PV-DDR
Motherboard

User's Manual

Product Name: PV-DDR
Manual Revision: English, 1.0

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Chapter 1. Introduction

1.1   Product Overview

Thank you for purchasing the **PV-DDR** motherboard. This motherboard utilizes **VIA**'s latest technology, namely **Apollo Pro266 VT8633** & **VT8233** chipset. It supports the new generation of high-speed DDR266 DRAM and features a new high-speed V-Link bus that doubles the communication bandwidth between the North and South Bridge to 266MB per second.

We have conducted a motherboard compatibility test with a variety of hardware and software, such as CPUs, memory, display cards, CD ROMs, Novell, MS Office….etc and compliance with Year 2000.

We have set high standards on our quality control, with absolute confidence, we believe this product is the wisest choice.

This manual is composed of four sections. The first section is the introduction of this motherboard, and the second section explains the proper procedure to setup the motherboard, the third section provides information on how to setup the CMOS. The last section states the installation for driver and utility.

1.2 Features

- Wake On LAN/Modem.
- Modem Remote Ring On.
- Support NCR SCSI BIOS.
- Support Ultra DMA 33/66/100.
- Integrated Hardware Monitoring
- Integrated AC-97 Audio.
- Support 66/100/133MHz FSB frequency.
- Support AGP slot for AGP (1X/2X/4X) graphics card.
- Support Advanced Configuration Power Interface (ACPI).
- BIOS Green feature function, and "Plug & Play" Flash ROM.
- Support Desktop Management Interface (DMI) through BIOS.
- RTC Wake Up Alarm: Program the date/time to wake up your system.
- Both the BIOS and hardware levels of the motherboard meet PC '99 compliant.

1.3 Specifications

CPU :   -Supports Intel Socket 370, Celeron, Pentium III and VIA Cyrix III Processors with 66/100/133MHz Front Side Bus.

Chipset :   -VIA VT8633 & VT8233.

DIMM :   -Supports 2.5V PC1600/2100 (DDR200/266)-compliant DDR SDRAM in four 184-pin sockets, which can support memory sizes of 64/128/256/512 MB/1GB modules.
                  -Supports up to a maximum of 4GB system memory.

IDE :   -Dual channel PIO and PCI Bus Master IDE ports support up to 4 EIDE devices for HDD or CD-ROM
                  -Supports PIO Mode 4
                  -Supports Multiword DMA Mode 0, 1, 2
                  -Supports Ultra DMA 33/66/100

BIOS :   -Award BIOS with built-in Anti-Virus, ACPI, DMI
support, and green function (Plug-and-Play BIOS)
-Supports CD-ROM/HD/SCSI/Floppy/LS120/ZIP100
and   LAN boot up
-Supports NCR SCSI BIOS.

I/O Devices :   -One FDD control port supports two of the 5.25" or
3.5" floppy drives up to 2.88 MB.
-Two high-speed 16550 UART compatible serial ports
-One parallel ports with ECP/ EPP compatibility.
-One PS/2 mouse port
-One PS/2 Keyboard connector

IR Port :   -One IrDA/ASKIR compatible Infrared interface port.
(Cable optional)

Dimension :   - 305 mm x 205 mm ATX Form factor

Operating System :-Supports Windows 95/98/ME/2000, Windows NT,
MS-DOS V6.22, OS/2, Novell, Unix, SCO UNIX...

USB Ports :   -Six function ports support up to 127 peripheral
devices. (Cable optional)
-USB v1.1 and Intel Universal HCI v1.1 compatible.

Sound :   -AC '97 Rev 2.1 compliant
-16-bit Stereo Full-Duplex Codex
-Variable Sampling Rate (VSR) up to 48kHz in 1Hz
resolution
-3D Stereo expansion for simulated surround
-4 stereo and 2 mono analog line-level inputs
-MIC level input switchable from two sources
-Second line-level output with volume control
-3.3V, 5V or split analog/digital power supply
-External Audio Amplifier Control
-Power management support
-Low Power consumption mode
-Stereo Headphone Amplifier

ATX Power :   **-**Supports Modem remote Ring-On function
-Supports software power off function
-Supports RTC Wake-Up.

-Supports Wake On LAN.
-Supports Wake On Modem.

Expansion Slots :   -Five 32-bit PCI expansion slots. PCI v2.2
compliant.
   -One 32-bit AGP expansion slot. AGP v2.0
compliant.
   -One Advanced Communications Riser (ACR) slot

1.4 Content
The motherboard box contains the following items:

- One Motherboard
- One IDE Ribbon Cable
- One Floppy Ribbon Cable
- One CD Driver Disk
- User's Manual

1.5 MotherBoard Layout

Chapter 2. Hardware Setup

2.1 Installation Procedure

      1. **Jumper settings (BIOS and CPU)**
        2. **Installation of CPU**
        3. **Installation of Memory**
        4. **I/O Connections & Panel Connections**

2.1.1 Jumper Settings

In this manual , **(1-2) represents the first and second pins of the jumper. (2-3) represents the second and third pins of the jumper**. On the motherboard, you will see two sets of jumpers with different color jumper caps:

    Yellow Jumper Caps : Sets the Function of Flash CMOS   JRTC

    Red Jumper Caps : Sets the FSB frequency of CPU   JFSB1, JFSB2
                Sets the Keyboard Voltage   JKBV

WARNING: Electronic parts are Static sensitive. To prevent damage to the computer and its parts please take the following measures.
      -Work on a surface such as concrete, linoleum or hard wood floor.
      -Ground your self with either a properly installed grounding strap or by touching a major electrical appliance long enough to discharge the static.

2.1.2   Keyboard Voltage Setting (Red Jumper Cap)

This motherboard supports wake on keyboard function. This feature requires that your system has an ATX power supply with at least 300mA +5V standby power and set this jumper to 2 & 3 pin short. Refer to session 3.6.11 PS2KB Wakeup for more information.   1-2 : 5V (Default Setting)
                2-3 : 5V Stand By

JKBV Keyboard Voltage

3 2 1   3 2 1
5VSB   5V

JRTC CMOS Function Selection

1 2 3   1 2 3
Normal   Clear

2.1.3 Clearing the CMOS (Yellow Jumper Caps)

JRTC :   CMOS Function Selection
         1-2 : Clear data
         2-3 : Normal Operation (Default Setting)

How to Clear the CMOS Setting:
- (1) Turn off the power.
- (2) Remove ATX power cable from connector ATXPWR.
- (3) Remove Yellow Jumper Cap from JRTC (2-3) and put on JRTC (1-2) to remove the CMOS setting.
- (4) Remove Yellow Jumper Cap from JRTC (1-2) and put on JRTC (2-3).
- (5) Connect ATX power cable back to connector ATXPWR.
- (6) Turn on the power.
- (7) While the system reboots, press <DEL> key to set the BIOS setup.

2.1.4 CPU Voltage Setting

The motherboard supports CPU VID function. It can automatically detect CPU VID signal and generates proper CPU core voltage.

2.1.5 CPU FSB Frequency Setting (Red Jumper Caps)

The JFSB jumper provides some FSB frequency settings for the CPU. Auto Detect, 66MHz, 100MHz or 133MHz FSB frequency can be selected with this jumper. The over specification operation is not recommended.

2.2 Installation of CPU

Before installing CPU, make sure the power is off. Locate the level bar on the PGA370 ZIF socket. Push level bar away from the socket and pull upward 90 degrees. Insert the CPU into the socket. Be careful of CPU orientation. Make sure the notch of the CPU corresponds with the white dot on the ZIF socket (the corner without pin socket). Do not push in the CPU. Make sure all pins are aligned with the CPU socket. ON the level bar.
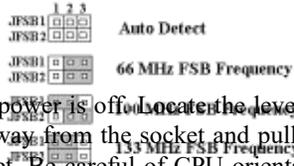
2.3 Installation of Memory

The motherboard has four 184-pin 64-bit DDR (Double Data Rate) Dual Inline Memory Module (DIMM) sockets. You can install 2.5V Unbuffered PC1600/2100 (DDR200/266)-compliant DDR Synchronous DRAM (SDRAM) memory.

2.3.1 Installation of 184-pin DIMM (Dual Inline Memory Module)

1. Before inserting the DIMM, make sure the pin1 of the DIMM matches with the pin1 on the DIMM socket.
2. Insert DIMM into the DIMM sockets at a 90-degree angle and press down.

2.3.2 Removal of 184-pin DIMM

1. Press the holding clips on both sides of the socket outward to release the DIMM.
2. Gently pull the DIMM out of the socket.

Install DIMM   Remove DIMM
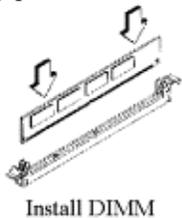
2.3.3 Memory Configuration

There is no jumper setting required for the memory size or type. It is automatically detected by the system BIOS, and the total memory size is to add them together.

DIMM Socket	DIMM Modules
DIMM1	PC1600/2100 DDR SDRAM 64, 128, 256, 512MB, 1GB
DIMM2	PC1600/2100 DDR SDRAM 64, 128, 256, 512MB, 1GB
DIMM3	PC1600/2100 DDR SDRAM 64, 128, 256, 512MB, 1GB
DIMM4	PC1600/2100 DDR SDRAM 64, 128, 256, 512MB, 1GB

2.4 I/O Connections/Panel Connections

I/O Connections

ATXPWR	ATX Power Connector
CPUFAN	CPU fan connector
SYSFAN	System fan connector
JIR	Infrared Connector (Cable optional)
WOL1	Wake On LAN connector
WOM1	Wake On Modem connector
FDD	Floppy Disk Drive Connector
IDE1, 2	Primary/ Secondary IDE Connectors
PS_KB	PS/2 Mouse Port & Keyboard Connector
COM1, 2	Serial Ports 1 & 2
LPT	Printer Port
USB1, JUSB1/2	USB Connector (Cable optional)
GAME	Game/MIDI Connectors
LINOUT	Line out Connector
LININ	Line in Connector
MIC	Microphone in Connector
JCDIN1	The Connector for IDE/Sony CD-ROM audio cable

2.4.1 ATX Power Connector (20-pin ATXPWR)

Make sure that the power supply is off before connecting or disconnecting the power cable.

ATX Power Connector

Power Good
5V SB
3.3V GND   +5V   +12V

3.3V -12V   GND -5V +5V
Power Supply On
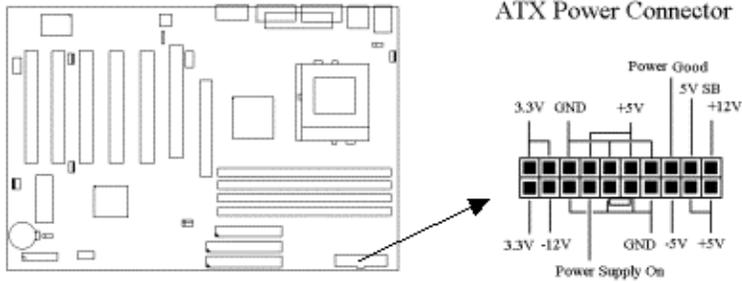
2.4.2 Infrared Connector (5-pin JIR)

This connector supports the optional wireless transmitting and receiving infrared module, with this module and application software such as Laplink or Win95 Direct Cable Connection, user can transfer files to or from their laptops, notebooks, PDA, PCs and printers. The connector supports IrDA (115.2Kbps, 2 meters) and ASK-IR (56Kbps). An optional consumer infrared (CIR) set connects to the CIR and SIR connectors simultaneously for both wireless transmitting and remote control functions through one external infrared module. Install infrared module onto Infrared connector and configure the setting through "UART Mode Select" in **Integrated Peripherals** to select whether UART is directed for use with COM2 or Infrared.

JIR IrDA Connector

SIR | CIR

Vcc ——— 5VSB
N.C ——— N.C
IRRXD ——— CIRRX
GND ——— GND
IRTXD ——— CIRTX
9 10
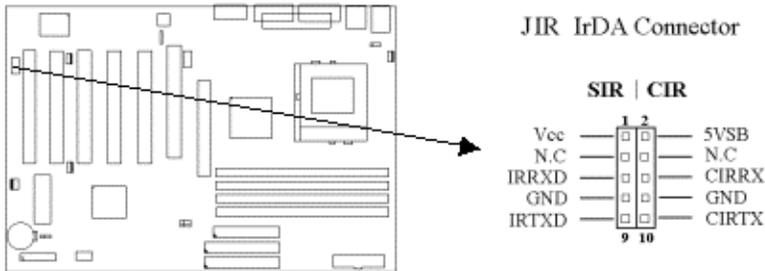
2.4.3   System & CPU Fan Connectors (3-pin FAN)

Connect the fan's plug to the board taking into consideration the polarity of the connector.

FAN Connector

Rotation
+12V
GND

CPUFAN : CPUFAN Connector
SYSFAN : SystemFAN Connector
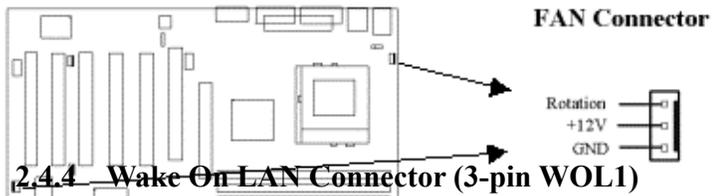
2.4.4 Wake On LAN Connector (3-pin WOL1)

The connector powers up the system when a wakeup packet or signal is received from the network . This feature requires the **Wake Up On LAN/Ring** function in BIOS is set to Enabled and that your system has an ATX power supply with at least 720mA +5V standby power.

WOL1 Wake up on LAN Connector

+5V Standby ——— 1
Ground ——— 2
Wake-up signal ——— 3
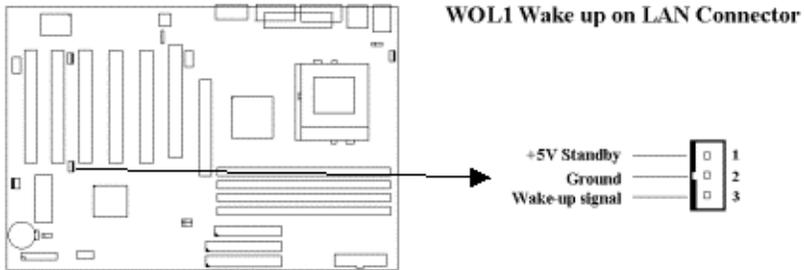
2.4.5 Wake On Modem Connector (3-pin WOM1)

The connector connects to internal modem cards with a Wake-On-Ring output. The connector powers up the system when a ring-up packet or signal is received through the internal modem card. Note: For external modems, Wake-On-Ring is detected through the COM port. This feature requires that the **Wake Up On LAN/Ring** function in BIOS is set to Enabled (see Power Management Setup under BIOS SETUP).

WOM1 Wake on Modem Connector

+5V Standby ——— 1
Ground ——— 2
Wake-up signal ——— 3
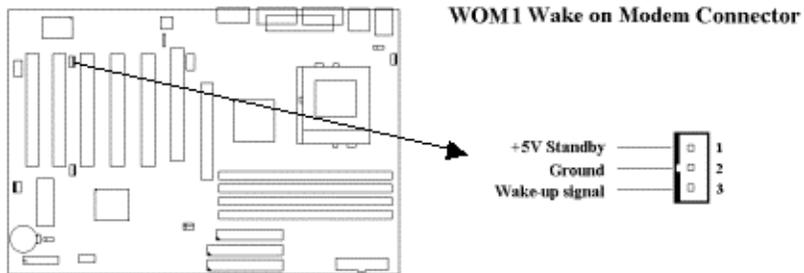
2.4.6 Floppy Disk Drive Connector (34-pin FDD)

This connector supports the provided floppy disk drive ribbon cable. Orient the red stripe to pin 1

Floppy Drive Connector
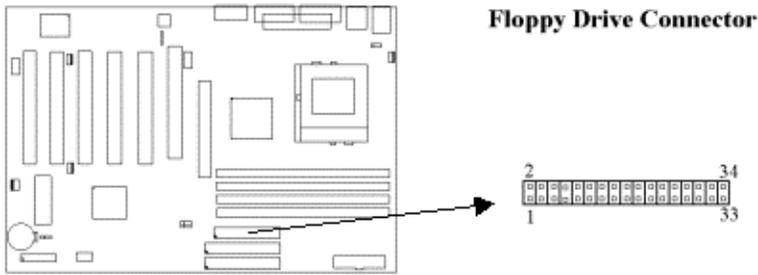
2.4.7 Primary/Secondary IDE Connector (Two 40-pin IDE)

These connectors support the provided IDE hard disk ribbon cable. Connect your first IDE hard disk to master mode of the primary channel. If you have second IDE device to install in your system, connect it as slave mode on the same channel, and the third and fourth device can be connected on secondary channel as master and slave mode respectively.

There are three connectors on the 80-pin IDE ribbon cable. The blue connector must connect with motherboard's IDE connector and the other connectors must connect with HDD. In order to get the better performance the Ultra DMA 66/100 HDD must connect with 80-pin IDE ribbon cable.

IDE Connectors

Primary IDE Connector

Secondary IDE Connector

Back I/O Panel
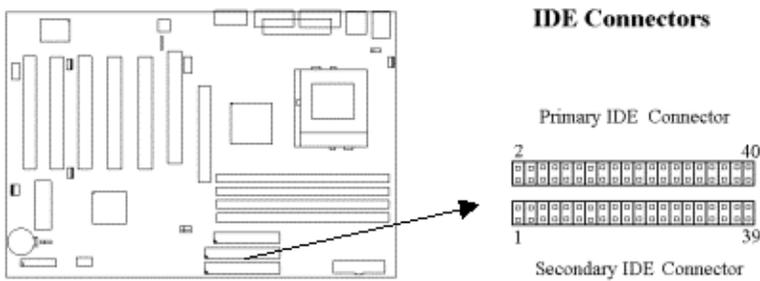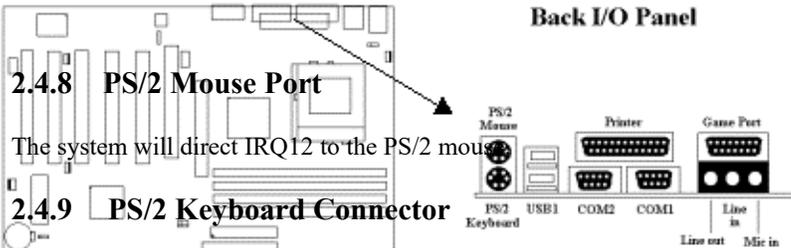
2.4.8 PS/2 Mouse Port

The system will direct IRQ12 to the PS/2 mouse.

2.4.9 PS/2 Keyboard Connector

PS/2 Mouse Printer Game Port

PS/2 Keyboard USB1 COM2 COM1 Line in

Line out Mic in

This connection is for a standard keyboard using a PS/2 plug. You may use a Din to Mini-Din adapter on standard AT keyboards.

2.4.10 Serial Port (Two 9-pin D-type COM1 & COM2)

2.4.11 Printer Port (25-pin D-type PRINTER)

You can enable the parallel port and choose the IRQ through the "Onboard Parallel Port" setting in Integrated Peripherals of the COMS SETUP UTILITY.

2.4.12 USB Connectors (JUSB1 & JUSB2)

You can attach USB devices to theJUSB1 or JUSB2 connector.

JUSB1/2 Ports Connector

```
            1   2
Vcc ——————  □   □  —————— Vcc
Data - ——————  □   □  —————— Data -
Data + ——————  □   □  —————— Data +
Ground ——————  □   □  —————— Ground
Ground ——————  □   □  —————— Ground
```
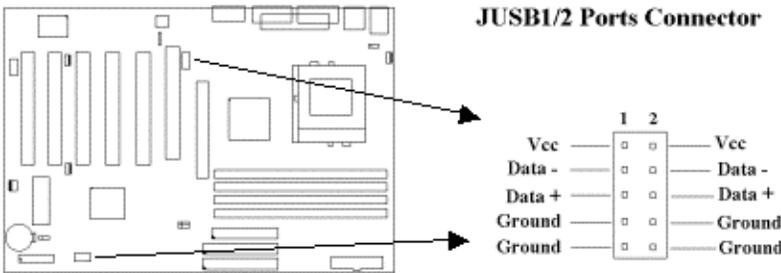
2.4.13 Line Out Connector

The Line Out phonejack provides the audio outputs for the left and right stereo channels.

2.4.14 Line In Connector

The Line In phonejack is used to attach monaural or stereo devices such as a cassette, Digital Audio Tape, or Minidisc players for playback, mixing, or recording.

2.4.15 Microphone In Connector

The Microphone In phonejack is used to attach a monaural microphone for live audio input for playback, mixing, or recording.

2.4.16 Game/MIDI Port

The Game/MIDI Port connector is used to attach a joystick for game interaction or to attach an external MIDI device for playback, mixing, or recording.

2.4.17 ATAPI IDE/Sony CD-ROM Audio (4-pin JCDIN1)

The ATAPI IDE/Sony CD-ROM Audio connector is used to connect the audio cable from either an ATAPI IDE or Sony CD-ROM drive for playback, mixing, and recording.

JCDIN1 CD-ROM Audio Connector

- Right
- GND
- Left
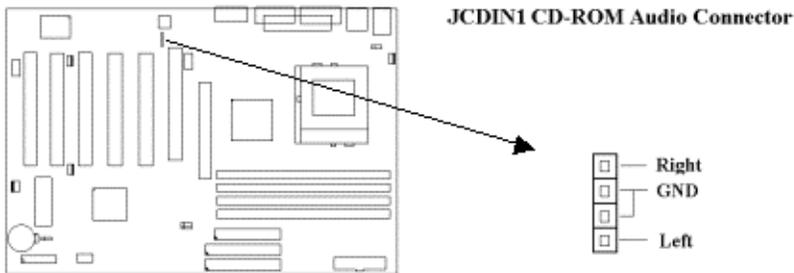
2.4.18 Panel Connection (24-pin JFRNT)

JFRNT Connector	Function
GREENLED	Suspend Mode LED
PWRLED	Power LED
SPKR	Speaker
RESET	Reset Switch
IDELED	HDD LED
PWRBNT	ATX Power Button Connector
SMISW	Sleep Switch

WARNING: To avoid the system from failing, turn off the power before connecting any devices to the system.

JFRNT Panel Connector
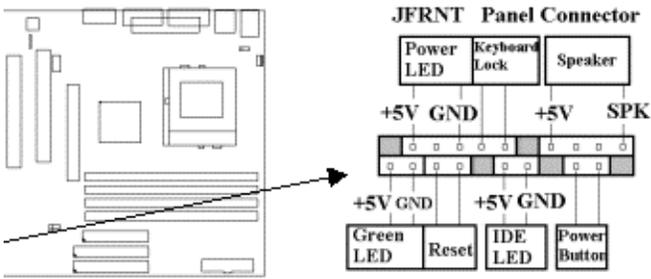
Chapter 3. BIOS Setup

3.1 CMOS Setup Utility

To activate CMOS Setup, press <DEL> key immediately after you turn on the system. The following message "Press DEL to enter SETUP" should appear in the lower left hand corner of your screen.

When you enter the CMOS Setup Utility, the Main Menu will be displayed (**Figure 3-1**). You can use arrow keys to select your function, press <Enter> key to accept the selection and enter the sub-menu.

Figure 3-1. CMOS Setup Utility Main Screen

```
           CMOS Setup Utility - Copyright ( C ) 1984 – 2001 Award Software
 ┌──────────────────────────────────────────────────────────────────────┐
 │  >Standard  CMOS  Features        >Frequency 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                 │
 ├──────────────────────────────────────────────────────────────────────┤
 │                               ↓ → ←  : Select Item                     │
 │  Esc : Quit                                                            │
 │  F10 : Save & Exit Setup                                               │
 ├──────────────────────────────────────────────────────────────────────┤
 │            Time, Date,    Hard Disk Type...                            │
 └──────────────────────────────────────────────────────────────────────┘
```

Sub-Menu
Note that a right pointer symbol appears to the left of certain fields. This pointer indicates that a sub-menu can be launched from this field. A sub-menu contains additional options for a field parameter. To call up a sub-menu, simple

move the highlight to the field and press <Enter>. The sub-menu will then immediately appear. Use the legend keys to enter values and move from field within a sub-menu just as you would within a menu. Use the <Esc> key to return to the main menu.

3.2 Standard CMOS Features

With the sub-menu (**Figure 3-2**), you can setup the; system date, system time, hard and floppy drive type, and display adapter type. Please refer to your equipment specification when changing the setup. Use arrow keys to highlight items, and use <PageUp>, <PageDown>, <+>, or <-> keys to scroll through the available options.

Figure 3-2. Standard CMOS Features Screen

CMOS Setup Utility - Copyright (C) 1984 - 2001 Award Software
Standard CMOS Features

		Item Help
Date (mm : dd : yy)	Fri, Jan 1 1999	
Time (hh : mm: ss)	1 : 28 : 42	
		Menu Level >
>IDE Primary Master	[QUANTUM FIREBALL SE2]	
>IDE Primary Slave	[None]	Change the day, month,
>IDE Secondary Master	[None]	Year and century
>IDE Secondary Slave	[atapi cd-rom drive 2]	
Drive A	[1.44M, 3.5 in.]	
Drive B	[None]	
Floppy 3 Mode Support	[Disabled]	
Video	[EGA/VGA]	
Halt On	[All Errors]	
Base Memory	640K	
Extended Memory	14336K	
Total Memory	15360K	

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

3.2.1 Date

To assign the system date, the format is "mm.dd.yy". The input range for the Month is 1-12. Range for Date is 1-31. Range for Year is 1994-

2079. System BIOS will calculate the day of the week automatically.

3.2.2 Time

To assign the system time, the format is "hh:mm:ss". The setting is in military time. When entering 2:34pm enter "14:34:00".

3.2.3 Hard Disks Setting

The BIOS supports Dual-Channel PIO and PCI Bus Master IDE ports. Each port supports one master and one slave hard drive. You can use <Enter> or <PageUp> or <PageDown> key to change hard drive type. Incorrect setting may result in boot up error or system hang.

If your hard disk drive is not listed, you can select "Manual" mode to define your own drive manually. We recommend that you select Type "AUTO" for all drives. The BIOS will auto-detect the hard disk drive and CD-ROM drive at the POST stage.

If your hard disk drive is a SCSI device, please select "None" for your hard drive setting.

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

IDE HDD Auto-Detection	[Press Enter]	Item Help
		Menu Level >>
IDE Primary Master	[Auto]	
Access Mode	[Auto]	To auto-detect the HDD's size, head… on
Capacity	4303 MB	This channel
Cylinder	8894	
Head	15	
Precomp	0	
Landing Zone	8893	
Sector	63	

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

3.2.4 Floppy Drives A&B Setting

Select your floppy disk drive type. Options are 360KB (5.25"), 720KB (3.5"), 1.2MB (5.25"), 1.44MB (3.5"), 2.88MB (3.5").

3.2.5 Floppy 3 Mode Support

This is required to support older Japanese floppy drives. Floppy 3 Mode support will allow reading and writing of 1.2MB (as opposed to 1.44MB) on a 3.5-inch diskette.

3.2.6 Video Display Adapter Setting

Select the display adapter type for your system. Options are EGA/VGA, MONO, CGA40 and CGA80.

3.2.7 Halt On

This function allows the system to halt when an error is detected during Power-On Self-Test.

3.3   Advanced BIOS Features Setup

The sub-menu (**Figure 3-3**) includes all AWARD enhanced functions. The correct setting can enhance boot up efficiency. You can assign system speed, setup sequence, typematic and system password setting. You can enter <F1> key for help on highlighted topics. If you want to restore values before the changes you just made, press <F5> key. If you want to restore default value, press <F6> or <F7> key.

Figure 3-3. Advanced BIOS Features Screen

CMOS Setup Utility - Copyright (C) 1984 - 2001 Award Software
Advanced BIOS Features

Virus Warning	[Disabled]	Item	Help
CPU Internal Cache	[Enabled]		
External Cache	[Enabled]		
CPU L2 Cache ECC Checking	[Enabled]	Menu	Level >
Processor Number Feature	[Disabled]		
Quick Power On Self Test	[Enabled]		
First Boot Device	[IDE-0]		
Second Boot Device	[Floppy]		
Third Boot Device	[SCSI]		
Boot Other Device	[Enabled]		

Swap Floppy Drive	[Disabled]
Boot Up Floppy Seek	[Disabled]
Boot Up NumLock Status	[On]
Boot Up System Speed	[High]
Gate A20 Option	[Fast]
Typematic Rate Setting	[Disabled]
X Typematic Rate (Chars/Sec)	6
X Typematic Delay (Msec)	250
Security Option	[Setup]

OS Select For DRAM > 64MB	[Non-OS2]
	[Yes]
Report No FDD For WIN 95	[Enabled]
Video BIOS Shadow	
Small Logo(EPA) Show	[Disabled]

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

F5 : Previous Value   F6 : Fail-Safe Defaults   F7 :
Optimized Defaults

(Scroll down to see more items , as shown here)

3.3.1 Virus Warning

When enabled, the BIOS will monitor the boot sector and the partition table on the hard drive for any attempt to modify. If an attempt is detected, the BIOS will halt the system and prompt the warning message. Select "Disabled" if you are installing a new operating system.

3.3.2 CPU Internal/External Cache

These options are to enable or disable CPU Internal (L1) Cache, or External (L2) Cache.

3.3.3 CPU L2 Cache ECC Checking

Select "Enabled" to enable CPU L2 Cache ECC Checking.
Select "Disabled" to disable CPU L2 Cache ECC Checking.

3.3.4 Processor Number Feature

This field will appear only when you are using a Pentium III processor. Each Pentium III processor comes with an individual "processor serial number" which by default is activated. Therefore, when connected to the internet, Pentium III processor transmits the serial number online making it possible to track your online activity. The field provides you the option of disabling this function.

3.3.5 Quick Power On Self Test

Select "Enabled" to speed up time required to complete Power-On Self-Test.

3.3.6 First/Second/Third Boot Device & Boot Other Device

This option allows user to assign boot sequence of the system. Available options are Floppy, HDD, CD-ROM, SCSI, LAN and LS120/ZIP100. Set " Boot Other Device" to Enabled if you wish to boot from another device.

3.3.7 Swap Floppy Drive

When enabled, physical drive A will be assigned to logical drive B, and physical drive B will be assigned to logical drive A.

3.3.8 Boot Up Floppy Seek

The system will detect and verify operation of the floppy drive type.

3.3.9 Boot Up Numlock Status

The option allows the <NumLock> key to be activated after system boot up.

3.3.10 Boot Up System Speed

Default setting is High.
High : System boots at default CPU speed.
Low : System boots at AT bus speed. Some Add-in peripherals or old software may require a slow CPU speed.

3.3.11 Gate A20 Option

This entry allows you to select how the gate A20 is handled. The gate A20 is a device used to address memory above 1 Mbytes. Initially, the gate A20 was handled via a pin on the keyboard (Normal). Today, while keyboards still provide this support, it is more common, and much faster, for the system chipset (Fast; default) to provide support for gate A20.

3.3.12 Typematic Rate Setting

Select "Enabled" to configure "Typematic Rate" and "Typematic Delay" functions.

3.3.13 Typematic Rate

Use this option to set the rate at which a character keeps repeating while you hold down a key.

3.3.14 Typematic Delay

Select "Enabled" to set the length of delay before key strokes to repeat. Available options are 250, 500, 750, and 1000.

3.3.15 Security Option

You can select whether the password is required every time the system boots or only when you enter the Setup. You can assign "Supervisor Password" and "User Password" in the main CMOS Setup Utility Screen.

3.3.16 OS Select for DRAM > 64MB

If you are using OS/2 operating system and installed memory is larger than 64MB. You need to have the setting in the enable mode.

3.3.17 Report No FDD For WIN 95

While the FDD in " STANDARD CMOS SETUP " is set to NONE, set this option to No to release IRQ6 for passing Win95 logo. This option is irrelevant under normal operation.

3.3.18 Video BIOS Shadow

Video shadow copies BIOS code from slower ROM to faster RAM. BIOS can then execute from RAM.

3.3.19 Small Logo(EPA) Show

This field allow user to Enabled or Disabled EPA logo when system is booting.

3.4 Advanced Chipset Features Setup

These settings are intended for the Advanced Chipset function on the motherboard. Fine tuning these options, enhances the performance of the system.

Figure 3.4 Advanced Chipset Features Screen

CMOS Setup Utility - Copyright (C) 1984 - 2001 Award Software
Advanced Chipset Features

		Item Help
>DRAM Clock/Drive Control	[Press Enter]	Menu Level >
>AGP & P2P Bridge Control	[Press Enter]	
>CPU & PCI Bus Control	[Press Enter]	
Memory Hole	[Disabled]	
System BIOS Cacheable	[Enabled]	
Video RAM Cacheable	[Enabled]	
Memory Parity/ECC Check	[Disabled]	

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

3.4.1 DRAM Clock/Drive Control

If you want to set DRAM clock and timing, simple move the highlight to the field and press <Enter>.

CMOS Setup Utility - Copyright (C) 1984 - 2001 Award Software
DRAM Clock/Drive Control

		Item Help
Current FSB Frequency	100 MHz	Menu Level >
Current DRAM Frequency	133 MHz	
DRAM Clock	[By SPD]	
DRAM Timing	[By SPD]	
X SDRAM Cycle Length	2.5	
X Bank Interleave	Disabled	
DRAM Command Rate	2T Command	

3.4.2 Current FSB Frequency

Current CPU FSB Frequency will be shown on the item.

3.4.3 Current DRAM Frequency

Current DRAM Frequency will be shown on the item.

3.4.4 DRAM Clock

This item allows you to set the DRAM Clock. Default setting is By SPD. Options are By SPD, Host CLK, HCLK-33M or HCLK+33M. Please set the item according to the Host (CPU) Clock and DRAM Clock.
If your DIMM memory have SPD (Serial Presence Detect) 8-pin IC on module, you can set this option to By SPD. System will set your DRAM clock from the SPD IC.
When the installed CPU is 66MHz, this field has two setting options : By SPD or HCLK+33M.
When the installed CPU is 100MHz, this field has three setting options : By SPD, Host CLK or HCLK+33M.
When the installed CPU is 133MHz, this field has three setting options : By SPD, Host CLK or HCLK-33M.

3.4.5 DRAM Timing

If your DIMM memory have SPD (Serial Presence Detect) 8-pin IC on module, you can set this option to By SPD. System will set your DRAM timing from the SPD IC. Options are By SPD or Manual.

3.4.6 SDRAM Cycle Length

This controls the time delay (in clock cycles) before DRAM starts a read command after receiving it. Settings are 2 or 2.5. 2 increases the system performance while 2.5 provides more stable performance. The default value is 2.5.

3.4.7 Bank Interleave

The field selects 2-bank or 4-bank interleave for the installed DRAM. Disable the function if 16MB DRAM is installed. Settings are Disabled, 2-Way and 4-

Way. The default value is Disabled.

3.4.8 DRAM Command Rate

DRAM Command Rate will be shown on the item.

AGP & P2P Bridge Control

		Item Help
AGP Aperture Size	[64M]	Menu Level >
AGP Mode	[2X]	
AGP Driving Control	[Auto]	
X AGP Driving Value	DA	
AGP Fast Write	[Disabled]	
AGP Master 1 WS Write	[Disabled]	
AGP Master 1 WS Read	[Disabled]	

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

3.4.9 AGP Aperture Size

Choose 4, 8, 16, 32, 64, 128, 256MB. Memory-mapped, graphics data structures can reside in the Graphics Aperture.

3.4.10 AGP Mode

The item sets an appropriate mode for the installed AGP card. Settings are 1X, 2X or 4X. The 4X item can be found when AGP 4X VGA card is installed.

3.4.11 AGP Driving Control

This item is use for control AGP drive strength.
Auto: Setup AGP drive strength by default setting.
Manual: Setup AGP drive strength by manual setting.

3.4.12 AGP Driving Value

Key in a HEX number to control AGP output buffer drive strength.
Min = 00, Max = FF.

3.4.13 AGP Fast Write

This item allows Enabled or Disabled AGP fast write function.

3.4.14 AGP Master 1 WS Write

This implements a single delay when writing to the AGP Bus. By default, two-wait states are used by the system, allowing for greater stability.

3.4.15 AGP Master 1 WS Read

This implements a single delay when reading to the AGP Bus. By default, two-wait states are used by the system, allowing for greater stability.

CMOS Setup Utility - Copyright (C) 1984 - 2001 Award Software
CPU & PCI Bus Control

CPU to PCI Write Buffer	[Enabled]	Item Help
PCI Master 0 WS Write	[Enabled]	Menu Level >
PCI Delay Transaction	[Enabled]	

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

3.4.16 CPU to PCI Write Buffer

When enabled, up to four D words of data can be written to the PCI bus without interrupting the CPU. When disabled, a write buffer is not used and the CPU read cycle will not be completed until the PCI bus signals that it is ready to receive the data.

3.4.17 PCI Master 0 WS Write

When enabled, writes to the PCI bus are command with zero wait states.

3.4.18 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.

3.4.19 Memory Hole

Enabling this feature reserves 15MB to 16MB memory address space to ISA expansion cards that specifically require this setting. This makes the memory from 15MB and up unavailable to the system. Expansion cards can only access memory up to 16MB.

3.4.20 System BIOS Cacheable

Allows the system BIOS to be cached for faster system performance.

3.4.21 Video BIOS Cacheable

Allows the video BIOS to be cached for faster video performance.

3.4.22 Video RAM Cacheable

Enabled allows caching of the video RAM, resulting in better system performance. However, if any program writes to this memory area, a system error may result.

3.4.23 Memory Parity / ECC Check

When Disabled, there will be no memory errors shown on the monitor for Memory parity SERR# (NMI). When parity DRAM modules are used, select Parity or ECC (Error Checking and Correcting) to correct 1 bit memory errors in the memory.

3.5 Integrated Peripherals

You can control Input and Output functions from this screen.

Figure 3-5 Integrated Peripherals

CMOS Setup Utility - Copyright (C) 1984 - 2001 Award Software
Integrated Peripherals

		Item Help
> VIA OnChip IDE Device	[Press Enter]	Menu Level >
> VIA OnChip PCI Device	[Press Enter]	
> SuperIO Device	[Press Enter]	
Init Display First	[PCI Slot]	
OnChip USB Controller	[All Enabled]	
USB Keyboard Support	[Disabled]	
IDE HDD Block Mode	[Enabled]	

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

CMOS Setup Utility - Copyright (C) 1984 - 2001 Award Software
VIA OnChip IDE Device

		Item Help
On-Chip IDE Channel0	[Enabled]	Menu Level >
On-Chip IDE Channel1	[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]	

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

3.5.1 OnChip IDE Channel 0/1

Select "Enabled" to activate each on-board IDE channel separately,
Select "Disabled", if you install an add-on IDE Control card

3.5.2 IDE Prefetch Mode

Enable prefetching for IDE drive interfaces that support its faster drive
accesses. If you are getting disk drive errors, change the setting to omit
the drive interface where the errors occur. Depending on the
configuration of your IDE subsystem, this field may not appear, and it
does appear when the Internal PCI/IDE filed, above, is Disabled.

3.5.3 Primary & Secondary Master/Slave PIO

These four PIO fields let you set a PIO mode (0-4) for each of four IDE
devices. When under "Auto" mode, the system automatically set the best
mode for each device

3.5.4 Primary & Secondary Master/Slave UDMA

When set to "Auto" mode, the system will detect if the hard drive
supports Ultra DMA mode.

CMOS Setup Utility - Copyright (C) 1984 - 2001 Award Software
VIA OnChip PCI Device

VIA-3058 AC97 Audio	[Auto]	Item Help
VIA-3068 MC97 Modem	[Auto]	Menu Level >
VIA-3043 OnChip LAN	[Disabled]	

3.5.5 VIA-3058 AC97 Audio/VIA-3068 MC97 Modem

Allows the motherboard's BIOS to detect whether you are using any sound/modem device. If a sound/modem device is detected, the onboard sound/modem controller will be enabled; if no sound /modem is detected, the onboard sound /modem controller will be disabled. If you want to use different controller cards to connect sound and modem connectors, set these fields to Disabled.

3.5.6 VIA-3043 OnChip LAN

If you have ACR LAN card on board, please set the field to Enabled.

CMOS Setup Utility - Copyright (C) 1984 - 2001 Award Software
SuperIO Device

		Item Help
Onboard FDC Controller	[Enabled]	Menu Level >
Onboard Serial Port 1	[3F8 / IRQ4]	
Onboard Serial Port 2	[2F8 / IRQ3]	
UART Mode Select	[Normal]	
X UR2 Duplex Mode	Half	
Onboard Parallel Port	[378 / IRQ7]	
Parallel Port Mode	[SPP]	
X ECP Mode Use DMA	3	
Game Port Address	[201]	
Midi Port Address	[Disabled]	
X Midi Port IRQ	5	

3.5.7 Onboard FDC Controller

Select "Enabled" to activate the on-board FDC
Select "Disabled" to activate an add-on FDC

3.5.8 Onboard Serial Port 1 & 2

Select an address and corresponding interrupt for the first/second serial port. The default value for the first serial port is "3F8/IRQ4" and the second serial port is "2F8/IRQ3".

3.5.9 UART Mode Select & UR2 Duplex Mode

This item defines the operation of serial port 2. In the Normal setting, serial port 2 is assigned to the external COM2 connector. If you have installed an optional infrared port, you must change the setting of this item to one of the Infrared settings (usually IrDA). These settings will disable the external COM2 serial port connector and assign the resources to the infrared device. If you have selected an IR mode, use the following item *UR2 Duplex Mode* to define if the IR port is full duplex or half duplex.

3.5.10 Onboard Parallel Port

Select address and interrupt for the Parallel port.

3.5.11 Parallel Port Mode

Select an operating mode for the parallel port. Mode options are SPP, EPP, ECP, ECP+EPP.

3.5.12 ECP Mode Use DMA

Select a DMA channel if parallel Mode is set as ECP, ECP+EPP.

3.5.13 Game Port Address

This field can set Disabled or assign an I/O Base address for game port.

3.5.14 Midi Port Address

This field can set Disabled or assign an I/O Base Address for the MIDI port.

3.5.15 Midi Port IRQ

This item is used to select IRQ for the MIDI port.

3.5.16 Init Display First

Select "AGP" or "PCI Slot" for system to detect first when boot-up.

3.5.17 OnChip USB Controller

You can select USB port 1 (on back panel), port 2 (JUSB1) or port 3 (JUSB2) Enabled or Disabled for your USB peripheral.

3.5.18 USB Keyboard Support

This item lets you enable or disable the USB keyboard driver within the onboard BIOS.

3.5.19 IDE HDD Block Mode

This feature enhances disk performance by allowing multi-sector data transfers and eliminates the interrupt handling time for each sector.

3.6 Power Management Setup

Power management decreases power usage under the pre-defined standby time range.

Figure 3-6. Power Management Setup Screen

CMOS Setup Utility - Copyright (C) 1984 - 2001 Award Software
Power Management Setup

ACPI function	[Enabled]	Item Help
Power Management Option	[User Define]	Menu Level >
HDD Power Down	[[isabled]	
Suspend Mode	[Disabled]	
Video Off Option	[Suspend→ off]	
Video Off Method	[V/H SYNC+Blank]	
MODEM Use IRQ	[3]	
Soft-off by PWRBTN	[Instant-off]	
State After Power Failure	[Auto]	
> IRQ/Event Activity Detect	[Press Enter]	

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

F5 : Previous Value   F6 : Fail-Safe Defaults   F7 :
Optimized Defaults

3.6.1 ACPI Function

This item allows you to enable or disable the function of Advanced Configuration and Power Interface which offers improved power management.

3.6.2 Power Management Option

Min Saving	System starts power saving function when the inactivity period exceeds 1 hour.
Max Saving	System starts power saving function when the inactivity period exceeds 1 min.
User Define	Allows user to define the inactivity period before power saving function activates,

3.6.3 HDD Power Down

This instructs hard drives to shut off while in the Power Management modes.

3.6.4 Suspend Mode

System further shuts down all devices except for CPU itself. This is the third level of Power Management.

3.6.5 Video Off Option

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

Always On	Monitor will remain on during power saving modes.
Suspend --> Off	Monitor blanked when the systems enters the Suspend mode.

3.6.6 Video Off Method

This field defines the video off features. The following options are available: Blank Screen, V/H SYNC+Blank, DPMS support. The DPMS (Display Power Management System) features allow the BIOS to control the video display card if it supports the DPMS feature.

3.6.7 MODEM Use IRQ

This item tells the Power Management BIOS which IRQ is assigned to the installed MODEM. Options are NA, 3, 4, 5, 7, 9, 10 and 11.

3.6.8 Soft-off by PWRBTN

When set to "Delay 4 Sec", the power button has a dual function where pressing less than 4 seconds will place the system in sleep mode and shut down the system when the button is held more than 4 seconds. "Instant-Off", the system will be shut down right away when the power button is pressed.

3.6.9 State After Power Failure

Off: When power returns after an AC power failure, the system's power is off. You must press the Power button to power-on the system.

On: When power returns after an AC power failure, the system will automatically power-on.

Auto: When power returns after an AC power failure, the system will return to the state where you left off before power failure occurs. If the system's power is off when AC power failure occurs, it will remain off when power returns. If the system's power is on when AC power failure occurs, the system will power-on when power returns.

3.6.10 IRQ/Event Activity Detect

CMOS Setup Utility - Copyright (C) 1984 - 2001 Award Software
IRQ/Event Activity Detect

		Item Help
PS2KB Wakeup	[Any Key]	Menu Level >
VGA	[OFF]	
LPT & COM	[LPT / COM]	
HDD & FDD	[ON]	
PCI Master	[OFF]	
PowerOn by PCI Card	[Disabled]	
Wake Up On LAN/Ring	[Disabled]	
RTC Alarm Resume	[Disabled]	
X Date (of Month)	0	
X Resume Time (hh:mm:ss)	0 0 0	
> IRQs Activity Monitoring	[Press Enter]	

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

3.6.11 PS2KB Wakeup

This field allows you to use the PS/2 keyboard to power-on the system. To use this function, make sure JKBV jumper is set to 2-3 pin short, please refer to " Keyboard Voltage Setting " in Chapter 2 for more information.

Any Key: Press any key to power-on the system.

Disable: Disable the function.

Wake: When this option is selected, press the "wake up" key of the Windows 98 compatible keyboard to power-on the system.

Power: When this option is selected, press the "Power" key of the Windows 98 compatible keyboard to power-on the system.

Ctrl+Fx: The options are from Ctrl+F1 to Ctrl+F12. You can select a function key you would like to use to power-on the system.

3.6.12 VGA

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

3.6.13 LPT & COM

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

3.6.14 HDD & FDD

When set to On, any event occurring at a Hard Disk or floppy drive port will awaken a system which has been powered down.

3.6.15 PCI Master

When set to On, any event occurring to the DMA controller will awaken a system which has been powered down.

3.6.16 PowerOn by PCI Card

If this item is set as Enabled, PCI peripherals drive PME (Power Management Event) signal to wake the system from low-power states S1-

S5.

3.6.17 Wake Up On LAN/Ring

(1) With a LAN card installed, the function allows you to remotely power up your system through your network by sending a wake-up frame or signal. With this feature, you can remotely upload / download data to/from systems during off-peak hours. **Please refer to session 2.4.4 for more information**.
(2) With a Modem installed, the function allows you to power up the computer when Modem receives a call while the computer is in Soft-off mode. **Please refer to session 2.4.5 for more information**.

3.6.18 RTC Alarm Resume

Set this option to enable or disable the RTC Alarm to Wake Up the system which is set at soft Off.

3.6.19 Date (of Month), Resume Time (hh:mm:ss)

Set these options to specify the RTC Alarm time on Date / Hour / Minute /

Second.

3.6.20 IRQs Activity Monitoring

CMOS Setup Utility - Copyright (C) 1984 - 2001 Award Software
IRQs Activity Monitoring

Primary INTR	[ON]	Item Help
IRQ3 (COM2)	[Enabled]	Menu Level >
IRQ4 (COM1)	[Enabled]	
IRQ5 (LPT2)	[Enabled]	
IRQ6 (Floppy Disk)	[Enabled]	
IRQ7 (LPT1)	[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

3.6.21 Primary INTR

When set to On (default), any interrupt request is set to Enabled (see below) will awaken the system which has been powered down.
Following this option is a list of IRQs (**I**nterrupt **ReQ**uests). You can set each IRQ to be Enabled or Disabled.

3.7   PNP/PCI Configuration Setup

Figure 3.7 PNP/PCI CONFIGURATION SETUP

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

		Item Help
PNP OS Installed	[No]	
Reset Configuration Data	[Disabled]	
		Menu Level >
Resources Controlled By	[Auto (ESCD)]	
X IRQ Resources	Press Enter	
PCI/VGA Palette Snoop	[Disabled]	
Assign IRQ For VGA	[Enabled]	
Assign IRQ For USB	[Enabled]	

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

3.7.1 PNP OS Installed

This field allows you to use a Plug-and-Play (PnP) operating system. Please set it as " No " if the operating system has no PnP function or to avoid reassigning the IRQs by the operating system.

3.7.2 Reset Configuration Data

In case a conflict occurs after you assign the IRQs or after you configure your system, you can enable this function to allow your system to automatically reset your configuration and reassign the IRQs, DMAs, and I/O address.

3.7.3 Resources Controlled By

Default setting is "Auto (ESCD) ". This setting allows the BIOS to self detect setting and Plug-and-Play devices during start up. The user can select and configure IRQs under "Manual" mode.

3.7.4 IRQ Resources

CMOS Setup Utility - Copyright (C) 1984 - 2001 Award Software
IRQ Resources

			Item Help
IRQ-3	assigned to	[PCI Device]	Menu Level >
IRQ-4	assigned to	[PCI Device]	
IRQ-5	assigned to	[PCI Device]	
IRQ-7	assigned to	[PCI Device]	Legacy ISA for devices
IRQ-9	assigned to	[PCI Device]	compliant with the
IRQ-10	assigned to	[PCI Device]	original PC AT bus
IRQ-11	assigned to	[PCI Device]	Specification, PCI/ISA
IRQ-12	assigned to	[PCI Device]	PnP for devices
IRQ-14	assigned to	[PCI Device]	Compliant with the
IRQ-15	assigned to	[PCI Device]	Plug and Play standard
			Whether designed for PCI or ISA bus
			architecture

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

3.7.5 IRQ-xx assigned to

If your ISA card is not PnP compatible and requires a special IRQ to support its function, set the selected IRQ-x assigned to : "Reserved". This setting informs the PnP BIOS to reserve the selected IRQ for the installed legacy ISA card.

3.7.6 PCI/VGA Palette Snoop

Enable this option to correct screen color shifts, when there is a combination of VGA cards, accelerator cards, or MPEG cards present.

3.7.7 Assign IRQ For VGA

The Enabled option allows the BIOS to auto-route an IRQ for use by a VGA card. While most of the VGA cards do not need the IRQ assignment, certain VGA cards may need it.

3.7.8 Assign IRQ For USB

You can set this item Enabled when "OnChip USB Controller" is enabled from Integrated Peripherals menu. When this item is Enabled, the system automatically assigns an IRQ for the USB device connected to your system.

3.8   PC Health Status

Figure 3.8 PC Health Status

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

		Item Help
Shutdown Temperature	70°C/158°F	Menu Level >
Vcore (V)	2.02 V	
Vcmos (V)	2.60 V	
Vcc3 (V)	3.27 V	
Vcc (V)	5.00 V	
+12 (V)	11.73 V	
5VSB (V)	4.99V	
VBAT (V)	3.28V	
CPU Temperature	41°C	
System Temperature	36°C	
CPUFAN Speed	4017 RPM	
SYSFAN Speed	0 RPM	

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

3.8.1 Shutdown Temperature

This function will be effective only for the operation systems that support ACPI function. System can monitor CPU temperature, if temperature is over the setting value system will automatically power off.

3.8.2 Vcore, Vcmos, Vcc3, Vcc, +12V, 5VSB & VBAT (xx.xxV)

The onboard hardware monitor is able to detect the voltage output by the voltage regulators. These values refresh upon any key entry.

3.8.3 CPU & System Temperature (xx°C/xx°F)

The onboard hardware monitor is able to detect the temperatures of motherboard and CPU. These values refresh upon any key entry.

3.8.4 CPUFAN & SYSFAN Speed (xxxxRPM)

The onboard hardware monitor is able to detect system fan speed, CPU fan speed in Rotations Per Minute (RPM). These values refresh upon any key entry in the BIOS setup screen.

3.9 Frequency Control

Figure 3.9 Frequency Control

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

CPU Host/PCI Clock	[Default]	Item Help
		Menu Level >

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

3.9.1 CPU Host/PCI Clock

The field can select CPU Host/PCI Clock. Note that selecting a frequency higher than the CPU manufacturer recommends may cause the system to hang or crash.

3.10   Load Fail-Safe Defaults

This loads the troubleshooting default values permanently stored in the ROM chips. These settings are not optimal and turn off all high performance features. You should use these values only if you have hardware problems. Highlight this option in the main menu and press <Enter>. The message below will appear.

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

If you want to process, type <Y> and press <Enter>. The default settings will be loaded.

3.11   Load Optimized Defaults

This feature loads optimized setting from the BIOS ROM. Use the default values as standard values for your system. Highlight this option in the main menu and press <Enter>. The message below will appear.

Load Optimized Defaults (Y/N)?N

Type <Y> and press <Enter> to load the Setup default values.

3.12   Set Supervisor/User Password

You can assign, modify, or cancel password settings. To modify, highlight "Set Supervisor Password" or "Set User Password" and press the <Enter> key. The screen will prompt you ("Enter Password:").   Enter your password. The maximum size of the password is 8 characters. System will prompt you to reenter the password to verify. Remember the passwords are case sensitive.

If you want to remove the passwords, either delete passwords or press <Enter > when prompting for new password.

If you want it to require password upon initial system startup and upon entering the CMOS Setup Utility, you will need to change the selection of the (Security Option) under (Advanced BIOS Features) to "System".

If the setting is "Setup", the system will only require the password you activate CMOS Setup Utility.

3.13   Save & Exit Setup

When all the changes have been made, highlight "Save & Exit Setup" and press <Enter>. The message below will appear:

Save to CMOS and Exit (Y/N)? N

Type "Y" and press <Enter>. The modifications you have made will be written into the CMOS memory, and the system will reboot.

3.14   Exit Without Saving

When you do not want to save the changes you have made, highlight "Exit Without Saving" and press <Enter>, The message below will appear:

Quit Without Saving (Y/N)? N

Type "Y" and press <Enter>. The system will reboot.

Chapter 4. Driver Installation

4.1   Autorun Program

You can use the **autorun** menu of this CD driver disk. Choose the model name to   get driver and utility. You can also get driver and utility from correct directory. Please make sure the model number of your motherboard and refer to the **readme.txt** file in **\README** directory then get its device driver from correct directory.

4.2   IDE & AGP Driver Installation

Please refer to the **readme.txt** file that in **\VIA\4IN1DRV** directory in the CD Driver Disk first then follow the instruction to setup IDE & AGP driver.

4.3   Sound Driver Installation

4.3.1 Windows 95 Installation

Please refer to the **readme.txt** file that in **\VIA\8233SOUND** directory in the CD Driver Disk first then follow the instruction to setup sound driver for

Windows 95.

4.3.2 Windows 98/ME Installation

1. Insert the CD Driver into the CD drive-enter the **\VIA\8233SOUND**
   directory on the CD-ROM and double-click **SETUP.EXE**.

2. Follow the prompts to setup the installation.

3. If the Insert Disk dialog is displayed, please insert the **Windows 98 CD-
   ROM** into the CD drive then click " **OK** " button.

4. Click " **Finish** " button to complete setup.

5. The sound function will be enabled in one minute.

Notice: If your Operation System is **Windows 98SE**, please restart system then
setup the midi output. Please follow the steps below to setup MIDI instruments.

(1-1). Double-Click " **Multimedia** " icon from Start\ Setting\Control Panel

(1-2). Select " **MIDI** " page and select " **Microsoft GS Wavetable SW Synth**
   "   from Single instrument field.

(1-3). Click " **Apply** " button then click " **OK** " button.

4.3.3 Windows 2000 Installation

1. Insert the CD Driver into the CD drive-enter the **\VIA\8233SOUND**
   directory   on the CD-ROM and double-click **SETUP.EXE**.

2. Follow the prompts to complete the installation.

4.3.4 Windows NT 4.0 Installation

1. Insert the CD Driver into the CD drive-enter the **\VIA\8233SOUND**
   directory   on the CD-ROM and double-click **SETUP.EXE**.

2. Follow the prompts to complete the installation and restart system.

4.4   ACR LAN Driver Installation

4.4.1 Windows 95 Installation

1. Executing Windows 95 Setup. When " Analying your computer " dialog box is appeared, please click the check box to " Network Adapter". Then click " Next " to continue.

2. When Windows 95 is installed. Please upgrade your Windows 95 to OSR2.1 if your Windows 95 is older version. Please load **usbsupp.exe** first. You can get the file from Microsoft Inc.

3. When Windows 95 is installed, please open " **My Computer** ", and select " **Control Panel** " icon.

4. Select " **System** " icon, and then select " **Device Manager** " page.

5. Double click " **?Other devices** ".

6. Double click " **?PCI Ethernet Controller** ".

7. Select " **Driver** " page.

8. Click " **Update Driver** " button.

9. Select " **Yes [Recommended]** " then click " **Next** " button.

10. Click " **Other Location** " button.

11. Type in the correct drive and path then click " **OK** " button. For example D:\VIA\ACR-LAN\W95OSR2
    (D: is the drive where CD Driver disk has been inserted)

12. Click " **Finish** " button.

13. You must provide computer and workgroup names then click on " Close " button.

14. When Insert Disk dialog is displayed, Please insert the " **Windows 95 CD ROM** " and click " **OK** " button.

15. When system wants to copy **FETND4.INF** and **FETND4.SYS** files, insert CD Driver Disk to CD ROM then type in " **D:\VIA\ACR-LAN\W95OSR2** ". Click " **OK** " button.

16. Click on " **Yes** " button to complete the installation and restart your system.

4.4.2 Windows 98 Installation

1. When Windows 98 is installed, please open " **My Computer** ", and select
" **Control Panel** " icon.

1. Select " **System** " icon, and then select " **Device Manager** " page.

3. Please remove " **?! PCI Ethernet Controller** " device from " **?Other Devices** " under device list with the " **Remove** " button.

4. Please click on the " **Add New Hardware** " icon from Control Panel then click " **Next** " button, click " **Next** " button one more times.

5. When " **Do you want Windows to search for your new hardware?** " message is displayed, select " **No, I want to select the hardware from a list** " then click " **Next** " button.

6. Select " **Network adapters** " from Hardware types list then click " **Next** " button.

7. Click " **Have Disk...**" button.

8. Click on " **Browse** " and go to the directory where the files were stored. Go to the **\VIA\ACR-LAN\W98** sub-directory in the CD Driver Disk and click the " **OK** " button. Click the " **OK** " button again.

9. Select " **PCI Fast Ethernet Adapter** " and click " **OK** " button.

10.Click " **Next** " button.

11.If the Insert Disk dialog is displayed, please follow the message to insert the Windows 98 CD-ROM into the CD drive then click " **OK** " button.

12.Click " **Finish** " button to complete the installation.

4.4.3 Windows ME Installation

If ACR LAN card is installed when Windows ME is installing, the ACR LAN card and LAN driver will be automatically detected and loaded. You don't need

to load LAN driver for Windows ME.

4.4.4 Windows 2000 Installation

1. Open " **My Computer** " and select " **Control Panel** " icon.

2. Select " **System** " icon, and then select " **Hardware** " page then click " **Device Manager** " button.

3. Select " **?!Ethernet Controller** " from ?Other devices. Then press right button on your mouse.

4. Select " **Properties** ".

5. Select " **Driver** " page.

6. Click " U**pdate Driver...** " button.

7. Click " **Next** " button.

8. Select " **Search for a suitable driver for my device [recommended]** " then click " **Next** " button.

9. Select " **Specify a location** " then click " **Next** " button.

10. Type in the correct drive and path then click " **OK** " button. For example **D:\VIA\ACR-LAN\W2000**

11. Click " **Next** " button to install the driver.

12. System detects PCI 10/100Mb Fast Ethernet Adapter. Click " **Yes** " button to continue the installation.

13. Click " **Finish** " button to complete the installation.

4.4.5 Windows NT 4.0 Installation

(1). If you setup ACR LAN card when Windows NT is installing:

1. Please copy LAN driver for NT to your HDD before installing Windows NT. For example: copy D:\VIA\ACR-LAN\WNT40*.* C:\NTDRV or
copy D:\VIA\ACR-LAN\WNT40*.* A:\NTDRV or

(D: is the drive where CD Driver disk has been inserted)

2. Executing Windows NT Setup. When Setup start searching for a Network Adapter, click " **select from list** " button.

3. Click "**Have Disk…**" button from Select Network Adapter dialog box.

4. The Insert Disk dialog box will be appeared. Type the correct drive and path to load LAN driver. (For example: **C:\NTDRV**, then click on " **OK** " button. Note: C:\NTDRV is the location where LAN driver for NT)

5. The PCI 10/100Mb Fast Ethernet Adapter will be shown on list. Click on " **OK** " button.

6. Select " **Next** " button to continue Setup.

7. You must answer a few more questions to continue Setup.

8. Restarting your system you will acquire network service.

(2). If you setup ACR LAN card after Windows NT was installed:

1. Please copy LAN driver for NT to your HDD first.
   For example: copy D:\VIA\ACR-LAN\WNT40*.* C:\NTDRV or
                copy D:\VIA\ACR-LAN\WNT40*.* A:\NTDRV or
                (D: is the drive where CD Driver disk has been inserted)

2. Open " **Control Panel** " -> " **Network** ", click " **Yes** " button to setup Network configuration.

3. Check the box on " **Wired to the network** " item then click " **Next** " button.

4. Click " **select from list...** " button then select " **Have Disk...**" button from Select Network Adapter dialog box.

5. The Insert Disk dialog box will be appeared. Type the correct drive and path to load LAN driver. (For example: **C:\NTDRV**, then click on " **OK** " button. Note: C:\NTDRV is the location where LAN driver for NT)

6. The PCI 10/100Mb Fast Ethernet Adapter will be shown on list. Click on " **OK** " button.

7. Select " **Next** " button to continue Setup.

8. You must answer a few more questions to continue Setup.

9. Restarting your system you will acquire network service.