SL-65EB V1.0 USER MANUAL

USER NOTICE

Product Model	**: SL-65EB**
Manual Revision	**: V1.0**
Release Date	**: OCTOBER 2000**

THis Users Guide & Technical Reference is for assisting system manufacturers and end-users in setting up and installing the motherboard.

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C O N T E N T

CHAPTER 1
INTRODUCTION

1-1 ITEM LIST CHECK UP

- Motherboard
- Support CD
- User's Manual
- Bundle Bonus Pack CD
- Bundle Bonus Pack Manual
- ATA33 IDE Cable

1-2 CHIPSET

- North Bridge - Intel 82443BX.
- South Bridge - 82371EB PCI-To-ISA.
- Supper I/O - Winbond W83977.

1-3 PROCESSOR

- Supports Intel® FC-PGA Pentium III™ up to 1GHz (**100MHz Front Side Bus only**).
- Supports Intel® FC-PGA 370 Celeron & PGA 370 Celeron up to 700MHz.
- Supports VIA Cyrix III up to 600MHz.
- Supports CPU voltage Auto - Detect circuit.
- Supports CPU using front side Bus 66MHz and 100MHz only.

1-4 ADVANCED HIGH-PERFORMANCE DRAM CONTROLLER

- Supports SDRAM memory up to 3 DIMMS.
- 64-bit data width and 3.3V DRAM interface.
- Supports up to 768MB memory space.
- Different DRAM types may be used in mixed combinations.

1-5 FULL FEATURED ACCELERATED GRAPHICS PORT

- Supports 66MHz 1x and 2x modes.
- AGP Specification Rev 1.0 compliant.

1-6 MULTI-I/O FUNCTION

- Two UltraDMA-33 Master Mode PCI EIDE ports.
- Two UARTs for Complete Serial Ports.
- One dedicated IR connector:

  Third serial port dedicated to IR function either through the two complete serial ports or the third dedicated port Infrared-IrDA (SIR) and ASK (Amplitude Shift Keyed) IR.
- Multi-mode parallel connector:

  Standard mode, ECP and EPP support.
- Floppy Disk connector:

  One FDD with drive swap support.
- Universal Serial Bus connector:

  USB V1.0 compatible.

  Provides 2 build-in USB ports.
- PS/2 Keyboard connector.
- PS/2 Mouse connector.

1-7 EXTENSION SLOTS

- Five PCI bus Mater slots.
- Three DIMM slots.
- One ISA slot.
- One AGP 2X mode slot.

1-8 BIOS

- Award BIOS V6.0.
- Supports Plug & Play V1.0.
- Flash Memory for easy upgrade.
- Year 2000 compliant.

1-9 POWER MANAGEMENT

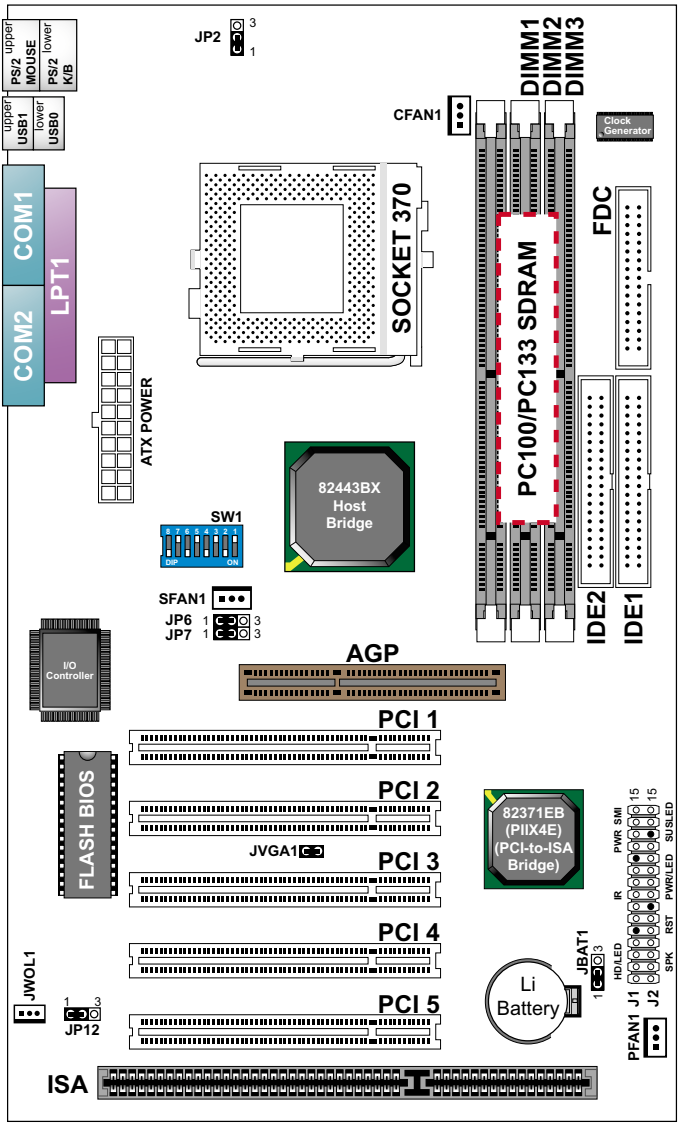
- ACPI 1.0 compliant (Advanced Configuration and Power Interface).
- APM V1.2 compliant (Legacy power management).
- System event monitoring with two event classes.
- Supports PS/2 Keyboard & Mouse power on.
- Supports Wake On LAN (WOL) & Wake On Modem.
- Supports real time clock (RTC) with date alarm, month alarm, and century field.

1-10 FORM FACTOR

- ATX from factor, 4 layers PCB.
- Motherboard size 18.0cm x 30.5cm.

1-11 MOTHERBOARD LAYOUT --- 65EB

• DEFAULT SETTING: Celeron 300/66MHz.



NOTE: FOR 100 / 133MHz CPU ENVIRONMENT, THE SDRAM MUST COMPLY WITH PC-100 / PC-133 SPEC.

1-12 CHIPSET SYSTEM BLOCK DIAGRAM

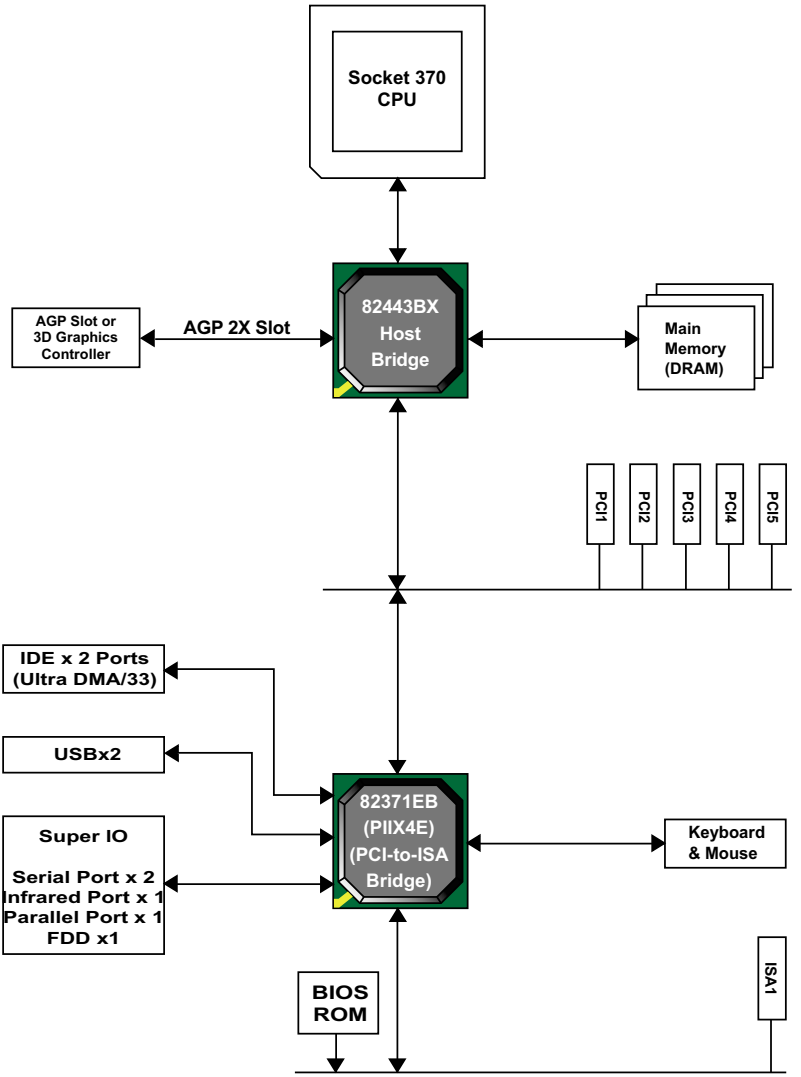


Figure 1-11. 82443BX System Block Diagram Using the 82371EB South Bridge

ATTENTION !!!

1. Please refer to your processor installation or other documentation attached with your CPU for detailed installing instruction.
2. Installing a heat sink and cooling fan is necessary for proper heat dissipation from your CPU. Uncorrected installation may result in overheating and damage of your CPU.
3. Before changing the setting of CPU Vcore from BIOS program, user SHOULD make sure of correct specification both of CPU CLOCK and RATIO. Uncorrected setting may cause damage to your CPU.

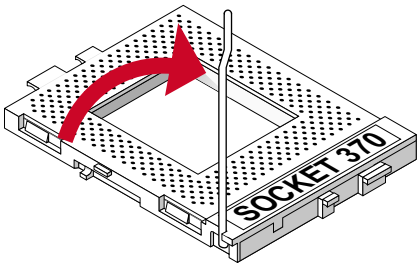
CHAPTER 2

HARDWARE SETUP

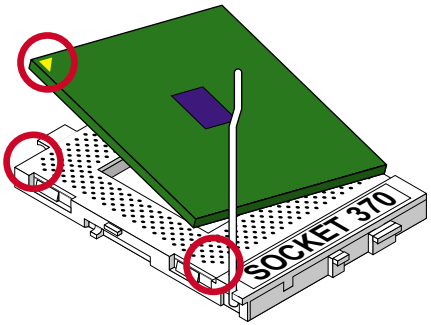
2-1 CPU INSTALLATION

WARNING ! Never run you processor without the heat sink properly and firmly attached. PERMANET DAMAGE WILL RESULT!

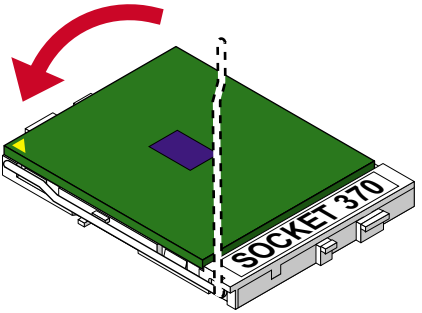
1. Pull the lever sideways away from the socket, and then raise the lever up to a 90-degree angle.



2. Take note of the red circle as below picture. When insert the CPU into socket, you can find out there is a definite pin orientation for CPU and socket.



3. Make sure that the CPU positions in the socket tightly, and then put the lever down to complete the CPU installation.



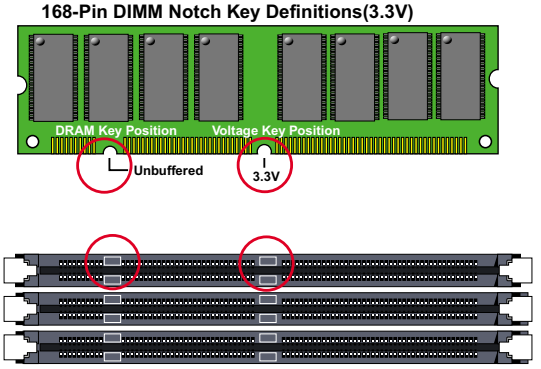
2-2 MEMORY INSTALLATION

WARING!

- Make sure that you unplug your power supply when adding or removing memory modules or other system components, failure to do so may cause severe damage to both your motherboard and expansion cards.
- Be careful when inserting or removing DIMM, forcing a DIMM in or out of a socket can be damaged the memory module or the socket. Some of DIMMs contain EDO or FTP DRAM that accept only 5V power. These DIMM types are incompliant with the motherboard, the M/B only supports 3.3V true SDRAM DIMMs

Installing DIMM:

- Make sure you have the correct memory module type for your motherboard.
- Insert the module(s) as shown, DIMMs have 168-pins and two notches that will match with the onboard DIMM socket, memory modules are installed by inserting them straight into the slot until they “click” into place. They only fit in one direction so do not force them into place.

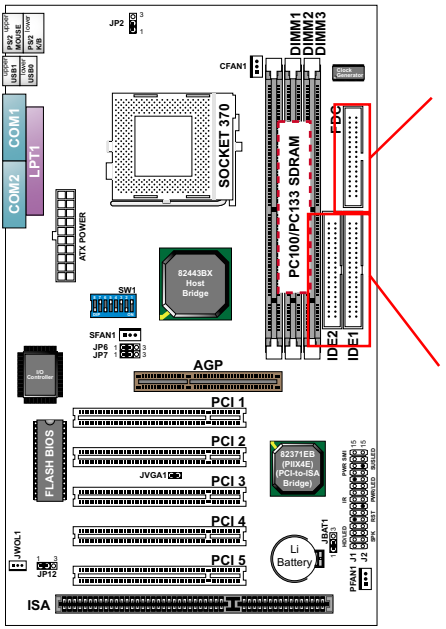


Removing:

- Press the holding clips on both sides of socket out ward to release the DIMM, Gently pull the DIMM out of the socket.

2-3 HDD / FDD INSTALLATION

- you must configure the second drive to Slave mode by setting its jumper accordingly.Please refer to your hard disk documentation for the jumper settings.
- To install FDD (Floppy Disk Drive), you may connect the single end to the board , and connect two plugs on the other end to the floopy drives.
- Even though the IDE controller on the Motherboard supports Ultra ATA33 only, but it also compatible with ultra ATA66, ATA100 and legacy IDE devise.



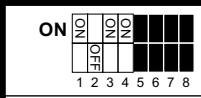
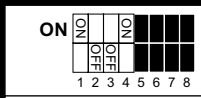
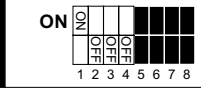
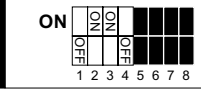
Floppy Disk Drive Connector:
Orient the red markings on the floppy ribbon cable to Pin1.

Hard Disk Drive Connector:
Orient the red markings on the IDE ribbon cable to Pin1.

2-4 CPU TYPE CONFIGURATION

2-4.1 BUS RATIO SELECT

- Normally, the Bus Ratio (Frenquency Multiple) of your processor is locked by processor's Vendor,setting of the CPU Bus Ratio will have no effect.
- Bus Ratio exceed 8.0X, user can not change all values from DIP switch, the Bus ratio will be detected by BIOS automatically.
- The Bus Ratio Setting is available on unlocked processors only.

SW1 DIP1 ~ DIP4 SETTING			
3.0x		3.5x	
4.0x		4.5x	
5.0x		5.5x	
6.0x		6.5x	
7.0x		7.5x	
8.0x			

2-4.2 BUS CLOCK SELECT

- Over clocking is not recommended, your system may work unstable.

SW1 DIP5 ~ DIP8 SETTING	
	Auto Select 66/100 MHz (default)
	66MHz
	100MHz

2-5 SYSTEM MEMORY CONFIGURATION

- This Intel 82443BX motherboard supports 168pin DIMM of 32MB, 64MB, 128MB, and 256MB to form a memory size between 32MB up to 768MB (SDRAM). Intel 82443BX chipset provides “Table-Free” function. It means that users can install DRAM with any configuration and in any bank, and that is why the DRAM table is not needed but do remember that the DRAM must be 3.3V type. **For 100 MHz CPU environment, the SDRAM specification must comply with PC-100 / PC-133 spec.**

2-6 JUMPER DEFINITION

- The figure below shows the location of the motherboard’s jumper blocks.

CAUTION

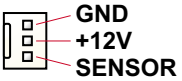
- *Do not move the jumper with the power on. Always turn off the power and unplug the power cord from the computer before changing the jumper. Otherwise, the motherboard could be damaged.*

2-6.1 ONBOARD (CFAN1/SFAN1/PFAN1)

CFAN1/SFAN1/PFAN1: ONBOARD FAN (12V)	
CPU FAN	**CFAN1** 
SYSTEM FAN	**SFAN1** 
CHASSIS FAN	**PFAN1** 

Those connectors support processor/system/chassis cooling fan with +12V. Those support three pin head connector. When connecting the wire to FAN connectors, user should give attention 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 your motherboard has Hardware Monitor chipset on-board, you must use a specially designed fan with speed sensor to take advantage of this function.

For fans with fan speed sensor, every rotation of the fan will send out 2 pulses. System Hardware Monitor will count and report the fan rotation speed.



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

2-6.2 KEYBOARD POWER ON (JP2)

JP2: KEYBOARD POWER ON	
Disabled (default)	JP2 
Enabled	JP2 

NOTE: This function allows you to use PS/2 keyboard or PS/2 mouse to power on your system, the function must be set in junction with "Power on function" state in BIOS setup "Integrated peripherals" section.

2-6.3 USB PORT SELECT (JP6/JP7)

JP6/JP7: USB PORT SELECT	
Redirect USB port to USB 1 connector (default)	JP6 JP7 
Redirect USB port to AGP	JP6 JP7 

2-6.4 POWER LOST RESUME (JP12)

JP12: POWER LOST RESUME	
Enabled	JP12 
Normal (default)	JP12 

NOTE: This jumper allows user to use the switch of ATX power supply to control ON/OFF switch directly instead of using the power switch on the motherboard.

2-6.5 VGA CARD (JVGA1)

JVGA1 : VGA CARD	
For PCI VGA Card	JVGA1 
Normal (default)	JVGA1 

NOTE: This jumper is set for the PCI VGA Card only. Open this jumper when the system is not able to boot up. If you use AGP Card, it is important to leave "JVGA1" at default setting.

2-6.6 CLEAR CMOS DATA (JBAT1)

JBAT1: CLEAR CMOS DATA	
Clear CMOS Data	JBAT1 
Retain Data (default)	JBAT1 

NOTE: We recommend user to unplug the power cord from ATX power supply to take precautions. Clear CMOS memory by shorting this jumper pin 2 & pin3 momentarily, and then remove the cap back to pin 1 & pin2 to retain original CMOS setting.

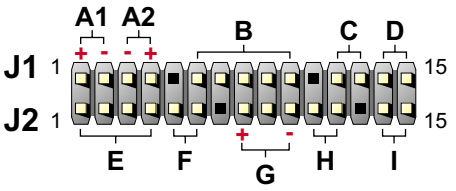
2-6.7 WAKE ON LAN (WOL) FUNCTION (JWOL1)

JWOL1 : WAKE ON LAN (WOL) FUNCTION	
Connect the Wake On LAN signal from LAN card ¤ to JWOL1	JWOL1 

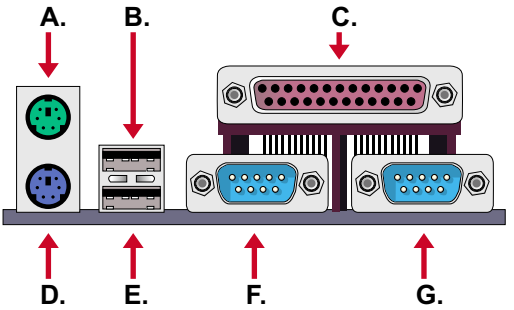
This connector connects to a LAN card with a Wake On LAN output. The connector powers up the system when a wake-up packet or signal is received through the LAN card.

This feature requires that Wake On LAN feature is enabled at the BIOS "Power Management Setup" and that your system has an ATX power supply with at least 720mA / +5V standby power.

2-7 CONNECTORS

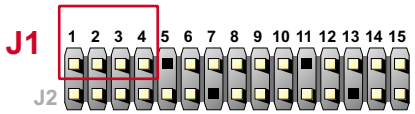


A1 : 1st HDD LED
A2 : 2nd HDD LED
B : INFRARED (IR)
C : POWER SWITCH
D : SMI
E : SPEAKER
F : RESET SWITCH
G : POWER LED
H : KEYLOCK
I : SUSPEND LED



A : PS/2 MOUSE
B : USB O
C : LPT 1
D : PS/2 KEYBOARD
E : USB 1
F : COM 1
G : COM 2

2-7.1 J1 SWITCH SIGNAL SUMMARY



HDD LED CONNECTOR	
PIN 1	+5V
PIN 2	HDD LED SIGNAL
PIN 3	HDD LED SIGNAL
PIN 4	+5V
DESCRIPTION	This connector supplies power to the cabinet's IDE activity LED. Read and write activity by devices connected to the Primary or SecondaryIDE connector will cause the LED to light up.

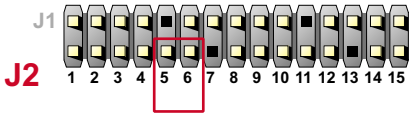
INFRARED CONNECTOR	
PIN 6	INFRARED TRANSMIT SIGNAL
PIN 7	GND
PIN 8	INFRARED RECEIVE SIGNAL
PIN 9	NONE
PIN 10	+5V
DESCRIPTION	This connector supports an optional wireless transmitting and receiving infrared module. This module mounts to a small opening on system cases that support this feature. User must also configure the setting through BIOS program "Peripheral Setup" to select whether UART2 is directed for use with COM2 or IrDA. Use the five pins and connect a ribbon cable from the module to the motherboard's IR connector according to the pin definitions.

ATX POWER SWITCH	
PIN 12	ATX POWER SWITCH
PIN 13	GND
DESCRIPTION	The system power is controlled by a momentary switch connected to this lead. Pressing the button once will switch the system between ON and SOFT OFF. Pushing the switch while in the ON mode for more 4 seconds will turn the system off. The system power LED shows the status of the system's power.

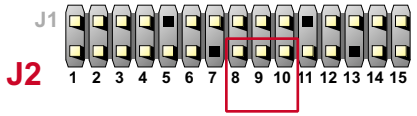
SMI CONNECTOR	
PIN 14	SMI(System Managment Interrupt) SIGNAL
PIN 15	GND
DESCRIPTION	This allows user to manually place the system into a suspend mode or "Green" mode, where system activity is decreased to save electricity and prolong the life of certain components when the system is not in use. This 2-oin connector connects to the case-mounted suspend switch. If you do not have a switch for the connector, you may use the "Turbo Switch". SMI is activated when it detects a short to open moment and therefore leaving it shorted will not cause any problems. This may require one or two presses depending on the position of the switch. Wake-Up can be controlled by settings in the BIOS but the keyboard will always allow wake-up(the SMI lead cannot wake up the system).

2-7.2 J2 SWITCH SIGNAL SUMMARY

SPEAKER CONNECTOR	
PIN 1	SPEAKER SIGNAL
PIN 2	NONE
PIN 3	GND
PIN 4	+5V
DESCRIPTION	This SPEAKER connector connects to the case-mounted speaker. Two sources (LINE OUT and SPEAKER) allow you to hear system beeps and warnings. Only SPEAKER allows you to hear system beeps before the integrated audio has been properly initialized.



RESET SWITCH CONNECTOR	
PIN 5	RESET SIGNAL
PIN 6	GND
DESCRIPTION	RESET SWITCH connector connects to the case-mounted reset switch for rebooting your system without having to turn off your power switch. This is a preferred method of reboot to prolong the life of the system's power supply.

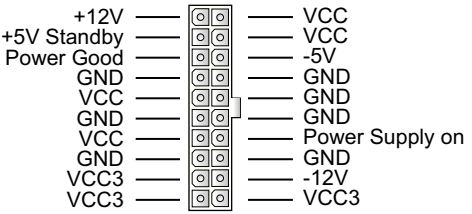


POWER LED CONNECTOR	
PIN 8	+5V
PIN 9	NONE
PIN 10	GND
DESCRIPTION	This Power LED connector connects the system power LED, which lights when the system is powered on and blinks when it is in sleep mode.

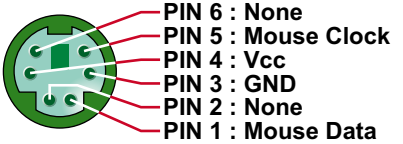
SUSPEND LED	
PIN 14	SUSPEND LED SIGNAL
PIN 15	GND
DESCRIPTION	Connect to Suspend indicator light.

2-7.3 ATX POWER SUPPLY CONNECTOR

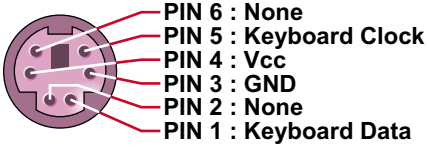
- This connector connects to an ATX power supply. The plug from the power supply only inserts in an orientation because of the different hole sizes. Find the proper orientation and push down firmly making sure that all pins are aligned.
- Reminding that your power supply should support at least 10mA on the 5V standby voltage. It may cause an difficulty to power on the system if the power supply can't support the load.
- **For Wake On LAN function, the power supply should support at least 720mA current.**



2-7.4 PS/2 MOUSE AND PS/2 KEYBOARD



PS/2 MOUSE



PS/2 KEYBOARD

2-7.5 IRQ DESCRIPTION

IRQ	Function Description	Priority
IRQ 0	System Timer	1
IRQ 1	Keyboard Controller	2
IRQ 2	Programmable Interrupt	N/A
IRQ 3	Serial Port (COM 2)	11
IRQ 4	Serial Port (COM 1)	12
IRQ 5		13
IRQ 6	Floppy Disk Controller	14
IRQ 7	Parallel Port (LPT1)	15
IRQ 8	Real Time Clock (RTC)	3
IRQ 9		4
IRQ 10		5
IRQ 11		6
IRQ 12	PS/2 Mouse Port	7
IRQ 13	Coprocessor	8
IRQ 14	Primary IDE Channel	9
IRQ 15	Secondary IDE Channel	10

- Both ISA and PCI expansion cards may require IRQs. System IRQs are available to cards installed in the ISA expansion bus first, then any remaining IRQs are available to PCI cards. Currently, there are two types of ISA cards.
- The original ISA expansion card design, now referred to as “Legacy” ISA card, requires that you configure the card’s jumpers manually and then install it in any available slot on the ISA bus. To see a map of your used and free IRQs in Windows 98, the ***Control Panel*** in ***My Computer***, contains a ***System*** icon, which gives you a ***Device Manager*** tab. Double-Clicking on a specific hardware device gives you a ***Resources*** tab which shows the Interrupt number and address. Double-Clicking ***Computers*** to see all the interrupts and addresses for your system. Make sure that no two devices use the same IRQ or your computer will experience problems when those two devices are in use at the same time.

CHAPTER 3

SOFTWARE SETUP

3-1 ABOUT THE SUPPORT CD

• In support CD, it contains most informations for user's requirement, such as Acrobat Reader, BIOS, User's Manual, Driver, Hardware Monitor (if motherboard supports this function), Patch, and Utility etc.,User can browse the CD and get further details in regard of our motherboard. Of course, welcome to vendor's website for the newest release.

3-2 INTEL CHIPSET DRIVER INSTALLATION (FOR WINDOWS 95/98/2000)

Step 1:

- **Please put the Support CD attached to motherboard into the CD-ROM drive.**
- **When appears a welcome window as left screen, then user should choose "**Install Driver**".**

Step 2:

- **Click on the "**INTEL Chipsets Driver**".**

Step 3:

- **Click on the "**INF Utility for All INTEL Chipsets**".**

Step 4:

• Press Next button to continue.

Step 5:

• Press “Yes” to accept Software License Agreement.

Step 6:

• After all the setup process is finished, please restart your computer by clicking on Finish.

About Hard Disk DMA Function

Last but not least, user must enable the Hard Disk DMA function. The process is below:

1. [**Start**] [**Setting**] [**Control Panel**] [**System**] [**Device Manager**].
2. In Device Manager, select [**Disk Drivers**] [**GENERIC IDE TYPEXX**].
3. Select [**Properties**] for GENERIC IDE TYPEXX.
4. In Properties, select [**Settings**].
5. In Option item, select the DMA checkbox.
6. Restart your computer.

CHAPTER 4

BIOS SETUP

4-1 INTRODUCE THE BIOS

- BIOS stands for Basic Input Output System. It is sometimes called ROM BIOS because it is stored in a Read-Only Memory(ROM) chip on the motherboard. BIOS is the first program to run when you turn on your computer.
- BIOS performs the following functions:

1. Initializing and testing hardware in your computer (a process called “POST”, for Power On Self Test).
2. Loading and running your operating system.
3. Helping your operating system and application programs to manage your PC hardware by means of a set of routines called BIOS Run-Time Service.

4-2 WHAT IS BIOS SETUP

- Setup is an interactive BIOS program that you need to run when:

1. Changing the hardware on your system. (For example: installing a new Hard Disk etc.)
2. Modifying the behavior of your computer. (For example: changing the system time or date, or turning special features on or off etc.)
3. Enhancing your computer’s behavior. (For example: speeding up performance by turning on shadowing or caching)

4-3 HOW TO RUN BIOS SETUP

- One way of running SETUP is to press a special function key or key combination during POST, before the operating system is loaded during POST, the BIOS usually displays a prompt such as:

```
Press DEL to enter SETUP
```

4-4 WHAT IS CMOS

- CMOS is a special kind of memory maintained by a battery after you turn your computer off. The BIOS uses CMOS to store the settings you selected in SETUP. The CMOS also maintains the internal clock. Every time you turn on your computer, the BIOS Looks in CMOS for the settings you selected and configures your computer accordingly. If the battery charge runs too low, the CMOS content will be lost and POST will issue a “CMOS invalid” or “CMOS checksum invalid” message. If this happens, you may have to replace the battery. After the battery is replaced, the proper settings will need to be stored in SETUP.

4-5 WHAT IS POST

- POST is an acronym for Power On Self Test. It’s a traditional name for the routines that the BIOS uses to test and initializes the devices on your system when the PC is powered on. Its meanings has grown to include anything the BIOS does before the operating system is started. Each of POST routines is assigned a POST code, an unique number which is sent to I/O port 080h before the routine is executed.

4-6 BIOS UPGRADE

- Motherboards incorporate the system BIOS in a Flash memory component. Flash BIOS allows user upgrades without the need to replace an EPROM component.

- The upgrade utility fits on a floppy diskette and provides the capability to save, verify, and update the system BIOS. The upgrade utility can be run from a hard disk drive or a network drive, but no memory managers can be installed during upgrades.

4-6.1 BEFORE UPGRADE BIOS

- It is recommended that you save a copy of the original motherboard BIOS along with a Flash EPROM Programming utility (AWDFLASH.EXE) to a bootable floppy disk in case you need to reinstall the BIOS later.

4-6.2 UPGRADE PROCESS

Note: Normally, to upgrade BIOS that is unnecessary if the system is working fine without any problem, user should upgrade the BIOS unless you experienced incompatible problem or need BIOS upgrade to create new features. However, please read all information in this section before upgrading.

"AWDFLASH.EXE" is a Flash EPROM Programming utility that up dates the BIOS by uploading a new BIOS file to the programmable flash ROM on the motherboard, This program only works in ***pure DOS environment, the utility can not be worked in win95/98, ME, NT or WINDOWS 2000 environment.***

Upgrading the system BIOS

Set 1. Pleas visit the board maker's website, download the newest BIOS file and newest award flash utility "AWDFLASH.ESE" for the motherboard. The BIOS file you downloaded will be a *. bin format.

Step 2. Create a bootable diskette. Then copy the BIOS file and award flash utility "AWDFLASH,EXE" into the diskette.

Step 3. Insert the diskette into drive A, reboot you system and boot form the diskette.

Step 4. When booting is finished type **awdflash *.bin/sn/py/cc** and then press <Enter> to run BIOS upgrade program. (*.bin depends on your motherboard model and version code).

Step 5. After upgraded, please press <F1> or <F10> to exit or reset your system, ***Warning !*** If there appears ***Write Fail*** while Award "FLASH MEMORY WRITER" verifying Flash memory, just repeat the process, please DO NOT reset or turn off the system. If the award memory flash utility was not able to update the BIOS successfully, you system may not able to boot up,

Step 6. You will see a message "CMOS checksum error-Default loaded" during booting the system. Please press <Del> to run CMOS setup utility, then reload 'LOAD SETUP DEFAULTS" or **"Load Optimized Defaults"** and save this change.

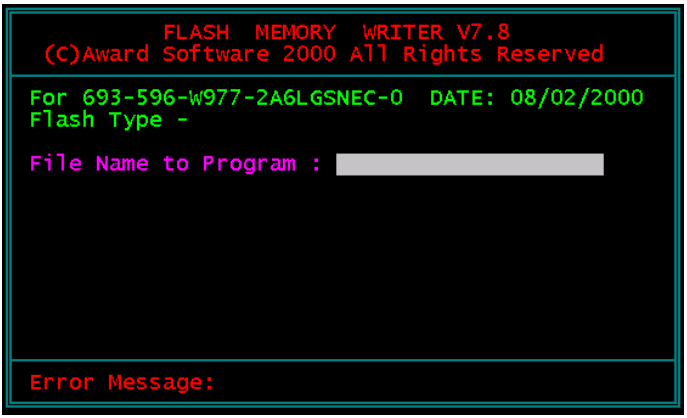


Figure 1 : Award Flash Memory Writer Start Screen

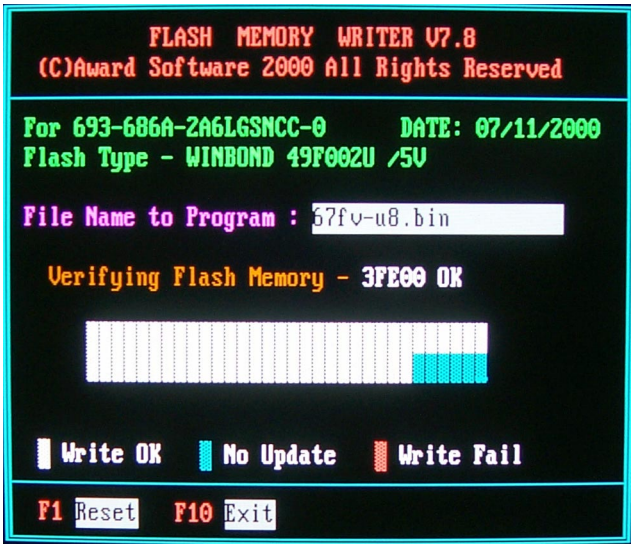


Figure 2 : Award Flash Memory Writer Start Screen

The parameters of AWDFLASH.EXE

/sn: No original BIOS backup
/py: Program flash memory
/cc: Clear CMOS data after programming

NOTE: User can type AWDFLASH /? to get further details about parameters. Wrong usage of parameter will damage the BIOS information, so that we strongly recommend user to leave parameters away unless you realize their function.

4-7 CMOS SETUP UTILITY

• This 82443BX Apollo Pro Plus motherboard comes with the AWARD BIOS from AWARD Software Inc. Enter the Award BIOS program Main Menu by:

1. Turn on or restart your system. After a series of diagnostic checks, the following message will appear:

PRESS <DEL> TO ENTER SETUP

2. Press the <DEL> key and the main program screen will appear as follows.

CMOS Setup Utility - Copyright (C) 1984 - 2000 Award Software

▸ Standard CMOS Features	Load Optimized Defaults
▸ Advanced BIOS Features	Set Supervisor Password
▸ Advanced Chipset Features	Set User Password
▸ Integrated Peripherals	SAVE & EXIT SETUP
▸ Power Management Setup	EXIT WITHOUT SAVING
▸ PnP/PCI Configurations	
▸ Frequency/Voltage Control	
Esc : Quit	↑↓→← : Select Item
F10 : Save & Exit Setup	(Shift) F2 : Change Color
Time, Date, Hard Disk Type...	

3. Using the arrows on your keyboard, select an option, and press <Enter>. Modify the system parameters to reflect the options installed in your system.
4. You may return to the Main Menu anytime by pressing <ESC.
5. In the Main Menu, “SAVE AND ESIT SETUP” saves your changes and reboots the system, and “EXIT WITHOUT SAVING” ignores your changes and exits the program.

4-8 STANDARD CMOS FEATURES

- Standard CMOS Setup allows you to record some basic system hardware configuration and set the system clock and error handling. You only need to modify the configuration values of this option when you change your system hardware configuration or the configuration stored in the CMOS memory gets lost or damaged.

Run the STANDARD CMOS SETUP as following:

1. Choose “STANDARD CMOS SETUP” from the Main Menu and a screen with a list of option will appear:

CMOS Setup Utility - Copyright (C) 1984-2000 Award Software
Standard CMOS Features

Date (mm:dd:yy)	Fri, October 11 2000	Item Help
Time (hh:mm:ss)	9 : 52 : 15	Menu Level ▸
▸ IDE Primary Master	Press Enter 13022 MB	
▸ IDE Primary Slave	Press Enter None	
▸ IDE Secondary Master	Press Enter None	
▸ IDE Secondary Slave	Press Enter None	
Drive A	1.44M, 3.5 in.	
Drive B	None	
Video	EGA/VGA	
Halt On	All,But Keyboard	
Base Memory	640K	
Extended Memory	31744K	
Total Memory	32768K	

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

2. Use one of the arrow keys to move between options and modify the selected options by using PgUp / PgDn / + / - keys.

Date (mm:dd:yy) Set the current date and time.
Time (hh:mm:ss)

Primary / Secondary Master / Slave This field records the specifications for all non-SCSI hard disk drives installed in your system. Refer to the respective documentation on how to install the drives.

CMOS Setup Utility - Copyright (C) 1984-2000 Award Software
IDE Primary Master

IDE HDD Auto-Detection	**Press Enter**	**Item Help**
		Menu Level ▸▸
IDE Primary Master	**Auto**	
Access Mode	**Auto**	
Capacity	**13022 MB**	
Cylinder	**25232**	
Head	**16**	
Precomp	**0**	
Landing Zone	**25231**	
Sector	**63**	

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

Drive A / Drive B Set this field to the type(s) of floppy disk drive(s) installed in your system. The choices are:
360KB, 5.25in.,
1.2MB, 5.25in.,
720KB, 3.5in.,
1.44MB, 3.5in.,
2.88MB, 3.5in.,
None.

Video Set this field to the type of video display card installed in the system. The choices are:
Monochrome,
Color 40x25,
VGA / EGA,
Color 80x25.

Halt On Set this warning feature for the type of errors that will cause the system to halt. The choices are:
No Errors,
All, But Keyboard,
All, But Diskette,
All, But Disk / Key.

Base Memory Typically 640KB. Also called conventional memory. The DOS operating system and conventional applications use this area.

Extended Memory Above the 1MB boundary. Early IBM personal computers could not use memory above 1MB, but current PCs and their software can use extended memory.

3. Press <ESC> to return to the Main Menu when you finish setting up all items.

4-9 ADVANCED BIOS FEATURES

• ADVANCED BIOS FEATURES allows you to improve your system performance or set up system features according to your preference.

Run the BIOS FEATURES SETUP as following:

1. Choose “BIOS FEATURES SETUP” from the Main Menu and a screen with a list of option will appear:
2. Use one of the arrow keys to move between options and modify the selected options by using PgUp / PgDn / + / - keys. An explanation of the <F> keys follows:

<F1>: “Help” gives options available for each item.
<Shift> + <F2>: Change color.
<F5>: Get the previous values. These values are the values with which the user started in the current session.
<F6>: Load all options with the BIOS default values.
<F7>: Load all options with the Setup default values.

CMOS Setup Utility - Copyright (C) 1984-2000 Award Software
Advanced BIOS Features

		Item Help
Virus Warning	Disabled	Menu Level ▸
CPU Internal Cache	Enabled	
External Cache	Enabled	
CPU L2 Cache ECC Checking	Enabled	
Process or Number Feature	Enabled	
Quick Power On Self Test	Enabled	
First Boot Device	Floppy	
Second Boot Device	HDD-0	
Third Boot Device	LS120	
Boot Other Device	Enabled	
Swap Floppy Drive	Disabled	
Boot Up Floppy Seek	Enabled	
Boot Up NumLock Status	On	
Gate A20 Option	FAST	
Typematic Rate Setting	Disabled	
× Typematic Rate (Chars/Sec)	6	
× Typematic Delay (Msec)	250	
Security Option	Setup	
OS Select For DRAM > 64MB	Non-OS2	
Video BIOS Shadow	Enabled	
C8000-CBFFF Shadow	Disabled	
CC000-CFFFF Shadow	Disabled	
D0000-D3FFF Shadow	Disabled	
D4000-D7FFF Shadow	Disabled	
D8000-DBFFF Shadow	Disabled	
DC000-DFFFF Shadow	Disabled	

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

Virus Warning Enabled: Activates automatically when the system boots up causing a warning message to appear if there is anything attempting to access the boot sector or hard disk partition table.
Disabled: No warning message will appear when there is something attempting to access the boot sector or hard disk partition table.

> ***NOTE:*** ***Many diagnostic (or boot manager) programs which attempt to access the boot sector table can cause the above warning message. If you will be running such a program, we recommend that you disable the virus protection first.***

CPU Internal Cache Choose Enabled or Disabled. This option allows you to enable or disable the CPU's internal cache.

External Cache Choose Enabled or Disabled. This option allows you to enable or disable the external cache.

CPU L2 Cache ECC Checking This item allows you to enable/disable CPU L2 Cache ECC checking.
The choice: Enabled, Disabled.

Processor Number Feature Choose Disabled or Enabled. When enabled, the processor serial number will display during the boot up screen.

Quick Power On Self Test Choose Enabled or Disabled. This option allows you to speed up the Power-On Self-Test routine.

First/Second/Third/ Other Boot Device The BIOS attempts to load the operating system from the devices in the sequence selected in these items.
The choice: Floppy, LS120/ZIP, HDD, SCSI, CDROM, Disabled.

Swap Floppy Drive Choose Enabled or Disabled. This option swaps floppy drive assignments when it is enabled.

Boot Up Floppy Seek Enabled: During POST, BIOS checks the track number of the floppy disk drive to see whether it is 40 or 80 tracks.
Disabled: During POST, BIOS will not check the track number of the floppy disk drive.

Boot Up NumLock Status Choose ON or OFF. This option lets user activates the NumLock function at boot-up.

Gate A20 Option Choose Normal or Fast. This option allows the RAM to access the memory above 1MB by using the fast gate A20 line.

Typematic Rate Setting Choose Enabled or Disabled. Enable this option to adjust the keystroke repeat rate.

Typematic Rate (Chars / Sec) Range between 6 and 30 characters per second. This option controls the speed of repeating keystrokes.

Typematic Delay (Msec) Choose 250, 500, 750 and 1000. This option sets the time interval for displaying the first and the second characters.

Security Option Choose System or Setup. This option prevents unauthorized system boot-up or use of BIOS setup.

OS Select For DRAM > 64MB Non-OS/2: For Non-OS/2 system.
OS: For OS/2 operating system.

Video BIOS Shadow Enabled copies Video BIOS to shadow RAM for improving performance.
The choice: Enabled, Disabled.

C8000-CBFFF to DC000-DFFFF Shadow These options are used to shadow other expansion card ROMs.

3. Press <ESC> to return to the Main Menu when you finish setting up all items.

4-10 ADVANCED CHIPSET FEATURES

• CHIPSET FEATURES SETUP allows you to change the values of chipset registers. These registers control the system options.

Run the CHIPSET FEATURES SETUP as following:

1. Choose “CHIPSET FEATURES SETUP” from the Main Menu and a screen with a list of option will appear:

CMOS Setup Utility - Copyright (C) 1984-2000 Award Software
Advanced Chipset Features

		Item Help
Auto Configuration	Enabled	Menu Level ▸
EDO DRAM Speed Selection	60ns	
EDO CASx# MA Wait State	1	
EDO RASx# Wait State	1	
SDRAM RAS-to-CAS Delay	3	
SDRAM RAS Precharge Time	3	
SDRAM CAS latency Time	3	
SDRAM Precharge Control	Disabled	
DRAM Data Integrity Mode	Non-ECC	
System BIOS Cacheable	Disabled	
Video BIOS Cacheabl	Disabled	
Video RAM Cacheabl	Disabled	
8 bit I/O Recovery Time	1	
16 bit I/O Recovery Time	1	
Memory Hole At 15M-16M	Disabled	
Rassive Release	Enabled	
Delayed Transaction	Disabled¤	
AGP Aperture Size	64	

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

2. Use one of the arrow keys to move between options and modify the selected options by using PgUp / PgDn / + / - keys. An explanation of the <F> keys follows:

<F1>: “Help” gives options available for each item.
<Shift> + <F2>: Change color.
<F5>: Get the previous values. These values are the values with which the user started in the current session.
<F6>: Load all options with the BIOS default values.
<F7>: Load all options with the Setup default values.

Auto Configuration Auto Configuration selects predetermined optimal values of chipset parameters. When Disabled, chipset parameters revert to setup information stored in CMOS. Many fields in this screen are not available when Auto Configuration is Enabled.

EDO DRAM Speed Selection The value in this field must correspond to the speed of the DRAM installed in your system. DO NOT change the default setting of this field, as determined by the system board manufacturer for the installed DRAM, This value is access speed, so a lower value means a faster system. This field applies only if EDO DRAM is installed in the system.

EDO CASx# MA Wait State The board designer may elect to insert one additional wait state before the assertion of the first CASx# for page het cycles, thus allowing one additional clock of MA setup time to the CASx# for the leadoff page hit cycle. Do not change from the manufacturer’s default unless you are getting memory addressing errors. Thel field applies only if EDO DRAM is installed in the system.

EDO RASx# Wait State The board designer may elect to insert one additional wait state before RASx# is asserted for row misses, thus allowing one additional MAX [13:0] setup time to RASx# assertion. This field applies only if EDO DRAM is installed in the system.

SDRAM RAS-to-CAS Delay This field lets you insert a timing delay between the CAS and RAS strobe signals, used when DRAM is written to, read from, or refreshed. Fast gives faster performance; and Slow gives more stable performance. This field applies only when synchronous DRAM is installed in the system.

SDRAM RAS Precharge Time If an insufficient number of cycles is allowed for the RAS to accumulate its charge before DRAM refresh, the refresh may be incomplete and the DRAM may fail to retain data. Fast gives faster performance; and Slow gives more stable performance. This field applies only when synchronous DRAM is installed in the system.

SDRAM CAS latency Time When synchronous DRAM is installed, the number of clock cycles of CAS latency depends on he DRAM timing. Do not reset this field from the default value specified by the system designer.

SDRAM Precharge Control When Enabled, all CPU cycles to SDUAM result in an All Banks Precharge Command on the SDRAM interface.

DRAM Data integrity Mode Select Parity or ECC (error-correcting code), according to the type of installed DRAM.

System BIOS Cacheable Choose Enabled or Disabled. When enabled, the access to the system BIOS ROM addressed at F0000H - FFFFFH is cached.

Video BIOS Cacheable Choose Enabled or Disabled. When enabled, the access to the VGA RAM addressed is cached.

Video RAM Cacheable Choose Enabled or Disabled. When enabled, the access to the VGA RAM addressed is cached.

8/16 bit I/O Recovery Time The I/O recovery mechanism adds bus clock cycles between PCI-originated I/O cycles to the ISA bus. This delay takes place because the PCI bus is much faster than the ISA bus.

Memory Hole At 15M-16M You can reserve this area of system memory for ISA adapter ROM. When this area is reserved, it can not be cached. The user information of peripherals that need to use this area of system memory usually discusses their memory requirements.

Rassive Release When Enabled, CPU to PCI bus accesses are allow during passive release. Otherwise, the arbiter only accepts another PCI master access to local DRAM.

Delayed Transaction 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.

AGP Aperture Size Choose 4, 8, 16, 32, 64, 128 or 256 MB. Memory mapped and graphics data structures can reside in a Graphics Aperture. This area is like a linear buffer. BIOS will automatically report the starting address of this buffer to the O.S.

3. Press <ESC> to return to the Main Menu when you finish setting up all items.

4-11 INTEGRATED PERIPHERALS

• INTEGRATED PERIPHERALS option allows you to get some informations inside your system when it is working.

Run the INTEGRATED PERIPHERALS as following:

1. Choose “INTEGRATED PERIPHERALS” from the Main Menu and a screen with a list of option will appear:
2. Use one of the arrow keys to move between options and modify the selected options by using PgUp / PgDn / + / - keys. An explanation of the <F> keys follows:

<F1>: “Help” gives options available for each item.
<Shift> + <F2>: Change color.
<F5>: Get the previous values. These values are the values with which the user started in the current session.
<F6>: Load all options with the BIOS default values.
<F7>: Load all options with the Setup default values.

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Integrated Peripherals

		Item Help
IDE Primary Master PIO	Auto	Menu Level ▸
IDE Primary Slave PIO	Auto	
IDE Secondary Master PIO	Auto	
IDE Secondary Slave PIO	Auto	
IDE Primary Master UDMA	Auto	
IDE Primary Slave UDMA	Auto	
IDE Secondary Master UDMA	Auto	
IDE Secondary Slave UDMA	Auto	
On-Chip Primary PCI IDE	Enabled	
On-Chip Secondary PCI IDE	Enabled	
USB Keyboard Support	Disabled	
Init Display First	AGP	
IDE HDD Block Mode	Enabled	
Power ON Function	BUTTON ONLY	
KB Power ON Password	Enter	
Hot Key Power On	Ctrl-F1	
KBC input clock	8MHz	
Onboard FDC Controller	Enabled	
Onboard Serial Port 1	3F8/IRQ4	
Onboard Serial Port 2	2F8/IRQ3	
UART Mode Select	Normal	
UR2 Duplex Mode	Half	
RxD, TxD Active	Hi, Lo	
IR Transmission delay	Enabled	
Onboard Parallel Port	378/IRQ7	
Parallel Port Mode	SPP	
ECP Mode Use DMA	3	
EPP Mode Select	EPP1.7	

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

IDE Primary Master / Slave PIO
Secondary Master / Slave PIO

Choose Auto or Mode 0~4. The BIOS will detect the HDD mode type automatically when you choose Auto. You need to set to a lower mode than Auto when your hard disk becomes unstable.
The choice: Auto, Mode 0, Mode 1, Mode 2, Mode 3, Mode 4.

IDE Primary Master / Slave UDMA
Secondary Master / Slave UDMA

Ultra DMA/66 implementation is possible only if your IDE hard drive supports it and the operating environment includes a DMA drive and your system software both support Ultra DMA/66, select Auto to enable BIOS support.
The choice: Auto, Disabled.

On-Chip Primary/ Secondary PCI IDE

The chipset contains a PCI IDE interface with support from two IDE channels. Select Enabled to activate the first and/or the second IDE interface. Select Disabled to deactivate an interface if you install a primary and/or second add-on IDE interface.
The choice: Enabled, Disabled.

USB Keyboard Support

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

Init Display First

This option allows you to decide to activate PCI Slot or AGP first.
The choice: PCI Slot, AGP.

IDE HDD Block Mode

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

Power ON Function This option allows you to select <KB Power ON Password> , <Hot-Key Power ON> or others.
The choice : Any Key, Button only, Keyboard 98, Password, Hot-Key, Mouse Move, Mouse Click.

KB Power ON Password When user sets a password for keyboard, the password user set that return the system to Full On state.

Hot-Key Power ON Boot up the system via predetermined keyboard hot key.
The choice:<Ctrl>+<F1>...<F12>

KBC input clock The system designer must select the correct frequency for the keyboard controller input clock. Do not change this value from the default value.

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

Onboard Serial Port 1 / Port2 Select an address and corresponding interrupt for the first and second serial ports.
The choice:3F8/IRQ4, 2E8/IRQ3, 3E8/IRQ4, 2F8/IRQ3, Disabled, Auto.

UART Mode Select This item allows you to select UART mode.
The choice:Normal,IrDA,ASKIR,SCR.

UR2 Duplex Mode This item allows you to select the IR half/full duplex function.
The choice : Full, Half.

RxD, TxD Active Consult your IR peripheral documentation to select the correct setting of the TxD and RxD signals.
The choice : Hi, Hi/Hi, Lo/Lo, Hi/Lo, Lo.

IR Transmission delay This item allows you to select IR Transmission delay. The choice : Enabled, Disabled.

Onboard Parallel Port This item allows you to determine onboard parallel port controller I/O address setting.
The choice: 378H/IRQ7, 278H/IRQ5, 3BC/IRQ7, Disabled.

Parallel Port Mode Select an operating mode for the onboard parallel (printer) port. Select Normal, Compatible, or SPP unless you are certain your hardware and software both support one of the other available modes.
The choice: SPP, EPP, ECP, ECP + EPP.

ECP Mode Use DMA Select a DMA channel for the parallel port for use during ECP mode.
The choice: 3, 1.

EPP Mode Select Select EPP port type 1.7 or 1.9.

3. Press <ESC> to return to the Main Menu when you finish setting up all items.

4-12 POWER MANAGEMENT SETUP

• POWER MANAGEMENT SETUP allows you to set the system's power saving functions.

Run the POWER MANAGEMENT SETUP as following:

1. Choose "POWER MANAGEMENT SETUP" from the Main Menu and a screen with a list of option will appear:

2. Use one of the arrow keys to move between options and modify the selected options by using PgUp / PgDn / + / - keys. An explanation of the <F> keys follows:

<F1>: "Help" gives options available for each item.
<Shift> + <F2>: Change color.
<F5>: Get the previous values. These values are the values with which the user started in the current session.
<F6>: Load all options with the BIOS default values.
<F7>: Load all options with the Setup default values.

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Power Management Setup

		Item Help
ACPI Function	Enabled	Menu Level ▸
Power Management	User Define	
PM Control by APM	Yes	
Video Off Method	V/H SYNC+Blank	
Video Off After	Standby	
MODEM Use IRQ	3	
Doze Mode	Disable	
Standby Mode	Disable	
Suspend Mode	Disable	
HDD Power Down	Disable	
Throttle Duty Cycle	62.5%	
VGA Active Monitor	Disabled	
Soft-Off by PWRBTN	Instant-off	
CPU FAN off In Suspend	Enabled	
Power On by Ring	Enabled	
Resum by Alarm	Disabled	
× Date (of Month) Alarm	0	
× Time (Hour) Alarm	7	
× Time (Min) Alarm	21	
× Time (Sec) Alarm	0	
Wake Up On LAN	Enabled	
IRQ 8 Break Suspend	Disabled	
Reload Global Timer Events		
IRQ [3-7, 9-15], NMI	Disabled	
Primary IDE 0	Disabled	
Primary IDE 1	Disabled	
Secondary IDE 0	Disabled	
Secondary IDE 1	Disabled	
Floppy Disk	Disabled	
Serial Port	Enabled	
Parallel Port	Disabled	

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

ACPI Function Enabled: Turn on ACPI function.
Disabled: Turn off ACPI function.

Power Management Choose Max. Saving, User Define, Disabled or Min. Saving.

PM Control by APM When enabled, an Advanced Power Management device will be activated to enhance the Max. Power Saving mode and stop the CPU internal clock, If Advanced Power Management (APM) is installed on your system, selecting Yes gives better power savings. If the Max. Saving is not enabled, this will be present to No.

Video Off Method

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.

Video Off After Choose NA, Suspend, Standby, or Doze.

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

Doze Mode This mode sets the CPU speed down to 33MHz.

Standby Mode / Suspend Mode These two options allow you to choose the mode for the different timers. The Standby Mode turns off the VGA monitor, and the Suspend Mode turns off the CPU and saves the energy of the system.

HDD Power Down Time is adjustable from 1 to 15 minutes. When the set time has elapsed, the BIOS sends a command to the HDD to power down, which turns off the motor.

Throttle Duty Cycle When the system enters Doze mode, the CPU clock runs only part of the time. You may select the percent of time that the clock runs.

VGA Active Monitor When Enabled, any video activity restarts the global time for Standby mode.

Soft-Off by PWR-BTTN Instant-Off: Turn off the system power at once after pushing the power button.
Delay 4 Sec: Turn off the system power 4 seconds after pushing the power button. (To meet PC97/98 spec)

CPU FAN off In Suspend The Choose: Disabled, Enabled.

Power On by Ring An input signal on the serial Ring Indicator (RI) line (in other words, an incoming call on the modem) awakens the system from a soft off state.
The choice: Enabled, Disabled.

Resume by Alarm When Enabled, you can set the data and time at the which the RTC (Real Time Clock) alarm awakens the system from suspend mode.
The choice: Disabled, Enabled.

Date (of Month) Set a certain date when RTC Alarm Resume option is Enabled to awaken the system. This option is concurrent with Resume Time option.

Time (hh:mm:ss) Set a certain time when RTC Alarm Resume option is Enabled to awaken the system. This option is concurrent with Date option.

Wake Up On LAN When Enabled, an input signal from a local area network (LAN) awakens the system from a soft off state.

IRQ 8 Break Suspend You can Enable or Disable monitoring of IRQ 8 (the Real Time Clock) so it does not awaken the system from Suspend mode.

Reload Global Timer Events Reload Global Timer Events are I/O events whose occurrence can prevent the system from entering a power saving mode or can awaken the system from such a mode. In effect, the system remains alert for anything which occurs to a device which is configured as Enabled, even when the system is in a power down mode.

Primary IDE 0

Primary IDE 1

Secondary IDE 0

Secondary IDE 1

FDD, COM, LPT Port

PCI PIPQ[A-D]

Floppy disk When On of FDD, any activity from one of the listed system peripheral devices wakes up the system.

Serial Port The Choose: Disabled, Enabled.

Parallel Port The Choose: Disabled, Enabled.

3. Press <ESC> to return to the Main Menu when you finish setting up all items.

4-13 PNP / PCI CONFIGURATION

• PNP/PCI CONFIGURATION SETUP allows you to set the system's power saving functions.

Run the PNP/PCI CONFIGURATION SETUP as following:

1. Choose "PNP/PCI CONFIGURATION SETUP" from the Main Menu and a screen with a list of option will appear:

CMOS Setup Utility - Copyright (C) 1984-2000 Award Software
PnP/PCI Configurations

PNP OS Installed	No	Item Help
Reset Configuration Data	Disabled	Menu Level ▸
Resources Controlled By	Auto(ESCD)	
× IRQ Resources	Press Enter	
× DMA Resources	Press Enter	
× Memory Resources	Press Enter	
PCI/VGA Palette Snoop	Disabled	
Assign IRQ For VGA	Enabled	
Assign IRQ For USB	Enabled	

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

2. Use one of the arrow keys to move between options and modify the selected options by using PgUp / PgDn / + / - keys. An explanation of the <F> keys follows:

<F1>: "Help" gives options available for each item.
<Shift> + <F2>: Change color.
<F5>: Get the previous values. These values are the values with which the user started in the current session.
<F6>: Load all options with the BIOS default values.
<F7>: Load all options with the Setup default values.

PNP OS Installed Yes: OS supports Plug and Play function.
No: OS doesn't support Plug and Play function.

> ***NOTE:*** ***BIOS will automatically disable all PnP resources except the boot device card when you select Yes on Non-PnP operating system.***

Reset Configuration Data Choose Enabled or Disabled. Disabled r**etains** PnP configuration data in BIOS and Enabled **resets** the PnP configuration data in BIOS.

Resource Controlled By Choose Manual or Auto. The BIOS checks the IRQ / DMA channel number on the ISA and PCI card manually if you choose Manual and the IRQ / DMA channel number will be checked automatically if you choose Auto.

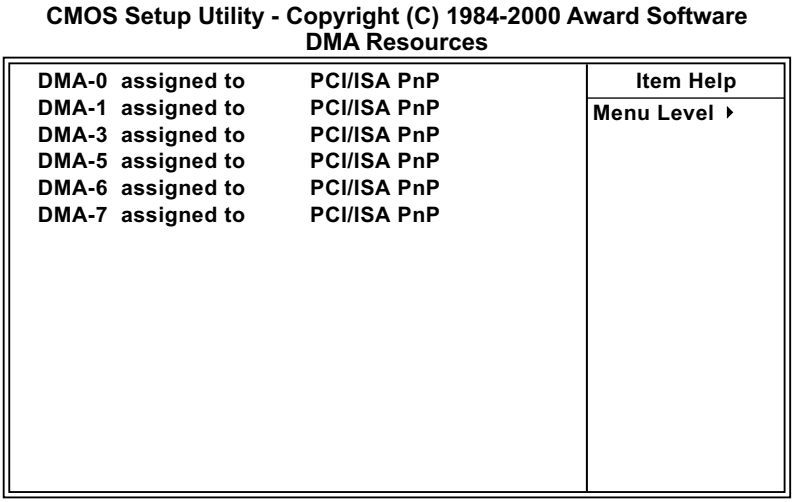
IRQ Resources Press Enter. Please refer to the below list.

CMOS Setup Utility - Copyright (C) 1984-2000 Award Software
IRQ Resources

		Item Help
IRQ-3 assigned to	PCI/ISA PnP	Menu Level ▸
IRQ-4 assigned to	PCI/ISA PnP	
IRQ-5 assigned to	PCI/ISA PnP	
IRQ-7 assigned to	PCI/ISA PnP	
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	PCI/ISA PnP	
IRQ-15 assigned to	PCI/ISA PnP	

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

DMA Resources Press Enter. Please refer to the below list.



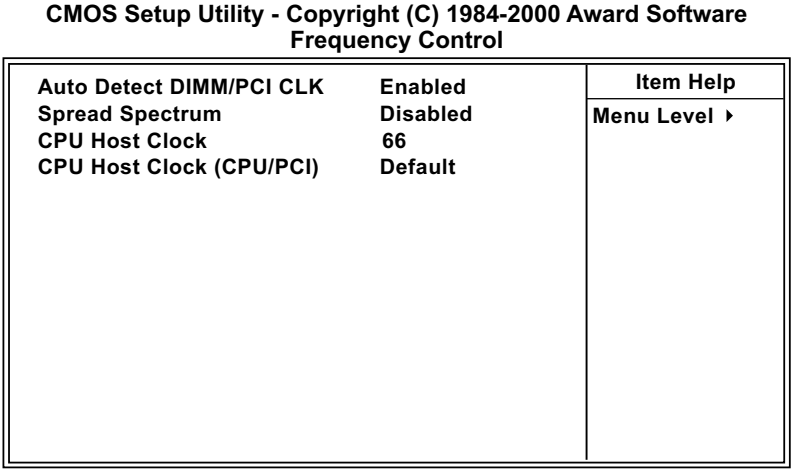
PCI/VGA Palette Snoop This option allows the BIOS to preview VGA status, and to modify the information delivered form the feature Connector of the VGA card to MPEG card. This option can solve the display inversion to black after you have used MPEG card.

Assign IRQ for VGA Enabled: Add one IRQ to VGA controller.
Disabled: Remove IRQ from USB controller. The system will have extra IRQ for other devices but the VGA controller will still not be disabled. (Only IRQ was removed)

Assign IRQ for USB Enabled : Add one IRQ to USB controller.
Disabled: Remove IRQ from USB controller. The system will have extra IRQ for other devices but the USB controller will still not be disabled. (Only IRQ was removed)

3. Press <ESC> to return to the Main Menu when you finish setting up all items.

4-14 FREQUENCY CONTROL



Auto Detect DIMM/PCI CLK This item allows you to enable/disable detect DIMM/ PCI Clock.
The choice: Enabled, Disabled.

Spread Spectrum Modulated This item allows you to enable/disable the spread spectrum modulate.
The choice: Enabled, Disabled.

CPU Host Clock (CPU/PCI) This item allows you to select CPU/PCI frequency.
The choice: Key in a DEC number between Min=66 to Max=200.

3. Press <ESC> to return to the Main Menu when you finish setting up all items.

4-15 LOAD OPTIMIZED DEFAULTS

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

" Load Optimized Defaults (Y / N) ? N "

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

4-16 SET SUPERVISOR / USER PASSWORD

- These two options allow you to set your system passwords. Normally, the supervisor has a higher ability to change the CMOS setup option than the user. The way to set up the passwords for both Supervisor and User are as follows:

1. Choose “Change Password” in the Main Menu and press <Enter>. The following message appears:

```
"Enter Password :  "
```

2. The first time you run this option, enter your password up to 8 characters and press <Enter>. The screen does not display the entered characters.
3. After you enter the password, the following message appears prompting you to confirm the password:

```
"Confirm Password :  "
```

4. Enter the same password “exactly” as you just typed again to confirm the password and press <Enter>.
5. Move the cursor to Save & Exit Setup to save the password.
6. If you need to delete the password you entered before, choose the Supervisor Password and press <Enter>. It will delete the password that you had before.
7. Move the cursor to Save & Exit Setup to save the option you did, otherwise the old password will still be there the next time you turn your system on.
8. Press <Enter> to exit to the Main Menu.

NOTE: ***If you forget or lose the password, the only way to access the system is to clear the CMOS RAM. All setup informations will be lost and you need to run the BIOS setup program again.***

NOTE: ***You determine when the password is required within the Advanced BIOS Features and its Security option.If the Security option is set to “system”, the password will be required both at boot and at entry to Setup. If set to “setup”, prompting only occurs when trying to enter Setup.***

4-17 SAVE & EXIT SETUP

• SAVE & EXIT SETUP allows you to save all modifications you have specified into the CMOS memory. Highlight this option on the Main Menu and the following message appears:

"SAVE to CMOS and EXIT (Y/N) ? Y "

Press <Enter> key to save the configuration changes.

4-18 EXIT WITHOUT SAVING

• EXIT WITHOUT SAVING option allows you to exit the Setup Utility without saving the modifications that you have specified. Highlight this option on the Main Menu and the following message appears:

"Quit Without Saving (Y/N) ? N "

You may change the prompt to "Y" and press <Enter> key to leave this option .