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# Chapter 1

## Motherboard Feature Introduction

### SPECIFICATIONS

<b>System Chipset</b>	Intel® 440BX chip set , ALi 513X
<b>CPU Bus Speed</b>	Pentium® /III 66/100 MHz CPU
<b>CPU Clock</b>	200MHz ~ 550MHz
<b>Memory Subsystem</b>	Expandable to 768MB(3 banks) with 168-Pin SDRAM(DIMM) Socket X3
<b>AGP Slot</b>	AGP Interface Specification Rev 1.0 Compliant
<b>Integrated I / O</b>	<p>Two high speed 16550 compatible serial ports, one Multi-Mode Parallel Port fixed SPP/EPP/ECP standard</p> <p>Two PCI Bus master Ultra DMA/33 IDE port (up to 4 IDE Devices)</p> <p>Support two 360KB / 720KB / 1.2MB / 1.44MB / 2.88MB / floppy disk driver</p> <p>Support LS120 drives &amp; ZIP 100 Drives</p> <p>One PS/2 Mouse port</p> <p>Support two USB ports</p> <p>Support IrDA TX / RX header</p>

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<b>BIOS</b>	2MB Award PnP BIOS with enhanced ACPI feature for PC98 compliance. Supports Trend <sup>TM</sup> ChipAway AntiVirus. DMI feature support Support secondary device boot
<b>Expansion slot</b>	Three 32-bit PCI Slots & One 16-bit ISA Slots Support 3.3/5V PCI 2.1 bus Interface
<b>EXTRA Function</b>	Suspend LED on/off Win95 soft power off External SMI Wake up by ring Wake on Lan
<b>On Board ESS1898 Sound Chip</b>	One Line Out, One Line In One MIC, One Game port
<b>Others</b>	Windows 95 Compatible
<b>Dimension</b>	Micro ATX size (244 x 180mm), 4-layer PCB

## POWER OFF CONTROL SOFTWARE

The motherboard design supports software power off Control feature through the SMM code in the BIOS under Win95 operating system environment. It is Micro ATX form factor and you should use ATX power supply.

First, you should connect the power switch cable (provided by the ATX/AT case Supplier) to the connector [ PB\_BT ] on the motherboard. In the BIOS screen of "POWER MANAGEMENT SETUP", choose "User Defined"(or min power saving or Max power saving) in "POWER MANAGEMENT" and choose "Yes" in "PM Control by APM".

In Windows 95 the " SHUT DOWN " option , the computer's Power will switch off automatically and put the PC in a suspend mode. This will be indicated by a bunking power light. To restart the system , simply press the Power Button.

## PACKAGING CHECK LIST

The motherboard comes securely packed in a gift box and shipping carton. If any of the above items are missing or damaged , please contact your supplier.

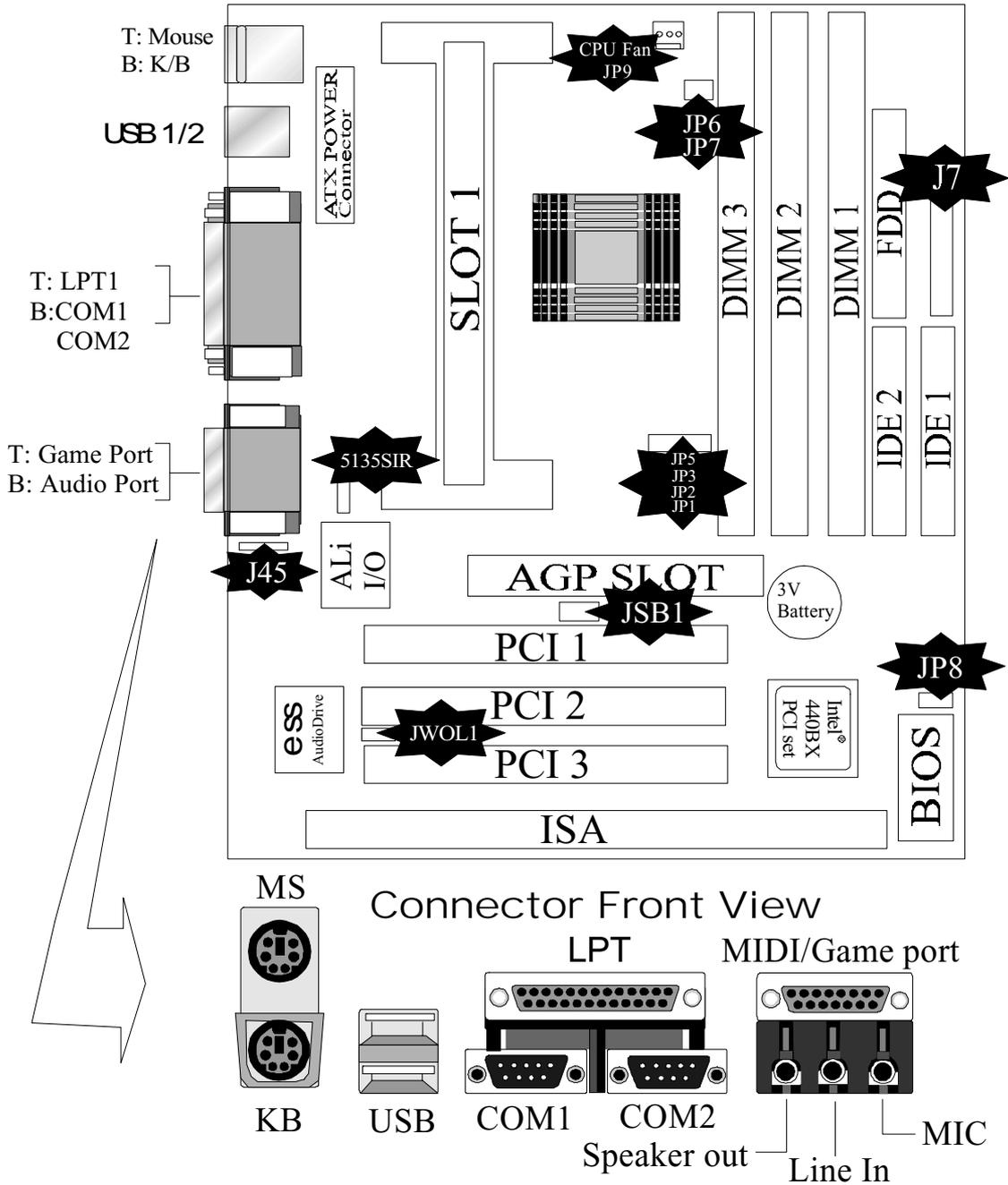
The motherboard contains:

Q' TY	Description
1	Motherboard : B785
1	Driver : CD-Title
1	Cable : FDD. IDE. Connector
1	Manual : User's manual

# Chapter 2

## Setup Guide

### Motherboard Layout Drawing



## Jumper & Connector Setting

### **CONNECTOR SETTING**

#### **PS1- Keyboard Connector**

<b>Pin</b>	<b>Description</b>
1	Keyboard Data
2	NC
3	GND
4	VCC
5	Keyboard CLK
6	Mouse Data
7	N.C.
8	Ground
9	+5V
10	Mouse Clock

#### **J88 - ATX Power Supply Connector**

<b>Pin</b>	<b>Description</b>
1,2,11	+ 3.3 V
3,5,7,13,15,16,17	Ground
4,6,19,20	+ 5 V
8	POWER GOOD
9	5VSB
10	+12 V
12	-12 V
14	PS-ON
18	- 5 V

**LPT1 - Printer Connector**

<b>Pin</b>	<b>Signal Name</b>	<b>Pin</b>	<b>Signal Name</b>
1	Strobe-	14	AFD
2	Data Bit 0	15	Error
3	Data Bit 1	16	INIT
4	Data Bit 2	17	SLCTIN
5	Data Bit 3	18	GND
6	Data Bit 4	19	GND
7	Data Bit 5	20	GND
8	Data Bit 6	21	GND
9	Data Bit 7	22	GND
10	ACK	23	GND
11	Busy	24	GND
12	PE	25	GND
13	SLCT	26	GND

**COM1,COM2 –Serial Connectors**

<b>Pin</b>	<b>Signal Name</b>	<b>Pin</b>	<b>Signal Name</b>
1	DCD	6	DSR
2	SIN	7	RTS
3	SOUT	8	CTS
4	DTR	9	RI
5	GND	10	NC

### J3 - Universal Serial Bus (USB) Connectors

USB1 Pin	Signal Name	USB2 Pin	Signal Name
1	USB VCC 0	1	USB VCC 1
2	USB Data -	2	USB Data -
3	USB Data +	3	USB Data +
4	USB GND 0	4	USB GND 1
5	GND	5	GND

### 5135SIR - Infrared Connector: IR

Pin	Signal Name
1	VCC
2	NC
3	IRRX
4	GND
5	IRTX

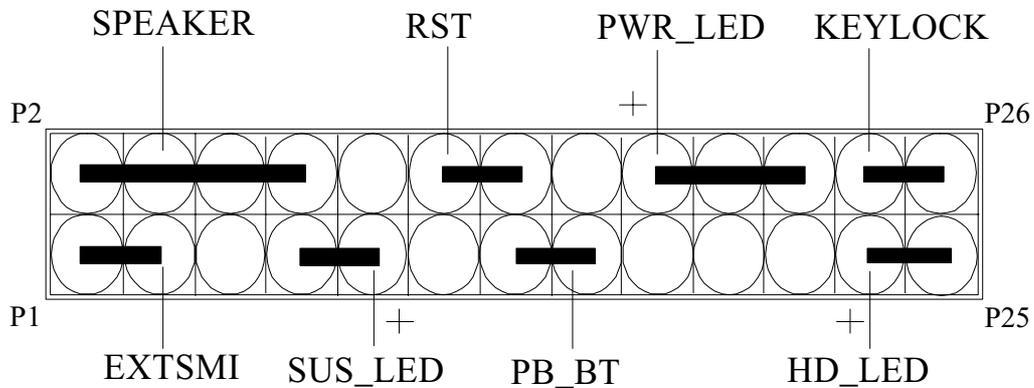
### JS1-ESS1898 Sound Chip

JS1	Description
2-3	Disabled
1-2	Enabled

### J45-CD\_IN

PIN	Name
1	L
2	GND
3	GND
4	R

## J7 – OTHER JUMPER SETTING



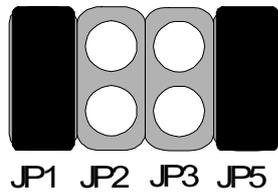
Pin	Name	Description
1-3	EXTSMI	Suspend mode
7-9	SUS _ LED	Suspend mode LED
13-15	PB _ BT	Power buttem
23-25	HD – LED	Hard Disk LED
2-8	SPEAKER	Speaker
12-14	RST	Reset buttom
18-22	PWR - LED	Power LED
24-26	KEYLOCK	Key Lock

### JP8 – CMOS Clear

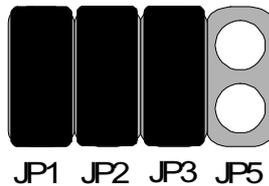
JP8	Description
1-2	Normal (default)
2-3	Clear CMOS

**CPU TYPE Select****CPU Bus Speed - 66MHz part :****1. 233MHz**

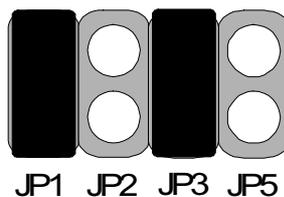
JP1	JP2	JP3	JP5	JP6	JP7
Short	Open	Open	Short	Short	Short

**2. 266MHz**

JP1	JP2	JP3	JP5	JP6	JP7
Short	Short	Short	Open	Short	Short

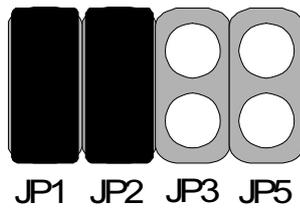
**3. 300MHz**

JP1	JP2	JP3	JP5	JP6	JP7
Short	Open	Short	Open	Short	Short



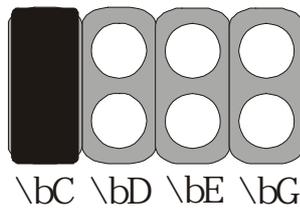
4. 333MHz

JP1	JP2	JP3	JP5	JP6	JP7
Short	Short	Open	Open	Short	Short



5. 366MHz

JP1	JP2	JP3	JP5	JP6	JP7
Short	Open	Open	Open	Short	Short



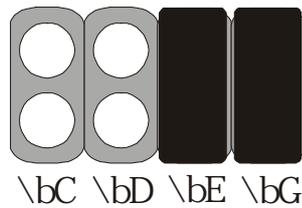
6. 400MHz

JP1	JP2	JP3	JP5	JP6	JP7
Open	Short	Short	Short	Short	Short



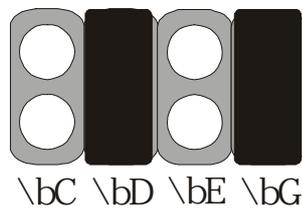
## 7. 433MHz

JP1	JP2	JP3	JP5	JP6	JP7
Open	Open	Short	Short	Short	Short



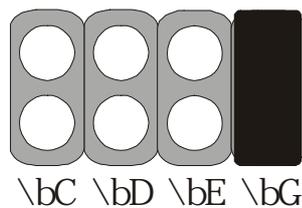
## 8. 466MHz

JP1	JP2	JP3	JP5	JP6	JP7
Open	Short	Open	Short	Short	Short



## 9. 500MHz

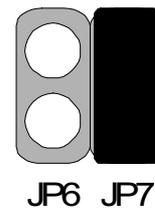
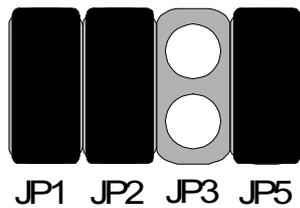
JP1	JP2	JP3	JP5	JP6	JP7
Open	Open	Open	Short	Short	Short



## CPU Bus Speed - 100MHz part :

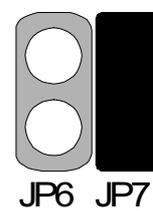
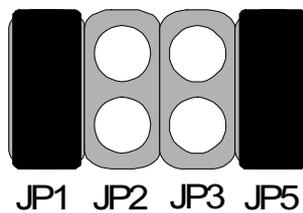
### 1. 300MHz

JP1	JP2	JP3	JP5	JP6	JP7
Short	Short	Open	Short	Open	Short



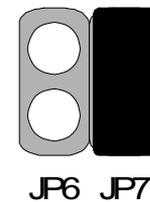
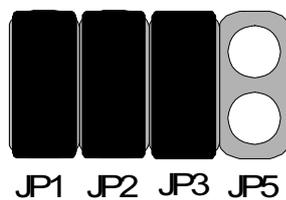
### 2. 350MHz

JP1	JP2	JP3	JP5	JP6	JP7
Short	Open	Open	Short	Open	Short



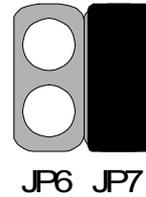
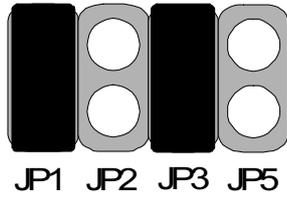
### 3. 400MHz

JP1	JP2	JP3	JP5	JP6	JP7
Short	Short	Short	Open	Open	Short



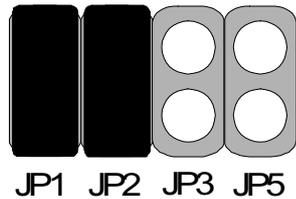
#### 4. 450MHz

JP1	JP2	JP3	JP5	JP6	JP7
Short	Open	Short	Open	Open	Short



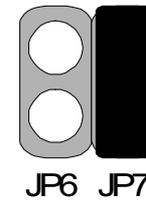
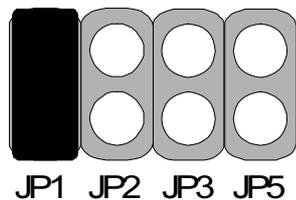
#### 5. 500MHz

JP1	JP2	JP3	JP5	JP6	JP7
Short	Short	Open	Open	Open	Short



#### 6. 550MHz

JP1	JP2	JP3	JP5	JP6	JP7
Short	Open	Open	Open	Open	Short



## CPU TYPE SELECTION LIST

### JP1~JP5 (For RATIO select)

RATIO	JP1	JP2	JP3	JP5
3.0	Short	Short	Open	Short
3.5	Short	Open	Open	Short
4.0	Short	Short	Short	Open
4.5	Short	Open	Short	Open
5.0	Short	Short	Open	Open
5.5	Short	Open	Open	Open

### JP6 (For BUS clock)

CLOCK	JP6
66 MHz	Short
100 MHz	Open

### JP7 (CPU BUS Clock manual / Auto detect)

CLOCK	JP7
Default (Auto Detect)	Short
Force BUS CLOCK up to 100 MHz	Open



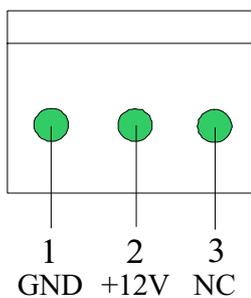
**Short**



**Open**

## FAN CONNECTOR

JP9



**JP9:** This fan is used in CPU COOL FAN.

## MEMORY INSTALLATION

No jumper setting is necessary for DRAM setting, BIOS will check DRAM type and size automatically. This motherboard contains 2 by 168-pin DIMM socket (DIMM1, DIMM2, DIMM3). This motherboard has table-free ( or auto-bank ) feature and user can install DIMM into any bank. The three DIMMs Sockets for system memory expansion from 8MB to 768MB. Each bank provides 64-bit wide data path. You can install 100MHz SPD RAM or 66MHz SD RAM into this motherboard, select by your CPU clock.

### NOTE: Samples of System Memory Combinations Options

DIMM1	DIMM2	DIMM3	TOTAL
8MB	---	---	8MBytes
---	8MB	---	8MBytes
---	---	8MB	8MBytes
8MB	8MB	---	16MBytes
---	8MB	8MB	16MBytes
8MB	---	8MB	16MBytes
16MB	---	---	16MBytes
---	16MB	---	16MBytes
---	---	16MB	16MBytes
8MB	8MB	8MB	24MBytes
16MB	8MB	---	24MBytes
16MB	---	16MB	32MBytes
16MB	16MB	---	32MBytes
---	---	32MB	32MBytes
---	32MB	---	32MBytes
32MB	---	---	32MBytes
8MB	16MB	16MB	40MBytes
32MB	32MB	---	64MBytes
---	32MB	32MB	64MBytes
64MB	---	---	64MBytes
64MB	64MB	---	128MBytes
---	64MB	64MB	128MBytes
128MB	128MB	128MB	384MBytes
:	:	:	:
256MB	256MB	256MB	768MBytes



# Chapter 3

## Award BIOS Setup

Award BIOS ROM has a built-in Setup program that allows users to modify the basic system configuration. This type information is stored in battery-backed RAM so that it retains the Setup information when the power is turned off.

### Entering Setup

Power on the computer and press <Del> immediately will allow you to enter Setup. The other way to enter Setup is to power on the computer, when the below message appears briefly at the bottom of the screen during the POST (Power On Self Test), press <Del> key or simultaneously press <Ctrl>, <Alt>, and <Esc> keys.

### **TO ENTER SETUP BEFORE BOOT PRESS CTRL-ALT-ESC OR DEL KEY**

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

### **PRESS F1 TO CONTINUE, CTRL-ALT-ESC OR DEL TO ENTER SETUP**

#### Control Keys

Up Arrow	Move to previous item
Down Arrow	Move to next item
Left Arrow	Move to the item in the left hand

Right Arrow	Move to the item in the right hand
Esc Key	Main Menu Quit and not to save changes to CMOS Status Page setup menu and Option Page Setup Menu Exit current page and return to Main Menu
PgUp Key	Increase the numeric value or make changes
PgDn Key	Decrease the numeric value or make changes
F1 Key	General help, only for Status Page Setup Menu and Option Setup Menu
F2 Key	Change color from total 16 colors
F3 Key	Calendar, only for Status Page Setup Menu
F4 Key	Reserved
F5 Key	Restore the previous CMOS value from BIOS, only for Option Page Setup Menu
F6 Key	Load the default CMOS value from BIOS default table, only for Option Page Setup Menu
F7 Key	Load the default
F8 Key	Reserved
F9 Key	Reserved
F10 Key	Save all the CMOS changes, only for Main Menu

## Getting Help

### Main Menu

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

### Status Page Setup Menu/Option Page Setup Menu

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

## The Main Menu

Once you enter Award BIOS CMOS Setup Utility, the Main Menu will appear on the Screen.. Use arrow keys to select among the items and press to accept or enter the **sub-menu**.

ROM PC/ISA BIOS (2A69KPNH)  
CMOS SETUP UTILITY  
AWARD SOFTWARE, INC.

STANDARD CMOS SETUP	INTEGRATED PERIPHERALS
BIOS FEATURE SETUP	SUPERVISOR PASSWORD
CHIPSET FEATURES SETUP	USER PASSWORD
POWER MANAGEMENT SETUP	IDE HDD AUTO DETECTION
PNP/PCI CONFIGURATION	HDD LOW LEVEL FORMAT
LOAD BIOS DEFAULTS	SAVE & EXIT SETUP
LOAD SETUP DEFAULTS	EXIT WITHOUT SAVING
Esc : Quit	←↑↓→ : Select Item
F10 : Save & Exit Setup	(Shift) F2 : Change Color

### Standard CMOS Setup

This setup page includes all the items in a standard compatible BIOS.

### BIOS Features Setup

This setup page includes all the items of Award special enhanced features.

### Chipset Features Setup

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

### **Power Management Setup**

This menu provides functions for Green products by allowing users to set the timeout value for monitor and HDD.

### **PNP / PCI CONFIGURATION SETUP**

This menu allows the user to modify PNP / PCI configuration function.

### **Load BIOS Defaults**

BIOS defaults indicates the most appropriate value of the system parameter which the system would be in minimum performance.

### **Load Setup Defaults**

Chipset defaults indicates the values required by the system for the maximum performance.

### **INTEGRATED PERIPHERALS**

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

### **Supervisor / User Password Setting**

Change, set, or disable password. It allows you to limit access to the system and Setup, or just to setup.

### **IDE HDD Auto Detection**

Automatically configure hard disk parameters.

### **HDD Low Level Format**

If supported by your system, this provides a hard disk low level format utility.

### **Save & Exit Setup**

Save CMOS value changes to CMOS and exit setup.

### **Exit Without Saving**

Abandon all CMOS value changes and exit setup.



## BIOS Features Setup

ROM PCI/ISA BIOS (2A69KPNH)  
 BIOS FEATURE SETUP  
 AWARD SOFTWARE, INC

Anti-Virus Protection	: Enabled	Video BIOS Shadow	: Enabled
CPU Internal Cache	: Enabled	C8000-CBFFF Shadow	: Disabled
External Cache	: Enabled	CC000-CFFFF Shadow	: Disabled
CPU L2 Cache ECC Checking	: Enabled	D0000-D3FFF Shadow	: Disabled
Quick Power On Self Test	: Enabled	D4000-D7FFF Shadow	: Disabled
Boot Sequence	: A, C ,SCSI	D8000-DBFFF Shadow	: Disabled
Swap Floppy Drive	: Disabled	DC000-DFFFF Shadow	: Disabled
Boot Up Floppy Seek	: Disabled		
Floppy Disk Access Control	: R/W		
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		
PCI/VGA Palette Snoop	: Disabled		
OS Select For DRAM > 64MB	: Non-OS2		
HDD S.M.A.R.T capability	: Enabled		
Report No FDD For Win95	: No		
		Esc : Quit	↑↓→← : Selection Item
		F1 : Help	PU/PD/+/- : Modify
		F5 : Old Values	(Shift) F2 : Color
		F6 : Load BIOS Default	
		F7 : Load Setup Default	

### Virus Warning

This category flashes on the screen. During and after system boots up, any attempt to write to the boot sector or partition table of the hard disk drive will halt the system and the following error message will appear, in the mean time , you can run anti-virus programs to locate the problem.

**!WARNING!**

Disk boot sector is to be modified  
 Type "Y" to accept write or "N" to abort write  
 Award Software, Inc.

**Enabled**      Activate 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 to appear when anything attempt to access the boot sector or hard disk partition table.

### **CPU Internal Cache/External Cache**

These two categories speed up memory access. However, it depends on CPU/chipset design. The default value is Enabled.

**Enabled:**      Enabled cache

**Disabled:**     Disabled cache

### **Quick Power On Self Test**

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

**Enabled:**      Enable quick POST

**Disabled:**     Normal POST

### **Boot Sequence**

This category determines which drive computer searches first for the hard disk operation system (i.e., DOS).

**A, C,SCSI:**    System will first search for floppy disk drive then second search hard disk driver, then SCSI driver.

**C,A,SCSI/ D,A,SCSI/ E,A,SCSI/ F,A,SCSI:**

System will first search for IDE hard disk driver ( C: D: or E: or F:) then second search floppy disk driver then SCSI hard disk driver.

**SCSI,A,C:** System will first search SCSI hard disk driver then second search for floppy disk driver then IDE hard disk driver.

**CDROM,C,A:**

System will first search for the CDROM driver ( If the CDROM has a bootable CD title.)and second search hard disk driver then floppy disk driver .

**C,CDROM,A:**

System will first search for the hard disk driver and second search for CDROM driver ( If the CDROM has a bootable CD title,) then search floppy disk driver.

**LS120,C:** System will first search LS120 disk driver and second search for IDE hard disk driver.

### Swap Floppy Drive

Users can enable this item so that the BIOS will see the hardware “Drive A:” as “Drive B:” , and hardware “Drive B:” as “Drive A:”.

### Boot Up Floppy Seek

During POST, BIOS will determine if the Floppy disk drive installed is 40 or 80 tracks. 360 K type is 40 tracks while 720K, 1.2M and 1.44M drive type as they 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**

The default value is On.

**On:** Keypad is number keys

**Off:** Keypad is arrow keys

### **Boot Up System Speed**

It selects the default system speed – the speed that the system will run at immediately after power up.

**High:** Set the speed to high

**Low:** Set the speed to low

### **Gate A20 Option**

The Gate A20 Option default setting is "fast.". This is the optimum setting for this mainboard.

### **Typematic Rate Setting**

This determines the typematic rate.

**Enabled:** Enable typematic rate

**Disabled:** Disable typematic rate

### **Typematic Rate (Chars/Sec)**

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)**

When holding the a key, the time between the first and second character will be displayed.

- 250 : 250 msec
- 500 : 500 msec
- 750 : 750 msec
- 1000 : 1000 msec

### **Security Option**

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

- System:** The system will not boot and access to Setup will be denied if the correct password is not entered at the prompt.
- Setup:** 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 password. Do not type anything and just press <Enter>, it will disable security. Once the security is disabled, the system will boot and you can enter Setup freely.*

## **Video BIOS Shadow**

It determines whether video BIOS will be copied to RAM, however, it is optional from 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**

These categories determine whether optional ROM will be copied to RAM by 16K byte.

**Enabled:** Optional shadow is enabled

**Disabled:** Optional shadow is disabled

## Chipset Features Setup

ROM PCI/ISA BIOS (2A69KPNH)  
 CHIPSET FEATURES SETUP  
 AWARD SOFTWARE, INC

Auto Configuration	: Enabled	Auto Detect DIMM/PCI Clk	: Enabled
DRAM Speed Selection	: 60ns	Spread Spectrum	: Enabled
EDO CASX# MA Wait State	: 2		
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	: Enabled		
Video BIOS Cacheable	: Enabled		
Video RAM Cacheable	: Enabled		
8 Bit I/O Recovery Time	: 1		
16 Bit I/O Recovery Time	: 1		
Memory Hole At 15M-16M	: Disabled		
Passive Release	: Enabled	Esc : Quit	↑↓→← : Selection Item
Delayed Transaction	: Disabled	F1 : Help	PU/PD/+/- : Modify
AGP Aperture Size (MB)	: 64	F5 : Old Values	(Shift) F2 : Color
		F6 : Load BIOS Default	
		F7 : Load Setup Default	

This setup menu is optimized for this motherboard by your computer vendor. Unless you are a qualified engineer & know the items, functions you are going to modify. We do not recommend you to change the default setting.

## Power Management

ROM PCI/ISA BIOS (2A69KPNH)  
POWER MANAGEMENT SETUP  
AWARD SOFTWARE, INC.

ACPI function	: Enabled	** Reload Global Timer Events **
Power Management	: User Define	IRQ [3-7,9-15],NMI : Disabled
PM Control by APM	: Yes	Primary IDE 0 : Disabled
Video Off Method	: V/H SYNC+Black	Primary IDE 1 : Disabled
Video Off After	: Standby	Secondary IDE 0 : Disabled
MODEM Use IRQ	: 3	Secondary IDE 1 : Disabled
Doze Mode	: Disabled	Floppy Disk : Disabled
Standby Mode	: Disabled	Serial Port : Enabled
Suspend Mode	: Disabled	Parallel Port : Disabled
HDD Power Down	: Disabled	
Throttle Duty Cycle	: 62.5 %	
VGA Active in Monitor	: Enabled	
Soft-off by PWR-BTTN	: Instant-Off	
CPUFAN off In Suspend	: Enabled	
Resume by Ring	: Enabled	
Resume by Alarm	: Disabled	
		Esc : Quit                   ↑↓→← : Selection Item
		F1 : Help                    PU/PD/+/- : Modify
		F5 : Old Values           (Shift)F2 : Color
		F6 : Load BIOS Defaults
		F7 : Load Setup Defaults
Wake Up On LAN	: Enabled	
IRQ 8 Break Suspend	: Disabled	

This category determines the power consumption for the system after selecting below items. Default value is Disabled. The following pages tell you the options of each item & describe the meanings of each options.

Item	Options	Descriptions
A. Power Management	1. Disable	Global Power Management will be disabled
	2. User Define	Users can configure their own power management
	3. Min Saving	Pre-defined timer values are used such that all timers are in their MAX value
	4. Max Saving	Pre-defined timer values are used such that all timers MIN value

Item	Options	Descriptions
3 PM Control by APM	1. No	System BIOS will ignore APM when power managing the system
	2. Yes	System BIOS will wait for APM's prompt before it enter any PM mode e.g. DOZE, STANDBY or SUSPEND
	Note: If APM is installed, & if there is a task running, even the timer is time out, the APM will not prompt the BIOS to put the system into any power saving mode!	
	Note: – if APM is not installed, this option has no effect	
	<b><i>To make the APM function work, users have to install power.exe (supported by MS-DOS 5.0 or higher) in Config.exe. To make the Windows 3.1 work regularly, in "Windows Setup", users have to set the "Computer" item to "MS-DOS System with APM"</i></b>	
C. Video Off Option	1. Always On	System BIOS will never turn off the screen
	2. Suspend -> Off	Screen off when system is in SUSPEND mode
	3. Susp, Stby	Screen off when system is in

	-> Off	STANDBY or SUSPEND mode
	4. All Modes -> Off	Screen off when system is in DOZE, STANDBY or SUSPEND mode
D. Video	1. Blank Screen	The system BIOS will only blanks off the screen when disabling video
	2. V/H SYN C+Blank	In addition to (1), BIOS will also turn off the V-SYNC & H-SYNC signals form VGA cards to monitor

Item	Options	Descriptions
D. Video	3. DPMS	This function is enabled for only the VGA card supporting DPM
E. HDD Power Down (#) Remark 2	1. Disable	HDD' s motor will not off
	2. 1 Min 2 Min 3 Min 4 Min 5 Min 6 Min 7 Min 8 Min 9 Min 10 Min 11 Min 12 Min 13 Min 14 Min 15 Min	Defines the continuous HDD idle time before the HDD entering power saving mode (motor off)
	3. When Suspend	BIOS will turn the HDD' s motor off when system is in SUSPEND mode
Note: - (2) & (3) can' t be selected at the same time - When HDD is in power saving mode, any access to the HDD will wake the HDD up		

Item	Options	Descriptions
3 Doze Mode (*) Remark 1	1. Disable	System will never enter DOZE mode
	2. 10 Sec 20 Sec 30 Sec 40 Sec 1 Min 3 Min 5 Min 10 Min 15 Min 20 Min 30 Min 40 Min 1 Hr 2 Hr 3 Hr	Defines the continuous idle time before the system entering DOZE mode.  If any item defined in (J) is enabled & active, DOZE timer will be reloaded.
	Note: Normally, STANDBY mode puts the system into low speed or 8 MHz, screen may be off depend on (E)	
3 Standby Mode (*) Remark 1	1. Disable	System will never enter STANDBY mode
	2. 10 Sec 20 Sec 30 Sec 40 Sec 1 Min 3 Min 5 Min 10 Min 15 Min 20 Min 30 Min 40 Min 1 Hr 2 Hr 3 Hr	Defines the continuous idle time before the system entering STANDBY mode.  If any item defined in (J) is enabled & active, STANDBY timer will be reloaded
	Normally, STANDBY mode puts the system into low speed or 8, screen may be off depend on (E)	

Item	Options	Descriptions
H. Suspend Mode (*) Remark 1	1. Disable	System will never enter SUSPEND mode
	2. 10 Sec 20 Sec 30 Sec 40 Sec 1 Min 3 Min 5 Min 10 Min 15 Min 20 Min 30 Min 40 Min 1 Hr 2 Hr 3 Hr	Defines the continuous idle time before the system entering SUSPEND mode.  if any item defined in (J) is enabled & active, SUSPEND timer will be reloaded
	Note: Normally, SUSPEND mode puts the system into low speed or 8 MHz, clock is stopped, screen may be off depend on (E)	
I. PCI Master Activity COM Ports Activity LPT Ports Activity HDD Ports Activity DMA Ports Activity VGA Activity IRQ3 (COM 2) IRQ4 (COM 1) IRQ5 (LPT 2) IRQ6 (Floppy Disk) IRQ7 (LPT 1) IRQ8 (RTC Alarm) IRQ9 (IRQ2 Redir) IRQ10 (Reserved) IRQ11 (Reserved) IRQ12 (PS/2 Mouse) IRQ13 (Coprocessor) IRQ14 (Hard Disk) IRQ15 (Reserved)	1. Disable	The specified event's activity will not affect the PM timers
	2. Enable	The specified event's activity causes the PM Timers to be reloaded. i.e. the Power Management Unit(PMU) monitors the specified activities as PM events

\* Remark 1: All items mark with (\*) in this menu, will be loaded with predefined values as long as the item "Power Management" is not configured to "User Defined"

**These items are:**

Item "System Doze", "System Standby" & "System Suspend"

# Remark 2: Although the item "HDD Power Down" is not controlled by item "Power Management" in terms of timer value, the HDD (s) will not power down if the global power management is disabled!

## PNP / PCI Configuration Setup

ROM PCI/ISA BIOS(2A69KPNH)  
PNP/PCI CONFIGURATION  
AWARD SOFTWARE, INC.

PNP OS Installed	: No	PCI IDE IRQ Map To	: PCI-AUTO
Resources Contorlled By	: Manual	Primary IDE INT#	: A
Reset Configuration Data	: Disabled	Secondary IDE INT#	: A
IRQ-3 assigned to	: PCI/ISA PnP	Used MEM base addr	: N/A
IRQ-4 assigned to	: PCI/ISA PnP	Assign IRQ For VGA	: Enabled
IRQ-5 assigned to	: PCI/ISA PnP	Assign IRQ For USB	: Enabled
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		
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	F6 : Load BIOS Defaults	
DMA-7 assigned to	: PCI/ISA PnP	F7 : Load Setup Defaults	

The following pages tell you the options of each item & describe the meanings of each options.

Item	Options	Descriptions
A. 1st Available IRQ	3	The system BIOS will assign these 4 available IRQs to the found PCI devices
2nd Available IRQ	4	
3rd Available IRQ	5	
4th Available IRQ	7	
	9	
	10	
	11	
	12	
	14	
	15	
	NA	

Item	Options	Descriptions
B. PCI IDE 2nd Channel	Enable Disable	Enable/disable 2nd channel of PCI/IDE card. It includes I/O port (170H~177H) and IRQ 15 assignment
C. PCI IDE IRQ Map To	PCI-AUTO PCI-SLOT1 PCI-SLOT2 ISA	<u>PCI-AUTO</u>  The BIOS will: – scan for PCI IDE devices & determine the location of the PCI IDE device
	PCI-AUTO PCI-SLOT1 PCI-SLOT2 ISA	<u>PCI-SLOT1</u> <u>PCI-SLOT2</u>  – assign IRQ 14 for primary IDE INT# IRQ 15 for secondary IDE INT# for the specified slot  <u>ISA</u>  – The BIOS will not assign any IRQs even if PCI IDE card is found! Because some IDE cards connect the IRQ 14 & 15 directly from ISA slot thru a cord. (This cord is called Legacy Header)
F. Primary IDE INT# Secondary IDE INT#	A B	To tell which INT# does the PCI IDE card is using for its interrupts

The other item are optimized by your computer vendor, please do not modify them unless you know its function exactly.

## INTEGRATED PERIPHERALS

ROM PC/ISA BIOS(2A69KPNH)  
INTEGRATED PERIPHERALS  
AWARD SOFTWARE, INC.

IDE HDD Block Mode	: Enable	UR2 Mode	: IrDA
IDE Primary Master PIO	: AUTO	UR2 Duplex Mode	: Half
IDE Primary Slave PIO	: AUTO	Half Duplex time-out	: Enabled
IDE Secondary Master PIO	: AUTO	Onboard Parallel port	: 378/IRQ7
IDE Secondary Slave PIO	: AUTO	Parallel port Mode	: Ecpepp1.9
IDE Primary Master UDMA	: AUTO	ECP Mode Use DMA	: 3
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	: PCI Slot		
Onboard FDC Controller	: Enabled		
Onboard Serial 1	: 3F8/IRQ4	Esc : Quit	↑↓→← : Selection Item
		F1 : Help	PU/PD/+/- : Modify
		F5 : Old Values	(Shift) F2 : Color
		F6 : Load BIOS Default	
Onboard Serial 2	: 2F8/IRQ 3	F7 : Load Setup Default	

This setup menu is optimized for this motherboard by your computer vendor. Unless you are a qualified engineer & know the items, function you are going to modify. We do not recommend you to change the default setting.

## Load BIOS Default

When you access "Load BIOS Default", the following message appears:

Load BIOS Default (Y/N) ?N

The BIOS Default values are the "worst case" default, and are the most stable values for the system. Use them if the system is performing erratically due to hardware problems. To load the BIOS Default values, press <Y> then <Enter>.

## Load Setup Default

When you access "Load Setup Default", you are shown the following message:

Load Setup Default (Y/N) ?N

The Setup Default values represent the "best case" default, and should provide optimum system performance. To load the Setup Default values, press <Y> then <Enter>.

## Supervisor / User Password Setting

When you select this function, the following message will appear at the center of the screen to assist you in creating a password.

ENTER PASSWORD

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

If you select System at Security Option of BIOS Features Setup Menu, you will be prompted for the password every time the system is rebooted or

anytime you try to enter Setup. If you select Setup at Security Option of BIOS Features Setup Menu, you will be prompted only when you try to enter Setup.

## **IDE HDD Auto Detection**

This feature allows you to check all the informations on your hard disk formation. When you access "IDE HDD Auto Detection", the system executes auto detection.

At the prompt, it represents all the informations on your HDD, and you are asked:

### **Do you accept this drive C: (Y/N) ?**

- 1 If you accept the test result, press [Y] then [Enter] and the result is saved, then the system continues to detect another HDD.
- 2 If not, press [N] then [enter] and the system continues to detect another HDD.

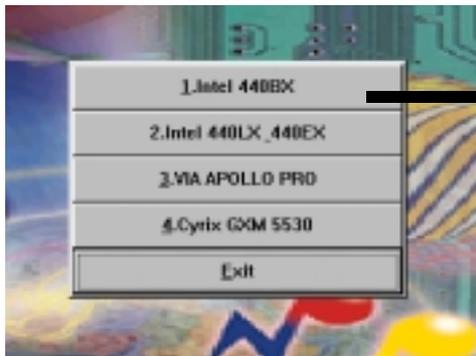
# Chapter 4

## Software Setup

After you have finished the hardware setup, you need install the software of B785 then you can enjoy the advance Motherboard.

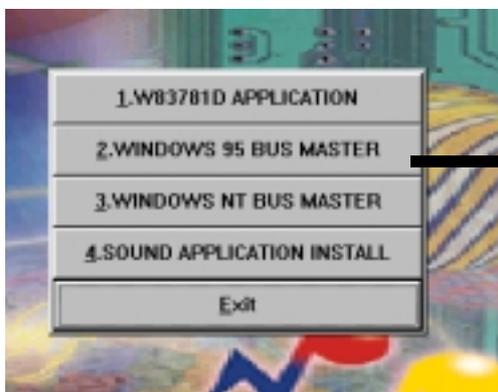
Please follow the steps for installation:

1. Turn on your PC and put the “**driver CD**” into your CD-ROM drive.  
(Please make sure it’s under Win98/95 mode)
2. It will auto-run the driver CD. If not, please click the “**start**” button and select “**Run**” item. Then type-> **D:\setup** (D is assigned your CD-ROM Device)
3. Press “**Intel 440BX**” button.



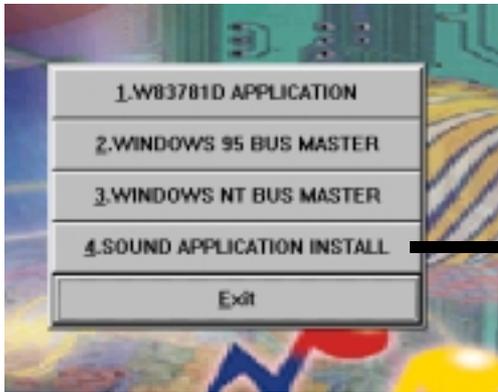
Intel 440BX button

4. Press “**1.WINDOWS 95 BUS MASTER**” and follow the instructions to this software. Then Re-boot your PC.



WINDOWS 95 BUS MASTER button

5. Repeat step 1.~step 3. Then press “**4.SOUND APPLICATION INSTALL**” and follow the instructions to setup this software. Re-boot your PC.



SOUND APPLICATION INSTALL button

6. Congratulation!! You have installed completely and enjoy it Now ....

## ◆ Audio Control System

### Introduction

The *AudioRack32* enables you to take advantage of your computer's audio capabilities with all of the controls conveniently in one compact space. You can play audio CDs, wave files (in WAV and .AUD formats), and MIDI files (in .MID and .RMI formats).

With the multisource Audio Mixer, you can blend these sources with line-in and microphone sources any way you choose. Add tone control and spatialization to your computer with the 3-D/Tone Controller. You can then record your creations as wave files and edit them with the Audio Recorder.

The *AudioRack32* has six main parts:

- Command Center? customizes the appearance of the *AudioRack32*.
- 3-D/Tone Controller? adds 3-D stereo and tone controls to the *AudioRack32*.
- Audio Mixer? controls the volume and balance of the *AudioRack32* devices.
- Digital Audio Player? plays and records files in the WAV format.
- MIDI Player? enables you to play MIDI files.
- Compact Disk Player? enables you to play audio CDs on a CD-ROM drive.

In addition, the *AudioRack32* has a miniature mode enabling you to control the *AudioRack32* while using minimal screen space.

The Audio Recorder is a separate application from the *AudioRack32*. It can be used to add effects and edit files recorded with the Digital Audio Player or by the Audio Recorder itself. The Audio Recorder can be launched from the *AudioRack32*? Digital Audio Player or on its own.

## The System Diagram



## The Mixer Control



Close the *AudioRack32* window.



Displays or hides the 3-D/Tone Controller.



Enables the Miniature mode, minimizing the *AudioRack32* display.



Displays or hides the Digital Audio Player.



Accesses On-line Help.



Displays or hides the Compact Disk Player.



Displays or hides the Audio Mixer.



Displays or hides the MIDI Player.