5SMT / 5SMTS

SiS 530

ALL-IN-ONE

AT MAINBOARD

OPERATION MANUAL

DOC NO. UM-SMT-E4 …… PRINTED IN TAIWAN

TABLE OF CONTENTS

TRADEMARKS

All trademarks used in this manual are the property of their respective owners.

NOTE

The "LOAD SETUP DEFAULTS" function loads the default settings directly from BIOS default table, these default settings are the best-case values that will optimize the system performance and increase the system stability. This strongly recommended when you first receive this system board, or the system CMOS data is corrupted.

Move the selection bar to "LOAD SETUP DEFAULTS" and then press the "ENTER" key and then the SETUP default values will be loaded into the system. (Please refers to the Chapter 4 AWARD BIOS SETUP procedures in this manual.)

NOTICE

Information presented in this manual has been carefully checked for reliability; however, no responsibility is assumed for inaccuracies. The information contained in this manual is subject to change without prior notice.

Special Notice:

When you are installing DIMM modules, please always start from DIMM1 first. The onboard VGA will use some of the system memory in DIMM1 as Video RAM. If there is no memory installed in DIMM1, then there will be no display on the screen.

1. INTRODUCTION

1.1 SYSTEM OVERVIEW

This mainboard is an AT form-factor PCI Local Bus mainboard. The SiS530 is chosen as the core logic of the mainboard. There is the 3D VGA and ALS120 (optional) sound interface built on the board. It is the best solution for Intel Pentium* P54C/55C, AMD K5/K6/K6-II, Cyrix M1/M2 and other compatible Pentium CPU with 3D AGP system.

This mainboard is designed for the high performance Pentium processors for high-end application and it is a true GREEN-PC computer system. The Front Side Bus (FSB) clock speed can be 66 / 75 / 83 / 90 / 95 / 100MHz selectable, so this mainboard will support various processors with FSB clock up to 100MHz ultra high speed.

There are two different models from the same mainboard design, please refer to the following for the difference:

MODEL NAME	ONBOARD ALS120 AUDIO INTERFACE
5SMT	AUDIO ONBOARD
5SMTS	NO AUDIO ONBOARD

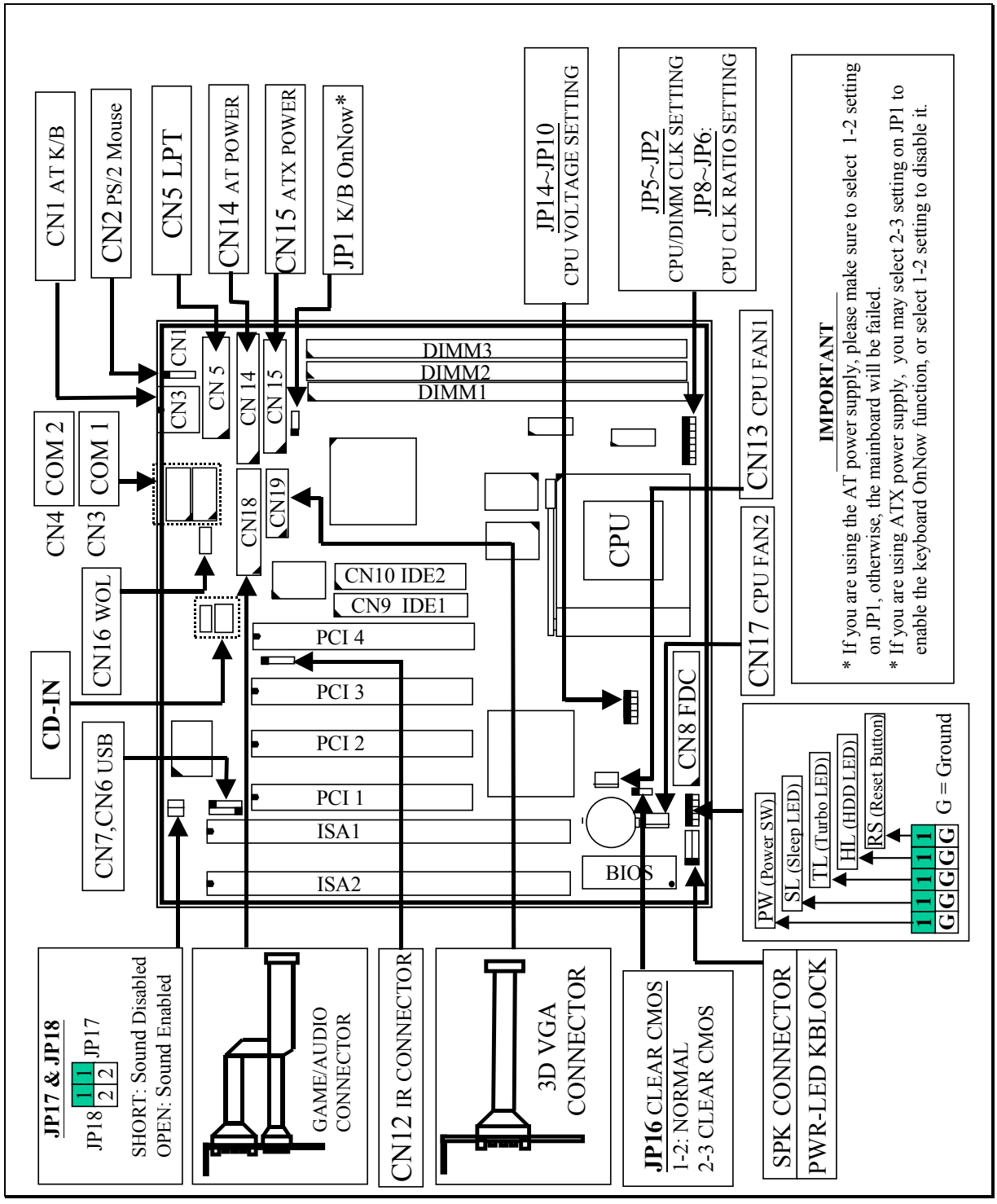
The mainboard has built-in two channels PIO and Bus Master Enhanced PCI IDE, one Floppy Disk Controller, two high speed Serial ports (UARTs), one multi-mode Parallel port, one AT keyboard, one PS/2 mouse, one IR and two USB ports. So you can connect many devices to the mainboard without installing another I/O card.

The Avance Logic ALS-120 sound chip is designed on the board and it is the optional choice for customers. When there is the ALS-120 sound chip built on the board, it provides the Mixer and Enhanced Game/MIDI port to support 8bit or 16bit monaural/stereo digital audio from 4KHz to 48KHz for high quality audio output. With onboard audio interface, you will be able to enjoy the true multimedia environment.

There is the Accelerated Graphic Port (A.G.P.) intetrated on the mainboard and it is a high performance video interface for 3D graphics application. The integrated 3D graphic controller adopts the 64bit 100MHz host bus interface to improve the performance eminently. The share system memory architecture is so flexible and it allows you to choose 2MB, 4MB or 8MB frame buffer size by setting the system BIOS.

1.2 SYSTEM BOARD LAYOUT

The following picture displays the position of all connectors and jumpers. Please refer to the following sections for the detail description.



Note: the onboard audio interface is the optional choice for customers.

2. FEATURES

2.12.1 MAINBOARD SPECIFICATIONS

❋ **Chipset**
SiS530 chipset (SiS530, SiS5595) and SMC669 I/O chip.

❋ **CPU**
Intel : Pentium processor (P54C / P55C) 100 / 133 / 166 / 200 / 233MHz.
Cyrix: 6x86/6x86L-P166+ / P200+.
6x86MX-PR166 / PR200 / PR233 and MII-266 / 300 / 333.
AMD: K5-PR100 / PR133 / PR166.
K6 / PR2-166 / PR2-200 / 233 / 266 / 300, and K6-2 / 300 / 333 / 350.
IDT: C6-200 / 225.

❋ **CPU Voltage**
(1).CPU I/O voltage : "+3.3V DC" or "+3.5V DC".
(2).CPU CORE voltage: +1.3V DC ~ +3.5V DC.

❋ **System Clock**
66 / 75 / 83 / 90 / 95 / 100 MHz

❋ **Memory**
DRAM: Three banks, each bank can be single or double sided, 8MB up to 1.5GB.
Supports SDRAM memory (Use 168-pin DIMM module x 3).
Support +3.3V DC operating voltage for DIMM subsystem.
SRAM : 512KB or 1MB pipelined burst SRAM on board.

❋ **BIOS**
AWARD System BIOS. 256KB x 8 Flash ROM (for Plug & Play BIOS).

❋ **Expansion Slots**
PCI Slots : 32-bit x 4 (All Master / Slave, PCI 2.1 Compliant).
ISA Slots : 16-bit x 2 (PCI / ISA slot share one slot).

❋ **IDE Ports**

Two channel PIO and "Ultra DMA/33" Bus Master PCI IDE ports, which will connect maximum 4 IDE devices like IDE Hard Disk and ATAPI CD-ROM device. PIO Mode 4 transfer rate up to 14 Mbytes/s transfer rates and supports "Ultra DMA/33" mode transfers up to 33 Mbytes/sec. (Note, this mainboard also support "Ultra DMA/66", but the interface is different so need a special cable)

❋ **USB Ports**

Two Universal Serial Bus (USB) ports.

❋ **Super I/O Ports**

1.Two high speed NS16C550 compatible Serial ports (UARTs).
2.One SPP / EPP / ECP mode Bi-directional parallel port.
3.One Floppy Disk Control port.

❋ **WOL Port (Active only with ATX power supply)**

One WOL connector supports Wake-On-LAN (WOL up-designed)

❋ **IR Port**

One HPSIR and ASKIR or FasterIR (optional) compatible IR port.

❋ **Mouse and Keyboard**

Supports PS/2 Mouse connector, PS/2 Keyboard connector (optional) and AT Keyboard connector.

❋ **ACPI (Active only with ATX power supply)**

1.Power on by Panel-Switch, or Keyboard, or Modem ring-in or LAN signal.
2.Power off (soft off) by OS or Panel-Switch.
3.Resume by several system events (such as modem ring-in, RTC alarm).

❋ **3D Sound** (optional)

Avance Logic ALS-120 Sound Chip is optional onboard. It has built-in 3D Sound Effect Processor, Mixer functions. Enhanced Game/MIDI port, supports 8bit or 16bit monaural/stereo digital audio from 4KHz to 48KHz, supports Full duplex.

❋ **Onboard AGP VGA**

Support 100MHz host interface to AGP VGA, share system memory architecture. 2MB, 4MB or 8MB frame buffer size selectable by using the system BIOS setup.

❋ **Hardware Monitoring**

1. Monitor the System Voltage, CPU temperature, and two fan speed.
2. Supports LDCM.(optional)

❋ **Software compatibility**

MS-DOS, Windows NT, OS/2, UNIX, NOVELL, MS Windows, CAD/CAM, Windows 98 , ...etc.

❋ **DIMENSION**

4-layers PCB, 220mm x 220mm (small Baby-AT Form-Factor)

❋ **ENVIRONMENT**

Operating Temperature	: 10°C to 40°C. (50°F to 104°F).
Require Airflow	: 50 linear feet per minute across CPU.
Storage Temperature	: -40°C to 70°C. (-40°F to 158°F).
Humidity	: 0 to 90% non-condensing.
Altitude	: 0 to 10,000 feet.

3. HARDWARE SETUP

This chapter explains how to configure the mainboard hardware. When you are installing the mainboard, you will have to make jumper settings and cable connections. Please refer to the following sections for the details:

3.1 UNPACKING

The system board package contains the following parts :

- This system board.
- Operation manual.
- Cable set for IDE and I/O device.
- One CD diskette which includes device driver and utility program

The mainboard contains electric sensitive components which can be easily damaged by static electricity, please leave the mainboard sealed in its original packing until when installation.

Unpacking and installation shall be done on a grounded anti-static mat. The operator will have to wear an anti static wristband, grounded at the same point as the anti-static mat.

Inspect the mainboard carton to see whether there is any obvious damage. Shipping and handling may cause damage to your board. Be sure there is no shipping or handling damages on the board before proceeding.

After opening the motherboard color box, extract the mainboard and place it only on a grounded anti-static surface with the component side up. Inspect the board again to see whether there is any damage.

Press on all of the socket IC‘s to make sure that they are properly seated. Do this only with the board placed on a firm flat surface.

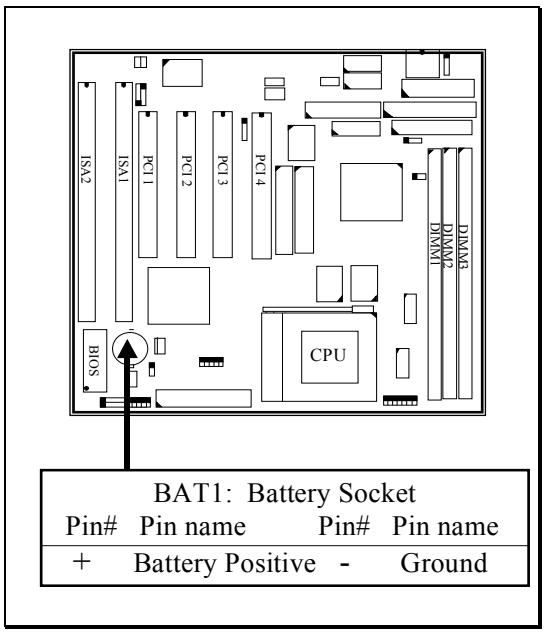
3.2 HARDWARE CONFIGURATION

Before the system board is ready for operating, the hardware must be configured to make sure it will work properly with different environment. To configure the system board is a simple task, only a few jumpers, connectors, cables and sockets needs to be selected and installed.

3.2.1 CONNECTORS

A connector is two or more pins that are used make connections to the system standard accessories (such as power, mouse, printer,...etc.). The following is a list of connectors on board, as well as descriptions of each individual connector.

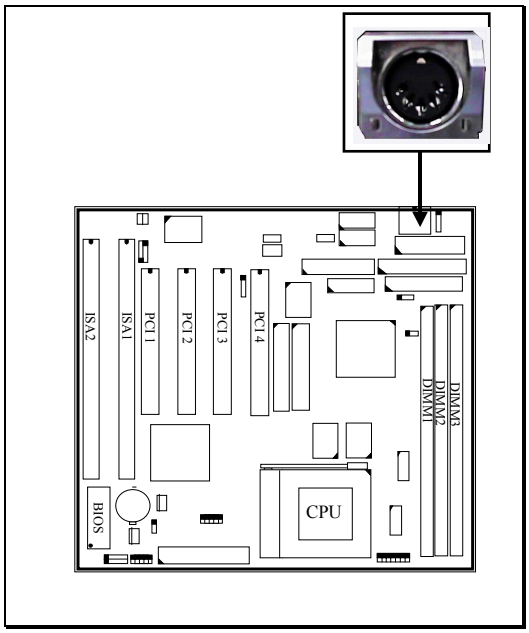
(A) BAT1 Non-rechargeable battery (Using 3V Lithium battery : CR2032)



BAT1: Battery Socket

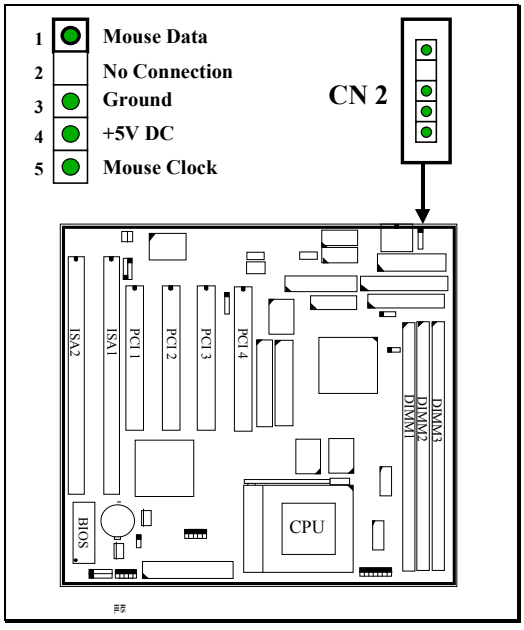
Pin#	Pin name	Pin#	Pin name
+	Battery Positive	-	Ground

(B) CN1 AT Keyboard connector

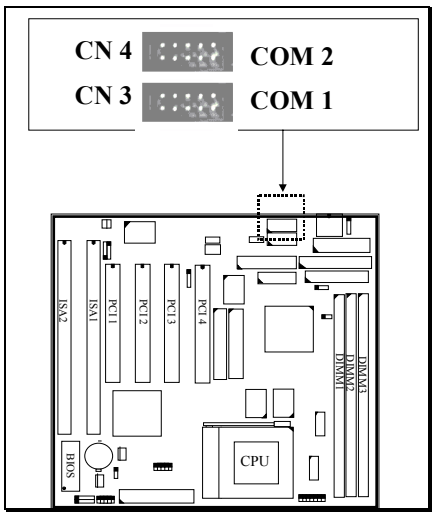


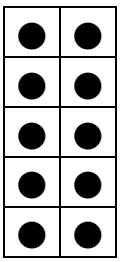
Pin #	Assignment	Pin #	Assignment
1	Keyboard Clock	2	Keyboard Data
3	No Connection	4	Ground
5	+5V DC		

(C) CN2 PS/2 Mouse Connector



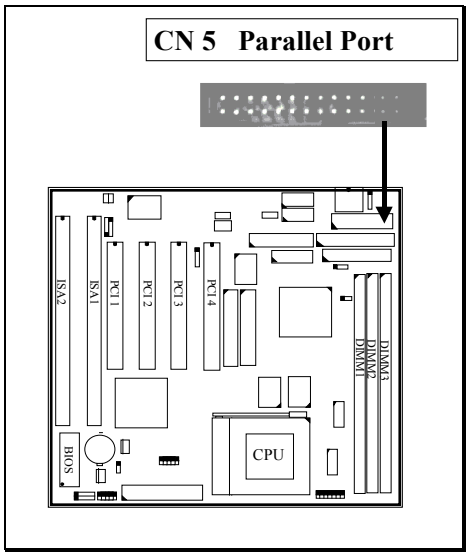
(D) CN3 COM 1 (Serial Port 1) Connector
(E) CN4 COM 2 (Serial Port 2) Connector



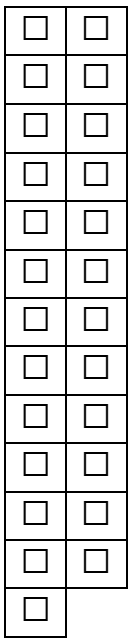


Pin #	Assignment	Pin #	Assignment
1	DCD (Data Carrier Detect)	2	RD (Received Data)
3	TD (Transmit Data)	4	DTR (Data Terminal Ready)
5	Ground	6	DSR (Data Set Ready)
7	RTS (Request To Send)	8	CTS (Clear To Send)
9	RI (Ring Indicator)	10	No Connection

(F) CN5: Parallel Port Connector

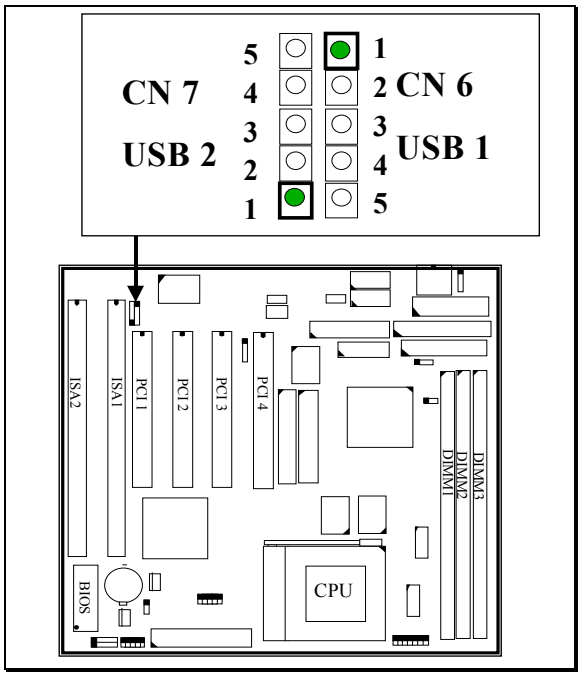


Pin assignment of parallel port:



Pin #	Signal name	Pin #	Signal name
1	STROBE☐	14	AUTO FEED☐
2	Data Bit 0	15	ERROR☐
3	Data Bit 1	16	INIT☐
4	Data Bit 2	17	SLCT IN☐
5	Data Bit 3	18	Ground
6	Data Bit 4	19	Ground
7	Data Bit 5	20	Ground
8	Data Bit 6	21	Ground
9	Data Bit 7	22	Ground
10	ACK☐	23	Ground
11	BUSY	24	Ground
12	PE	25	Ground
13	SLCT	26	N.C.

(G) CN6: USB 1 (Universal Serial Bus) Connector
(H) CN7: USB 2 (Universal Serial Bus) Connector



Pin assignment of USB connector:

CN 7

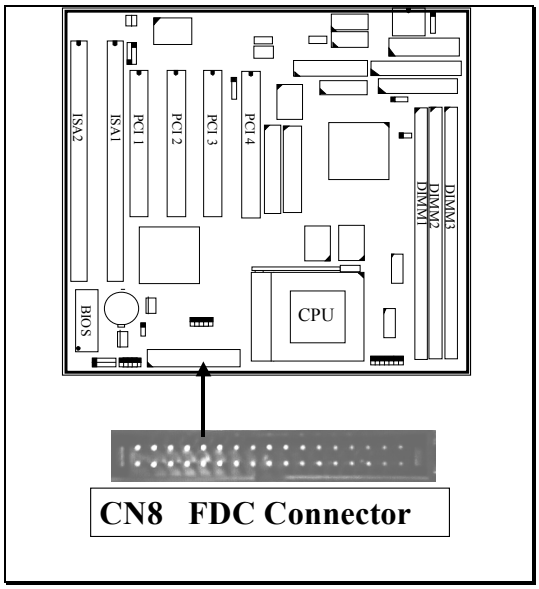
	Pin #	Assignment
●	5	Ground **(BLACK WIRE)**
●	4	Ground **(BLACK WIRE)**
●	3	DATA+ **(GREEN WIRE)**
●	2	DATA- **(WHITE WIRE)**
●	1	+5V DC **(RED WIRE)**

CN 6

	Pin #	Assignment
●	1	+5V DC **(RED WIRE)**
●	2	DATA- **(WHITE WIRE)**
●	3	DATA+ **(GREEN WIRE)**
●	4	Ground **(BLACK WIRE)**
●	5	Ground **(BLACK WIRE)**

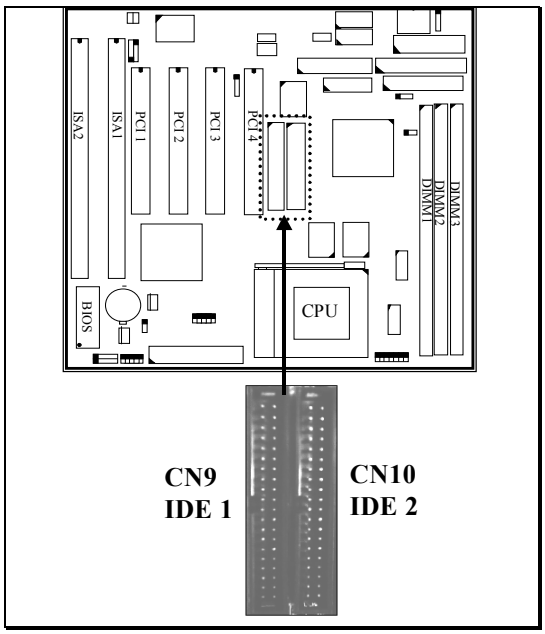
***Caution*: Please make sure to use the right cable to connect USB device to the USB ports, wrong connector will destroy the mainboard**.

(I) CN8: Floppy Disk Control Port Connector (IRQ6, DMA 2):

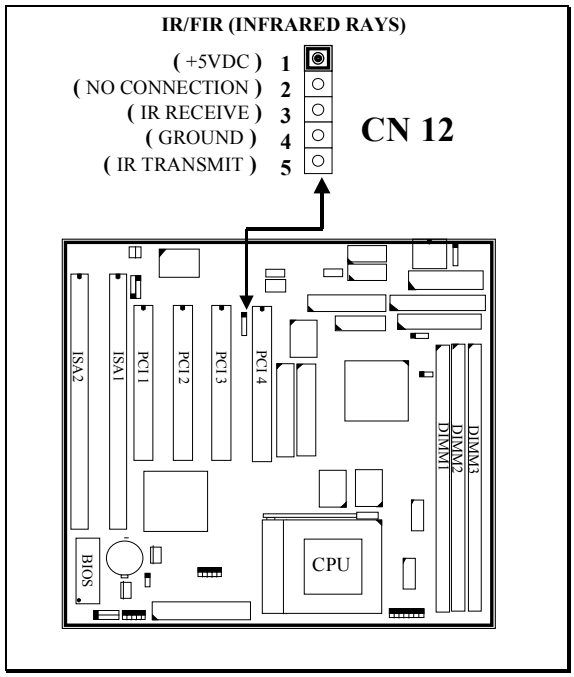


CN8 FDC Connector

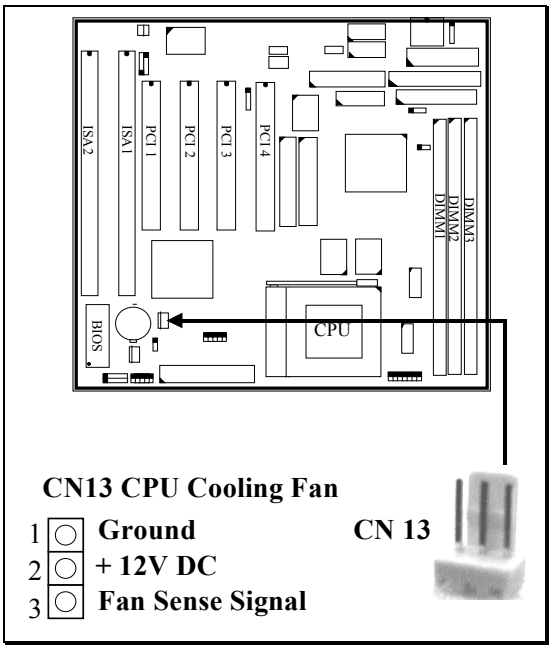
(J) CN9: IDE 1 Connectors, (Primary IDE Port: 1F0H, IRQ 14)
(K) CN10: IDE 2 Connectors, (Secondary IDE Port: 170H, IRQ 15)



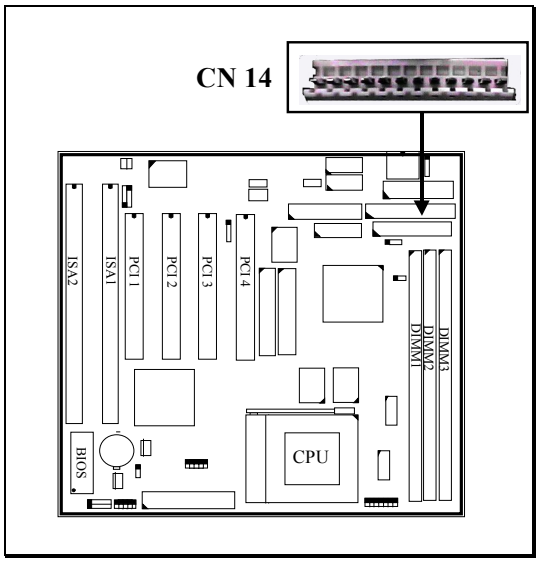
(L) CN12: IR (Infrared Rays) Connector



(M) CN13: CPU Cooling Fan Power Connector



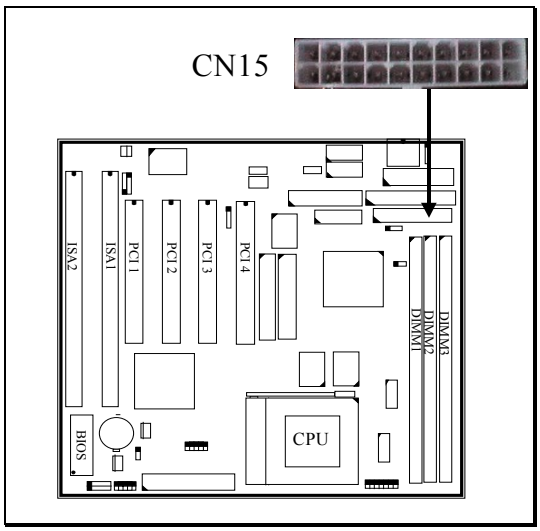
(N) CN14: AT Power Connector:



		Pin #	Assignment	
1	●	1	Power Good	**(Orange)**
2	●	2	+5V DC	**(Red)**
3	●	3	+12V DC	**(Yellow)**
4	●	4	-12V DC	**(Blue)**
5	●	5	Ground	**(Black)**
6	●	6	Ground	**(Black)**
7	●	7	Ground	**(Black)**
8	●	8	Ground	**(Black)**
9	●	9	-5V DC	**(White)**
10	●	10	+5V DC	**(Red)**
11	●	11	+5V DC	**(Red)**
12	●	12	+5V DC	**(Red)**

Note: There are two connectors on the AT type switching power supply (P8 & P9), Wrong connection will cause permanent damage to the mainboard. Be sure to make the power connector correctly all the time. Joint the black cable and then have the connectors connected to the mainboard.

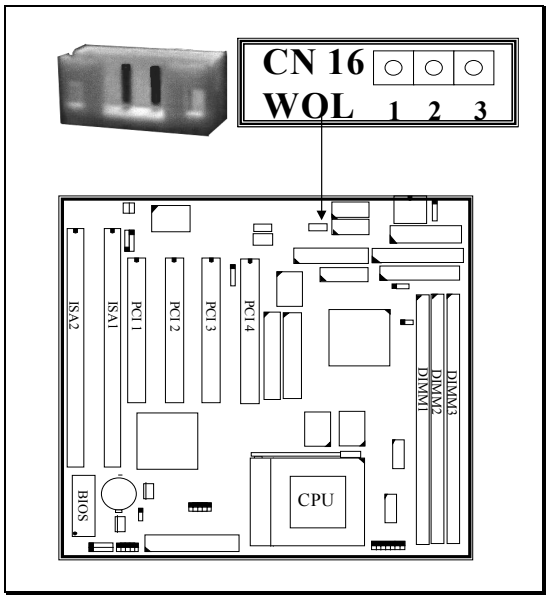
(O) CN15:ATX Power Connector:



Pin assignment of ATX power connector

11	1	Pin #	Signal name	Pin #	Signal name
☐	☐	11	+ 3.3V DC	1	+ 3.3V DC
☐	☐	12	- 12V DC	2	+ 3.3V DC
☐	☐	13	Ground	3	Ground
☐	☐	14	PS-ON	4	+ 5V DC
☐	☐	15	Ground	5	Ground
☐	☐	16	Ground	6	+ 5V DC
☐	☐	17	Ground	7	Ground
☐	☐	18	- 5V DC	8	PW-OK
☐	☐	19	+ 5V DC	9	+ 5V SB
☐	☐	20	+ 5V DC	10	+ 12V DC
20	10				

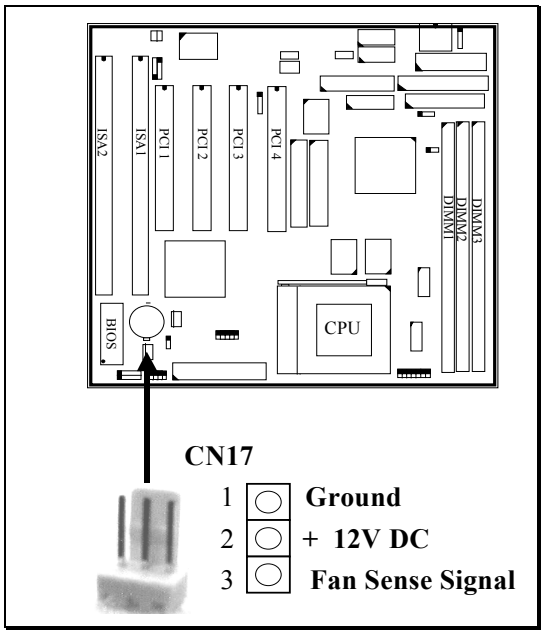
(P) CN16: WOL (Wake On LAN) Connector



Pin assignment of WOL Connector

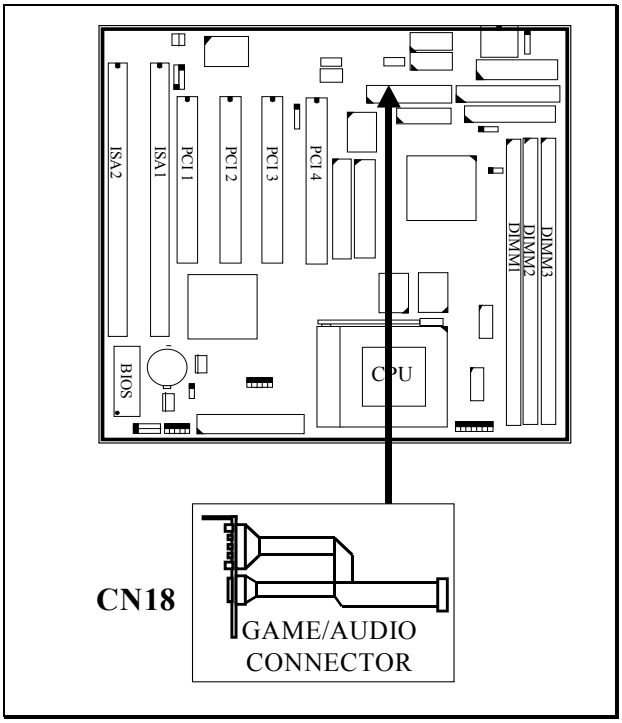
1	2	3	Pin #	Signal name	Pin #	Signal name	Pin #	Signal name
☐	☐	☐	1	5V standby	2	Ground	3	WOL Signal

(Q) CN17: CPU FAN2 Power Connector (Chassis Fan)

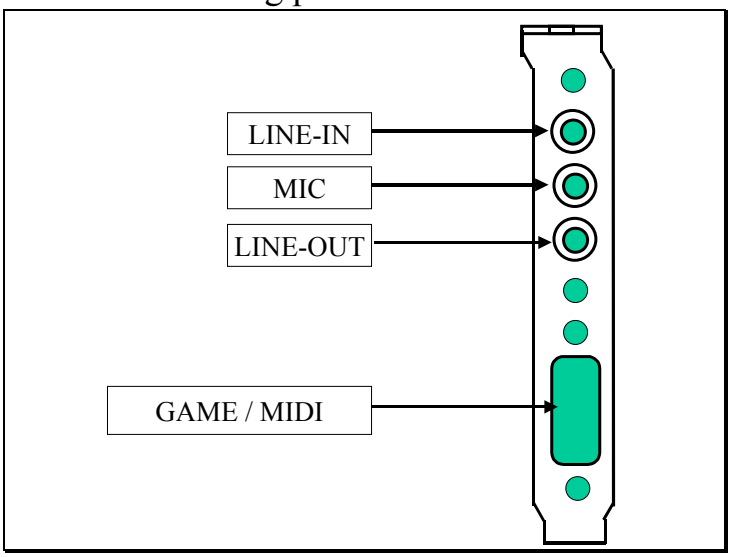


(R) CN18: AUDIO/GAME CONNECTOR (optional)

There is the audio adapter which comes with the mainboard (such adapter is the optional choice). The adapter will be connected to CN18 so that you can connect the audio devices. Please refer to the following picture for the connection:



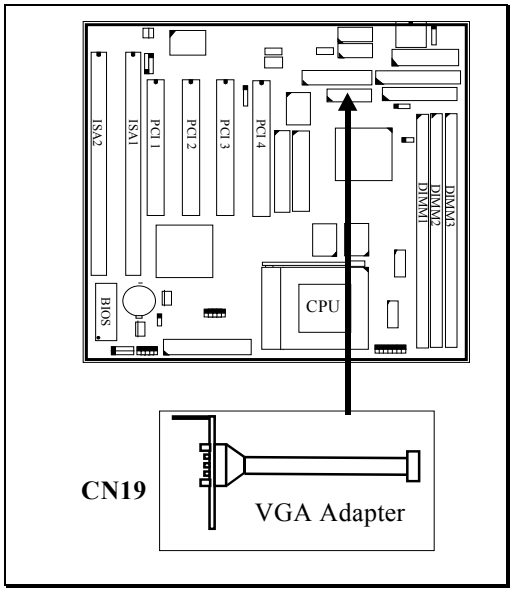
Please refer to the following picture for the connections on the adapter



Note: the adapter shown above is the optional choice for customers.

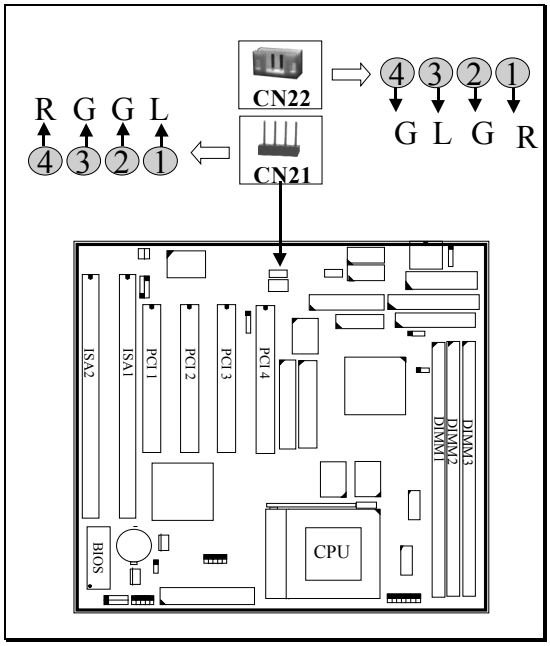
(S) CN19 Onboard VGA Connector

There is the 3D VGA built on the board. In order to connect the monitor to the VGA port, you have to install the VGA adapter which comes with the mainboard. The adapter will be connected to CN19, Please refer to the following picture for the connection:



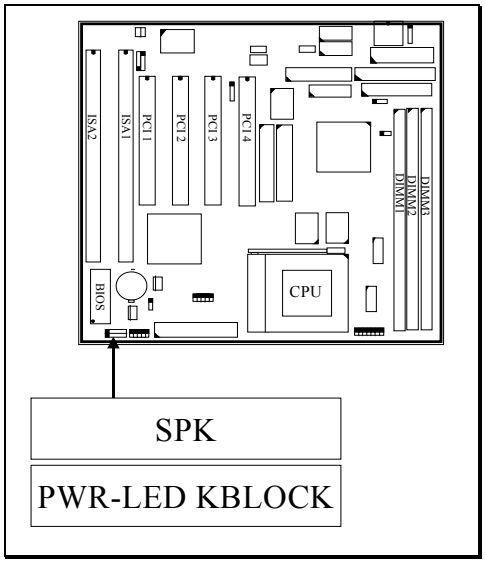
(T) CN21/CN22 : CD-IN Connectors (optional)

The CD-IN connectors (optional) on the board which can be used to connect to the CD ROM audio out. There are two different type of connectors, please check with your CD ROM drive and decide which connector will be used to connect to the CD ROM drive.



Note: L = Left channel audio-out
R = Right channel audio-out
G = Audio Ground

(U) SPK & PWR-LED KBLOCK



SPK: Speaker connector

1	Pin #	Assignment
●	1	+5V DC
●	2	No Connection
●	3	No Connection
●	4	Speaker Data Signal
●	5	No Connection

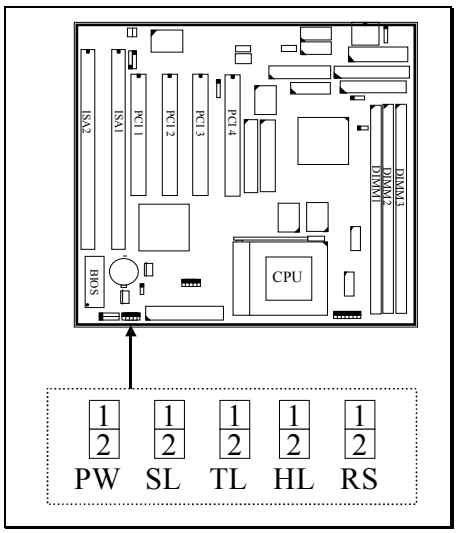
5

PWR-LED KBLOCK: Front Panel Power LED & Key-Lock connector

1	Pin #	Assignment
●	1	Pullup (+5V DC for Power LED)
●	2	No Connection
●	3	Ground
●	4	Keyboard Lock
●	5	Ground

5

(V) RS,HL,TL, SL & PW Buttons:



RS Reset Button connector

Open : No action — Short : System Reset

Pin #	Assignment	Pin #	Assignment
1	Reset Control	2	Ground

HL IDE HDD LED connector

Pin #	Assignment	Pin #	Assignment
1	Pullup (+5V DC)	2	Signal Pin

TL TURBO LED Connector

Pin #	Assignment	Pin #	Assignment
1	+ 5V DC Pull-up	2	Ground

SL Sleep LED connector

Pin #	Assignment
1	Sleep Signal
2	Ground

PW. Power On / Off and External Suspend Switch Connector

The PW connector shall be connected to the front panel PW button of your PC system. When different type of switching power supplier is connected to the mainboard, the PW button will have different functions:

1). When this mainboard has the ATX power supply connected, According to the setup in CMOS, the PW connector has two functions. It can be the Power Switch or Suspend Switch of your PC system.(please refer to Section- 4-7 and section 4-8 for BIOS setup)

① **If the setup in CMOS is "Delay 4 Sec.", the switch function will be**:

A. When system is power off :

A short click on this switch, the system will be powered on.

B. When system power is on :

a-1. The system is in Full-ON mode :

a-2. Click on this switch (less than 4 seconds), the system will be turned into Suspend mode. (get into a GREEN mode)

a-3. Press and hold this switch for more than 4 seconds, the system will be powered off.

b. When the system is in Suspend mode :

b-1. Click on this switch (less than 4 seconds), the system will return to Full-ON mode.

b-2. Press and hold this switch more than 4 seconds, the system will be powered off.

② **The setup in CMOS is "Instant-off":**

A. When system power is off :

Click on this switch, the system will be powered on.

B. When system power is on :

Click on this switch, the system will be powered off instantly.

2). When this mainboard has the AT power supply connected, the PW switch can only be used as the suspend switch.

A. When the BIOS setup is "Delay 4 sec.":

The PW switch can be used as a suspend switch. When it is first pressed, the PC system will be turned into suspend mode, when clicked again, the PC system will be back to the normal state.

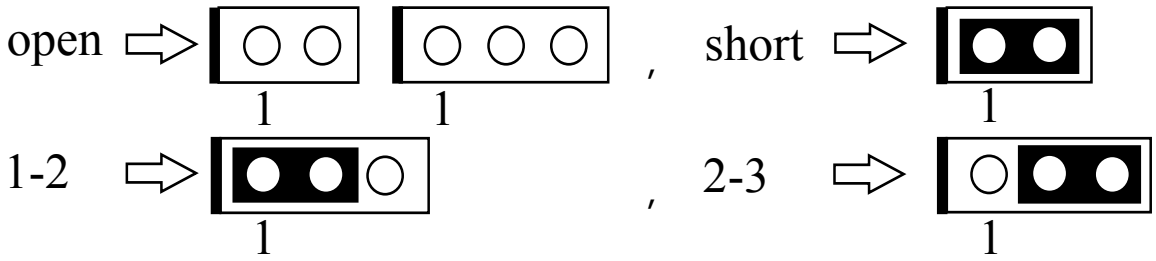
B. When the BIOS setup is "Instant off":

The PW switch does not have any function on it. If you want to power ON/OFF the PC system, you will have to use the power switch on the power supply.

3.2.2 JUMPERS

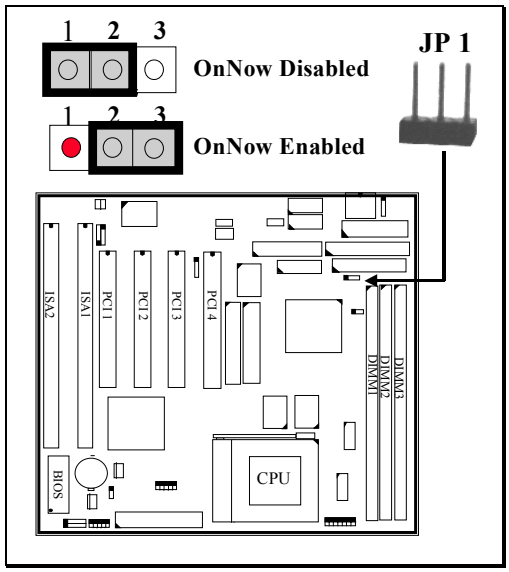
This section will discuss the jumper setting on this mainboard. A jumper is a set of two, three or more jumper pins which allows you to make different system configuration by putting the plastic connector plug (mini-jumper) on it. The jumper setting is necessary when installing different components onto the mainboard. ***Please make sure all jumper settings are correct before you can start the installation.***

In order to let you have better idea of the jumper setting, please see below for the explanation of jumper settings before you start this section.



(A) JP1: Keyboard OnNow Function Selection

This mainboard supports the OnNow function. The OnNow function will allow you to use Keyboard password to power on the PC system. However, the OnNow function is only active when you are using the ATX type power supply.

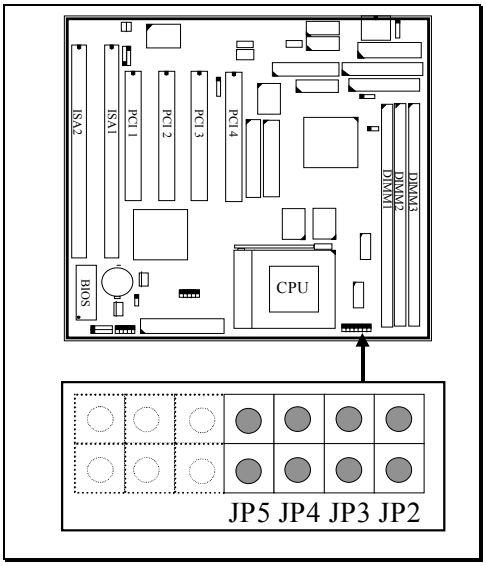


If you are using the AT type power supply, be sure to use JP1 to disable the Keyboard OnNow function, otherwise, your PC system will be failed.

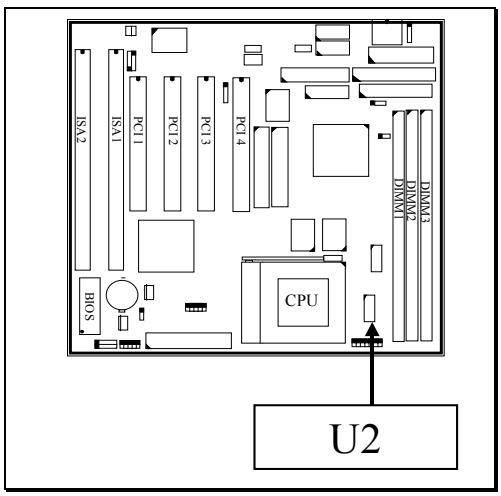
Some keyboards may not support the OnNow function and it will cause trouble to your PC system. Should it happened, please use JP1 to disable the OnNow function

(B) JP2 ~ JP5: CPU /DIMM Clock Setting:

These jumpers are designed to select the frequency for CPU and DIMM modules



Before you can make the jumper settings on JP2~JP5, Please check the component on U2 as indicated in the following picture, Different component installed on U2 will have different setting:



(A) When the component installed on U2 is ICS9248-81 or ICS9248AF-128, please refer to the following setting:

CPU CLK	DIMM CLK	PCI CLK	JP2	JP3	JP4	JP5
66.7 MHz	100.0 MHz	33.35 MHz	Short	Short	Short	Open
66.7 MHz	66.7 MHz	33.35 MHz	Open	Short	Short	Short
75.0 MHz	75.0 MHz	30.0 MHz	Open	Short	Short	Open
83.3 MHz	83.3 MH	33.32 MHz	Open	Short	Open	Short
90.0 MHz	90.0 MHz	30.0 MHz	Short	Short	Short	Short
95.0 MHz	95.0 MHz	31.66 MHz	Open	Short	Open	Open
95.0 MHz	63.33 MHz	31.66MHz	Short	Short	Open	Short
** 97.0 MHz	97.0 MHz	32.44MHz	Short	Open	Open	Open
100.0 MHz	100.0 MHz	33.33 MHz	Open	Open	Short	Short
100.0 MHz	66.66 MHz	33.33 MHz	Short	Short	Open	Open
100.0 MHz	75.0 MHz	30.0 MHz	Short	Open	Short	Short
112.0 MHz	112.0 MHz	37.33 MHz	Open	Open	Short	Open
112.0 MHz	74.66 MHz	37.33 MHz	Short	Open	Short	Open
124.0 MHz	124.0 MHz	31.0 MHz	Open	Open	Open	Short
124.0 MHz	82.66 MHz	31.0 MHz	Short	Open	Open	Short
133.3 MHz	133.3 MHz	33.33MHz	Open	Open	Open	Open

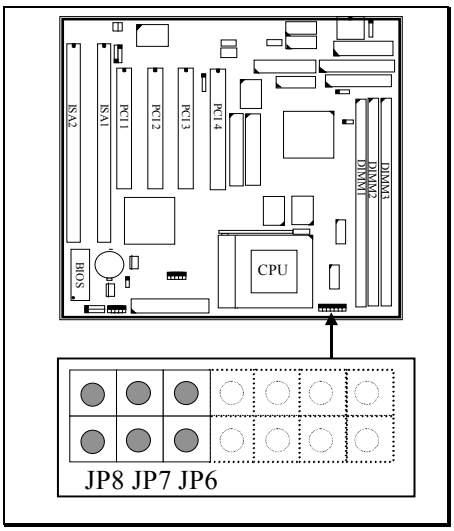
** Such setting is valid when ICS9248AF-128 is installed on the board.

(B) When the component installed on U2 is W83194R-81, please use the following settings:

CPU CLK	DIMM CLK	PCI CLK	JP2	JP3	JP4	JP5
66.7 MHz	100.05 MHz	33.35 MHz	Short	Short	Short	Short
66.8 MHz	66.8 MHz	33.4 MHz	Open	Short	Short	Short
75.0 MHz	75.0 MHz	30.0 MHz	Open	Short	Short	Open
83.3 MHz	83.3 MH	33.32 MHz	Open	Short	Open	Short
90.0 MHz	90.0 MHz	30.0 MHz	Short	Short	Short	Open
95.25 MHz	95.25 MHz	31.7 MHz	Open	Short	Open	Open
95.25 MHz	63.4 MHz	31.7 MHz	Short	Short	Open	Short
100 MHz	75.0 MHz	30.0 MHz	Short	Open	Short	Short
100.2 MHz	66.8 MHz	33.4 MHz	Short	Short	Open	Open
100.2 MHz	100.2 MHz	33.4 MHz	Open	Open	Short	Short
112.0 MHz	74.7 MHz	37.3 MHz	Short	Open	Short	Open
112.0 MHz	112.0 MHz	37.3 MHz	Open	Open	Short	Open
124.0 MHz	82.7MHz	31.0 MHz	Short	Open	Open	Short
124.0 MHz	124.0 MHz	31.0 MHz	Open	Open	Open	Short
133.3 MHz	88.9 MHz	33.3 MHz	Short	Open	Open	Open
133.3 MHz	133.3 MHz	33.33 MHz	Open	Open	Open	Open

(C) JP6 ~ JP8: CPU Clock Ratio Setting:

These jumpers are designed to select the CPU clock ratio:



Jumer settings for Intel, AMD, Cyrix, IBM CPU:

Clock Ratio	2.0X	2.5X	3.0X	3.5X	4.0X	4.5X	5.0X	5.5X
JP6	Short	Short	Open	Open	Short	Short	Open	Open
JP7	Open	Short	Short	Open	Open	Short	Short	Open
JP8	Open	Open	Open	Open	Short	Short	Short	Short

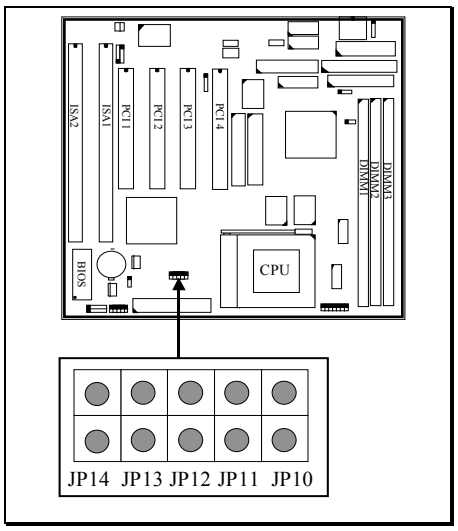
There are the new WinChip2A CPUs from IDT and the CPU speed indicated on the CPU is measured by its "Performance Rating". You will have to pay special attention on the jumper setting to select the clock ratio because it is not the standard one. Please check the clock ratio printed on the WinChip2A CPU and then refer to the following table for the updated settings.

Jumer settings for Intel, AMD, Cyrix, IBM CPU:

JP6	JP7	JP8	WinChip 2A CPU
Short	Short	Open	2.5X
Open	Short	Open	3X
Short	Open	Open	3.33X
Open	Open	Open	3.5X
Short	Short	Short	4.5X
Open	Short	Short	2.33X
Short	Open	Short	4X
Open	Open	Short	2.66X

(D) JP10 ~ JP14: CPU Voltage Settings:

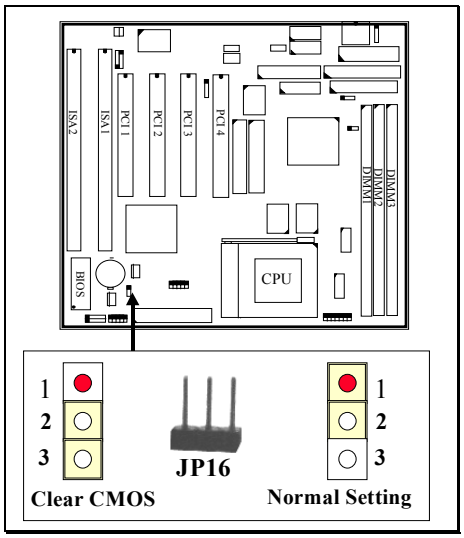
These jumpers are designed to select the CPU voltage:



Vcore	JP10	JP11	JP12	JP13	JP14
3.5V	Open	Short	Short	Short	Short
3.4V	Open	Short	Short	Short	Open
3.3V	Open	Short	Short	Open	Short
3.2V	Open	Short	Short	Open	Open
3.1V	Open	Short	Open	Short	Short
3.0V	Open	Short	Open	Short	Open
2.9V	Open	Short	Open	Open	Short
2.8V	Open	Short	Open	Open	Open
2.7V	Open	Open	Short	Short	Short
2.6V	Open	Open	Short	Short	Open
2.5V	Open	Open	Short	Open	Short
2.4V	Open	Open	Short	Open	Open
2.3V	Open	Open	Open	Short	Short
2.2V	Open	Open	Open	Short	Open
2.1V	Open	Open	Open	Open	Short
2.0V	Open	Open	Open	Open	Open

Vcore	JP10	JP11	JP12	JP13	JP14
2.05V	Short	Short	Short	Short	Short
1.95V	Short	Short	Short	Open	Short
1.9V	Short	Short	Short	Open	Open
1.85V	Short	Short	Open	Short	Short
1.8V	Short	Short	Open	Short	Open
1.75V	Short	Short	Open	Open	Short
1.7V	Short	Short	Open	Open	Open
1.65V	Short	Open	Short	Short	Short
1.6V	Short	Open	Short	Short	Open
1.55V	Short	Open	Short	Open	Short
1.5V	Short	Open	Short	Open	Open
1.45V	Short	Open	Open	Short	Short
1.4V	Short	Open	Open	Short	Open
1.35V	Short	Open	Open	Open	Short
1.3V	Short	Open	Open	Open	Open

(E) JP16 Clear CMOS button



Pin #	Function
1 - 2	Normal Operation
2 - 3	Clear CMOS

Note: Improper BIOS setting may cause hang-up to the PC system, Should it be happened, you can use JP12 to clear the information which is stored in the CMOS memory and get the PC system back to normal status. Improper connection may cause permanent damage to the mainboard. Please refer to the following steps to clear the CMOS

1. ***Unplug the AC power cable from the PC system.***
2. ***Put the mini jumper on pin 2-3 of JP12 around 3 to 5 seconds will clear the CMOS data, and then return it to the original position (pin 1-2).***
3. ***Re-connect the AC power cable.***

How to make jumper setting for the CPU:

Step 1. Check the component on U2 and then use JP2~JP5 to select the system clock.
Step 2. Use JP6~JP8 to select the CPU clock ratio.
Step 3. Use JP10 ~JP14 to select CPU voltage

3.2.3 QUICK INSTALLATION OF POPULAR CPU

The following table is the quit jumper setting for the most popular CPU which you will find in the market. If you can not find the CPU setting in the following table, please refer to the setting in the previous section.

OP = Open
SH = Short

When U2 has the ICS9248-81 installed:

Synchronous setting (DIMM clock is same as CPU clock)

CPU TYPE	JP2	JP3	JP4	JP5	JP6	JP7	JP8	JP10	JP11	JP12	JP13	JP14
Intel Pentium 233 (80503 -233)	OP	SH	SH	SH	OP	OP	OP	OP	SH	OP	OP	OP
IDT WinChip2 – 233	OP	SH	SH	SH	OP	OP	OP	OP	SH	SH	SH	SH
IDT WinChip2 – 266	OP	OP	SH	SH	OP	SH	SH	OP	SH	SH	SH	SH
IDT WinChip2 – 300	OP	OP	SH	SH	SH	SH	OP	OP	SH	SH	SH	SH
IDT WinChip3 – 266	OP	SH	SH	SH	OP	OP	OP	OP	SH	OP	OP	OP
IDT WinChip3 – 300	OP	SH	SH	SH	SH	OP	SH	OP	SH	OP	OP	OP
IDT WinChip3 – 333	OP	OP	SH	SH	OP	OP	SH	OP	SH	OP	OP	OP
IDT WinChip3 – 350	OP	SH	OP	OP	OP	SH	OP	OP	SH	OP	OP	OP
AMD K6/266 / K6-2/266	OP	SH	SH	SH	SH	OP	SH	OP	OP	OP	SH	OP
AMD K6/300 / K6-2/300-66	OP	SH	SH	SH	SH	SH	SH	OP	OP	OP	SH	OP
AMD K6-2/300	OP	OP	SH	SH	OP	SH	OP	OP	OP	OP	SH	OP
AMD K6-2/333	OP	SH	OP	OP	OP	OP	OP	OP	OP	OP	SH	OP
AMD K6-2/333-66	OP	SH	SH	SH	OP	SH	SH	OP	OP	OP	SH	OP
AMD K6-2/350	OP	OP	SH	SH	OP	OP	OP	OP	OP	OP	SH	OP
AMD K6-2/366	OP	SH	SH	SH	OP	OP	SH	OP	OP	OP	SH	OP
AMD K6-2/380	OP	SH	OP	OP	SH	OP	SH	OP	OP	OP	SH	OP
AMD K6-2/400	OP	OP	SH	SH	SH	OP	SH	OP	OP	OP	SH	OP
AMD K6-3/400	OP	OP	SH	SH	SH	OP	SH	OP	OP	SH	OP	OP
AMD K6-2/450 / K6-3/450	OP	OP	SH	SH	SH	SH	SH	OP	OP	SH	OP	OP
Cyrix MII-266 / IBM 6x86MX-PR266	OP	SH	OP	SH	SH	SH	OP	OP	SH	OP	OP	SH
Cyrix MII-300/ IBM6x86MX-PR300 (66MHz)	OP	SH	SH	SH	OP	OP	OP	OP	SH	OP	OP	SH
Cyrix MII-300/ IBM6x86MX-PR300 (75MHz)	OP	SH	SH	OP	OP	SH	OP	OP	SH	OP	OP	SH
Cyrix MII-333 / IBM 6x86MX-PR333	OP	SH	OP	SH	OP	SH	OP	OP	SH	OP	OP	SH

Asynchronous setting (DIMM clock is slower than CPU clock)

CPU TYPE	JP2	JP3	JP4	JP5	JP6	JP7	JP8	JP10	JP11	JP12	JP13	JP14
Intel Pentium 233 (80503 -233)	SH	SH	SH	OP	OP	OP	OP	OP	SH	OP	OP	OP
IDT WinChip2 – 233	SH	SH	SH	OP	OP	OP	OP	OP	SH	SH	SH	SH

CPU TYPE	JP2	JP3	JP4	JP5	JP6	JP7	JP8	JP10	JP11	JP12	JP13	JP14
IDT WinChip2 – 266	SH	SH	OP	OP	OP	SH	SH	OP	SH	SH	SH	SH
IDT WinChip2 – 300	SH	SH	OP	OP	SH	SH	OP	OP	SH	SH	SH	SH
IDT WinChip3 – 266	SH	SH	SH	OP	OP	OP	OP	OP	SH	OP	OP	OP
IDT WinChip3 – 300	SH	SH	SH	OP	SH	OP	SH	OP	SH	OP	OP	OP
IDT WinChip3 – 333	SH	SH	OP	OP	OP	OP	SH	OP	SH	OP	OP	OP
IDT WinChip3 – 350	SH	SH	OP	SH	OP	SH	OP	OP	SH	OP	OP	OP
AMD K6/266 / K6-2/266	SH	SH	SH	OP	SH	OP	SH	OP	OP	OP	SH	OP
AMD K6/300 / K6-2/300-66	SH	SH	SH	OP	SH	SH	SH	OP	OP	OP	SH	OP
AMD K6-2/300	SH	SH	OP	OP	OP	SH	OP	OP	OP	OP	SH	OP
AMD K6-2/333	SH	SH	OP	SH	OP	OP	OP	OP	OP	OP	SH	OP
AMD K6-2/333-66	SH	SH	SH	OP	OP	SH	SH	OP	OP	OP	SH	OP
AMD K6-2/350	SH	SH	OP	OP	OP	OP	OP	OP	OP	OP	SH	OP
AMD K6-2/366	SH	SH	SH	OP	OP	OP	SH	OP	OP	OP	SH	OP
AMD K6-2/380	SH	SH	OP	SH	SH	OP	SH	OP	OP	OP	SH	OP
AMD K6-2/400	SH	SH	OP	OP	SH	OP	SH	OP	OP	OP	SH	OP
AMD K6-3/400	SH	SH	OP	OP	SH	OP	SH	OP	OP	SH	OP	OP
AMD K6-2/450 / K6-3/450	SH	SH	OP	OP	SH	SH	SH	OP	OP	SH	OP	OP
Cyrix MII-266/IBM 6x86MX-PR266	OP	SH	OP	SH	SH	SH	OP	OP	SH	OP	OP	SH
Cyrix MII-300/IBM 6x86MX-PR300 (66MHz)	SH	SH	SH	OP	OP	OP	OP	OP	SH	OP	OP	SH
Cyrix MII-300/IBM 6x86MX-PR300 (75MHz)	OP	SH	SH	OP	OP	SH	OP	OP	SH	OP	OP	SH
Cyrix MII-333/IBM 6x86MX-PR333	OP	SH	OP	SH	OP	SH	OP	OP	SH	OP	OP	SH

When U2 has the W83194R-81 installed:

Synchronous setting (DIMM clock is same as CPU clock)

CPU TYPE	JP2	JP3	JP4	JP5	JP6	JP7	JP8	JP10	JP11	JP12	JP13	JP14
Intel Pentium 233 (80503 -233)	OP	SH	SH	SH	OP	OP	OP	OP	SH	OP	OP	OP
IDT WinChip2 – 233	OP	SH	SH	SH	OP	OP	OP	OP	SH	SH	SH	SH
IDT WinChip2 – 266	OP	OP	SH	SH	OP	SH	SH	OP	SH	SH	SH	SH
IDT WinChip2 – 300	OP	OP	SH	SH	SH	SH	OP	OP	SH	SH	SH	SH
IDT WinChip3 – 266	OP	SH	SH	SH	OP	OP	OP	OP	SH	OP	OP	OP
IDT WinChip3 – 300	OP	SH	SH	SH	SH	OP	SH	OP	SH	OP	OP	OP
IDT WinChip3 – 333	OP	OP	SH	SH	OP	OP	SH	OP	SH	OP	OP	OP
IDT WinChip3 – 350	OP	SH	OP	OP	OP	SH	OP	OP	SH	OP	OP	OP
AMD K6/266 / K6-2/266	OP	SH	SH	SH	SH	OP	SH	OP	OP	OP	SH	OP
AMD K6/300 / K6-2/300-66	OP	SH	SH	SH	SH	SH	SH	OP	OP	OP	SH	OP
AMD K6-2/300	OP	OP	SH	SH	OP	SH	OP	OP	OP	OP	SH	OP
AMD K6-2/333	OP	SH	OP	OP	OP	OP	OP	OP	OP	OP	SH	OP

CPU TYPE	JP2	JP3	JP4	JP5	JP6	JP7	JP8	JP10	JP11	JP12	JP13	JP14
AMD K6-2/333-66	OP	SH	SH	SH	OP	SH	SH	OP	OP	OP	SH	OP
AMD K6-2/350	OP	OP	SH	SH	OP	OP	OP	OP	OP	OP	SH	OP
AMD K6-2/366	OP	SH	SH	SH	OP	OP	SH	OP	OP	OP	SH	OP
AMD K6-2/380	OP	SH	OP	OP	SH	OP	SH	OP	OP	OP	SH	OP
AMD K6-2/400	OP	OP	SH	SH	SH	OP	SH	OP	OP	OP	SH	OP
AMD K6-3/400	OP	OP	SH	SH	SH	OP	SH	OP	OP	SH	OP	OP
AMD K6-2/450 / K6-3/450	OP	OP	SH	SH	SH	SH	SH	OP	OP	SH	OP	OP
Cyrix MII-266/IBM 6x86MX-PR266	OP	SH	OP	SH	SH	SH	OP	OP	SH	OP	OP	SH
Cyrix MII-300/IBM 6x86MX-PR300 (66MHz)	OP	SH	SH	SH	OP	OP	OP	OP	SH	OP	OP	SH
Cyrix MII-300/IBM 6x86MX-PR300 (75MHz)	OP	SH	SH	OP	OP	SH	OP	OP	SH	OP	OP	SH
Cyrix MII-333/IBM 6x86MX-PR333	OP	SH	OP	SH	OP	SH	OP	OP	SH	OP	OP	SH

Asynchronous setting (DIMM clock is slower than CPU clock)

CPU TYPE	JP2	JP3	JP4	JP5	JP6	JP7	JP8	JP10	JP11	JP12	JP13	JP14
Intel Pentium 233 (80503 -233)	SH	SH	SH	SH	OP	OP	OP	OP	SH	OP	OP	OP
IDT WinChip2 – 233	SH	SH	SH	SH	OP	OP	OP	OP	SH	SH	SH	SH
IDT WinChip2 – 266	SH	SH	OP	OP	OP	SH	SH	OP	SH	SH	SH	SH
IDT WinChip2 – 300	SH	SH	OP	OP	SH	SH	OP	OP	SH	SH	SH	SH
IDT WinChip3 – 266	SH	SH	SH	SH	OP	OP	OP	OP	SH	OP	OP	OP
IDT WinChip3 – 300	SH	SH	SH	SH	SH	OP	SH	OP	SH	OP	OP	OP
IDT WinChip3 – 333	SH	SH	OP	OP	OP	OP	SH	OP	SH	OP	OP	OP
IDT WinChip3 – 350	SH	SH	OP	SH	OP	SH	OP	OP	SH	OP	OP	OP
AMD K6/266 / K6-2/266	SH	SH	SH	SH	SH	OP	SH	OP	OP	OP	SH	OP
AMD K6/300 / K6-2/300-66	SH	SH	SH	SH	SH	SH	SH	OP	OP	OP	SH	OP
AMD K6-2/300	SH	SH	OP	OP	OP	SH	OP	OP	OP	OP	SH	OP
AMD K6-2/333	SH	SH	OP	SH	OP	OP	OP	OP	OP	OP	SH	OP
AMD K6-2/33-66	SH	SH	SH	SH	OP	SH	SH	OP	OP	OP	SH	OP
AMD K6-2/350	SH	SH	OP	OP	OP	OP	OP	OP	OP	OP	SH	OP
AMD K6-2/366	SH	SH	SH	SH	OP	OP	SH	OP	OP	OP	SH	OP
AMD K6-2/380	SH	SH	OP	SH	SH	OP	SH	OP	OP	OP	SH	OP
AMD K6-2/400	SH	SH	OP	OP	SH	OP	SH	OP	OP	OP	SH	OP
AMD K6-3/400	SH	SH	OP	OP	SH	OP	SH	OP	OP	SH	OP	OP
AMD K6-2/450 / K6-3/450	SH	SH	OP	OP	SH	SH	SH	OP	OP	SH	OP	OP
Cyrix MII-266 / IBM 6x86MX-PR266	OP	SH	OP	SH	SH	SH	OP	OP	SH	OP	OP	SH
Cyrix MII-300/IBM 6x86MX-PR300 (66MHz)	SH	SH	SH	SH	OP	OP	OP	OP	SH	OP	OP	SH
Cyrix MII-300/IBM 6x86MX-PR300 (75MHz)	OP	SH	SH	OP	OP	SH	OP	OP	SH	OP	OP	SH
Cyrix MII-333 / IBM 6x86MX-PR333	OP	SH	OP	SH	OP	SH	OP	OP	SH	OP	OP	SH

3.2.4 INSTALLATION OF DEVICE DRIVER

There is a CD which comes with the mainboard. The CD contains the device drivers which is necessary when installing the mainboard. Please refer to the following procedures to install the device drivers.

A. Install the VGA driver:

Step 1. Insert the CD into the CD ROM drive.
Step 2. Change the directory to "\Driver\mainboard\SiS\530\VGA driver"
Step 3. Refer to the "README.TXT" to install the device driver..

B. Install the IDE driver:

Step 1. Insert the CD into the CD ROM drive.
Step 2. Change the directory to "\Driver\mainboard\SiS\530\IDE driver"
Step 3. Choose the directory of operation system to install the device driver..
Step 4. Run "SETUP.EXE" to install the device driver.

C. Install the Hardware Monitoring Program:

Step 1. Insert the CD into the CD ROM drive.
Step 2. Change the directory to "\Driver\mainboard\SiS\Sismon"
Step 3. Run "SETUP.EXE" to install the hardware monitoring program.

D. Install the USB driver:

If you are using the Windows 98, you don't have to install this program because it is supported by the Windows 98. If you are using Windows 95, please refer to the following procedure to install the USB driver:

Step 1. Insert the CD into the CD ROM drive.
Step 2. Change the directory to "\Driver\mainboard\SiS\Sisusb\win95"
Step 3. Run "SETUP.EXE" to install the hardware monitoring program.

E. Install the Sound card driver:

Step1. Insert the CD into the CD ROM drive when Windows requests for the sound card device driver..
Step2. Select "Driver\Sound\ALS120" directory and Windows will continue the installation procedure.
Step3. Run "SETUP.EXE" to install the "ALSRACK PLAYER" utilities.
Step4. When you have finished the setup procedure, reboot the PC system to enable the device driver.

4. AWARD BIOS SETUP

4.1 GETTING STARTED

When the system is powered on or reset, the BIOS will execute the Power-On Self Test routines (POST) and checks the functionality of every component in the PC system. During the POST, you will see a copyright message on the screen followed by a diagnostics and initialization procedure. (If an EGA or VGA card is installed, the copyright message of the video card maybe displayed on the screen first.) When the system detects any error, it will gives a series of beeping sounds or display the error message on your screen.

When you have turn on the system, you will see the following display on the system::

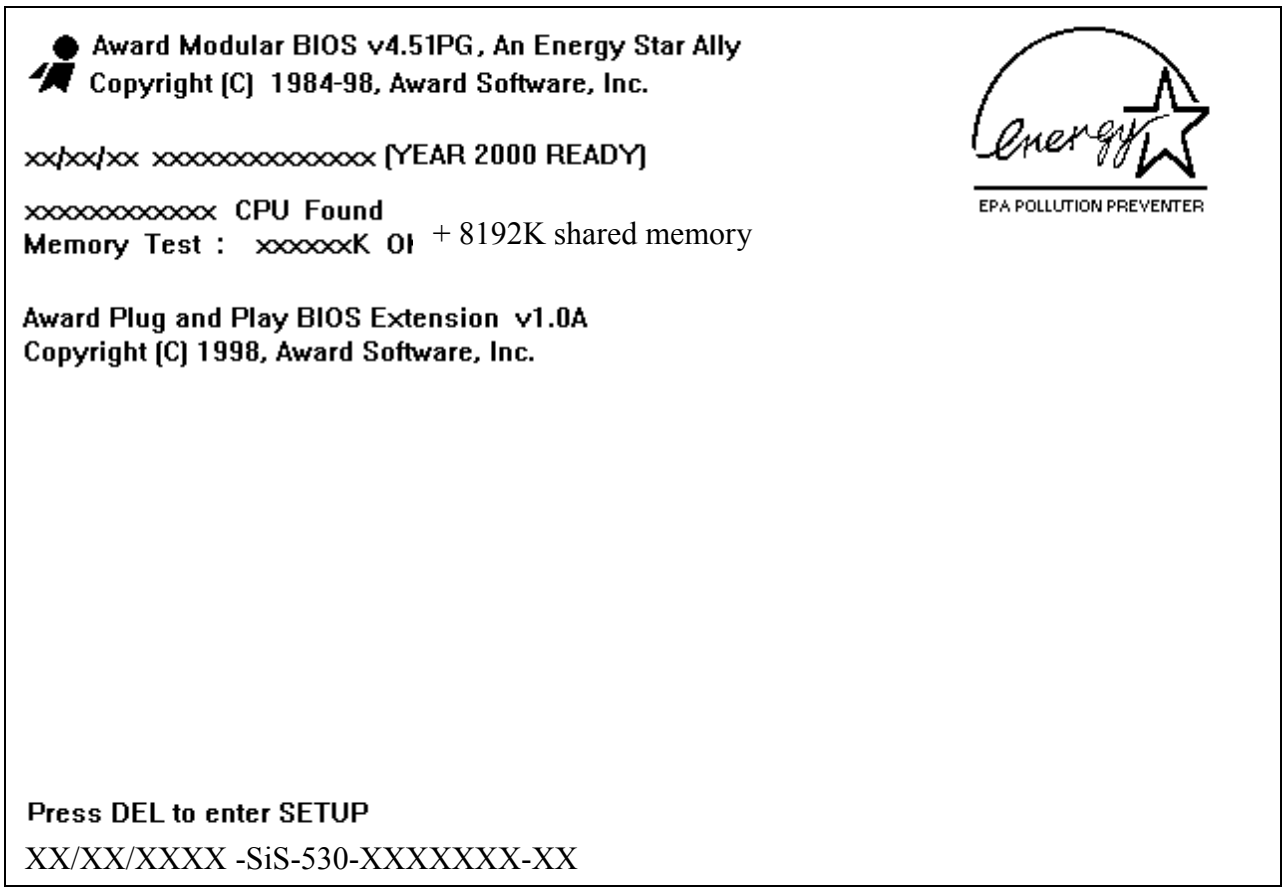


Fig. 4-1 Initial Power-On screen.

When the POST routines are completed, you will find the following message appears on the lower-left screen :

" Press **DEL** to enter SETUP "

To execute the Award BIOS Setup program, press the **DEL** key and the "MAIN MENU" of the BIOS setup utility as shown in Fig 4-2 will be triggered.

4.2 MAIN MENU

ROM PCI / ISA BIOS (2A5IMP8A)
CMOS SETUP UTILITY
AWARD SOFTWARE, INC.

STANDARD CMOS SETUP	PASSWORD SETTING
BIOS FEATURES SETUP	IDE HDD AUTO DETECTION
CHIPSET FEATURES SETUP	SAVE & EXIT SETUP
POWER MANAGEMENT SETUP	EXIT WITHOUT SAVING
PNP/PCI CONFIGURATION	
INTEGRATED PERIPHERALS	
LOAD SETUP DEFAULTS	
ESC : Quit	↑↓←→ : Select Item
F10 : Save & Exit Setup	(Shift)F2 : Change Color
Time, Date, Hard Disk Type *	

Fig. 4-2 CMOS SETUP MAIN MENU screen.

4.3 CONTROL KEYS

Listed below is an explanation of the keys displayed at the bottom of the screens which will be used in the BIOS SETUP program :

Arrow Keys	**:** Use the arrow keys to move the cursor to the desired item.
Enter	**:** To select the desired item.
F1	**:** Display the help screen for the selected feature.
(Shift)F2	**:** To change the screen color, total 16 colors.
ESC	**:** Exit to the previous screen.
PgUp(-)/PgDn(+)	**:** To modify or change the default value of the highlighted item.
F7	**:** Loads the SETUP default values from BIOS default table, (only for the current page will be recovered)
F10	**:** Save all changes made to CMOS RAM in the MAIN MENU.

The following sections shows all the screens which you will find in the CMOS SETUP routine, each figure contains the setup items and its default settings. At the bottom of some screen display, you may find the description of all function key which you can use it to change the settings. If you are not quite sure of the definition for some specific items, please consult your mainboard supplier for details.

4.4 STANDARD CMOS SETUP

ROM PCI / ISA BIOS (2A5IMP8A)
STANDARD CMOS SETUP
AWARD SOFTWARE, INC.

Date (mm : dd : yy) Thu Feb 4 1999
Time (hh : mm : ss) 08 : 35 : 45

HARD DISKS	TYPE	SIZE	CYLS	HEAD	PRECOMP	LANDZ	SECTOR	MODE
Primary Master	Auto	0	0	0	0	0	0	Auto
Primary Slave	None	0	0	0	0	0	0	------
Secondary Master	Auto	0	0	0	0	0	0	Auto
Secondary Slave	None	0	0	0	0	0	0	------

Drive A : 1.44M, 3.5 in.
Drive B : None
Floppy3 Mode Support : Disabled

Video : EGA/VGA
Halt On : All Errors

Base Memory : 640 K
Extended Memory : xxxxxx K
Other Memory : xxxxxx K
Total Memory : xxxxxx K

ESC : Quit ↑↓←→ : Select Item PU/PD/+/– : Modify
F1 : Help (Shift)F2 : Change Color

Fig. 4-3 STANDARD CMOS SETUP screen.

MODE:
The BIOS on the mainboard provides three different modes to support both normal size IDE hard disk drive and the hard disk drive which is above 528MB:

☐ NORMAL : For IDE hard disk drives which is smaller than 528MB.

☐ LBA : For IDE hard disk drive which is above 528MB (ideally, it can be as big as 8.4GB) that use Logic Block Addressing (LBA) mode.

☐ Large operation : For IDE hard disks size larger then 528MB but it does not support the LBA mode. (**Note:** Large mode is not fully supported by most systems so far, only MS-DOS is recommended on such hard disk drive.)

***Note** : Some certain operation system (like SCO-UNIX) will have to choose the*

"NORMAL" mode when installation.

4.5 BIOS FEATURES SETUP

ROM PCI / ISA BIOS (2A5IMP8A)
BIOS FEATURES SETUP
AWARD SOFTWARE, INC.

Virus Warning	:	Disabled	Video BIOS Shadow	:	Enabled
CPU Internal Cache	:	Enabled	C8000-CBFFF Shadow	:	Disabled
External Cache	:	Enabled	CC000-CFFFF Shadow	:	Disabled
Quick Power On Self Test	:	Enabled	D0000-D3FFF Shadow	:	Disabled
Boot Sequence	:	A,C,SCSI	D4000-D7FFF Shadow	:	Disabled
Swap Floppy Drive	:	Disabled	D8000-DBFFF Shadow	:	Disabled
Boot Up Floppy Seek	:	Enabled	DC000-DFFFF Shadow	:	Disabled
Boot Up NumLock Status	:	On			
Typematic Rate Setting	:	Disabled			
Typematic Rate (Chars/Sec)	:	6			
Typematic Rate (Msec)	:	250			
Security Option	:	Setup			
PCI/VGA Palette Snoop	:	Disabled	ESC : Quit ↑↓←→ :Select Item		
Assign IRQ For VGA	:	Disabled	F1 : Help PU/PD/+/- :Modify		
OS Select For DRAM >64MB		Non-OS2	F5 : Old Values (Shift)F2 : Color		
Report No FDD For WIN 95	:	Yes	F7 : Load Setup Defaults		

Fig. 4-4 BIOS FEATURES SETUP screen.

Virus Warning *(Default setting: "Disabled")*

When this option is enabled, the system BIOS will monitor the boot sector and partition table of the hard disk drive for any attempt of modification. If an attemption is detected, the BIOS will halt the system and the following error message will appear. When you find such message, please run an anti-virus program to locate and remove the.

```
! WARNING !
Disk boot sector is to be modified
Type "Y" to accept write or "N" to
abort write
```

Award Software, Inc.	
Enabled	Activates automatically when the system boots up causing a warning message to appear when anything attempts to access the boot sector or hard disk partition table.
Disabled	No warning message will appear when anything attempts to access the boot sector or hard disk partition table.

NOTE: **Many disk diagnostic programs which may attempt to access the boot sector table and it will cause the above warning message. If you are using such a program, we recommend that you disable the Virus Protection beforehand.**

CPU Internal /External Cache *(Default setting: "Enabled")*

These two categories allow you to enable or disable the cache memory on the CPU to speed up memory access. The default value is enabled.

Quick Power On Self Test *(Default setting: "Enabled")*

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

Enabled	Enable quick POST
Disabled	Normal POST

Boot Sequence *(Default setting: "A, C, SCSI")*

This category determines which drive to search first for the disk operating system (i.e., DOS). The options available are “A,C,SCSI”, “C,A,SCSI”, “C,CDROM,A”, “CDROM,C,A”, “D,A,SCSI”, “E,A,SCSI”, “F,A,SCSI”, “SCSI,A,C”, “SCSI,C,A”, “C only” and “LS/ZIP,C”. Default value is A,C,SCSI.

When select to load the OS from “CDROM,C,A” or “LS/ZIP,C”, you must select the “HARD DISK TYPE and MODE” properly, the “Auto” selection is recommended so that you can use CDROM or LS/ZIP device to load the OS into your system. (You can find these items in the “STANDARD CMOS SETUP”)

Swap Floppy Drive *(Default setting: "Disabled")*

This item allows you to determine whether enable the swap floppy drive or not.

The choice: Enabled/Disabled.

Boot Up Floppy Seek *(Default setting: "Enabled")*

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

Enabled	BIOS searches for floppy disk drive to determine if it is 40 or 80 tracks. Note that BIOS can not tell from 720K, 1.2M or 1.44M drive type as they are all 80 tracks.
Disabled	BIOS will not search for the type of floppy disk drive by track number. Note that there will not be any warning message if the drive installed is 360K.

Boot Up NumLock Status *(Default setting: "On")*

This allows you to determine the default state of the numeric keypad. By default, the system boots up with NumLock on.

On	Keypad is number keys
Off	Keypad is arrow keys

Typematic Rate Setting *(Default setting: "Disabled")*

This determines if the typematic rate is to be used. When disabled, continually holding down a key on your keyboard will generate only one instance. In other words, the BIOS will only report that the key is down. When the typematic rate is enabled, the BIOS will report as before, but it will then wait a moment, and, if the key is still down, it will begin the report that the key has been depressed repeatedly. For example, you would use such a feature to accelerate cursor movements with the arrow keys.

Enabled	Enable typematic rate
Disabled	Disable typematic rate

Typematic Rate (Chars/Sec) *(Default setting: "6")*

When the typematic rate is enabled, this selection allows you select the rate at which the keys are accelerated.

6	6 characters per second
8	8 characters per second
10	10 characters per second
12	12 characters per second
15	15 characters per second
20	20 characters per second
24	24 characters per second
30	30 characters per second

Typematic Delay (Msec) *(Default setting: "250")*

When the typematic rate is enabled, this selection allows you to select the delay between when the key was first depressed and when the acceleration begins.

250	250 msec
500	500 msec
750	750 msec
1000	1000 msec

Security Option *(Default setting: "Setup")*

This category allows you to set the limitation of access authentic to access the PC system or use the BIOS Setup program to change the mainboard settings.

.

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

Note: To disable security, select PASSWORD SETTING at Main Menu and then you will be asked to enter your personal password. If you do not type anything in this field, simply press <Enter> and the security function will be disabled. Once the security is disabled, the system will boot and you can enter Setup freely without the password been requested..

PCI / VGA Palette Snoop *(Default setting: "Disabled")*

It determines whether the MPEG ISA/VESA VGA Cards can work with PCI/VGA or not.

Enabled	When PCI/VGA working with MPEG ISA/VESA VGA Card.
Disabled	When PCI/VGA not working with MPEG ISA/VESA VGA Card.

OS Select for DRAM > 64 *(Default setting: "Non-OS2")*

This item allows you to access the memory that over 64MB in OS/2.
The choice: Non-OS2, OS2.

Video BIOS Shadow *(Default setting: "Enabled")*

Determines whether video BIOS will be copied to RAM. However, it is optional depending on chipset design. Video Shadow will increase the video speed.

Enabled	Video shadow is enabled
Disabled	Video shadow is disabled

C8000 - CBFFF Shadow/DC000 - DFFFF Shadow *(Default setting: "Disabled")*

These categories determine whether option ROMs will be copied to RAM. An example of such option ROM would be support of on-board SCSI.

Enabled	Optional shadow is enabled
Disabled	Optional shadow is disabled

4.6 CHIPSET FEATURES SETUP

ROM PCI / ISA BIOS (2A5IMP8A)
CHIPSET FEATURES SETUP
AWARD SOFTWARE, INC

Refresh Rate Control	: 15.6ns	System BIOS Cacheable	: Enabled
Ref / Act Command Delay	: 6T	Video BIOS Cacheable	: Enabled
Refresh Queue Depth	: 12	Memory Hole at 15M-16M	Disabled
RAS Precharge Time	: 3T	PCI Post Write Buffer	: Disabled
RAS to CAS Delay	: 3T	PCI Delayed Transaction	: Disabled
ISA Bus Clock Frequency	: PCICLK/4	Auto Detect DIMM/PCI CLK	: Enabled
Starting Point of Paging	: 1T	Spread Spectrum	: Disabled
NA# Enable	: Enabled		
L2 Cache Burst RD Cycle	: Delay 1 T		
Asyn/Sync Mode CPU/DRAM	: Asynchronous		
SDRAM CAS Latency	: 3 T		
SDRAM WR Retire Rate	: X-1-1-1		
RAM opt RAS Precharge	: Enabled		
PCI Peer Concurrency	: Enabled		
Read Prefetch Memory RD	: Enabled		
Assert TRDY After Prefet	: 2 QWS	ESC : Quit	↑↓←→ : Select Item
CPU to PCI Burst Mem. WR	: Enabled	F1 : Help	PU/PD/+/- : Modify
CPU to PCI Post Wirte	: Enabled	F5 : Old Values	(Shift)F2 : Color
AGP Aperture Size	: 64M	F7 : Load Setup Defaults	

Fig. 4-5 CHIPSET FEATURES SETUP screen.

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 also coordinates communications between the conventional ISA bus and the PCI bus. It must be stated that these items should never need to be altered. The default settings have been chosen because they provide the best operating conditions for your system. The only time you might consider making any changes would be if you discovered that data was being lost while using your system.

Refresh Rate Control *(Default setting: "15.6us")*

Select the period required to refresh the DRAMs, according to DRAM specifications.
The choice: 3.9us, 7.8us, 15.6us.

Ref / Act Command Delay *(Default setting: "6T")*

Set the DRAM clock of the refresh command to refresh/active command delay.
The choice: 5T, 6T, 7T, 8T.

Refresh Queue Depth *(Default setting: "12")*

Set the depth of refresh queue.
The choice: 0, 4, 8, 12.

RAS Precharge Time *(Default setting: "3T")*

The precharge time is the number of cycles it takes for the RAS to accumulate its charge before DRAM refreshes. If insufficient time is allowed, refresh may be incomplete and the DRAM may fail to retain data.
The Choice: 2T, 3T, 4T, 5T

RAS to CAS Delay *(Default setting: "3T")*

When DRAM is refreshed, both rows and columns are addressed separately. This setup item allows you to determine the timing of the transition from RAS (row address strobe) to CAS (column address strobe).
The choice: 2T, 3T, 4T, 5T.

ISA Bus Clock Frequency *(Default setting: "PCICLK/4")*

You can set the speed of the AT bus at one-third or one-fourth of the CPU clock .
The choice: 7.159MHz, PCICLK/3, PCICLK/4.

Starting Point of Paging *(Default setting: "1T")*

This value controls the start timing of memory paging operations.
The choice: 1T, 2T, 4T, 8T.

NA# Enable *(Default setting: "Enabled")*

Selecting *Enabled* permits pipelining, in which the chipset signals the CPU for a new memory address before all data transfers for the current cycle are complete, resulting in faster performance.
The choice: Enabled, Disabled.

L2 Cache Burst RD Cycle *(Default setting: "Delay 1T")*

These timing numbers are the pattern of cycles the CPU uses to read data from the L2 cache memory.

The choice: Normal, Delay 1T.

Asyn/Sync Mode CPU/DRAM *(Default setting: "Asynchronous")*

This feature can only be enabled when the frequency of CPU clock and the frequency of DRAM clock are the same and the skew between these two clocks should be zero.

The choice: Asynchronous, Synchronous.

SDRAM CAS Latency *(Default setting: "3T")*

When synchronous DRAM is installed, the number of clock cycles of CAS latency depends on the DRAM timing. Do not reset this field from the default value unless you are the professional technician.

The choice: 2T, 3T

SDRAM WR Retire Rate *(Default setting: "X-1-1-1")*

This field allows you to select the correct timing for data transfers from the write buffer to memory according to DRAM specifications. Do not reset this field from the default value unless you are the professional technician.

The choice: X-1-1-1, X-2-2-2.

DRAM Opt RAS Precharge *(Default setting: "Enabled")*

The precharge time is the number of cycles it takes for the RAS to accumulate its charge before DRAM refreshes. If insufficient time is allowed, refresh may be incomplete and the DRAM may fail to retain data.

The choice: Enabled, Disabled.

PCI Peer Concurrency *(Default setting: " Enabled ")*

Peer concurrency means that more than one PCI device can be active at a time.

The choice: Enabled, Disabled.

Read Prefetch Memory RD *(Default setting: " Enabled ")*

When this item is *Enabled*, the system is allowed to prefetch the next read instruction and initiate the next process.

The choice: Enabled, Disabled.

Assert TRDY After Prefet *(Default setting: " 2QWS ")*

When you select 1QWs, SiS530 asserts its first TRDY# for 1 transaction after it prefetched 1 quadword of data from system memory. Otherwise, SiS530 asserts its first TRDY# after 2 quadwords are prefetched.

The choice: 1QWs, 2QWs.

CPU to PCI Burst Mem. WR *(Default setting: " Enabled ")*

Select enabled permits PCI burst memory write cycles, for faster performance. When disabled, performance is slightly slower, but more reliable.

Choices are Enabled, Disabled.

CPU to PCI Post Write *(Default setting: " Enabled ")*

Select enabled to use a fast buffer for posting writes to memory. Using a fast buffer releases the CPU before completion of a write cycle to DRAM.

The choice: Enabled, Disabled.

AGP Aperture Size *(Default setting: " 64MB ")*

Select the size of the Accelerated Graphics Port (AGP) aperture. The aperture is a portion of the PCI memory address range dedicated for graphics memory address space. Host cycles that hit the aperture range are forwarded to the AGP without any translation. See www.agpforum.org for APG information.

The choice: 4 MB, 8MB, 16 MB, 32 MB, 64 MB, 128 MB, 256MB.

System BIOS Cacheable *(Default setting: " Enabled ")*

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

The choice: Enabled, Disabled.

Video BIOS Cacheable

Selecting *Enabled* allows caching of the system BIOS ROM at C0000h-F7FFFh, resulting in better system performance. However, if any program writes to this memory area, a system error may result.

The choice: Enabled, Disabled.

Memory Hole at 15M-16M *(Default setting: " Disabled ")*

You can reserve this area of system memory for ISA adapter ROM. When this area is reserved, it cannot be cached. The user information of peripherals that need to use this area of system memory usually discusses their memory requirements.

PCI Post Write Buffer *(Default setting: " Disabled ")*

This option allows you to Enable/disable PCI post write buffer.
The choice: Enabled, Disabled.

PCI Delayed Transaction *(Default setting: " Disabled ")*

The chipset has an embedded 32-bit posted write buffer to support delay transactions cycles. Select *Enabled* to support compliance with PCI specification version 2.1.
The choice: Enabled, Disabled

Auto Detect DIMM / PCI Clk *(Default setting : "Enabled")*

When enabled, the system board will detect the clock speed for DIMM and PCI clock.
The choice: Enabled, Disabled.

Spread Spectrum *(Default setting: "Disabled")*

When you select "Enabled", the special feature designed in the system chipset will be triggered and reduce the EMI noise.
The choice: Enabled, Disabled.

4.7 POWER MANAGEMENT SETUP

ROM PCI / ISA BIOS (2A5IMP8A)
POWER MANAGEMENT SETUP
AWARD SOFTWARE, INC.

ACPI function	: Disabled	VGA Activity	: Enabled
Power Management	: User Define	IRQ [3-7, 9-15], NMI	: Enabled
Video Off Option	: Susp, Stby->Off	IRQ 8 Break Suspend	: Disabled
Video Off Method	: Blank Screen	Power Button Over Ride	: Instant Off
		Ring Power Up Control	: Disabled
Doze Speed (div by)	: 2 / 8		
Stby Speed (div by)	: 1 / 8	KB Power ON Password	: Enter
MODEM Use IRQ	: 3	Power Up by Alarm	: Disabled
** PM Timers **			
HDD Odd After	: Disabled		
Doze Mode	: Disabled		
Standby Mode	: Disabled		
Suspend Mode	: Disabled		
** PM Events **		ESC : Quit	↑↓←→ : Select Item
HDD Ports Activity	: Enabled	F1 : Help	PU/PD/+/- : Modify
COM Ports Activity	: Enabled	F5 : Old Values	(Shift)F2 : Color
LPT Ports Activity	: Enabled	F7 : Load Setup Defaults	

Fig. 4-6 POWER MANAGEMENT SETUP screen.

WARNING : *The selection fields on this screen are provided for the professional technician who can modify the Chipset features to meet some specific requirement. If you do not have the related technical background, do not attempt to make any change except the following items.*

ACPI function *(Default setting: "Disabled")*

This field allows you to enable or disable the ACPI function (Advanced Configuration and Power Interface):
The choice: Enabled, Disabled.

Power Management *(Default setting: "User Define")*

This option allows you to select the type (or degree) of power saving for Doze, Standby, and Suspend modes. See the section *PM Timers* for a brief description of each mode.

The following table describes each power management mode:

Disable	No power management. Disables all four modes
Min. Power Saving	Minimum power management. Doze Mode = 1 hr. Standby Mode = 1 hr., Suspend Mode = 1 hr., and HDD Power Down = 15 min.
Max. Power Saving	Maximum power management -- **ONLY AVAILABLE FOR SL CPU'S**. Doze Mode = 1 min., Standby Mode = 1 min., Suspend Mode = 1 min., and HDD Power Down = 1 min.
User Defined	Allows you to set each mode individually. When not disabled, each of the ranges are from 1 min. to 1 hr. except for HDD Power Down which ranges from 1 min. to 15 min. and disable.

Video Off Option *(Default setting: "Susp, Stby -> Off")*

When enabled, it allows the VGA adapter to operate in a power saving mode.

Always On	Monitor will remain on during power saving modes.
Suspend --> Off	Monitor blanked when the systems enters the Suspend mode.
Susp,Stby --> Off	Monitor blanked when the system enters either Suspend or Standby modes.
All Modes --> Off	Monitor blanked when the system enters any power saving mode.

Video Off Method *(Default setting: "Blank Screen")*

This determines the manner in which the monitor is blanked.

V/H SYNC+Blank	This selection will cause the system to turn off the vertical and horizontal synchronization ports and write blanks to the video buffer.
Blank Screen	This option only writes blanks to the video buffer.
DPMS	Select this option if your monitor supports the Display Power Management Signaling (DPMS) standard of the Video Electronics Standards to select video power management values.

Doze Speed (div by) *(Default setting: "2/8")*

Sets the CPU's speed during Doze mode. The speed is reduced to a fraction of the CPU's normal speed. The divisors range from 1 to 8

Stdby Speed (div by) *(Default setting: "1/8")*

Select a divisor to reduce the CPU speed during *Standby* mode to a fraction of the full CPU speed. The speed is reduced to a fraction of the CPU's normal speed. The divisors range from 1 to 8-0.

MODEM Use IRQ *(Default setting: "3")*

Name the interrupt request (IRQ) line assigned to the modem (if any) on your system. Activity of the selected IRQ always awakens the system.
The choice: 3, 4, 5, 7, 9, 10, 11, NA

**** PM Timers ****

The following four modes are Green PC power saving functions which are only user configurable when *User Defined* Power Management has been selected. See above for available selections.

HDD Off After *(Default setting: "Disabled")*

By default, this item is Disabled, meaning that no matter the mode the rest of the system, the hard drive will remain ready. Otherwise, you have a range of choices from 1 to 15 minutes or Suspend. This means that you can elect to have your hard disk drive be turned off after a selected number of minutes or when the rest of the system goes into a Suspend mode

Doze Mode *(Default setting: "Disabled")*

When enabled and after the set time of system inactivity, the CPU clock will run at slower speed while all other devices still operate at full speed.

Standby Mode *(Default setting: "Disabled")*

When enabled and after the set time of system inactivity, the fixed disk drive and the video would be shut off while all other devices still operate at full speed.

Standby Mode *(Default setting: "Disabled")*

When enabled and after the set time of system inactivity, the fixed disk drive and the video would be shut off while all other devices still operate at full speed.

Suspend Mode *(Default setting: "Disabled")*

When enabled and after the set time of system inactivity, all devices except the CPU will be shut off.

**** PM Events ****

You may disable activity monitoring of some common I/O events and interrupt requests so they do not wake up the system. The default wake-up event is keyboard activity.

When *On* (or named, in the case of LPT & COM), any activity from one of the listed system peripheral devices or IRQs wakes up the system.

HDD Ports Activity *(Default setting: "Enabled")*

When set to *On* (default), any event occurring at a HDD (serial) port will awaken a system which has been powered down.

COM Ports Activity *(Default setting: "Enabled")*

When set to *On* (default), any event occurring at a hard or floppy drive port will awaken a system which has been powered down.

LPT Ports Activity *(Default setting: "Enabled")*

When set to *On* (default), any event occurring at a LPT (printer) port will awaken a system which has been powered down.

VGA Activity *(Default setting: "Enabled")*

When set to *On* (default), any event occurring at VGA will awaken a system which has been powered down.

The following is a list of IRQ's, **I**nterrupt **Re****Q**uests, which can be exempted much as the COM ports and LPT ports above can. When an I/O device wants to gain the attention of the operating system, it signals this by causing an IRQ to occur. When the operating system is ready to respond to the request, it interrupts itself and performs the service.

As above, the choices are *Enabled* and *Disabled.*

When set *Enabled*, activity will neither prevent the system from going into a power management mode nor awaken it.

IRQ [3-7, 9-15], NMI *(Default setting: "Enabled")*

You can select *Enable* or *Disable* to monitor IRQ[3-7, 9-15] and NMI status. So that it does not awaken the system from Suspend mode.

IRQ 8 Break Suspend *(Default setting: "Disabled")*

You can *Enable* or *Disable* monitoring of IRQ8 (the Real Time Clock) so it does not awaken the system from Suspend mode.

Power Button Over Ride *(Default setting: "Instant Off")*

You could press the power button for more than 4 seconds forces the system to enter the Soft-Off state when the system has "hung."

The choice: Instant-Off, Delay 4 Sec.

Ring Power Up Control *(Default setting: "Disabled")*

When you select *Enabled,* a signal from ring returns the system to Full On state.

The choice: Enabled, Disabled.

KB Power ON *(Default setting: "Enter")*

When you set a password for keyboard, The password input will return the system to Full On state.

Power Up by Alarm *(Default setting: "Disabled")*

When you select *Enabled,* the following fields appear. They let you set the alarm that returns the system to Full On state.

The choice: Enabled, Disabled.

4.8 PNP/PCI CONFIGURATION

ROM PCI / ISA BIOS (2A5IMP8A)
PNP/PCI CONFIGURATION
AWARD SOFTWARE, INC.

Resources Controlled By : Manual	PCI IRQ Actived By : Level
Reset Configuration Data : Disabled	Assign IRQ For USB : Enabled
IRQ-3 assigned to : PCI/ISA PnP	
IRQ-4 assigned to : PCI/ISA PnP	
IRQ-5 assigned to : PCI/ISA PnP	
IRQ-7 assigned to : Legacy ISA	
IRQ-9 assigned to : PCI/ISA PnP	
IRQ-10 assigned to : PCI/ISA PnP	
IRQ-11 assigned to : PCI/ISA PnP	
IRQ-12 assigned to : PCI/ISA PnP	
IRQ-14 assigned to : Legacy ISA	
IRQ-15 assigned to : Legacy ISA	
DMA-0 assigned to : PCI/ISA PnP	
DMA-1 assigned to : PCI/ISA PnP	ESC : Quit ↑↓←→ : Select Item
DMA-3 assigned to : PCI/ISA PnP	F1 : Help PU/PD/+/- : Modify
DMA-5 assigned to : PCI/ISA PnP	F5 : Old Values (Shift)F2 : Color
DMA-6 assigned to : PCI/ISA PnP	F7 : Load Setup Defaults
DMA-7 assigned to : PCI/ISA PnP	

Fig. 4-7 PNP/PCI CONFIGURATION setup screen.

WARNING : *The selection fields on this screen are provided for the professional technician who can modify the Chipset features to meet some specific requirement. If you do not have the related technical background, do not attempt to make any change except the following items.*

Resource controlled by *(Default setting: "Manual")*

The Award Plug and Play BIOS has the capacity to automatically configure all of the boot and Plug and Play compatible devices. However, this capability means absolutely nothing unless you are using a Plug and Play operating system such as Windows®95/98.

The choice: Auto and Manual.

Reset Configuration Data *(Default setting: "Disabled")*

Normally, you leave this field Disabled. Select Enabled to reset Extended System Configuration Data (ESCD) when you exit Setup if you have installed a new add-on and the system reconfiguration has caused such a serious conflict that the operating system can not boot.

The choice: Enabled and Disabled .

IRQ3/4/5/7/9/10/11/12/14/15 assigned to:

When resources are controlled manually, assign each system interrupt as one of the following types, depending on the type of device using the interrupt:

Legacy ISA Devices compliant with the original PC AT bus specification, requiring a specific interrupt (such as IRQ4 for serial port 1). PCI/ISA PnP Devices compliant with the Plug and Play standard, whether designed for PCI or ISA bus architecture.

The choice: Legacy ISA and PCI/ISA PnP.

DMA0/1/3/5/6/7 assigned to *(Default setting: "PCI/ISA PnP")*

When resources are controlled manually, assign each system DMA channel as one of the following types, depending on the type of device using the interrupt:

Legacy ISA Devices compliant with the original PC AT bus specification, requiring a specific interrupt (such as IRQ4 for serial port 1). PCI/ISA PnP Devices compliant with the Plug and Play standard, whether designed for PCI or ISA bus architecture.

The choice: Legacy ISA and PCI/ISA PnP.

PCI IRQ Activated by *(Default setting: "Level")*

This sets the method by which the PCI bus recognizes that an IRQ service is being requested by a device. Under all circumstances, you should retain the default configuration unless advised otherwise by your system's manufacturer.

The choice: *Level, Edge*.

Assign IRQ For USB *(Default setting: "Enabled")*

This option allows you to assign IRQ for the USB ports.

4.9 INTEGRATED PERIPHERALS

ROM PCI / ISA BIOS (2A5IMP8A)
INTEGRATED PERIPHERALS
AWARD SOFTWARE, INC.

Internal PCI/IDE	:	Both	Parallel Port Mode	:	Normal
IDE Primary Master PIO	:	Auto			
IDE Primary Slave PIO	:	Auto	PS/2 Mouse function	:	Enabled
IDE Secondary Master PIO	:	Auto	USB Controller	:	Enabled
IDE Secondary Slave PIO	:	Auto	USB Keyboard Support	:	Disabled
Primary Master UltraDMA	:	Auto	Init Display First	:	PCI Slot
Secondary Master UltraDMA	:	Auto	VGA Shared Memory Size		8MB
Secondary Slave UltraDMA	:	Auto	VGA Memory Clock (MHz)	:	83
IDE Burst Mode	:	Enabled	Current CPU Temperature	:	40□/104□
IDE Data Port Post Write	:	Disabled	Current CPUFAN1 Speed	:	4856 RPM
IDE HDD Block Mode	:	Enabled	Current CPUFAN2 Speed	:	0 RPM
			IN0 (V): 11.90V		IN1 (V): 5.12V
Onboard FDC Controller	:	Enabled	IN2 (V): 3.41V		IN3 (V): 2.26V
Onboard Serial Port 1	:	3F8 / IRQ 4	ESC : Quit	↑↓←→	: Select Item
Onboard Serial Port 2	:	2F8 / IRQ 3	F1 : Help	PU/PD/+/-	: Modify
UART 2 Mode	:	Standard	F5 : Old Values	(Shift)F2	: Color
			F7 : Load Setup Defaults		
Onboard Parallel Port	:	378/IRQ7			

Fig. 4-8 INTEGRATED PERIPHERALS setup screen.

Internal PCI / IDE *(Default setting: "Both")*

This chipset contains an internal PCI IDE interface with support for two IDE channels.

The choice: Primary, Secondary, Both

IDE Primary/Secondary Master/Slave PIO *(Default setting: "Auto")*

The four IDE PIO (Programmed Input / Output) fields let you set a PIO mode (0-4) for each of the four IDE devices that the onboard IDE interface supports. Modes 0 through 4 provide successively increased performance. In *Auto* mode, the system automatically determines the best mode for each device.

The choice: Auto, Mode 0, Mode 1, Mode 2, Mode 3, Mode 4.

Primary/Secondary Master/Slave UDMA *(Default setting: "Auto")*

UDMA (Ultra DMA) is a DMA data transfer protocol that utilizes ATA commands and the ATA bus to allow DMA commands to transfer data at a maximum burst rate of 33 MB/s. When you select *Auto* in the four IDE UDMA fields (for each of up to four IDE devices that the internal PCI IDE interface supports), the system automatically determines the optimal data transfer rate for each IDE device.

The choice: Auto, Mode 0, Mode 1, Mode 2, Mode 3, Mode 4.

IDE Burst Mode *(Default setting: "Enabled")*

Selecting *Enabled* reduces latency between each drive read/write cycle, but may cause instability in IDE subsystems that cannot support such fast performance. If you are getting disk drive errors, try setting this value to *Disabled.* This field does not appear when the Internal PCI/IDE field, above, is *Disabled.*

The choice: Enabled, Disabled.

IDE Data Port Post Write *(Default setting: "Disabled")*

Selecting *Enabled* speeds up processing of drive reads and writes, but may cause instability in IDE subsystems that cannot support such fast performance. If you are getting disk drive errors, try setting this value to *Disabled*

The choice: Enabled, Disabled.

IDE HDD Block Mode *(Default setting: "Enabled")*

The chipset contains a PCI IDE interface with support for two IDE channels. Select Enabled to activate the primary and/or secondary IDE interface. Select Disabled to deactivate this interface, if you install a primary and/or secondary add-in IDE interface IDE interface.

Enabled	Secondary HDD controller used
Disabled	Secondary HDD controller not used.

Onboard FDD Controller *(Default setting: "Enabled")*

This should be enabled if your system has a floppy disk drive (FDD) installed on the system board and you wish to use it. Even when so equipped, if you add a higher performance controller, you will need to disable this feature.

The choice: Enabled, Disabled.

Onboard Serial UART 1/UART 2 *(Default setting: "3F8/IRQ4, 2F8/IRQ3")*

This item allows you to determine access onboard serial port 1/port 2 controller with which I/O address.

The choice: 3F8/IRQ4, 2E8/IRQ3, 3E8/IRQ4, 2F8/IRQ3, Disabled, Auto.

Onboard UART 2 Mode *(Default setting: "Standard")*

The second serial port offers these InfraRed interface modes.

Choices are Standard, ASKIR, HPSIR.

Onboard Parallel Port *(Default setting: "378/IRQ7")*

This item allows you to determine access onboard parallel port controller with which I/O address.

The choice: 378/IRQ7, 278/IRQ5, 3BC/IRQ7, Disabled

Onboard Parallel Mode *(Default setting: "Normal")*

Select an operating mode for the onboard parallel (printer) port. Select *SPP* unless you are certain your hardware and software both support one of the other available modes.

The choice: SPP, EPP, ECP, ECP+E PP.

PS/2 mouse function *(Default setting: "Enabled")*

If your system has a PS/2 mouse port and you install a serial pointing device, select *Disabled.*

The choice: Enabled, Disabled.

USB Controller *(Default setting: "Enabled")*

Select *Enabled* if your system contains a Universal Serial Bus (USB) controller and you have USB peripherals.

The choice: Enabled, Disabled.

Init Display First *(Default setting: "PCI Slot")*

This item allows you to decide to active which bus first (PCI Slot or AGP first).

The choice: PCI Slot, AGP.

VGA Shared Memory Size *(Default setting: "8MB")*

The VGA on the mainboard use the share memory technology and it will use the system memory as the display buffer. This field allows you to specify the size of system memory to allocate for video memory, from 2 MB to 8 MB. .

The choice: 2MB, 4MB, 8MB

VGA Memory Clock (MHz) *(Default setting: "83")*

Set the speed (MHz) of the VGA memory clock.
The choice: 66, 75, 83, 100.

Current CPU Temperature

This field displays the *current* CPU temperature, if your computer contains a monitoring system.

Current CPUFAN1/2 Speed

These fields display the *current* speed of up to two CPU fans, if your computer contains a monitoring system.

IN0~IN3 (V)

These fields display the *current* voltage of up to seven voltage input lines, if your computer contains a monitoring system.

4.10 LOAD SETUP DEFAULTS

ROM PCI / ISA BIOS (2A5IMP8A)
INTEGRATED PERIPHERALS
AWARD SOFTWARE, INC.

STANDARD CMOS SETUP	PASSWORD SETTING
BIOS FEATURES SETUP	IDE HDD AUTO DETECTION
CHIPSET FEATURES SETUP	SAVE & EXIT SETUP
POWER MANAGEMENT SETUP	EXIT WITHOUT SAVING
INTEGRATED PERIPHERALS	
PNP/PCI CONFIGURATION	
LOAD SETUP DEFAULTS	

ESC : Quit □□□□ : Select Item
F10 : Save & Exit Setup (Shift)F2 : Change Color
Time, Date Hard Disk Type

If you lost the CMOS data or you don't know how to complete the setup procedure, you may use this option to load the SETUP default values from the BIOS default table. It is easy to load the default value, simply highlight the "LOAD SETUP DEFAULTS" field and then press the "Enter" key, when you see the "LOAD SETUP DEFAULTS (Y/N)" displayed on the screen, response to it with "Y" and then press the "Enter" key. The SETUP default values will be loaded. Basically, the SETUP default settings are the best-case values that will optimize system performance and increase system stability.

In case that the CMOS data is corrupted, the SETUP DEFAULTS settings will be loaded automatically when you press the "Del" key and enter the main setup screen. So you may select "SAVE & EXIT SETUP" to leave setup program and the system is loaded with the default settings.

4.11 PASSWORD SETTING

ROM PCI / ISA BIOS (2A5IMP8A)
INTEGRATED PERIPHERALS
AWARD SOFTWARE, INC.

STANDARD CMOS SETUP	PASSWORD SETTING
BIOS FEATURES SETUP	IDE HDD AUTO DETECTION
CHIPSET FEATURES SETUP	SAVE & EXIT SETUP
POWER MANAGEMENT SETUP	EXIT WITHOUT SAVING
INTEGRATED PERIPHERALS	
PNP/PCI CONFIGURATION	
LOAD SETUP DEFAULTS	

ESC : Quit □□□□ : Select Item
F10 : Save & Exit Setup (Shift)F2 : Change Color
Time, Date Hard Disk Type

The User Password can be used to check the user's authority. Howerver, this password entry is somewhat different to the "SUPERVISOR PASSWORD" mentioned in previous page. The User Password will have different function according to the "Supervisor Password" and the "Security Option" setup in Section 4.5:

A. When there is the password stored in the "SUPERVISOR PASSWORD"

1. When "Setup" is selected in Security Option:

Users can use the "User Password" to log into the BIOS setup program, but they can only select "User Password", "SAVE & EXIT SETUP" and "EXIT WITHOUT SAVING". (Use the Supervisor Password to log into the PC system, you will have the complete right to change all settings in the BIOS setup program)

2. When "System" is selected in Security Option:

When turn on the PC system, it will request you to enter the Password. Without the correct password, the PC system will stop and the operation system will not be loaded.

You can enter up to eight alphanumeric characters here. When you have typed in the password and pressed the “Enter” key, you will be asked to reconfirm your password again to complete password setup. If you press the “Enter” key twice without any alphanumeric character entered, the PASSWORD will be disabled.

If the “User Password” and the “Supervisor Password” are both enabled and they have different password setup, “Supervisor Password” is always has the higher priority, Basically, an “User” is only authorized to change the content of “User Password”, while a “Supervisor” has the authorization to dominate all settings.

B. When there is no password stored in the "SUPERVISOR PASSWORD"

1. When "Setup" is selected in Security Option:

Users can use the "User Password" to log into the BIOS setup program, and they can make all the change in the BIOS setup program.

2. When "System" is selected in Security Option:

When turn on the PC system, it will request you to enter the Password. Without the correct password, the PC system will stop and the operation system will not be loaded.

4.12 IDE HDD AUTO DETECTION

ROM PCI / ISA BIOS (2A5IMP8A)
INTEGRATED PERIPHERALS
AWARD SOFTWARE, INC.

STANDARD CMOS SETUP	PASSWORD SETTING
BIOS FEATURES SETUP	IDE HDD AUTO DETECTION
CHIPSET FEATURES SETUP	SAVE & EXIT SETUP
POWER MANAGEMENT SETUP	EXIT WITHOUT SAVING
INTEGRATED PERIPHERALS	
PNP/PCI CONFIGURATION	
LOAD SETUP DEFAULTS	

ESC : Quit □□□□ : Select Item
F10 : Save & Exit Setup (Shift)F2 : Change Color
Time, Date Hard Disk Type

In order to make the IDE hard disk known to the system, you need to tell the system what kind of hard disk is connected to the mainboard by giving a set of hard disk parameters. Sometimes it is not easy for users to find the proper parameters for their IDE hard disk drive. In order to help users to find the parameters, the system BIOS provides a convent way – the auto detection of IDE hard disk drive.

4.13 SAVE & EXIT SETUP & EXIT WITHOUT SAVING

ROM PCI / ISA BIOS (2A5IMP8A)
INTEGRATED PERIPHERALS
AWARD SOFTWARE, INC.

STANDARD CMOS SETUP	PASSWORD SETTING
BIOS FEATURES SETUP	IDE HDD AUTO DETECTION
CHIPSET FEATURES SETUP	SAVE & EXIT SETUP
POWER MANAGEMENT SETUP	EXIT WITHOUT SAVING
INTEGRATED PERIPHERALS	
PNP/PCI CONFIGURATION	
LOAD SETUP DEFAULTS	
ESC : Quit	□□□□ : Select Item
F10 : Save & Exit Setup	(Shift)F2 : Change Color
Time, Date	Hard Disk Type

SAVE & EXIT SETUP:

This option will save all setup values to CMOS RAM & EXIT SETUP routine, by moving the selection bar to "SAVE & EXIT SETUP" and pressing "Enter" key, then types "Y" and "Enter" key, the values will be saved and all the information will be stored in the CMOS memory, and then the setup program will be terminated and the system will start to reboot.

EXIT WITHOUT SAVING:

This item exit the setup routine without saving any changed values to CMOS RAM, When you do not want to save your change to the CMOS memory, you may choose to run this option and the setting what you made in the BIOS setup routine will be given away.

Move the selection bar to "EXIT WITHOUT SAVING" and click on the "Enter" key, then you will be asked to confirm the action to exit, press the "Y" and "Enter" key, the setup program will be terminated and the system will start to reboot.