main menu.

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

BIOS Update Procedure

The program AWDFLASH.EXE is included on the driver CD (D:\Utility\AWDFLASH.EXE). It is recommended to follow the procedure below to update the BIOS.

1. Create a DOS-bootable floppy diskette. Copy the new BIOS file (just obtained or downloaded) and the utility program AWDFLASH.EXE to the diskette.
2. Allow the PC system to boot from the DOS diskette.
3. At the DOS prompt, type

AWDFLASH<ENTER>

4. Enter the file name of the new BIOS.
5. The question: "Do you want to save BIOS (Y/N)?" is displayed.

***Press "N" if there is no need to save the existing BIOS.
Press "Y" if a backup copy of the existing BIOS is needed.
(A file name has to be assigned to the existing BIOS binary file.)***

6. The message : "Press "Y" to program or "N" to exit" is displayed. Type

"Y"<ENTER>

7. Wait until the flash-update is completed.
8. Restart the PC.

<p>Warning : - Do not turn off or RESET the computer during the flash process. - If you are not sure how to upgrade the BIOS, please take your computer to an Authorized Service Center and have a trained technician do the work for you.</p>

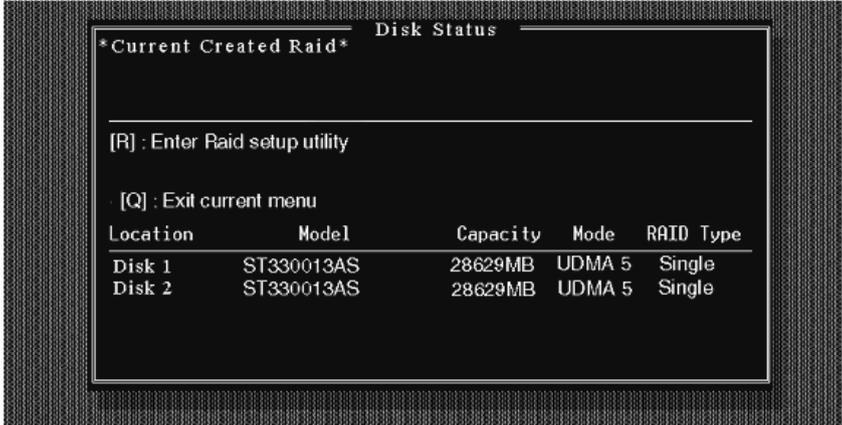
tached an Auto-Run feature for all the drivers that the motherboard needs. Please select the drivers that you want to install and click the button on the installation panel.

SATA RAID User Manual

Creating and deleting RAID sets is a function found in the BIOS. During boot up, the following message will appear, pausing for a few moments to allow the user to choose what to do:

Press <Ctrl-S> keys to display Utility Main Menu.

SiS RAID BIOS Setting Utility



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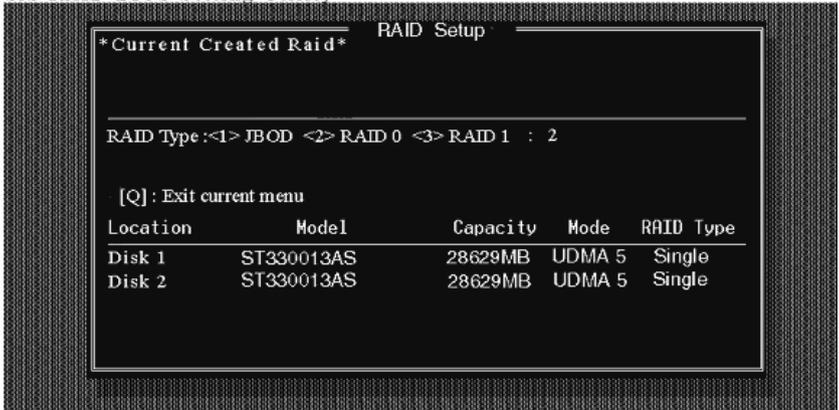
Creating RAID Sets

Because SATA Raid supports two drives, creating RAID Sets is a simple procedure.

To create an array for best performance, follow these steps:

1. Press <A> to start creating a RAID array.
2. Press <2> and <Enter> to select RAID 0.

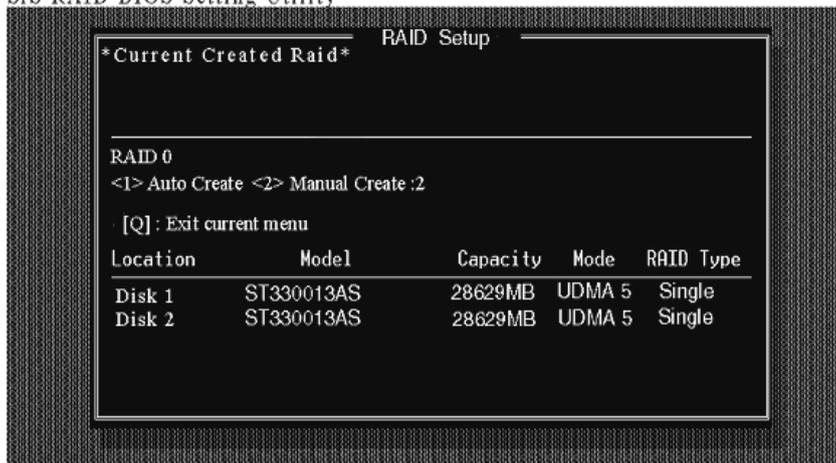
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3. You will have two selections to create a RAID 0 array. The default value is <1>. If you select <1>Auto Create, you can create a RAID 0 array faster and easier. The Blocksize will be selected by its default value "64K". The result after auto creating will be shown on step 6. Besides, you also can select <2>Manual Create, see following steps.

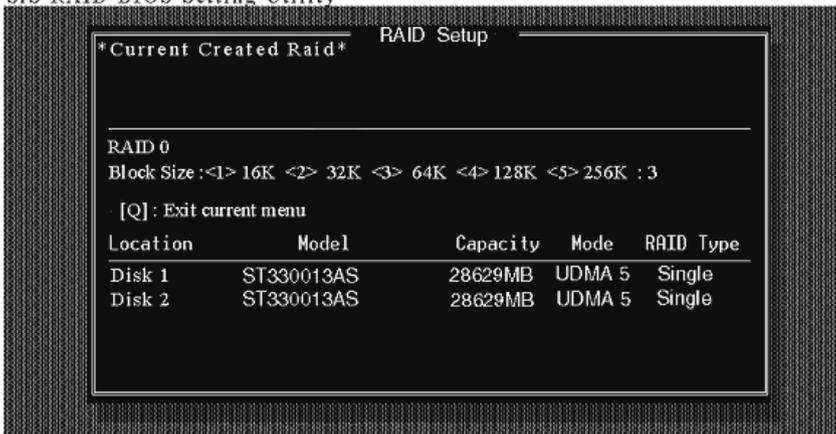
SIS RAID BIOS Setting Utility



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4. Press <1>@<5> keys and <Enter> to select Block Size. (Default : 64K)

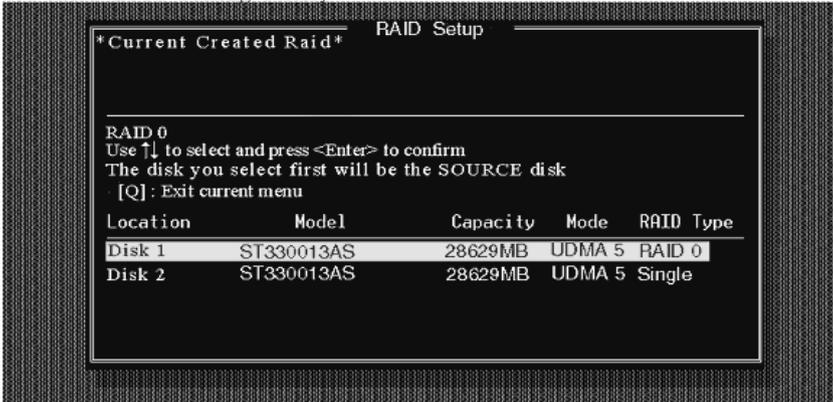
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5. Use \uparrow \downarrow to select disk , and press <Enter> to select disk, <Q> to exit. When you press <Enter> on the disk you wanted, the RAID Type will be changed from Single to RAID 0. And the disk you select first will be the SOURCE disk.

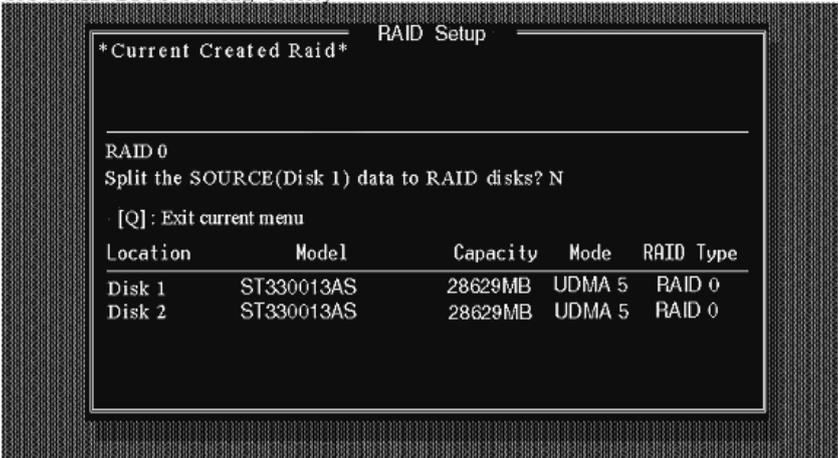
SIS RAID BIOS Setting Utility



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6. Next, you will see a message "Split the SOURCE(Disk x) data to RAID disks?". Press <N> and <Enter> to create RAID 0 array only or press <Y> and <Enter> to split the data from source disk to other disks.

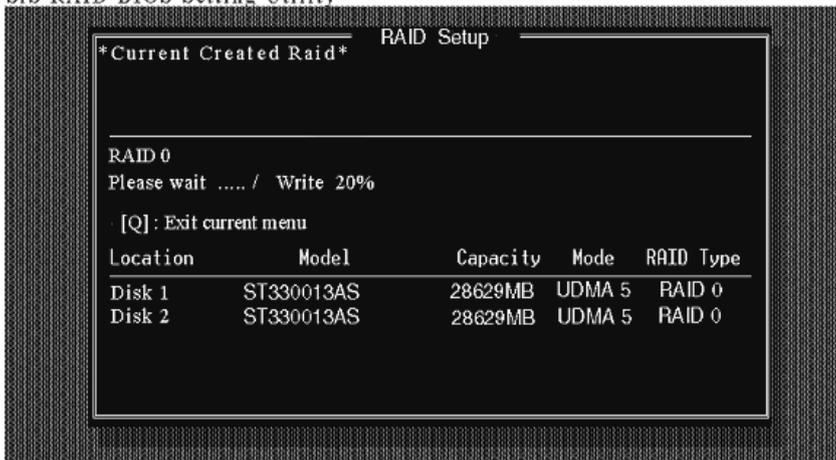
SIS RAID BIOS Setting Utility



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7. Starting splitting action, the following frame will be shown.

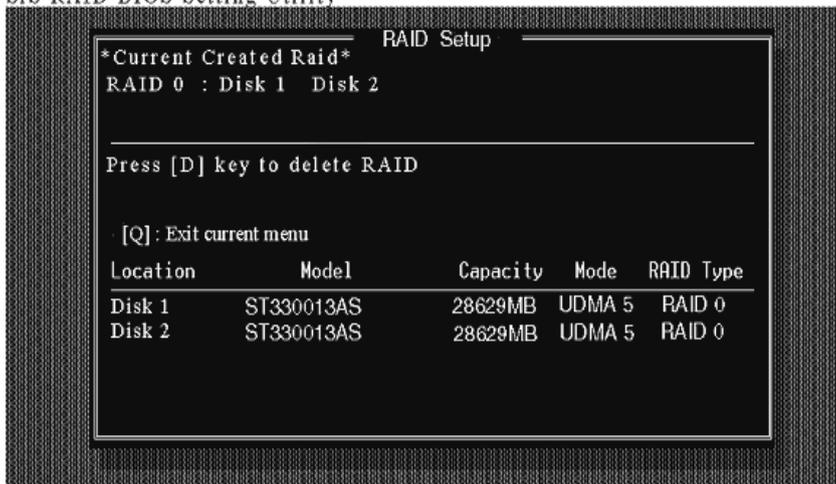
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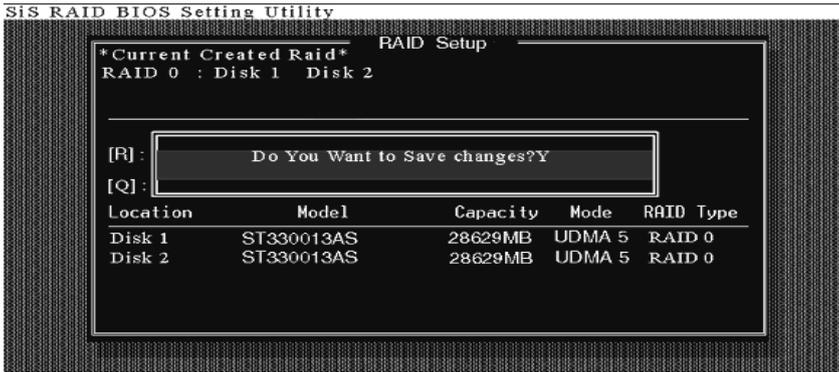
8. After all steps finished, press <Q> until escape the setup menu and RAID 0 array will be shown on the top of the main frame.

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- Press <Q> until exit this BIOS utility and the red message frame will show. Press <Y> and <Enter> to save changes.



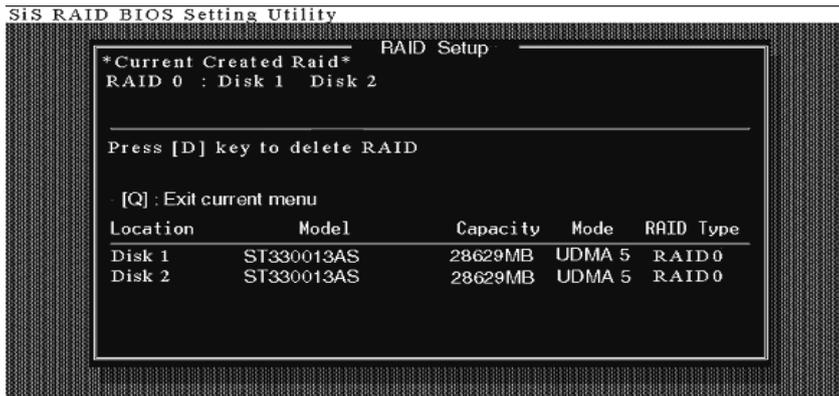
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- Once the array has been created, you will need to FDISK and FORMAT the array as if it were a new single hard drive.

Deleting RAID Sets

Starting to delete a RAID array.

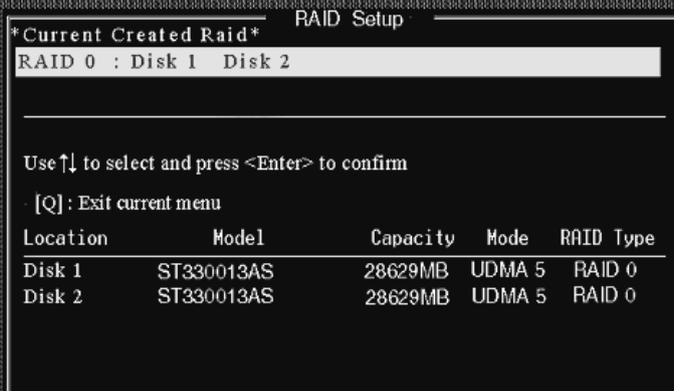
- After enter the Utility Main Menu, press <R> to display the RAID setup menu below. This is the fastest and easiest method to delete your first array.



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- Press <D> to start deleting a RAID array, and use <j> <y> to select RAID array you wanted to delete.

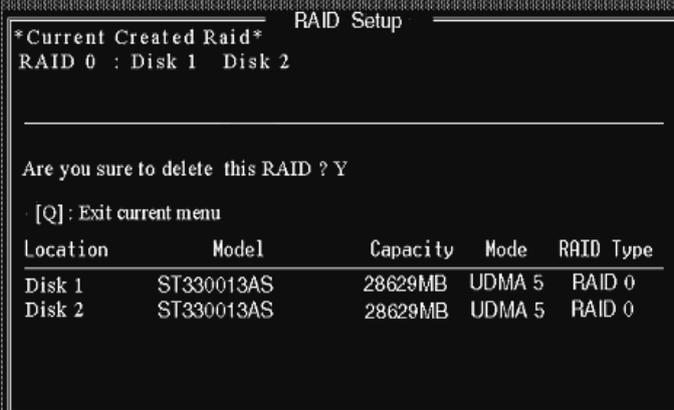
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- Press <Enter> to select the RAID array that you want to delete. And a message "Are you sure to delete this RAID?" will show on this frame.

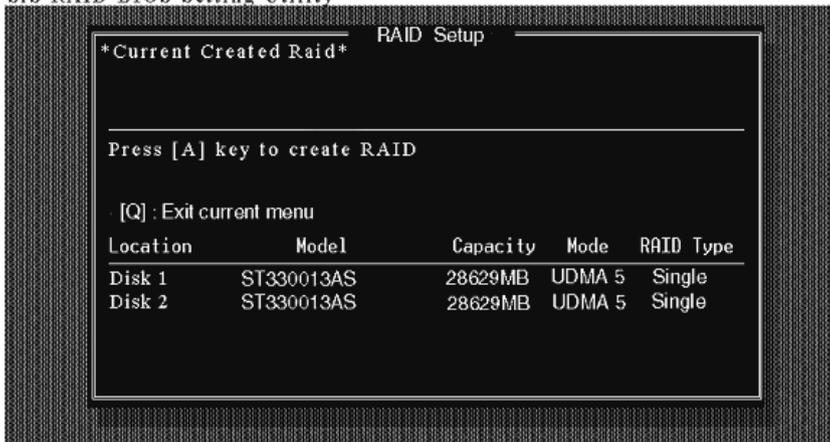
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- Press <Y> and <Enter>, the deleting action finish. And the RAID Type of all disk members of this RAID array will be changed from RAID 0 to Single.

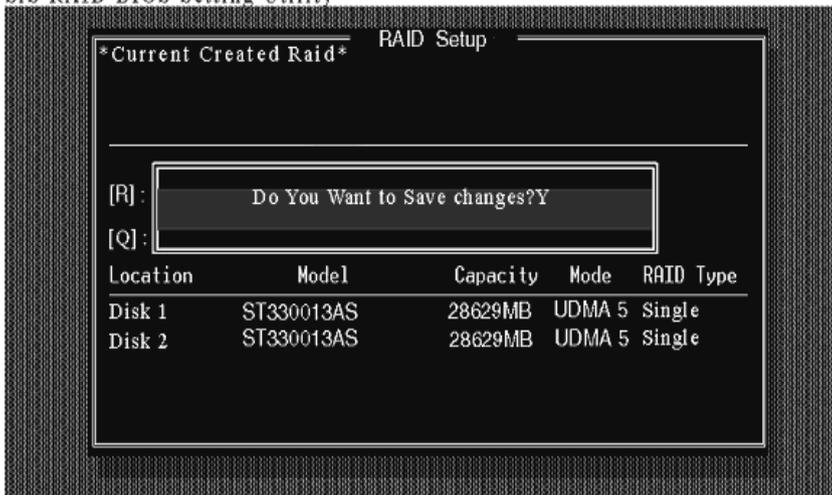
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- Press <Q> until escape the BIOS Utility, and the red message frame will show on it.

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- Press <Y> and <Enter> to save all changes.

DRIVER AND RAID SOFTWARE INSTALLATION

Microsoft Windows Driver Installation

1. After Windows has finished booting up, the system will automatically find the newly installed adapter and prompt the **Found New Hardware Wizard** window. Click **Cancel** to skip it.



2. Insert the bundled driver CD into your CD-ROM drive and select “**SIS Chipset\SIS Raid**” installation bar on the dialogue window to begin the driver and software installation. (Please follow the instructions to finish the installation.)

Install Windows 2000/XP

- a. Insert the bundled driver CD DISC into CD-ROM (G:). Copy all files from the directory (G:\SIS Chipset\SIS Raid\Floppy Image\966) to a floppy disk.
 - b. Install the OS from CD-ROM.
 - c. Press “**F6**” at the prompt “Press **F6** if you need to install a third party SCSI or RAID driver...”.
 - d. Insert the floppy disk.
 - e. Choose the OS device driver to be loaded.
 - f. Install the OS.
 - g. Install the driver after OS is installed.
-

