

PENTIUM

5DXP

I/O Built-in

PCI LOCAL BUS SYSTEM BOARD

Your User-friendly Guide !

System Board Specification

Supports Intel 75, 90, 100, 120, 133, 150, 166, 180, 200 MHz PENTIUM CPU.

Flash BIOS architecture, can be upgradable by user.

On board dual channel IDE interface, ANSI ATA Rev.3.X, 4.0 compatible.

Enhanced multi-I/O on board-Floppy interface, 2 x 16550 COM port, Enhanced parallel port.

Build in cache memory module for Asynchronous, Synchronous or Pipeline Burst SRAM module.

Voltage regulation for 3.3 or 2.5 Volt PENTIUM CPU.

Supports EDO mode DRAM.

UP to 128MB DRAM on board (4 x 72pin SIMM), totally 2 banks.

4 x PCI 64 bit bus slots.

3 x ISA 16-bit bus slots.

Board size 220mm x 255mm.

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CHAPTER 1

SYSTEM BOARD OVERVIEW

Preface

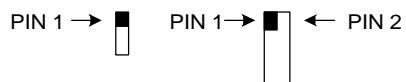
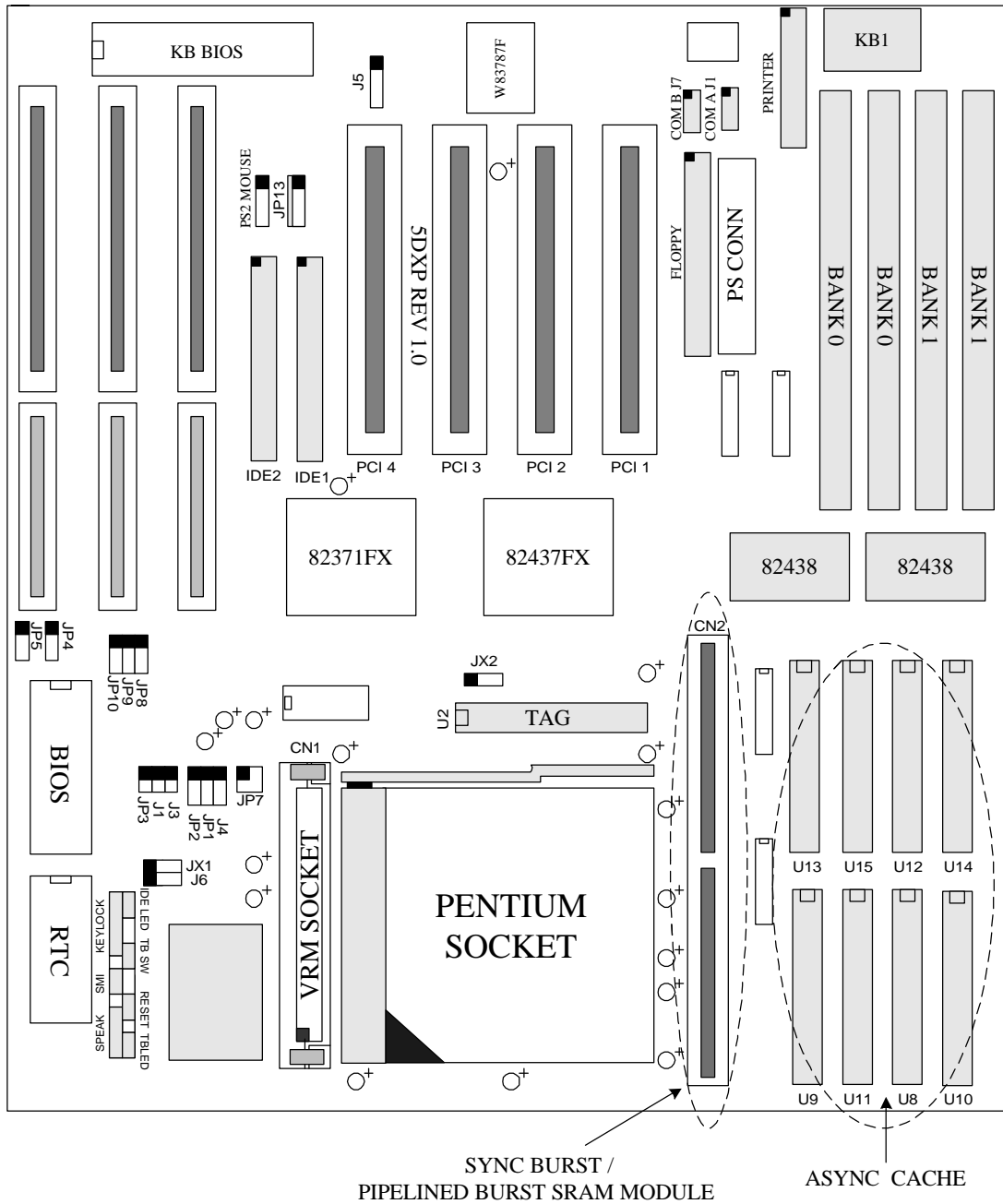
This user manual explains how to setting up this system board and upgrade your system with the new system board. The system board designed for 3.3V & 2.5V Intel™ PENTIUM™ , Cyrix™ 6x86 and AMD™ 5k86 CPU with high performance VLSI system chipsets. The on board system BIOS support Plug & Play features which is based on Intel Plug & Play specification. The system board also built in enhanced multi I/O. The system board can also support EDO mode DRAM and advance cache system, it provides best performance for your need. The full specification of the board is listed as follows:

System Board Specifications:

- IBM PC/AT Compatible.
- Support 75, 90, 100, 120, 133, 150, 160, 200Mhz PENTIUM, Cyrix 6x86, AMD 5k86 PENTIUM class CPU.
- Flash BIOS architecture, can be upgradable by user.
- Plug & Play BIOS with Intel Plug & Play specification.
- On board dual channel IDE interface, ANSI ATA Rev.3.X, 4.0 compatible.
- Enhanced multi-I/O on board-Floppy interface, 2 x 16550 COM port, Enhanced parallel port.
- Build in cache memory module for Asynchronous, Synchronous or Pipeline burst SRAM module.
- Voltage Regulation Module for 3.3V or 2.5V PENTIUM CPU.
- Supports EDO mode DRAM.
- Up to 128MB DRAM on board (4 x 72pin SIMM), totally 2 banks.
- 4 x PCI 64 bit bus slots.
- 3 x ISA 16 bit bus slots.
- Mini AT board size 220mm x 255mm.

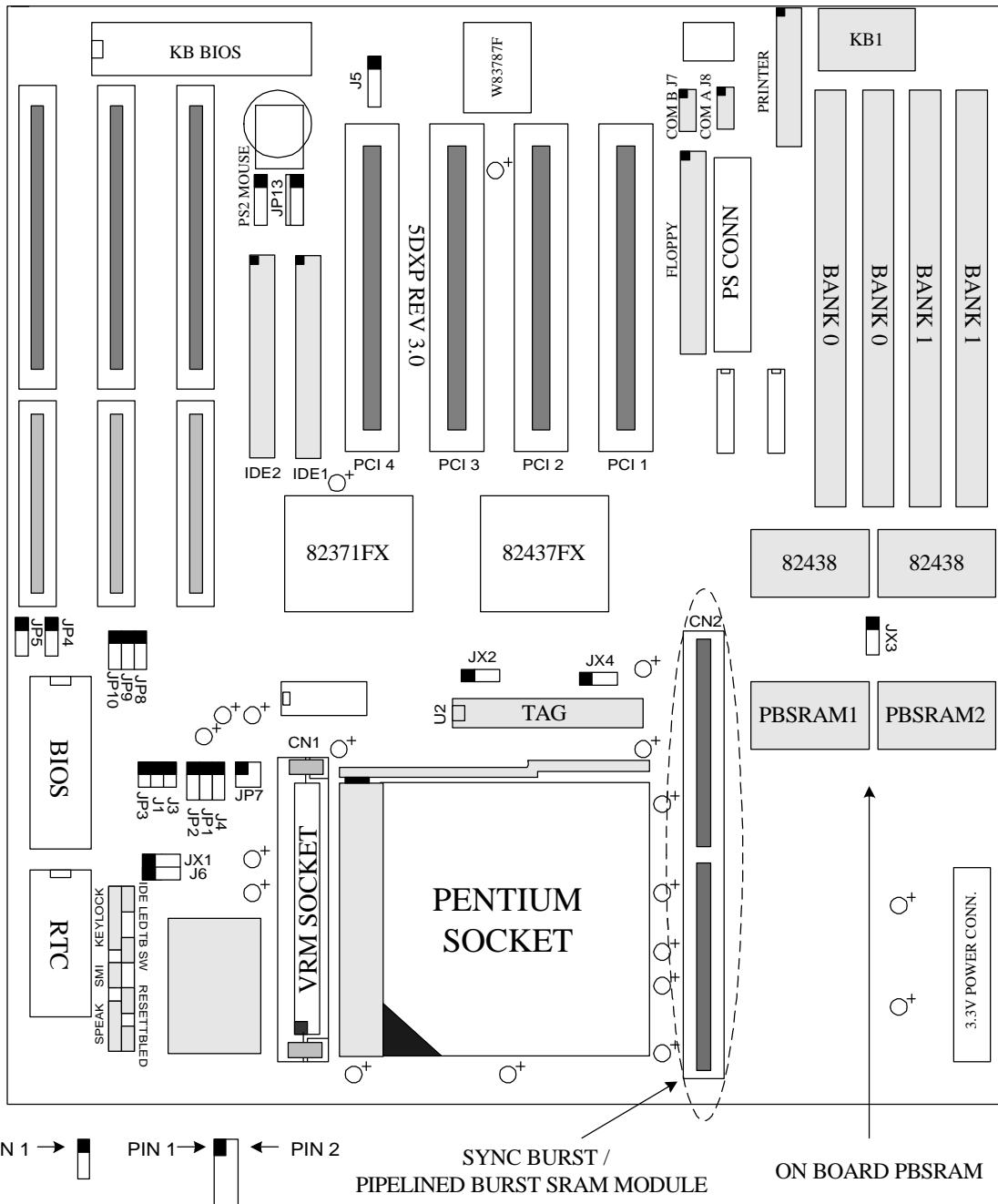
Layout Of System Board

VERSION 1.x & 2.x



Layout Of System Board

VERSION 3.X



Jumper Settings

- CPU TYPE SELECT**

J1 J3 JP7 JP8 JP18

CPU TYPE	J1	J3	JP7	JP8
PENTIUM 75	OPEN	OPEN	1-2,3-4	1-2
PENTIUM 90	OPEN	OPEN	1-2	2-3
PENTIUM 100	OPEN	OPEN	3-4	2-3
PENTIUM 120	CLOSE	OPEN	1-2	2-3
PENTIUM 133	CLOSE	OPEN	3-4	2-3
PENTIUM 150	CLOSE	CLOSE	1-2	2-3
PENTIUM 166	CLOSE	CLOSE	3-4	2-3
PENTIUM 180	OPEN	CLOSE	1-2	2-3
PENTIUM 200	OPEN	CLOSE	3-4	2-3
Cyrix 6x86-P120	OPEN	OPEN	1-2,3-4	1-2
Cyrix 6x86-P150	OPEN	OPEN	1-2	2-3
Cyrix 6x86-P166	OPEN	OPEN	3-4	2-3
AMD-K5-PR75	OPEN	OPEN	1-2,3-4	1-2
AMD-K5-PR90	OPEN	OPEN	1-2	2-3

- CACHE RAM TYPE SELECT**

J4

Cache TYPE	J4
Burst Synchronous	1-2
Standard Asynchronous	2-3

- CACHE RAM SIZE SETTING**

FOR VERSION 1.x & 2.x

On board / On cache module	JX2	JP1	JP2
OK	1-2	1-2	1-2
256K	1-2	2-3	1-2
512K	2-3	1-2	2-3

FOR VERSION 3.x

CACHE	256K	256K	512K	512K
ON BOARD	256K	0K	256K	0K
ON MODULE	0K	256K	256K	512K
JX2	1-2	1-2	2-3	2-3
JX3	2-3	OPEN	1-2	OPEN
JX4	OPEN	2-3	1-2	OPEN
JP1	1-2	1-2	1-2	1-2
JP2	1-2	1-2	1-2	1-2

- **CMOS DISCHARGE**

JP3 J5

SETTING	JP3	J5
NORMAL	OPEN	2-3
DISCHARGE	CLOSE	3-4

- **Factory Default Setting**

JP4 JP5 JP9 JP10 J2 J6 JX1

JUMPER	JP4	JP5	JP9	JP10	J6	JX1
SETTING	2-3	1-2	1-2	1-2	2-3	2-3

Gray color

 - DEFAULT SETTING

Connector

- **Connector Descriptions**

Description	Connectors
Multi I/O Interface	
Floppy Drive Connector	FDC
IDE Drive Connector 1&2	IDE1, IDE2
Parallel Port	LPT
Serial Port A&B	COMA , COMB
Function Connector	
IDE LED	IDE LED
IR Connector *	JP13
Keyboard	KB1
PS2 Mouse Port	MOUSE
Power Connector	PW1
Power LED & Keylock	KEYLOCK
Power Saving Control	SMI
Reset Switch	RESET
Speaker	SPEAKER
Voltage Regulator Connector	CN1

- **Infra Red Communication Link Connector (JP13)***

PIN	SIGNAL
1	VCC
2	NC
3	SIGNAL RECEIVE
4	GND
5	SIGNAL TRANSMIT

- **Keyboard Connector (KB1)**

PIN	SIGNAL
1	CLOCK
2	DATA
3	SPARE
4	GROUND
5	+5V

- **PS2 Mouse Connector (KB1)**

PIN	SIGNAL
1	DATA
2	CLOCK
3	GND
4	NC
5	VCC

*OPTION

- **Power Connector (PW1)**

PIN	SIGNAL
1	POWER GOOD
2	+5V
3	+12V
4	-12V
5	GROUND
6	GROUND
7	GROUND
8	GROUND
9	-5V
10	+5V
11	+5V
12	+5V

- **Power LED & Keylock Connector (KEYLOCK)**

PIN	SIGNAL
1	LED POWER
2	NO CONNECTION
3	GROUND
4	KEYBOARD INHIBIT
5	GROUND

- **Power Saving Control (SMI)**

PIN	SIGNAL
1	CONTROL
2	GROUND

- **Reset Switch Connector (RESET)**

RESET	FUNCTION
OPEN	NORMAL OPERATION
CLOSE	SYSTEM RESET

- **Speaker Connector : (SPEAK)**

PIN	SIGNAL
1	SPEAKER
2	KEY
3	GROUND
4	+5V

- **Voltage Regulator Module Connector (CN1)**

CN1 is a socket of VRM. We have put a plug to make A4-A5, A6-A7 short. If the CPU is 2.5V or Intel offers you a daughter board with CPU, please take off the plug and inset the daughter in CN1

SIMM RAM Support

The system board supports flexible SIMM configuration:

- Flexible memory bank location and size.
- Accept 4 pieces 72-pin SIMM sockets, SIMM 1/ 2/ 3/ 4, total 2 banks.
- Auto detect standard SIMM or EDO SIMM installed on board.
- Support SIMM type: 1MB, 2MB, 4MB, 16MB.

The following DRAM table is for your reference:

Total Memory	SIMM1	SIMM2	SIMM3	SIMM4
	BANK 0		BANK1	
8MB	1MB*32	1MB*32	X	X
16MB	2MB*32	2MB*32	X	X
16MB	1MB*32	1MB*32	1MB*32	1MB*32
32MB	4MB*32	4MB*32	X	X
64MB	4MB*32	4MB*32	4MB*32	4MB*32
128MB	8MB*32	8MB*32	8MB*32	8MB*32

Chapter 2

WinBIOS Setup

WinBIOS Setup is a setup program to access the system information stored in CMOS RAM. WinBIOS Setup sets a new standard in BIOS user interfaces and it has an easy-to-use graphical user interface that should be immediately recognizable to anyone who has ever used Microsoft Windows..

Starting WinBIOS Setup

As POST executes, the following appears:

```
Hit <DEL> if you want to run SETUP
```

Press to run WinBIOS Setup.

WinBIOS Setup Features

Icon-Based User Interface

WinBIOS Setup functions are all available in an easily-accessible graphical user interface.

Automatic Intelligent Option Selection

WinBIOS is self-configured to reflect dependencies between WinBIOS features and WinBIOS Setup options. For example, the External Cache option in Advanced Setup will be displayed if the computer has secondary cache memory but absent if there is no secondary cache memory.

Help Screens

WinBIOS Setup provides Help screens for Advanced Setup, Chipset Setup and Power Management Setup. Help on mouse and keyboard use is also available. Choose Help by pressing <Alt> <H> or click a help button.

Automatic WinBIOS Setup Option Selection

If selecting a particular setting for one WinBIOS Setup option determines the settings for one or more other WinBIOS Setup options, WinBIOS automatically assigns the dependent settings and does not permit the end user to modify these settings unless the setting for the parent option is changed.

Point and Click Interface

WinBIOS Setup uses the familiar point and click navigation technique. The end user can point with the mouse anywhere on the screen, click the left mouse button, and WinBIOS Setup control is transferred to the new location. The previous window is closed. All parameters that have been changed will automatically be saved, pending the selection on the exit screen.

Bus Mouse and Microsoft Mouse Support

The following types of mouse devices are supported:

- PS/2-type mouse,
 - Bus mouse that use IRQs 3, 4, or 5 (IRQ2 is not supported),
 - Microsoft-compatible mice (the M, V, W Series using the M and M+ protocols)
 - Logitech C-series-compatible mice using the MM protocol.
-

Using a Mouse with WinBIOS Setup

WinBIOS Setup can be accessed via keyboard and mouse. The mouse click functions are:

- Single click to change or select both global and current fields and
- Double click to perform an operation in the selected field.

Using the Keyboard with WinBIOS Setup

WinBIOS Setup has a built-in keyboard driver that uses simple keystroke combinations:

Keystroke	Function
<Tab>	Move to the next window or field.
→, ←, ↑, ↓	Move to the next field to the right, left, above, or below.
<Enter>	Select in the current field.
+	Increments a value.
-	Decrements a value.
<Esc>	Closes the current operation and return to previous level.
<PgUp>	Returns to the previous page.
<PgDn>	Advances to the next page.
<Home>	Returns to the beginning of the text.
<End>	Advances to the end of the text.
<Alt> <H>	Access a help window.
<Alt> <Spacebar>	Exit WinBIOS Setup.
Alphabetic keys	A to Z are used in the Virtual Keyboard, and are not case-sensitive.
Numeric keys	0 to 9 are used in the Virtual Keyboard and Numeric Keypad.

WinBIOS Setup Main Menu

The WinBIOS Setup main menu, shown below, is organized into four windows. Each window corresponds to a section in this chapter.

Each section contains several icons. Clicking on each icon activates a specific function. The WinBIOS Setup icons and functions are described in this chapter.

There are four major sections:

Setup	This section has six icons that permit you to set system configuration options such as date, time, hard disk type, floppy type, and many others.
Utility	This section has three icons that perform system functions.
Security	This section has two icons that control WinBIOS security features.
Default	This section has three icons that permit you to select a group of settings for all WinBIOS Setup options.

BIOS Default

Each WinBIOS Setup option has two default settings. These settings can be applied to all WinBIOS Setup options when you select the Default section on the WinBIOS Setup main menu. The types of defaults are:

- | | |
|-----------|---|
| Original | These settings restore the values present in WinBIOS Setup when you first began this WinBIOS Setup session. |
| Optimal | These settings provide optimal performance characteristics for most system configuration. |
| Fail-Safe | These settings are more likely to configure a workable computer when something goes wrong. If you cannot boot up the computer successfully, select the Fail-Safe WinBIOS Setup options and try to diagnose the problem after the computer boots up. These settings provide basic performance. |
-

SECTION 1

Setup

Standard Setup

The Standard Setup options described in this section are selected by choosing the **Standard** icon from the Setup menu selection screen. The selection window is shown below.

Date / Time

Select the Standard option. Select the Date and Time icon. The current values for each category are displayed. Enter new values through the keyboard.

Floppy A

Floppy B

Move the cursor to these fields via \uparrow and \downarrow and select the floppy type. The settings are *360KB/inch, 1.2MB/inch, 720KB/inch, or 1.44MB/inch.*

Pri Master/Slave

Sec Master/Slave

Choose these icons to configure the hard disk drive named in the option. When you click on an icon, the following parameters are listed: Type, LBA/Large Mode, Block Mode, 32Bit Mode, and PIO Mode.

Configuring an MFM Drive

If configuring an old MFM hard disk drive, you must know the drive parameters. Choose **Type** and choose the appropriate hard disk drive type (1 - 46).

User-Defined Drive

If you are configuring a SCSI drive or an MFM, RLL, ARLL, or ESDI drive with drive parameters that do not match drive types 1-46, you must select **User** in the Type field. You must then enter the drive parameters on the screen that appears. The drive parameters include:

Configuring IDE Drives

If the hard disk drive to be configured is an IDE drive, select the appropriate drive icon (Pri Master, Pri Slave, Sec Master, or Sec Slave). Choose the **Type** parameter and select **Auto**.

AMIBIOS automatically detects the IDE drive parameters and displays them. Click on the OK button to accept these parameters.

Click on **LBA/Large Mode** and choose *On* to enable support for IDE drives with capacities greater than 528 MB.

Click on **Block Mode** and choose *On* to support IDE drives that use Block Mode.

Click on **32Bit Mode** and click *On* to support IDE drives that permit 32-bit accesses.

Click on **PIO Mode** to select the IDE Programmed I/O mode. The settings are *Auto, 0, 1, 2, 3, 4, or 5*. Click on *Auto* to allow AMIBIOS to automatically choose the PIO mode that the IDE drive being configured uses. If you select *0-5* you must make absolutely certain that you are selecting the PIO mode supported by the IDE drive being configured.

Configuring a CD-ROM Drive

Select the appropriate drive icon (Pri Master, Pri Slave, Sec Master, or Sec Slave). Choose the **Type** parameter and select **CDROM**. You can boot the computer from a CD-ROM drive.

Advanced Setup

The Advance Setup options described in this section are selected by choosing the **Advance** icon from the Setup menu.

Quick Boot

When this option is enabled, the memory test is done only on the first 1MB of system memory. When this option is disabled, the WinBIOS memory test is performed on all system memory. The settings are *Enabled* or *Disabled*.

System Boot Up Sequence

This option sets the sequence of boot drives (floppy drive A:, hard disk drive C:, or a CD-ROM drive) that the AMIBIOS attempts to boot from after AMIBIOS POST completes. The settings are *C:,A:,CDROM*, *CDROM,C:,A:*, or *A:,C:, CDROM*. The default settings are *C:,A:,CDROM*.

Boot Up Num Lock

When set to On, this option turns off Num Lock when the system is powered on. The settings are *On* or *Off*.

Floppy Drive Swapping

Set this option to *Enabled* to permit drives A: and B: to be swapped. The settings are *Enabled* or *Disabled*. The default settings are *Disabled*.

Floppy Drive Seek At Boot

When this option is enabled, WinBIOS performs a Seek command on floppy drive A: before booting the system. The settings are *Enabled* or *Disabled*.

Mouse Support

Enable this option if you want to use mouse. When this option is set to Enabled, AMIBIOS supports a PS/2-type mouse. The settings are *Enabled* or *Disabled*. The default settings are *Disabled*.

Typematic Rate (Chars/Sec)

Typematic Rate sets the rate at which characters on the screen repeat when a key is pressed and held down. The settings are *Fast* or *Slow*.

System Keyboard

This option specifies the error messages are displayed or not displayed if a keyboard is not attached. This option permits you to configure workstations with no keyboard. The settings are *Absent* or *Present*.

Primary Display

Select this icon to configure the type of monitor attached to the computer. The settings are *Absent, Monochrome, Color 40x25, Color 80x25 or VGA/EGA.*

Password Checking

This option enables the password check option every time, the system boots up or the user runs Setup. If Always is chosen, a user password promptly appears every time the computer is turned on. If Setup is chosen, the password promptly appears if WinBIOS is executed.

OS/2 Compatible Memory Mode

Some the OS/2 application access the memory in different mode. Enable this option to allow the system use another mode to access the main memory for OS/2 applications.

Internal Cache

This option enables the internal (L1) cache memory of the CPU. The settings are **Writeback** or **Disabled**.

External Cache

This option enables the internal and external cache memory. You can either *Enable* or *Disable* External cache.

System BIOS Cacheable

This option enables the cache features on system BIOS.

Video ROM Shadow or Cached

Adapter ROM C000, 16K
Adapter ROM C400, 16K
Adapter ROM C800, 16K
Adapter ROM CC00, 16K
Adapter ROM D000, 16K
Adapter ROM D400, 16K
Adapter ROM D800, 16K
Adapter ROM DC00, 16K

The video and adapter ROMs present on the system may either execute out of its ROM (disabled), or execute out of shadow RAM (shadow), or execute out of shadow and be cached (cache). The settings are *Enabled, Shadow or Cache.*

Chipset Setup

The Chipset Setup options described in this section are selected by choosing the **Chipset** icon from the Setup menu.

This section allows you to configure the system based on the specific features of the installed chipset. This chipset manages bus speeds and access to system memory resources, such as DRAM and the external cache.

Memory Hole

DRAM speed

IRQ 12/M mouse function

8bit I/O Recovery Time

16bit I/O Recovery Time

The system is automatically set up at optimum performance when you load the optimal default setting from the optimal icon. You should not change the setting unless you know what are you are doing.

Power Management Setup

The Power Management options described in this section are selected by choosing the **Power Management** icon from the Setup menu.

APM Interface-APM is the specification created by Microsoft and Intel that provides an environment for power management of personal computers by the system BIOS, operating system or application or applications. The system will support DOS & WINDOW Advance Power Management mode.

For Microsoft DOS 6.x, add the following statement to your CONFIG.SYS file:

```
DEVICE=C:\DOS\POWER.EXE
```

For Microsoft Windows 3.1, run SETUP.EXE from Windows directory and select **Computer**, select option **MS-DOS System with APM**. In Windows' **Main** group, run **Control Panel** and click the **Power** icon and change **Power Management** option to **Advanced**.

Advance Power Management

Enable this option to enable the Green PC features.

The system provides two timer for user specified the time to indicate that the system has been idle for a programmed period of time. The timer counts down from a specified start value, and will enter power saving modes in the following order:

- 1) Enabled: During Full On (Normal) Mode, if the system idle prior to the Standby Timer elapsed, the system will enter Standby Mode. During Standby Mode, the CPU clock will slow down. In addition, you can control the VGA monitor blank off and the IDE hard drives will be powered down by selecting these option.

Green PC Monitor Power State

This option specifies the power management state that the Green PC-compliant video monitor enters after the specified period of display inactivity has expired. The settings are *Disabled*, *Off*, *Standby*, or *Suspend*. The default settings are **Disabled**.

Video Power Down Mode

This option specifies the power management state that the video subsystem enters after the specified period of display inactivity has expired. The settings are *Disabled*, *Standby*, or *Suspend*. The default settings are **Disabled**.

Hard Disk Power Down Mode

This option specifies the power management state that the hard disk drive enters after the specified period of display inactivity has expired. The settings are *Disabled*, *Standby*, or *Suspend*. The default settings are **Disabled**.

Hard Disk Timeout (Min)

This option specifies the length of a period of hard disk inactivity. When this period expires, the hard disk drive enters the power-conserving mode specified in the **Hard Disk Power Down Mode** option described on the previous page. The settings are *Disabled*, *1 Min (minutes)*, and all one minute intervals up to and including *15 Min*. The default settings are **Disabled**.

Standby Timeout Value

This option specifies the timeout value of the system is inactive (no SMI Event). If the system is inactive for that period, it will enter Standby power saving mode.

Suspend Timeout Value

This option specifies the timeout value of the system is inactive (no SMI Event) while the system is in standby mode. If the system is inactive for that period, it will enter from Standby mode to suspend power saving mode.

Slow Clock Ratio

This option specifies the speed at which the system clock runs in power saving modes. The settings are expressed as a ratio between the normal clock speed and the power down clock speed. The settings are *1:1*, *1:2*, *1:4*, *1:8*, *1:16*, *1:32*, *1:64*, or *1:128*. The default setting is **1:1**.

Display Activity

Select the power down mode for VESA video display in this option. The system will use this information to send different control signals to set the screen blank. There are three options:

Suspend: The System BIOS will only blank off the screen when disabling video for VGA monitor.

Off: In addition to VGA off, BIOS will also turn off the V-SYNC & H-SYNC signals from VGA cards to monitor.

Note: Green monitors detect the V/H SYNC signals to turn off its electron gun.

Break Event

The menu lists the SMI events by which the system wakes up from SUSPEND modes. The settings for the following SMI events can be *Monitor* and *Ignore*. When an activity is set to disabled, the system will enter power saving modes even this activity is still occurring.

- Keyboard Activity (Not shown)
 - Harddisk Activity (Not shown)
 - IRQ 3 (Com 2 / LAN) Activity
 - IRQ 4 (Com 1) Activity
 - IRQ 5 (Lpt 2) Activity
 - IRQ 7 (Lpt 1) Activity
 - IRQ 9 Activity
 - IRQ 10 Activity
 - IRQ 11 Activity
 - IRQ 12 Activity
 - IRQ 15 (Secondary IDE channel) Activity
-

PCI/PnP Setup

The PCI/PnP Setup options are displayed by choosing the PCI/PnP Setup icon from the WINBIOS Setup main menu. All PCI/PnP Setup options are described in this section

Plug and Play Aware OS

Set this option to *Yes* if the operating system installed in the computer is Plug and Play-aware. AMIBIOS only detects and enables PnP ISA adapter cards that are required for system boot. The Windows 95 operating system detects and enables all other PnP-aware adapter cards. Windows 95 is PnP-aware. Set this option to *No* if the operating system (such as DOS, OS/2, Windows 3.x) does not use PnP. *You must set this option correctly or PnP-aware adapter cards installed in your computer will not be configured properly.* The settings are *No* or *Yes*.

PCI Burst Mode

Set this option to Enabled to enable PCI burst mode. The settings are *Disabled* or *Enabled*.

PCI Concurrency

Set this option to Enabled to enable PCI Concurrency mode. The settings are *Disabled* or *Enabled*.

PCI Steaming

Set this option to Enabled to enable PCI Steaming mode. The settings are *Disabled* or *Enabled*.

PCI Latency Timer (in PCI Clocks)

This option sets latency of all PCI devices on the PCI bus. The settings are in units equal to PCI clocks. The settings are *32, 64, 96, 128, 160, 192, 224, or 248*.

PCI VGA Palette Snoop

This option must be set to Enabled if any ISA adapter card installed in the computer requires VGA palette snooping. The settings are *Disabled* or *Enabled*.

Offboard PCI IDE Card

This option specifies if an offboard PCI IDE controller adapter card is used in the computer. You must also specify the PCI expansion slot on the motherboard where the offboard PCI IDE controller card is installed. If an offboard PCI IDE controller is used, the onboard IDE controller on the motherboard is automatically disabled. The settings are *Disabled*, *Auto*, *Slot1*, *Slot2*, *Slot3*, or *Slot4*.

If *Auto* is selected, AMIBIOS automatically determines the correct setting for this option. The Optimal and Fail-Safe default settings are **Auto**.

IRQ3-IRQ15

These options specify the bus that the named interrupt request lines (IRQs) are used on. These options allow you to specify IRQs for use by legacy ISA adapter cards.

These options determine if AMIBIOS should remove an IRQ from the pool of available IRQs passed to BIOS configurable devices. The available IRQ pool is determined by reading the ESCD NVRAM. If more IRQs must be removed from the pool, the end user can use these PCI/PnP Setup options to remove the IRQ by assigning the option to the *ISA/EISA* setting. Onboard I/O is configurable by AMIBIOS. The IRQs used by onboard I/O are configured as *PCI/PnP*.

The settings are *PCI/PnP* or *ISA/EISA*. The Optimal and Fail-Safe default settings are *PCI/PnP*.

Reserved Memory Size

This option specifies the size of the memory area reserved for legacy ISA adapter cards. The settings are *Disabled*, *16K*, *32K*, or *64K*.

Reserved Memory Address

This option specifies the beginning address (in hex) of the reserved memory area. The specified ROM memory area is reserved for use by legacy ISA adapter cards.

The settings are *C0000*, *C4000*, *C8000*, *CC000*, *D0000*, *D4000*, *D8000*, or *DC000*. The Optimal and Fail-Safe default settings are *C0000*.

Peripheral Setup

The WinBIOS Setup options described in this section are selected by choosing the appropriate high-level icon from the WinBIOS Setup main menu.

The settings are Auto or Manual. When set to Auto, WinBIOS automatically detects all the peripheral installed in the system and configures the onboard I/O (serial ports, parallel ports, floppy controllers) automatically. All other Peripheral Setup option settings are ignored. Any serial port, parallel port, floppy controller on an adapter card in an expansion slot is configured before onboard I/O. If the offboard serial ports are configured to specific starting I/O ports via jumper settings, WinBIOS configures the onboard serial ports to avoid conflicts. If Manual is selected, the setting chosen by the end user in Peripheral Setup apply. WinBIOS reports any I/O conflicts after displaying the BIOS Configuration Summary Screen, but only if Manual is chosen.

On-Board Floppy Controller (FDC)

This option enables the use of the floppy drive controller on the board. The settings are **Enabled** or **Disabled**

On Board Serial Port 1

IRQ4 is used for the first serial port (COM 1). This option enables the serial port 1 on the board. The setting are **3E8h**.

On Board Serial Port 2

IRQ3 is used for the first serials port (COM 2). This option enables the serial port 2 on the board. The setting are **2E8h**.

On Board Parallel Port

IRQ7 is used for the parallel port (LPT 1). This option enables the parallel port on the board. The setting are 278h.

Parallel Port Mode

This option specifies the parallel port Mode. The settings are Normal, ECP and EPP.

Parallel Port DMA Channel

This option specifies the DMA channel used for the parallel port in ECP Mode.

Onboard PCI IDE

You can disable the on board IDE interface by using this option. The on-board IDE interface can be disable individually or both.

SECTION 2

Utility

Utility

The following icons appear in this section:

Detect IDE	If hard disk is an IDE drive, the parameters for hard disk are automatically detected and reported to the hard disk screen in Standard Setup, so you can easily configure the drives.
Language	Language allows you to select language screen prompts and messages. It only support english at this time

SECTION 3

Security

Password Support

WinBIOS Setup has an optional password feature. The system can be configured so that all users must enter a password every time the system boots or when WinBIOS Setup is executed.

You can enter a password by:

- typing the password on the keyboard,
 - selecting each letter via the mouse.
-

Setting a password

The **Password Check** option is enabled in Advanced Setup by choosing either **Always** (the password prompt appears every time the system is powered on) or **Setup** (the password prompt appears only when WinBIOS Setup is run). The password is stored in CMOS RAM.

Enter a 1-6 character password. The password does not appear on the screen when typed. WinBIOS will ask you to retype the password. If you forget it, you must drain CMOS RAM and reconfigure the system.

Changing a password

Select the Password icon from the Security section of the WinBIOS main menu. Enter the password and press <Enter>. The screen does not display the characters entered. After the new password is entered, retype the new password as prompted and press <Enter>.

If the password confirmation is incorrect, an error message appears. If the new password is entered without error, press <Esc> to return to the WinBIOS Setup Main Menu. The password is stored in CMOS RAM after WinBIOS Setup completes. The next time the system boots up you are prompted for the password if the password function is present and is enabled.

Anti-Virus

When the Anti-Virus is enabled from the Security section of the WinBIOS Setup menu, WinBIOS issues a warning when any program (or virus) issues a Disk Format command or attempts to write to the boot sector of the hard disk drive.

The settings are **Enabled** or **Disabled**. If **Enabled** is selected, the following appears when a write is attempted to the boot sector. You may have to type **N** several times to prevent the boot sector write.

```
Boot Sector Write!!!  
Possible VIRUS: Continue (Y/N)? _
```

The following is displayed after any attempt to format any cylinder, head, or sector of any hard disk drive via the BIOS INT 13h Hard Disk Drive Service:

```
Format!!!  
Possible VIRUS: Continue (Y/N)? _
```

Formatting the Hard Disk Drive

You should not enable anti-virus protection when formatting a hard disk drive.

The DOS hard disk Format utility does not use INT 13h function AH = 05h to format the hard disk. It only verifies the hard disk using the INT 13h Verify function (AH = 04h). The virus warning message is not displayed during DOS hard disk drive formatting.

If the anti-virus feature is enabled, a virus warning message will be displayed when you attempt to format the hard disk drive.

If you select *Continue*, formatting proceeds as normal.

If you do not want to continue formatting, you may have to press **N** several times (depending on how many retries are performed by the upper-level software). DOS, for example, does at least five retries before the Format utility is actually aborted.

SECTION 4

Default

Default

The icons in this section permit you to select a group of settings for all WinBIOS Setup options. Not only can you use these icons to quickly set system configuration parameters, you can choose a group of settings that have a better chance of working when the system is having configuration-related problems.

Original

Choose the Original icon to return to the system configuration values present in WinBIOS Setup when you first began this WinBIOS Setup session.

Optimal

You can load the optimal default settings for the WinBIOS Setup options by selecting the Optimal icon. The Optimal default settings are best-case values that should fit most system configuration. If CMOS RAM is corrupted, the Optimal settings are loaded automatically.

Fail-Safe

You can load the Fail-Safe WinBIOS Setup option settings by selecting the Fail-Safe icon from the Default section of the WinBIOS Setup menu.

The Fail-Safe settings provide far from optimal system performance, but they are the most stable settings. Use this option as a diagnostic aid if the system is behaving erratically.
