MB-X63 Series

Dual Pentium III ATX Mainboard

with VGA/Sound,Two 100Base-T Ethernet
for Socket 370 Processors

USER'S MANUAL

Ver. No.1.0
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CHAPTER 1. Introduction

1.1 Introduction

The MB-X63 Series is a Duel Pentium III ATX Mainboard specifically designed for Socket 370 with VGA, two 10/100Base-TX Ethernet ports. With VIA 694X/686B chipsets, MB-X63 Series supports Ultra DMA-33/66/100 for faster hard drive transmission speeds and contains health monitoring hardware. The health monitoring IC keeps an eye on the CPU temperature and the cooling fans. For boosting operation, this motivated card also supports sockets for a Flash Disk and four DIMMs.

Other on-board features include two serial ports (RS-232 and RS-232/422/485), one multi-mode parallel (ECP/EPP/SPP) port, a floppy drive controller, a keyboard interface and a PS/2 mouse interface. The built-in high speed PCI IDE controller supports both PIO and bus master modes. Supporting up to two floppy disks, this board also can connect up to four IDE devices, including large hard disks, CD-ROM drives, tape backup drives and other IDE devices. Its 6-layer printed circuit board combined with noise-tolerant and low power consumption CMOS technology allow the MB-X63 Series to withstand many harsh industrial environments.

MB-X63 Series is a high power & full engine mainboard with an AGP display of resolution up to 1600x1200 at 256 colors. Carefully designed to be a feature-rich mainboard at a reasonable price, this board elegantly meets industry needs and saves time and money by waiving the hassle of going through the extra effort and cost of additional I/O cards. Being standards-compliant, it is proved to be a quality product with high performance and stability in a long run.

1.2 Features

- Support dual Intel Pentium III CPU in Socket 370, running up to 133MHz x 8(1 GHz) and support 66/100/133 MHz FSB.
- VIA 694X/686B chipset
- Four 168pin DIMM socket, support up to 2GB SDRAM
- Two Intel 82559 chip, support three 10/100BASE-TX on-board RJ-45 connector and Wake-On-LAN function
- Supports six PCI bus slots
- Two PCI IDE ports that supports up to four IDE devices and Ultra DMA-33/66/100
- Reserved Socket for DiskOnChip up to 144MB
- Dimension: 305 x 244mm ± 0.5mm (12.0" x 9.6")

1.3 Specification

MB-X63 SERIES

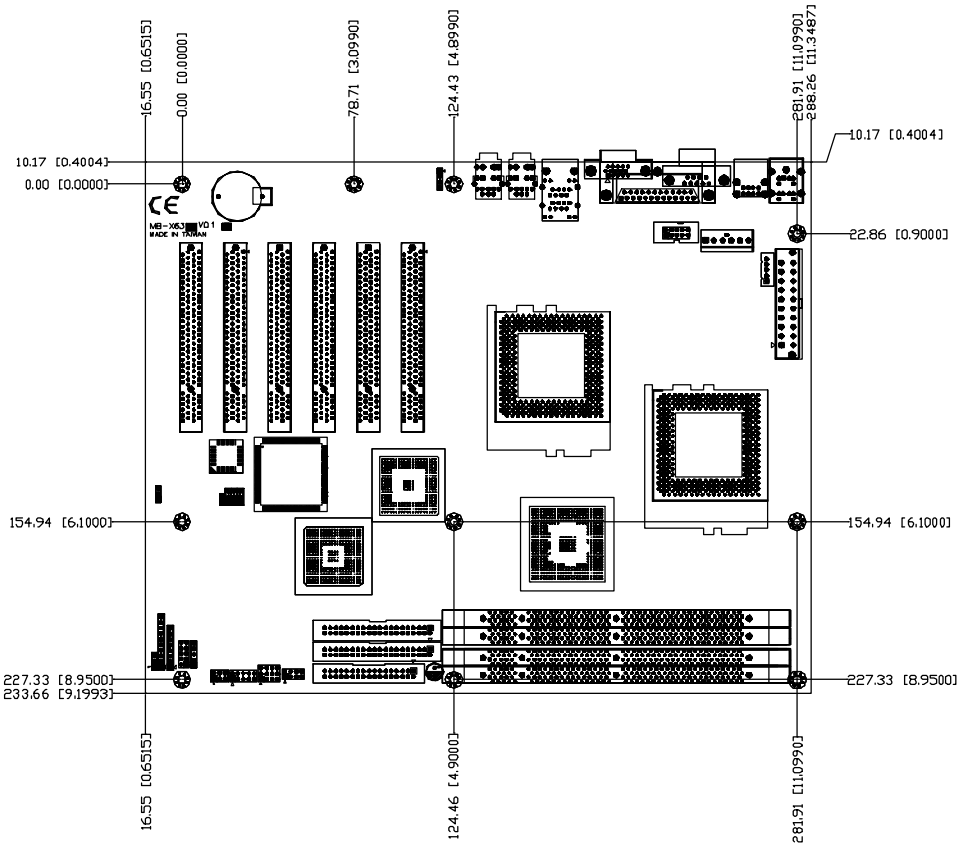
Processor	Dual Intel® Pentium III Processor in Socket 370, support FSB 66/100/133 MHz CPU up to 133 MHz x 8 = 1 GHz
Chipset	VIA 694X/686B chipset
System Memory/RAM	Four 168-pin DIMM sockets, support up to 2 GB SDRAM (Note: PC100 memory support up to 4 DIMMs, PC133 memory support up to 3 DIMMs)
BIOS	Award® licensed BIOS (2M bit Flash ROM)
Flash Memory Disk	Reserved socket for DiskOnChip from M-System, support up to 144 MB flash memory disk
AGP VGA Controller	ATI Rage XL, with 8MB video memory and DB-15 connector
Sound	AC97 codec with 4 phone jacks on rear I/O area
Ethernet Controller	Two Intel 82559 chip, support two 10/100M Base-T, on-board RJ-45 connector (double stack), support wake on LAN function
IDE Drive Interface	Two PCI IDE port that support up to four IDE devices and Ultra DMA-33/66/100
Floppy Drive Interface	One FDD port, support up to two floppy devices
Serial Port	Two COM ports, one RS-232 (DB-9) and one RS-232/422/485 (pin header with housing)
Parallel Port	One multi-mode parallel port (SPP/EPP/ECP) (DB-25)
Bus Interface	Six PCI bus slots
RTC Battery	Internal RTC with Li battery
Keyboard/Mouse Connector:	6-pin mini-Din PS/2 keyboard/mouse connector and 5-pin keyboard header
Watchdog Timer	16-level time-out intervals software watchdog timer
Digital I/O	4-bit digital I/O header (10-pin 2.54 mm)
Universal Serial Bus	Support two USB connectors
IR Interface	Support IrDA header version 1.0
Health Monitoring	On-board hardware monitor function
Power Connector	ATX power connector (20-pin) and auxiliary ATX power connector (6-pin)
Operating Temperature	0 ℃~60 ℃
Storage Temperature	-20 ℃~70 ℃
Humidity	5 %~95% RH, non-condensing
Dimensions	305 x 244 mm ± 0.5 mm (12.0" x 9.6")
Net Weight	500g (1.10 pounds)

1.4 Unpack your MB-X63

Before you begin to install your card, please make sure that you received the following materials as listed below:

● MB-X63 x1 pc	MB-X63 Dual Pentium III Mainboard
● FDD cable x1 set	34-pin to 34-pin standard header flat ribbon cable
● COM2 cable x1 set	10-pin female flat connector header to 9-pin male D-Sub connector with bracket
● IDE Cable x1 pc	DMA-66 IDE cable
● Drivers Utility x1 pc	Drivers & Utilities
● User's manual x1 pc	This user's manual

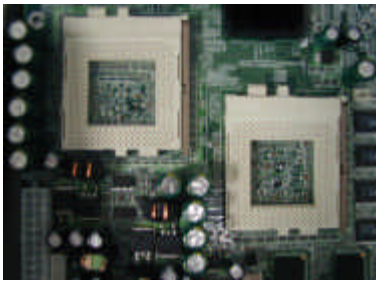
1.5 Board Layout

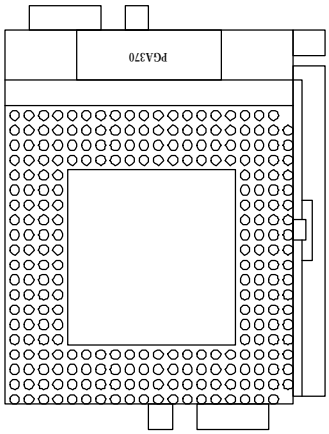


CHAPTER 2. Installation

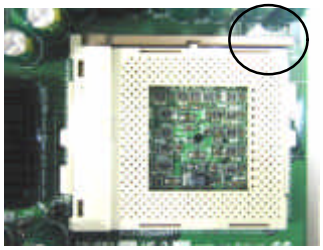
2.1 Hardware Setup and Installation

2.1.1 CPU Installation and Upgrading



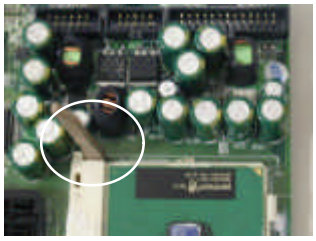


Step 1: Locate the ZIF socket and open it by first pulling the lever of socket upward.



Step 2: Insert the CPU into the socket. Please keep the lever right angle when inserting CPU.

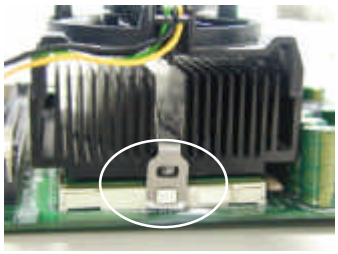
Step 3: When inserting the CPU please note the correct orientation as shown. The notched corner should point toward the end of the lever.



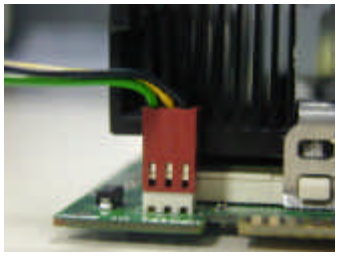
Step 4: Push the lever down to close the socket.

Step5: Attach the heatsink onto the CPU.

Step 6: Push the clip of heatsink downward to hock the ear of socket firmly.

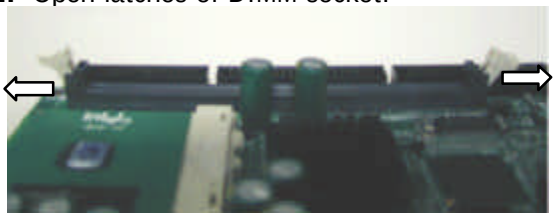


Step 7: Finally, attach the fan cable to the CPU fan header.

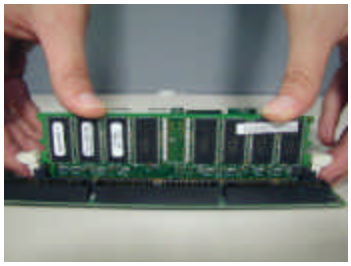


2.1.2 System Memory Installation

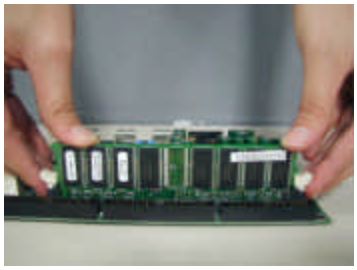
Step 1: Open latches of DIMM socket.



Step 2: Insert the RAM module into the DIMM socket.

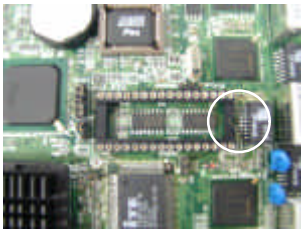


Step 3: Press the latches into the notches of the RAM module.



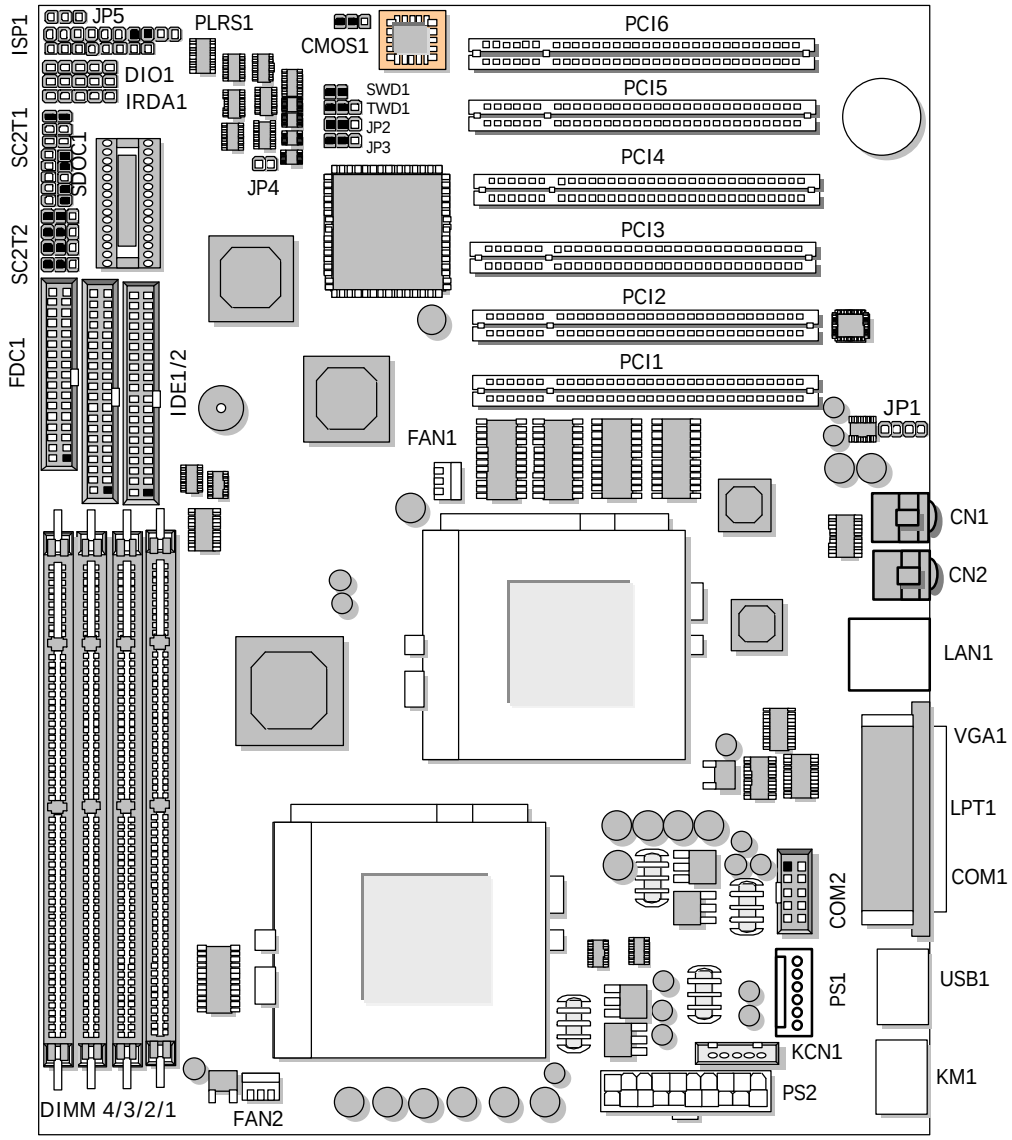
2.1.3 DiskOnChip Installation

Please make sure the central polarization key on the socket, and place the DiskOnChip as the same direction.

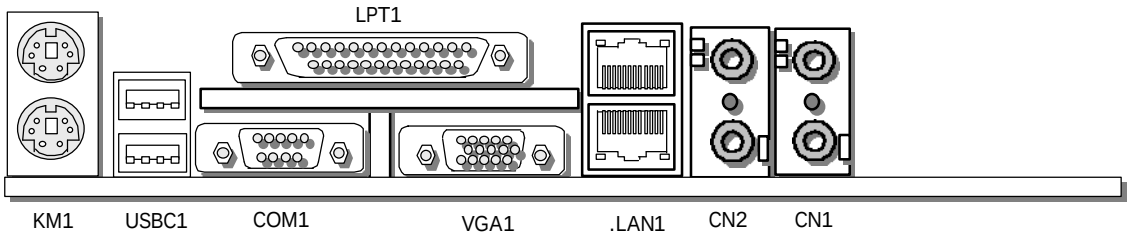


2.2 JUMPER SETTINGS AND CONNECTORS

2.2.1 Board Outline



Board Side View

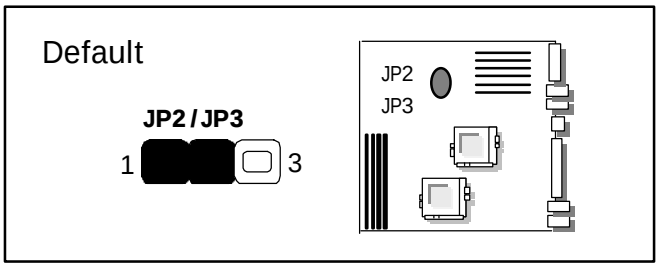


2.2.2 JUMPER SETTINGS SUMMARY

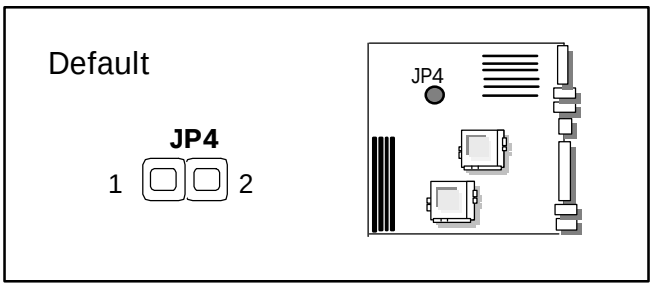
JUMPER	FUNCTION
JP2/JP3	Default Setup
JP4	ATX POWER ON/OFF Switch
CMOS1	Clear CMOS Data
SWD1	Select Software /Hardware Watch-Dog
TWD1	Select Watch-Dog Time Out Period
JP5	Power LED Connector
SDOC1	Select DiskOnChip (Flash Disk) Address
SC2T1, SC2T2	Select COM2 Type

- **JP2 / JP3: Default Setup**

JP2: (1-2)
JP3: (1-2)

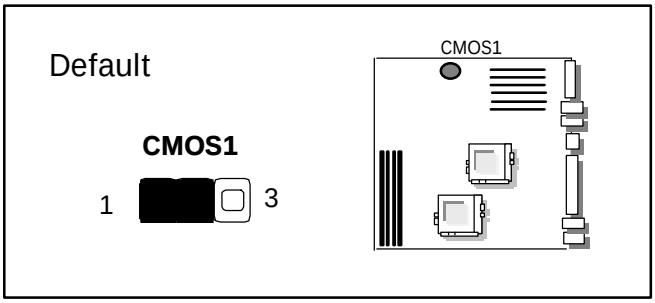


- **JP4: ATX POWER ON / OFF Switch**



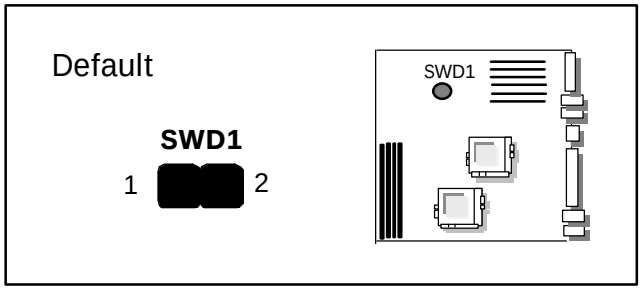
- **CMOS1 : Clear CMOS Data**

CMOS1	Description
1-2	Normal (Default)
2-3	Clear CMOS



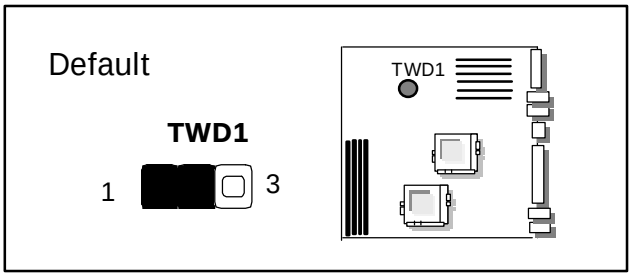
- **SWD1: Select Software / Hardware Watch-Dog**

SWD1	Description
ON	Hardware (Default)
OFF	Software



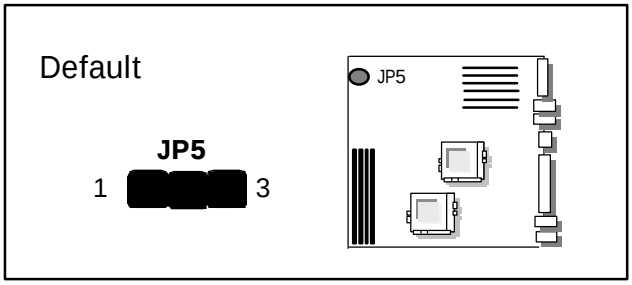
- **TWD1: Select Watch-Dog Time Out Period**

TWD1	Time Out Period
1-2	16 sec
2-3	64 sec



- **JP5: Power LED Connector**

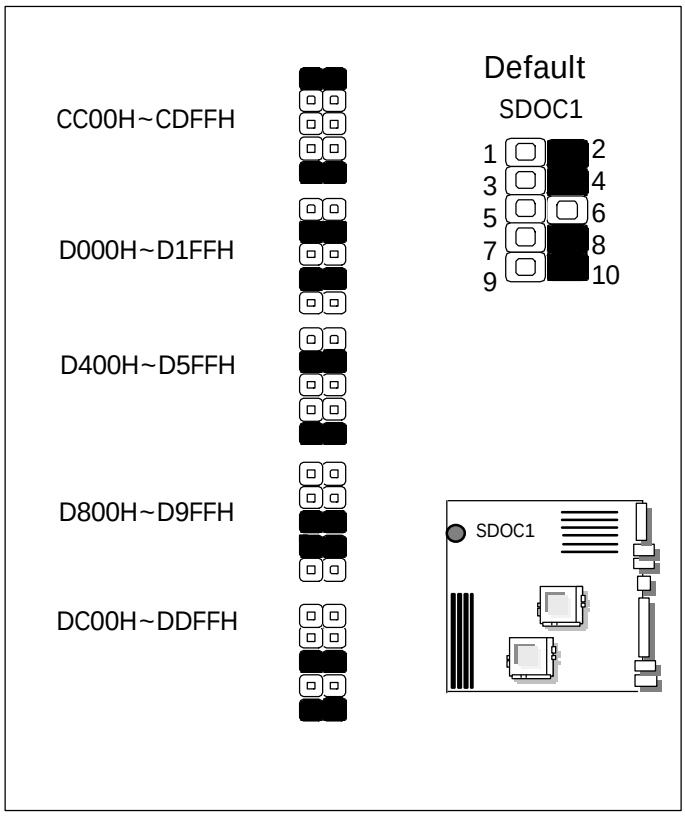
Pin	Description
1	VCC
2	NC
3	Gnd



✦ **SDOC1: Select DiskOnChip (Flash Disk) Address**

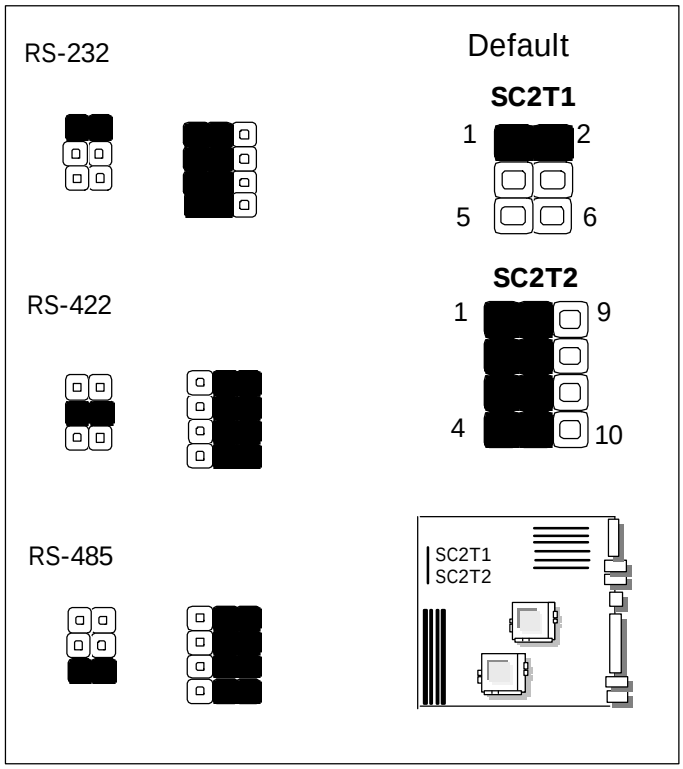
SDOC1	Flash Disk Address
1-2,9-10	CC00H~CDFFH
3-4,7-8	D000H~D1FFH
3-4,9-10	D400h~D5FFH
5-6,7-8	D800H~D9FFH
5-6,9-10	DC00H~DDFFH

Default(2-4,8-10)



✦ **SC2T1/SC2T2 : Select COM2 Type**

COM2 Type	SC2T1	SC2T2
RS-232 (Default)	1-2	1-5,2-6,3-7,4-8
RS-422	3-4	5-9,6-10,7-11,8-12
RS-485	5-6	5-9,6-10,7-11,8-12



2.2.3 I/O CONNECTOR SUMMARY

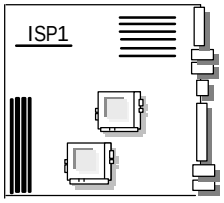
CONNECTOR	FUNCTION
ISP1	ISP GAL Connector (Factory only)
KM1	Keyboard/Mouse Connector (Dual Mini-DIN)
IrDA1	Alternate IrDA
VGA1	VGA Connector (D-Sub Connector)
DIO1	Digital Input / Output Ports
JP1	CD_IN
CN1	Lin_in,Mic _in
CN2	Lin_out,Speak _out
PS1	6 Pin Power Connector
FAN1	Fan Connector
FAN2	Fan Connector
KCN1	KB Connector (5-Pin Wafer)
PLRS1	Power LED, Reset, Speaker Connector
COM1	RS232 Serial Port #1 Connector (D-Sub)
COM2	Serial Port #2 Connector (Header)
LPT1	Parallel Port Connector (D-Sub)
PS2	ATX Power Connector
FDC1	Floppy Interface Connector (Header)
IDE1 / IDE2	IDE Connector (Header)

ISP1: ISP GAL Connector (Factory only)

Pin No.	Description
1	VCC
2	SDO
3	SDI
4	ISP
5	NC
6	MODE
7	Ground
8	SCLK

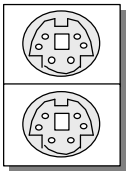
ISP1

1  8



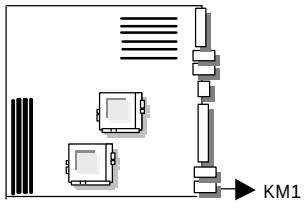
KM1: Keyboard / Mouse Connector (Dual Mini-Din)

Pin No.	Description
1	KB Data
2	NC
3	GND
4	VCC
5	KB CLK
6	NC
7	MS Data
8	NC
9	GND
10	VCC
11	MS CLK
12	NC



Mouse

Keyboard

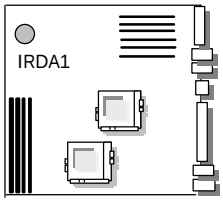


✦ **IrDA1: Alternate IrDA**

Pin No.	Description
1	VCC
2	NC
3	IRRX
4	GND
5	IRTX

IrDA1

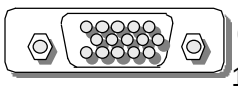
1 5



✦ **VGA1: VGA Connector**

Pin No.	Description
1	Red Color Signal
2	Green Color Signal
3	Blue Color Signal
4	NC
5	Ground
6	Ground
7	Ground
8	Ground
9	NC
10	Ground
11	NC
12	DDC-DATA
13	H-Sync.
14	V-Sync.
15	DDC-CLK

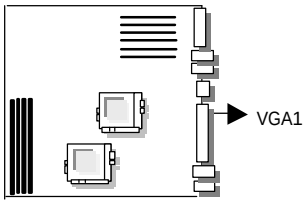
5 1



10 6

15 11

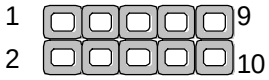
VGA1

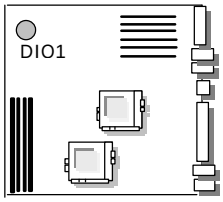


- **DIO1: Digital Input/Output Ports**

Pin No.	Description
1	IN0
2	OUT0
3	IN1
4	OUT1
5	IN2
6	OUT2
7	IN3
8	OUT3
9	Ground
10	Ground

DIO1

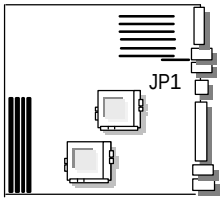




- **JP1: CD_IN**

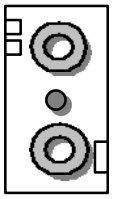
Pin No.	Description
1	L
2	Ground
3	Ground
4	R

JP1

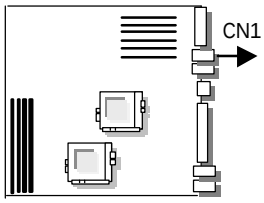


- **CN1: Lin_in,Mic _in**

CN1	Description
TOP	Lin_in
BOTTOM	Mic_in

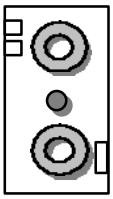


CN1

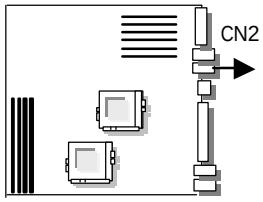


- **CN2: Lin_out,Speak _out**

CN2	Description
TOP	Lin_out
BOTTOM	Speak _out

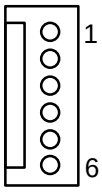


CN2

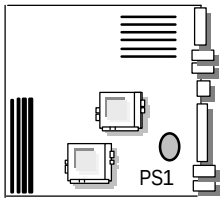


- **PS1: 6 Pin Power Connector**

Pin No.	Description
1	GND
2	GND
3	GND
4	3.3V
5	3.3V
6	VCC

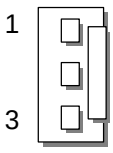


PS1

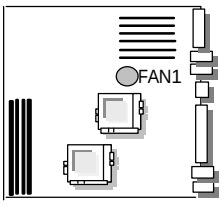


- **FAN1: FAN Connector**

Pin No.	Description
1	FAN Status
2	+12V
3	Gnd



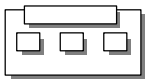
FAN1



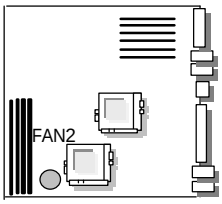
- **FAN2: FAN Connector**

Pin No.	Description
1	FAN Status
2	+12V
3	Gnd

FAN2



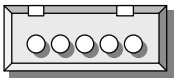
1 3



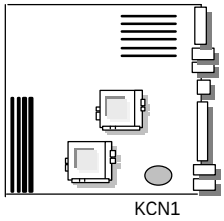
- **KCN1: KB Connector (5-Pin Wafer)**

Pin No.	Description
1	Keyboard Clock
2	Keyboard Data
3	NC
4	GND
5	VCC

KCN1



1 5



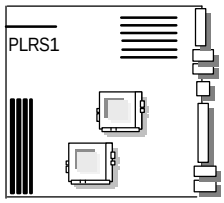
- **PLRS1: Power LED, HDD LED, Reset, Speaker Connector**

Pin No.	Description
1	Power LED +
2	GND
3	HDD LED +
4	HDD LED -
5	RESET SW +
6	RESET SW – (GND)
7	External Speaker -
8	Internal Buzzer -
9	NC
10	External Speaker +

Default : 7-8(ON) Internal Buzzer

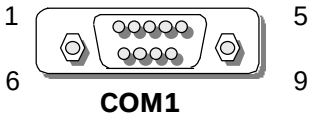
PLRS1

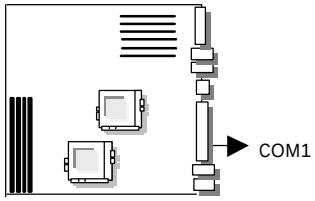
1 10



✦ **COM1: RS-232 Serial Port #1 Connector (D-Sub)**

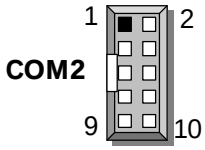
Pin No.	Description
1	Data Carrier Detect (DCDA #)
2	Receive Data (RXDA)
3	Transmit Data (TXDA)
4	Data Terminal Ready (DTRA #)
5	Ground (GND)
6	Data Set Ready (DSRA #)
7	Request To Send (RTSA #)
8	Clear To Send (CTSA #)
9	Ring Indicator (RIA #)

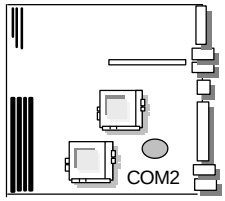




✦ **COM2: Serial Port #2 Connector (Header)**

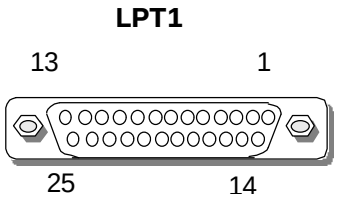
Pin No.	Description		
	RS-232	RS-422	RS-485
1	Data Carrier Detect (DCDB #)	Transmit Data- (TXD-)	DATA-
2	Data Set Ready (DSRB#)	NC	NC
3	Receive Data (RXDB#)	Transmit Data+ (TXD+)	DATA+
4	Request To Send (RTSB#)	NC	NC
5	Transmit Data (TXDB#)	Receive Data+ (RXD+)	NC
6	Clear To Send (CTSB#)	NC	NC
7	Data Terminal Ready (DTRB#)	Receive Data- (RXD-)	NC
8	Ring Indicator (RIB#)	NC	NC
9	Ground	NC	NC
10	NC	NC	NC

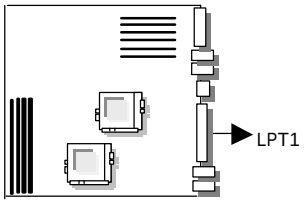




✦ **LPT1: Parallel Port Connector (D-Sub)**

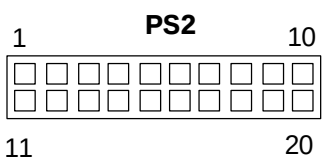
Pin No.	Description	Pin No.	Description
1	Strobe #	14	Auto Form Feed #
2	Data 0	15	Error #
3	Data 1	16	Initialize #
4	Data 2	17	Printer Select IN #
5	Data 3	18	Ground
6	Data 4	19	Ground
7	Data 5	20	Ground
8	Data 6	21	Ground
9	Data 7	22	Ground
10	Acknowledge #	23	Ground
11	Busy	24	Ground
12	Paper Empty	25	Ground
13	Printer Select		

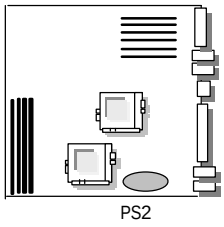




✦ **PS2: ATX Power Connector**

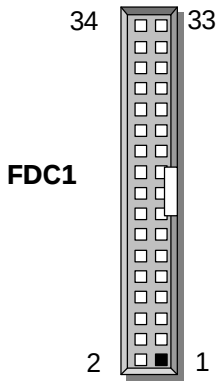
Pin No.	Description	Pin No.	Description
1	VCC3	11	VCC3
2	VCC3	12	- 12V
3	GND	13	Ground
4	VCC	14	Power ON
5	GND	15	Ground
6	VCC	16	Ground
7	GND	17	Ground
8	Power Good	18	- 5V
9	Stand-by 5V	19	VCC
10	+ 12V	20	VCC

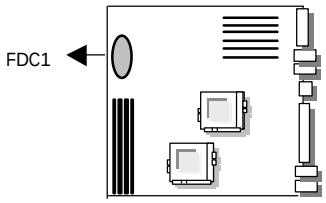




- **FDC1: Floppy Interface Connector (Header)**

Pin No.	Description	Pin No.	Description
1	Ground	2	Density Select
3	Ground	4	NC
5	Ground	6	DS1
7	Ground	8	Index #
9	Ground	10	Motor Enable A #
11	Ground	12	Drive Select B #
13	Ground	14	Drive Select A #
15	Ground	16	Motor Enable B #
17	Ground	18	Direction #
19	Ground	20	Step #
21	Ground	22	Write Data #
23	Ground	24	Write Gate #
25	Ground	26	Track 0 #
27	Ground	28	Write Protect #
29	Ground	30	Read Data #
31	Ground	32	Head Side Select #
33	Ground	34	Disk Change #

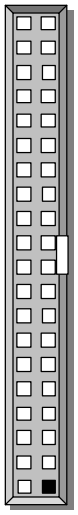




✦ **IDE1 / IDE2: IDE Connector (Header)**

Pin No.	Description	Pin No.	Description
1	Reset #	2	Ground
3	Data 7	4	Data 8
5	Data 6	6	Data 9
7	Data 5	8	Data 10
9	Data 4	10	Data 11
11	Data 3	12	Data 12
13	Data 2	14	Data 13
15	Data 1	16	Data 14
17	Data 0	18	Data 15
19	Ground	20	NC
21	DMA REQ	22	Ground
23	IOW #	24	Ground
25	IOR #	26	Ground
27	IOCHRDY	28	Ground
29	DMA ACK #	30	Ground
31	Interrupt	32	NC
33	SA1	34	PD80P / SD80P
35	SA0	36	SA2
37	HDC CS0 #	38	HDC CS1 #
39	HDD Active LED #	40	Ground

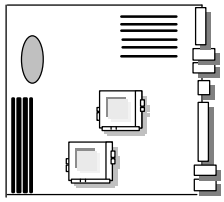
40 39



2 1

IDE1/IDE2

IDE1/IDE2



CHAPTER 3. Bios Setup

Award's ROM BIOS provides a built-in Setup program that allows users to modify the basic system configuration and settings. The modified data will be stored in a battery-backed CMOS RAM so that this data will be retained even when the power is turned off. In general, the information saved in the CMOS RAM remains unchanged unless there is a configuration change in the system, such as hard drive replacement or new equipment installment

3.1 RUNNING AWARD BIOS

The Setup Utility is stored in the BIOS ROM. When the power of the computer system is turned on, a screen message will appear to give you an opportunity to call up the Setup Utility while the BIOS will enter the Power On Self Test (POST) routines. The POST routines perform various diagnostic checks while initializing the board hardware. If the routines encounter an error during the tests, the error will be reported in one of two ways, a series of short beeps or an error message on the screen. There are two kinds of errors, fatal and non-fatal. The system can usually continue the boot up sequence with non-fatal errors. Non-fatal error messages usually appear on the screen along with the following instructions:

" Press <F1> to RESUME "

Write down the message and press the F1 key to continue the boot up sequence. After the POST routines are completed, the following message appears:

" Press <DEL> to enter SETUP "

Entering Setup

Turn on the power of the computer system and press <Del> immediately. If you don't have the chance to respond, reset the system by simultaneously pressing the <Ctrl>, <Alt> and <Delete> keys, or by pushing the ' Reset ' button on the system cabinet. You can also restart by turning the system OFF then ON.

3.2 CMOS SETUP UTILITY

To access the AWARD BIOS SETUP program, press the <DEL> key. The screen display will appears as shown below:

Main Program Screen

CMOS Setup Utility – Copyright © 1984-2001 Award Software

Standard CMOS Features	Frequency/Voltage Control
Advanced BIOS Features	Load Fail-Safe Defaults
Advanced Chipset Features	Load Optimized Defaults
Integrated Peripherals	Set Supervisor Password
Power Management Setup	Set User Password
PnP/PCI Configurations	Save & Exit Setup
PC Health Status	Exit Without Saving
Esc : Quit	: Select Item
F10 : Save & Exit Setup	
Time, Date, Hard Disk Type....	

This screen provides access to the utility's various functions.

Listed below are explanation of the keys displayed at the bottom of the screen:

<ESC> : Exit the utility.
< > : Use arrow keys to move cursor to your desired selection.
<F10> : Saves all changes made to Setup and exits program.
+/-/PU/PD : Change Value

Standard CMOS Features: Use this menu for basic system configurations.

Advanced BIOS Features: Use this menu to set the Advanced Features available on your system.

Advanced Chipset Features: Use this menu to change the values in the chipset registers and optimize your system's performance.

Integrated Peripherals: Use this menu to specify your settings for integrated peripherals.

Power Management Setup: Use this menu to control the CPU card's "Green" functions.

PnP/PCI Configuration: This entry appears if your system supports PnP/PCI.

PC Health Status: This entry shows your PC health status. If Hardware Monitor Chipset is installed.

Frequency / Voltage Control: Use this menu to specify your settings for frequency / voltage control.

Load Fail-Safe Defaults: Use this menu to load the BIOS default values for the minimal/settings for optimal performance system operations.

Load Optimized Defaults: Use this menu to load the BIOS default values that are factory settings for optimal performance system operations.

Set Supervisor Password: Use this menu to set Supervisor Passwords.

Set User Password: Use this menu to set User Passwords.

Save & Exit Setup: Save CMOS value changes to CMOS and exit setup.

Exit Without Saving: Abandon all CMOS value changes and exit setup.

3.3 STANDARD CMOS FEATURES

When you select the "STANDARD CMOS FEATURES" on the main program, the screen display will appears as :

Standard CMOS Features Screen

CMOS Setup Utility – Copyright © 1984-2001 Award Software
Standard CMOS Features

Date (mm:dd:yy)	Thu, May 24 2001	Item Help
Time (hh:mm:ss)	11 : 13 : 3	Menu Level
IDE Primary Master	None	Change the day, month,
IDE Primary Slave	None	year and century
IDE Secondary Master	None	
IDE Secondary Slave	None	
Drive A	1.44M, 3.5 in.	
Drive B	None	
Video	EGA/VGA	
Halt On	All, But Keyboard	
Base Memory	640K	
Extended Memory	130048K	
Total Memory	131072K	

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

The Standard CMOS Setup utility is used to configure the following components such as date, time, hard disk drive, floppy drive, display and memory. Once a field is highlighted, on-line help information is displayed in the left bottom of the Menu screen.

Set Date : Month, Date, Year.

Set Time : Hour, Minute and Second. Use 24-hour clock format (for p.m. time, add 12 to the hour number, e.g. you would enter 4:30 p.m. as 16:30). When you select the "STANDARD CMOS SETUP" on the main program, the screen display will appears as:

IDE Primary(Secondary) Master(Slave): Press PgUp / <+> or PgDn / <-> to select Manual, None, Auto type. Note that the specifications of your drive must match with the drive table. The hard disk will not work properly if you enter improper information for this category. If your hard disk drive type is not matched or listed, you can use Manual to define your own drive type manually.

If you select Manual, related information is asked to be entered to the following items. Enter the information directly from the keyboard. This information should be provided in the documentation from your hard disk vendor or the system manufacturer.

IDE Primary Master

IDE HDD Auto-Detection	Press Enter	Item Help
		Menu Level
IDE Primary Master	Auto	
Access Mode	Auto	To auto-detect the HDD's size, head…on this channel.
Capacity	0 MB	
Cylinder	0	
Head	0	
Precomp	0	
Landing Zone	0	
Sector	0	

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 Slave

IDE HDD Auto-Detection	Press Enter	Item Help
		Menu Level
IDE Primary Slave	Auto	
Access Mode	Auto	To auto-detect the HDD's size, head…on this channel
Capacity	0 MB	
Cylinder	0	
Head	0	
Precomp	0	
Landing Zone	0	
Sector	0	

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

IDE Secondary Master

IDE HDD Auto-Detection	Press Enter	Item Help
		Menu Level
IDE Secondary Master	Auto	
Access Mode	Auto	To auto-detect the HDD's size, head…on this channel
Capacity	0 MB	
Cylinder	0	
Head	0	
Precomp	0	
Landing Zone	0	
Sector	0	

Move Enter: Select +/-/PU/PD: Value F10: Save ESC: ExitF1: General Help
F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults

IDE Secondary Slave

IDE HDD Auto-Detection	Press Enter	Item Help
IDE Secondary Slave	Auto	Menu Level
Access Mode	Auto	To auto-detect the HDD's size, head…on this channel
Capacity	0 MB	
Cylinder	0	
Head	0	
Precomp	0	
Landing Zone	0	
Sector	0	

Move Enter: Select +/-/PU/PD: Value F10: Save ESC: ExitF1: General Help
F5: Previous Values F6: Fail-Safe Defaults F7: Optimized Defaults

Here is a brief explanation of drive specifications:

- **Access Mode:** The settings are Auto, Normal, Large, LBA.
- **Cylinder:** Number of cylinders
- **Head:** Number of heads
- **Precomp:** Write precom
- **Landing Zone:** Landing Zone
- **Sector:** Number of sectors

Drive A and Drive B : Select the correct specifications for the diskette drive(s) installed in the computer.

None	No diskette drive installed
360K, 5.25 in	5-1/4 inch PC-type standard drive; 360 kilobyte capacity
1.2M, 5.25 in	5-1/4 inch AT-type high-density drive; 1.2 megabyte capacity
720K, 3.5in	3 1-2 inch double-sided drive; 720 kilobyte capacity
1.44M, 3.5 in	3 1-2 inch double-sided drive; 1.44 megabyte capacity
2.88M, 3.5 in	3 1-2 inch double-sided drive; 2.88 megabyte capacity

Note : 1. Not Installed could be used as an option for diskless workstations..
2. Highlight the listing after each drive name and select the appropriate entry.

Video : Select the type of primary video subsystem in your computer. The BIOS usually detects the correct video type automatically. The BIOS supports a secondary video subsystem, but you do not select it in Setup.

EGA/VGA	Enhanced Graphics Adapter/Video Graphics Array. For EGA, VGA, SEGA, SVGA or PGA monitor adapters.
CGA 40	Color Graphics Adapter, power up in 40 column mode
CGA 80	Color Graphics Adapter, power up in 80 column mode
MONO	Monochrome adapter, includes high resolution monochrome adapters

Halt On : During the power-on-self-test (POST), the computer stops if the BIOS detects a hardware error. You can tell the BIOS to ignore certain errors POST and continue the boot-up process. These are the selections:

No errors	Whenever the BIOS detects a non-fatal error the system will not be stopped and you will be prompted
All errors	The system boot will be stopped for any error that may be detected.
All, But Keyboard	The system boot will not stop for a keyboard error ; it will stop for all Other errors.
All, But Diskette	The system boot will not stop for a disk error ; it will stop for all other Errors.
All, But Disk/Key	The system boot will not stop for a keyboard or disk error ; it will stop for all other errors.

3.4 Advanced BIOS Features

When you select the "ADVANCED BIOS FEATURES" on the main program, the screen display will appear as:

Advanced BIOS Features Screen

CMOS Setup Utility – Copyright © 1984-2001 Award Software
Advanced BIOS Features

		Item Help
Virus Warning	Disabled	Menu Level
CPU Internal Cache	Enabled	Allows you to choose the VIRUS warning feature for IDE Hard Disk boot sector protection. If this function is enabled and someone attempt to write data into this area, BIOS will show a warning message on screen and alarm beep
External Cache	Enabled	
CPU L2 Cache ECC Checking	Enabled	
Processor Number Feature	Enabled	
Quick Power On Self Test	Enabled	
First Boot Device	Floppy	
Second Boot Device	HDD-0	
Third Boot Device	CD-ROM	
Boot Other Device	Enabled	
Swap Floppy Drive	Disabled	
Boot Up Floppy Seek	Disabled	
Boot Up NumLock Status	On	
Gate A20 Option	Fast	
Typematic Rate Setting	Disabled	
Typematic Rate (Chars/Sec)	6	
X Typematic Delay (Msec)	250	
X Security Option	Setup	
MPS Version Control For OS	1. 4	
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	
Small Logo (EPA) Show	Disabled	

↑ ↓ → ← Move Enter: Select +/-/PU/PD: Value F10: Save Esc: Exit F1: General Help
F5: Previous Values F6: Fail-Safe DefaultsF7: Optimized Defaults

Virus Warning: The default setting of Virus Warning is "Disabled". When it is enabled, any attempt to write the boot sector and partition table will halt the system and cause a warning message to appear. If this happens, you can use an anti-virus utility on a virus free, bootable floppy diskette to reboot, to clean and to investigate your system.

CPU Internal Cache : The default setting is "Enabled". This setting enables the CPU internal cache.

External Cache : The default setting is "Enabled". This setting enables the external cache.

CPU L2 Cache ECC Checking : The default setting is "Enabled". When you select Enabled, memory checking is enabled when the external cache contains ECC SRAMs.

Processor Number Feature : The default setting is "Enabled". Enable to show the Pentium !!! CPU serial number.

Quick Power On Self Test : The default setting is "Enabled". This speeds up the Power On Self Test (POST) by skipping some items that are normally checked during the full POST. If your system

is functioning normally, you can choose this feature to speed up the booting process.

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 settings are Floppy, LS/ZIP, HDD-0/HDD-1/HDD-2/HDD-3, SCSI, CDROM, LAN, and Disabled

Swap Floppy Drive : The default setting is "Disabled". This setting gives you an option to swap A and B floppy disks. Normally, the floppy drive A is the one at the end of the cable and drive B is at the other end. If you set this option to "Enabled", the Drive A will function as Drive B, and vice-versa under the DOS.

Boot Up Floppy Seek : The defaults setting is "Disabled". When enabled, the BIOS will check whether there is a floppy disk drive installed.

Boot Up Numlock Status : The default setting is "On". If set "Off", the cursor controls will function on the numeric keypad.

Gate A20 Option : The default setting is "Fast". This is the optimal setting for the CPU card. The other option is "Normal".

Typematic Rate Setting : The default setting is "Disabled". If enabled, you can set the typematic rate and typematic delay.

Typematic Rate (Chars/Sec) : This setting controls the speed at which the system registers the repeated keystrokes. The choices range from 6 to 30 Chars/Sec. The default setting is "6" Chars/Sec.

Typematic Delay (M/Sec) : This setting controls the time between the display of the first and second characters. There are four delay choices: 250ms, 500ms, 750ms and 1000ms. The default setting is "250" ms.

Security Option : This setting controls the password in the main screen. The options are "Setup" and "System". Select "Setup" and it will protect the Setup Utility settings from being tampered with. Select "System" if you want to use password feature every time the system boots up. The default setting is "Setup". You can create your password by using the "SUPERVISOR/USER PASSWORD" utility on the main program screen.

MPS Version Control For OS : An MP Platform interface standard that extends the performance of the existing PC/AT platform beyond the traditional single processor limit, while maintaining 100% PC/AT binary compatibility.

OS Select For DRAM > 64MB : The default setting is "Non-OS2". Set to "OS2" if the system memory size is greater than 64MB and the operating system is OS/2.

Video BIOS Shadow : The default setting is "Enabled" which will copy the VGA display card BIOS into system DRAM to improve performance.

C8000-CBFFF Shadow to DC000-DFFFF Shadow : The default setting for the shadow feature is "Disabled". When enabled, the ROM with the specific address is copied into system DRAM. It will also reduce the size of memory available to the system. After you have made your selection in the BIOS FEATURES SETUP, press the <ESC> key to go back to the main program screen.

SMALL LOGO (EPA) SHOW: The default setting is "Enable" which will display EPA logo (small) on the screen during POST process.

3.5 ADVANCED CHIPSET FEATURES

When you select the "CHIPSET FEATURES SETUP" on the main program, the screen display will appears as:

Advanced Chipset Features Setup Screen

CMOS Setup Utility – Copyright © 1984-2001 Award Software
Advanced Chipset Features

		Item Help
DRAM Timing By SPD	Enabled	Menu Level
X DRAM Clock	Host CLK	Enabled adds a parity check to the boot-up memory tests. Select Enabled only if the system DRAM contains parity.
X SDRAM Cycle Length	3	
X Bank Interleave	Disabled	
Memory Hole	Disabled	
P2C/C2P Concurrency	Enabled	
System BIOS Cacheable	Disabled	
AGP Aperture Size	64M	
AGP Driving Control	Auto	
X AGP Driving Value	DA	
AGP Fast Write	Disabled	
OnChip USB	Disabled	
X USB Keyboard Support	Disabled	
X USB Mouse Support	Disabled	
OnChip Sound	Auto	
CPU to PCI Write Buffer	Enabled	
PCI Dynamic Bursting	Enabled	
PCI Master 0 WS Write	Enabled	
PCI Delay Transaction	Enabled	
PCI#2 Access #1 Retry	Enabled	
AGP Master 1 WS Writer	Disabled	
AGP Master 1 WS Read	Disabled	
Memory Parity / ECC Check	Enabled	

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

DRAM Timing By SPD: Select the DRAM timing by SPD. The default setting is "Enable".

DRAM Clock : The chipset support synchronous and asynchronous mode between the host clock and DIMM clock.

Host CLK (default)	DIMM clock equal to host clock
66MHz	DIMM clock equal to 66MHz

SDRAM Cycle Length : This item allows you to select the SDRAM cycle length. The settings are 2 or 3.

Bank Interleave: Select the bank interleave. The default setting is "Disable".

Memory Hole : In order to improve performance, certain space in memory can be reserved for ISA cards. This memory must be mapped into the memory space below 16MB.

Enabled	Memory hole supported
Disabled (default)	Memory hole not supported

P2C / C2P Concurrency : This item allows you to Enable or Disable the PCI to CPU, CPU to PCI concurrency. The default setting is "Enabled".

System BIOS Cacheable : Selecting "Enabled" allows caching of the system BIOS ROM at F0000h –

FFFFFh, resulting in better system performance. However, if any program writes to this memory area, a system error may result. The settings are “Enabled” and “Disabled”.

AGP Aperture Size : Select the size of the Accelerated Graphics Port (AGP) aperture. The aperture is a portion of the PCI memory address range dedicated for graphics memory address space. Host cycles that hit the aperture range are forwarded to the AGP without any translation.

AGP Driving Control : This item allows you to adjust the AGP driving force. Choose Manual to key in a AGP Driving Value in the next selection. This field is recommended to set in “Auto” for avoiding any error in your system. The default setting is “Auto”.

AGP Driving Value : This item allows you to adjust the AGP driving force.

AGP Fast Write : This item allows you to write AGP data faster.

OnChip USB : Set this option to “Enabled” or “Disabled” the onchip USB controller. The default setting is “Disabled”.

USB Keyboard Support : Set this option to “Enabled” or “Disabled” the USB keyboard support. The default setting is “Disabled”.
USB Mouse Support : Set this option to “Enabled” or “Disabled” the USB mouse support. The default setting is “Disabled”.

OnChip Sound : This item allows you to control the onboard AC 97 audio.

CPU to PCI Write Buffer : When this field is “Enabled”, writes from the CPU to the PCI bus are buffered, to compensate for the differences between the CPU and the PCI bus. When Disabled, the writes are not buffered and the CPU must wait until the write is complete before starting another cycle. The default setting is “Enabled”.

PCI Dynamic Bursting : This item allows you to enable or disable the PCI dynamic bursting function. The settings are “Enabled” or “Disabled”.

PCI Master 0 WS Write : When enabled, writes to the PCI bus and are executed with zero wait states. The settings are “Enabled” or Disabled”.

PCI Delay 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. The settings are “Enabled” or “Disabled”.

PCI#2 Access #1 Retry : When disabled, PCI#2 will not be disconnected until access finishes. When enabled, PCI#2 will be disconnected if max retries are attempted without success. The default setting is “Enabled”.

AGP Master 1 WS Write : When enabled, writes to the AGP (Accelerated Graphics Port) are executed with one wait states. The default setting is “Disabled”.

AGP Master 1 WS Read : When enabled, reads to the AGP (Accelerated Graphics Port) are executed with one wait states. The default setting is “Disabled”.

Memory Parity / ECC Check : This item when enable detects the memory parity and error checking and correction. The settings are “Enabled” or “Disabled”.

3.6 INTEGRATED PERIPHERALS

When you select the "INTEGRATED PERIPHERIALS" on the main program, the screen display will appears as:

Integrated Peripherals Setup Screen

CMOS Setup Utility – Copyright © 1984-2001 Award Software
Integrated Peripherals

		Item Help
OnChip IDE Channel 0	Enabled	Menu Level
OnChip IDE Channel 1	Enabled	
IDE Prefetch Mode	Enabled	
Primary Master PIO	Auto	
Primary Slave PIO	Auto	
Secondary Master PIO	Auto	
Secondary Slave PIO	Auto	
Primary Master UDMA	Auto	
Primary Slave UDMA	Auto	
Secondary Master UDMA	Auto	
Secondary Slave UDMA	Auto	
Init Display First	PCI Slot	
IDE HDD Block Mode	Enabled	
Onboard FDD Controller	Enabled	
Onboard Serial Port 1	3F8/IRQ4	
Onboard Serial Port 2	2F8/IRQ3	
UART 2 Mode	Standard	
IR Function Duplex	Half	
X TX, RX inverting enable	No, Yes	
X Onboard Parallel Port	378 / IRQ7	
Onboard Parallel Mode	Normal	
ECP Mode Use DMA	3	
X Parallel Port EPP Type	EPP1.9	
X Onboard Leqacy Audio	Enabled	
Sound Blaster	Enabled	
SB I/O Base Address	220H	
SB IRQ Select	IRQ 5	
SB DMA Select	DMA 1	
MPU-401	Disabled	
MPU-401 I/O Address	330-333H	

↑ ↓ ← → Move Enter: Select +/-/PU/PD: Value F10: Save Esc: Exit F1: General Help

F5: Previous Values F6: Fail-Safe DefaultsF7: Optimized Defaults

OnChip IDE Channel 0 : The chipset contains a PCI IDE interface with support for two IDE channels. Select Enabled to activate the primary IDE interface. Select Disabled to deactivate this interface. The settings are "Enabled" and "Disabled".
OnChip IDE Channel 1 : The chipset contains a PCI IDE interface with support for two IDE channels. Select Enabled to activate the secondary IDE interface. Select Disabled to deactivate this interface. The settings are "Enabled" and "Disabled".

IDE Prefetch Mode : The onboard IDE drive interfaces supports IDE prefetching for faster drive accesses. If you install a primary and/or secondary add-in IDE interface, set this field to *Disabled* if the interface does not support prefetching. The settings are "Enabled" and "Disabled".

Primary / Secondary Master / Slave PIO : The four IDE PIO (Programmed Input/Output) fields let you set a PIO mode (0-4) for each of the four IDE devices that the onboard IDE interface supports. Modes 0 through 4 provide successively increased performance. In Auto mode, the system automatically determines the best mode for each device. The settings are "Auto", "Mode 0", "Mode 1", "Mode 2", "Mode 3", "Mode 4".

Primary / Secondary Master / Slave UMDA : Ultra DMA/66 implementation is possible only if your IDE hard drive supports it and the operating environment includes a DMA driver (Windows 98 OSR2 or a third-party IDE bus master driver). If your hard drive and your system software both support Ultra DMA/66, select Auto to enable BIOS support. The settings are "Auto" and "Disabled".

Init Display First : This item allows you to decide to active whether PCI Slot of VGA card or AGP first. The settings are "PCI Slot" and "AGP Slot".

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/writes per sector the drive can support. The settings are "Enabled" and "Disabled".

Onboard FDD Controller : Select Enabled if your system has a floppy disk 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 settings are "Enabled" and "Disabled".

Onboard Serial Port 1 / Port 2 : Select an address and corresponding interrupt for the first and second serial ports. The settings are "3F8/IRQ4", "2E8/IRQ3", "3E8/IRQ4", "2F8/IRQ3", "Disabled", "Auto".
UART 2 Mode : This item allows you to select which mode for the Onboard Serial Port 2. The settings are "Standard", "HPSIR", "ASKIR".

IR Function Duplex : This item allows you to select the IR half/full duplex function.

TX, RX inverting enable : This item allow you to enable the TX, RX inverting which depends on different H/W requirement. This field is not recommended to change its default setting for avoiding any error in your system.

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

Onboard Parallel 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.

ECP Mode Use DMA : Select a DMA channel for the parallel port for use during ECP mode. The settings are "3" and "1".

Parallel Port EPP Type : Select EPP port type 1.7 or 1.9.

Onboard Legacy Audio : This field controls the onboard legacy audio.

- Sound Blaster
- SB I/O Base Address
- SB IRQ Select
- SB DMA Select
- MPU-401
- MPU-401 I/O Address
- Game Port (200-207H)

3.7 POWER MANAGEMENT SETUP

The "Power Management Setup" controls the CPU card's "Green" features. When you select the "POWER MANAGEMENT SETUP" on the main program, the screen display will appears as:

Power Management Setup Screen

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Power Management Setup

ACPI function	Enabled	Item Help
Power Management	Press Enter	Menu Level
ACPI Suspend Type	S1 (POS)	
PM Control by APM	Yes	
Video Off Option	Suspend -> Off	
Video Off Method	V/H SYNC + Blank	
MODEM Use IRQ	3	
Soft-Off by PWRBTN	Instant – off	
Wake Up Events	Press Enter	

↑ ↓ → ← Move Enter: Select +/-/PU/PD: Value F10: Save Esc: Exit F1: General Help

F5: Previous Values F6: Fail-Safe DefaultsF7: Optimized Defaults

ACPI Function : This item allows you to enable or disable the Advanced Configuration and Power Management (ACPI). The settings are "Enabled" and "Disabled".

Power Management :

Power Management	User Define	Item Help
HDD Power Down	Disable	Menu Level
Doze Mode	Disable	
Suspend Mode	Disable	

↑ ↓ → ← Move Enter: Select +/-/PU/PD: Value F10: Save Esc: Exit F1: General Help
F5: Previous Values F6: Fail-Safe DefaultsF7: Optimized Defaults

This category allows you to select the type (or degree) of power saving and is directly related to the following modes:
1. HDD Power Down
2. Doze Mode
3. Suspend Mode

There are four selections for Power Management, three of which have fixed mode setting.

Disable (Default)	No power management. Disables all four modes.
Min. Power Saving	Minimum power management. Doze Mode=1hr. Standby Mode =1hr., Suspend Mode=1hr., and HDD Power Down=15min.
Max. Power Saving	Maximum power management. –Only available for SL CPU's. Doze Mode=1min., Standby Mode=1min., Suspend Mode=1min., and HDD Power Down=1min.
User Defined	Allows you to set each mode individually. When not disabled, each of the ranges are from 1 min. to 1 hr. except for HDD Power Down which ranges from 1 min. to 15 min. and disabled.

ACPI Suspend Type : This item will set which ACPI suspend type will be used.

S1 (POS)	The S1 sleeping state is low wake-up latency sleeping state. In this state, no system context is lost (CPU or chipset) and hardware maintains all system context.
S2 (STR)	The S2 sleeping state is STR sleeping state.

PM Control by APM : The default setting is "Yes".

No	System BIOS will ignore APM when power managing the system.
Yes	System BIOS will wait for APM's prompt before it enter any PM mode.

Note: Enable this for O.S. with APM like Windows® 98, Windows® NT, etc.

Video Off Option : This option is for choosing the setting in which the monitor will turn off. The default setting is "Suspend".

Always On	Always turn on.
Suspend -> Off	During Doze mode, the monitor will be turned off.
All Modes -> Off	During Standby mode, the monitor will be turned off.

Video Off Method : This determines the manner in which the monitor is blanked. The default setting is "V/H SYNC+Blank".

V/H SYNC+Blank	This selection will cause the system to turn off the vertical and horizontal synchronization ports and write blank to the video buffer.
Blank Screen	This option only writes blanks to the video buffer.
DPMS	Initial display power management signaling.

MODEM Use IRQ : Name the interrupt request (IRQ) line assigned to the modem (if any) on your system. Activity of the selected IRQ always awakens the system. The default setting is "3".

Soft-Off by PWRBTN : Pressing the power button for more than 4 seconds forces the system to enter the Soft-Off state. The settings are: "Delay 4 Sec.", "Instant-Off".

Wake Up Events :

			Item Help
	VGA	OFF	Menu Level
	LPT & COM	LPT / COM	
	HDD & FDD	ON	
	PCI Master	OFF	
	Modem Ring Resume	Disabled	
	RTC Alarm Resume	Disabled	
X	Date (of month)	0	
X	Resume Time (hh:mm:ss)	0 0 0	
	Primary INTR	ON	
	IRQs Activity Monitoring	Press Enter	

↑ ↓ → ← Move Enter: Select +/-/PU/PD: Value F10: Save Esc: Exit F1: General Help
F5: Previous Values F6: Fail-Safe DefaultsF7: Optimized Defaults

VGA : When enabled, you can set the VGA to awaken the system.

LPT & COM : When LPT & COM is "On", any activity from one of the listed system peripheral devices or IRQs wakes up the system.

HDD & FDD : When HDD & FDD is "On", any activity from one of the listed system peripheral devices or IRQs wakes up the system.

PCI Master : When PCI Master is "On", any activity from one of the listed system peripheral devices or IRQs wakes up the system.

Modem Ring Resume : 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.

RTC Alarm Resume : This function is for setting date and time for your computer to boot up. During "Disabled", you cannot use this function. During "Enabled", choose the Date and Time Alarm:

Date Alarm	You can choose which month the system will boot up. Set to 0, to boot every day.
Time Alarm	You can choose what hour, minute and second the system will boot up.

Note: If you have change the setting, you must let the system boot up until it goes to the operating system, before this function will work.

Primary INTR : When this is set to "On", any event occurring will awaken a system which has been powered down.

IRQs Activity Monitoring :

			Item Help
IRQ3	(COM 2)	Enabled	Menu Level
IRQ4	(COM 1)	Enabled	
IRQ5	(LPT 2)	Enabled	
IRQ6	(Floppy Disk)	Enabled	
IRQ7	(LPT 1)	Enabled	
IRQ8	(RTC Alarm)	Disabled	
IRQ9	(IRQ2 Redir)	Disabled	
IRQ10	(Reserved)	Disabled	
IRQ11	(Reserved)	Disabled	
IRQ12	(PS/2 Mouse)	Enabled	
IRQ13	(Coprocessor)	Enabled	
IRQ14	(Hard Disk)	Enabled	
IRQ15	(Reserved)	Disabled	

Move Enter: Select +/-/PU/PD: Value F10: Save Esc: Exit F1: General Help
F5: Previous Values F6: Fail-Safe DefaultsF7: Optimized Defaults

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

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

- 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)

3.8 PNP/PCI CONFIGURATION

Both the ISA and PCI buses on the CPU card use system IRQs & DMAs. You must set up the IRQ and DMA assignments correctly through the PnP/PCI Configuration Setup utility, otherwise the motherboard will not work properly.

PnP/PCI Configuration Setup Screen

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PnP/PCI Configurations

		Item Help
PnP OS Installed	No	Menu Level
Reset Configuration Data	Disabled	Select Yes if you are using a Plug and Play capable operating system. Select No if you need the BIOS to configure non-boot devices.
Resources Controlled By	Manual	
IRQ Resources	Press Enter	
DMA Resources	Press Enter	
PCI/VGA Palette Snoop	Disabled	
Assign IRQ For VGA	Enabled	
Assign IRQ For USB	Disabled	
INT Pin 1 Assignment	Auto	
INT Pin 2 Assignment	Auto	
INT Pin 3 Assignment	Auto	
INT Pin 4 Assignment	Auto	

↑↓→← Move Enter: Select +/-/PU/PD: Value F10: Save Esc: Exit F1: General Help

F5: Previous Values F6: Fail-Safe DefaultsF7: Optimized Defaults

PnP OS Installed : When set to "Yes", BIOS will only initialize the PnP cards used for booting (VGA, IDE, SCSI). The rest of the cards will be initialized by the PnP operating system like Windows® 95 or 98. When set to "No", BIOS will initialize all the PnP cards. So, for non-PnP operating system (DOS, Netware®), this option must set to "Yes".

Reset Configuration Data : Normally, you leave this field "Disabled", Select "Enabled" to reset Extended System Configuration Data (ESCD) when you exit Setup if you have installed a new add-on and the system reconfiguration has caused such a serious conflict that the operating system cannot boot.
The settings are : "Enabled and Disabled".
Resource Controlled By : The Award Plug and Play BIOS has the capacity to automatically configure all of the boot and Plug and Play compatible devices. However, this capability means absolutely nothing unless you are using a Plug and Play operating system such as Windows® 98. If you set this field to "Manual" choose specific resources by going into each of the sub menu that follows this field (a sub menu is proceded by a " "). The settings are "Auto(ESCD)", "Manual".

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

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IRQ Resources

			Item Help
IRQ3	assigned to	Legacy ISA	Menu Level
IRQ4	assigned to	Legacy ISA	Legacy ISA for devices compliant with the original PC AT bus specification , PCI/ISA PnP for devices compliant with the Plug and Play standard whether designed for PCI or ISA bus architecture.
IRQ5	assigned to	PCI/ISA PnP	
IRQ6	assigned to	Legacy ISA	
IRQ7	assigned to	PCI/ISA PnP	
IRQ8	assigned to	PCI/ISA PnP	
IRQ9	assigned to	PCI/ISA PnP	
IRQ10	assigned to	PCI/ISA PnP	
IRQ11	assigned to	PCI/ISA PnP	
IRQ12	assigned to	PCI/ISA PnP	
IRQ13	assigned to	PCI/ISA PnP	
IRQ14	assigned to	PCI/ISA PnP	
IRQ15	assigned to	PCI/ISA PnP	

Move Enter: Select +/-/PU/PD: Value F10: Save Esc: Exit F1: General Help
F5: Previous Values F6: Fail-Safe DefaultsF7: Optimized Defaults

DMA Resources : The sub menu can let you control the DMA resource.

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DMA Resources

			Item Help
DMA-0	assigned to	PCI/ISA PnP	Menu Level
DMA-1	assigned to	PCI/ISA PnP	Legacy ISA for devices compliant with the original PC AT bus specification , PCI/ISA PnP for devices compliant with the Plug and Play standard whether designed for PCI or ISA bus architecture.
DMA-3	assigned to	PCI/ISA PnP	
DMA-5	assigned to	PCI/ISA PnP	
DMA-6	assigned to	PCI/ISA PnP	
DMA-7	assigned to	PCI/ISA PnP	

Move Enter: Select +/-/PU/PD: Value F10: Save Esc: Exit F1: General Help
F5: Previous Values F6: Fail-Safe DefaultsF7: Optimized Defaults

PCI/VGA Palette Snoop : Leave this field at “Disabled”. The settings are “Enabled”, “Disabled”.

Assign IRQ for VGA : Enable/Disable to assign IRQ for VGA. The settings are “Enabled”, “Disabled”.

Assign IRQ for USB : Enable/Disable to assign IRQ for VGA. The settings are “Enabled”, “Disabled”.

INT Pin 1 Assignment: This item always you to set INT pin 1 function. The default setting is “Auto”.

INT Pin 2 Assignment: This item always you to set INT pin 2 function. The default setting is “Auto”.

INT Pin 3 Assignment: This item always you to set INT pin 3 function. The default setting is “Auto”.

INT Pin 4 Assignment: This item always you to set INT pin 4 function. The default setting is “Auto”.

3.9 PC HEALTH STATUS (OPTIONAL)

This section helps you to get more information about your system including CPU temperature, FAN speed and voltages. It is recommended that you contact your motherboard supplier to get proper value about your setting of the CPU temperature.

CMOS Setup Utility – Copyright © 1984-2001 Award Software
PC Health Status

Current CPU1 Temp.	32°C/ 89°F	Item Help
Current CPU2 Temp	32°C/ 89°F	Menu Level
Current CPUFAN1 Speed	4748 RPM	
Current CPUFAN2 Speed	4818 RPM	
VCORE1	1.71V	
VCORE2	1.70V	
3.3V	3.36V	
5V	4.95V	
12V	11.64V	

↑ ↓ ← → Move Enter: Select +/-/PU/PD: Value F10: Save Esc: Exit F1: General Help
F5: Previous Values F6: Fail-Safe DefaultsF7: Optimized Defaults

Current CPU1 Temp.: This item shows the current CPU1 temperature.

Current CPU2 Temp.: This item shows the current CPU2 temperature.

Current CPUFAN1 Speed: This item shows the current CPUFAN1 speed.

Current CPUFAN2 Speed: This item shows the current CPUFAN2 speed.

CORE 1 / VCORE 2 / 3.3V / 5V / 12V: This item shows the current system voltage.

3.10 FREQUENCY / VOLTAGE CONTROL

This section is for setting CPU Frequency / Voltage Control.

CMOS Setup Utility – Copyright © 1984-2001 Award Software
Frequency/Voltage Control

Auto Detect DIMM/PCI Clk	Disabled	Item Help
Spread Spectrum	Disabled	Menu Level
CPU Host Clock (CPU/PCI)	Default	

↑ ↓ ← → Move Enter: Select +/-/PU/PD: Value F10: Save Esc: Exit F1: General Help F5: Previous Values F6: Fail-Safe DefaultsF7: Optimized Defaults

Auto Dect DIMM/PCI Clk : This item allows you to enable / disable auto detect DIMM / PCI Clock. The settings are “Enabled” and “Disabled”.

Spread Spectrum: This item allows you to set Spread Spectrum. The settings are “Enabled” and “Disabled”.

CPU Host Clock : This item allows you to select the CPU Host / PCI Clock.

3.11 LOAD FAIL-SAFE DEFAULTS

When you press "Enter" on this item, you get a confirmation dialog box with a message similar to :

Load Fail-Safe Defaults (Y/N) ? N

Pressing "Y" loads the BIOS default values for the most stable, minimal-performance system operations.

3.12 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 default values that are factory settings for optimal performance system operations.

3.13 SET SUPERVISOR / USER PASSWORD

The "SUPERVISOR/USER PASSWORD" utility sets the password. The SBC is shipped with the password disabled. If you want to change the password, you must first enter the current password, then at the prompt -- enter your new password. The password is case sensitive, and can be up to 8 alphanumeric characters. Press <Enter> after you have finished typing in the password. At the next prompt, confirm the new password by re-typing it and pressing <Enter> again. When you are done, the screen automatically reverts to the main screen. Remember that when you use this feature, the "Security Option" line in BIOS FEATURES SETUP will determine when entering the password will be required.

To disable the password, press the <Enter> key instead of entering a new password when the "Enter Password" in the dialog box appears. A message will appear confirming that the password is disabled.

If you have set both supervisor and user password, only the supervisor password allows you to enter the BIOS SETUP PROGRAM.
Note : If you forget your password, the only way to solve this problem is to discharge the CMOS memory.

3.14 SAVE & EXIT SETUP

Select this option and press the <Enter> key to save the new setting information in the CMOS memory and continue with the booting process.

3.15 EXIT WITHOUT SAVING

Select this option and press the <Enter > key to exit the Setup Utility without recording any new values or changing old ones.

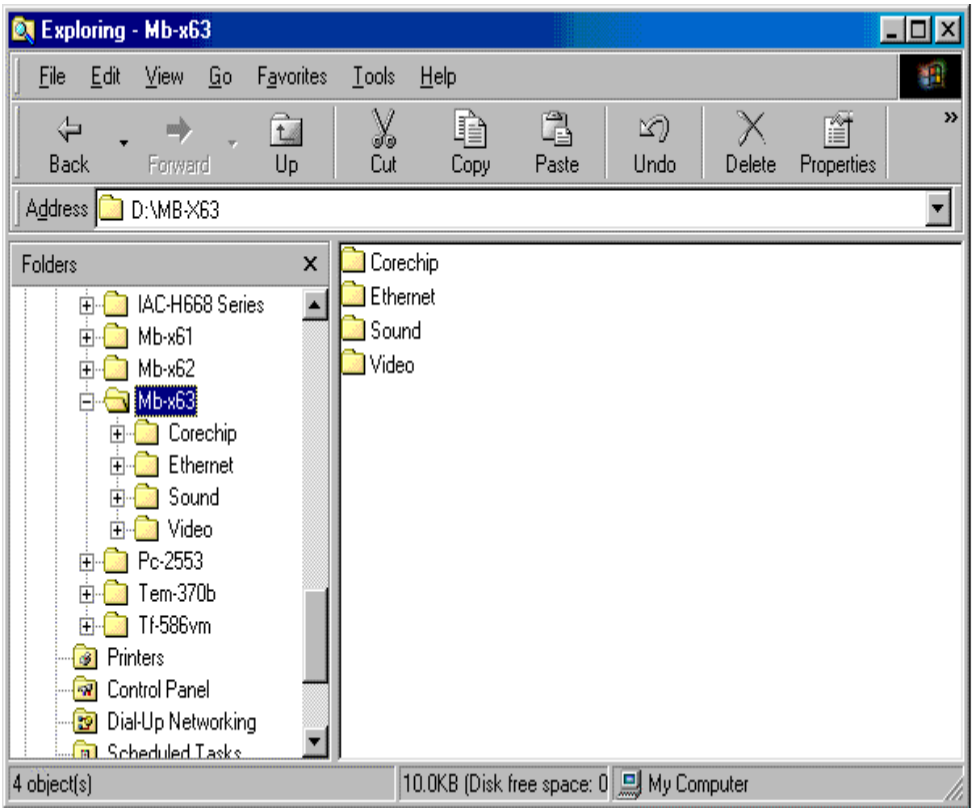
CHAPTER 4. Driver Support

4.1 USE YOUR DRIVER CD-ROM

This chapter provides information on how to install the drivers in generally and related directory that come with the CD-ROM in the package. Please follow the instructions set forth on the screen carefully.

1. Find the directory for your O/S accordingly.
2. Always read the README.TXT. before installation.
3. Run the *.EXE., and follow the installation prompt step by step.

4.2 FILE DIRECTORY



APPENDIX A. How to use watch-dog timer

You can enable the watch-dog when your application software monitors an unexpected or not responding, so then the timer generates a reset to reboot your system. During the period of enable to reset, you could still cancel reset by disabling the watch-dog. Decide the way you want to set the period for reset by selecting hardware or software watch-dog (if both of them are available). For hardware setting period, select period by adjusting jumper. For software setting period, normally hardware watch-dog timer is set to 16 sec. period.

Software watch-dog using example

EX.1: For DOS

Enable

```
C:\DOS> DEBUG
        -o443 F
```

Disable

```
C:\DOS>DEBUG
       -o441 F
```

EX.2: For assemble Language

Enable :

```
MOV     DX, 443H
MOV     AL, 0FH
OUT DX, AL
```

Disable :

```
MOVDX, 441H
MOVAL, 0FH
OUT DX, AL
```

Note : “F” is the period setting of software watch-dog timer (normally “F” indicated 0 sec.). 0 to 9 and A to F are used for represent different period. Normally, the step is 2 sec. That means “E” is 2, “D” is 4, “2” is 26, “1” is 28 and “0” is 30 seconds.

Terms and Conditions

Date:1997.10.20

Warranty Policy

1. All products are warranted against defects in materials and workmanship for a period of two years from the date of purchase by the customer.
2. The buyer will bear the return freight charges for goods that are returned for repair within the warranty period whereas manufacturer will bear the return to user freight charges after repair.
3. The buyer will pay for repair (for the replaced materials plus service time) and transportation charges (both ways) for items after the expiration of the warranty period.
4. If the RMA Service Request Form does not meet the stated requirement as listed on "RMA Service " , RMA goods will be returned at the customer expense.
5. The following conditions are excluded from this warranty **:**
   A. Improper or inadequate maintenance by the customer.
   B. Unauthorized modification or misuse.
   C. Operation outside of the environmental specifications for the product.

RMA Service

1. Request a RMA# :

Complete and fax to Supplier the "RMA Request Form" to obtain a RMA number.

2. Shipping:

A. The customer is requested to fill up the problem code as listed . If none of the code is selected, please write the symptom description on the remark.
B. Ship the defective units with freight prepaid.
C. Mark the RMA # clearly on the box.
D. Shipping damage as a result of inadequate packing is the customer's responsibility.
E. Use the original packing materials whenever possible .

3. All RMA# are valid for 30 days only:

When RMA goods are received after valid RMA# period , the goods will be rejected.

When requesting RMA service, please fill out this **"RMA Service Request Form"**.
Without this form your RMA will be REJECTED!!!

RMA No:	Reasons to Return: ☐ Repair(Please include failure details) ☐ Testing Purpose
Company:	Contact Person:
Phone No.	Purchased Date:
Fax No.:	Applied Date:
Return Shipping Address:_____	
Shipping by: ☐Air Freight ☐Sea ☐Express :_____	☐Others:_____

Item	Model Name	Serial Number	Configuration

Item	Problem Code	Failure Status

***Problem Code:**

01:D.O.A.	07: BIOS Problem	13: SCSI	19: DIO
02: Second Time R.M.A.	08: Keyboard Controller Fail	14: LPT Port	20: Buzzer
03: CMOS Data Lost	09: Cache RMA Problem	15: PS2	21: Shut Down
04: FDC Fail	10: Memory Socket Bad	16: LAN	22: Panel Fail
05: HDC Fail	11: Hang Up Software	17: COM Port	23: CRT Fail
06: Bad Slot	12: Out Look Damage	18: Watchdog Timer	24: Others (Pls specify)

Request Party ***Confirmed By Supplier***

Authorized Signatures / Date **Authorized Signatures / Date**