



P6BX-A+
User's manual



Table of Contents

Chapter 1: Introduction

Welcome	1
About the Manual	1
Checklist	2
Features	2

Chapter 2: Installation

Before You Begin	4
Mainboard Guide	5
Preparing the Mainboard	7
Install the Mainboard in the System Case	9

Chapter 3: Setup

About the Setup Utility	12
Standard CMOS Setup Option	14
BIOS Feature Setup Option	15
Chipset Features Option	18
Power Management Setup Option	19
PNP/PCI Configuration Option	22
Load BIOS Defaults Option	23
Load Optimum Settings Option	23
Integrated Peripherals Option	24
PC Health Monitor Option	26
Supervisor Password and User Password	26
IDE HDD Auto Detection Option	27
Save and Exit Setup Option	27
Exit Without Saving Option	27

Chapter 4: Software

About the Software	28
General Installation Guide	28
Other Software Questions	29

Chapter 1: Introduction

Welcome

Congratulations on your purchase of the P6BX-A+ mainboard. This mainboard delivers workstation-level performance by supporting the latest and most powerful Intel Pentium-II processors. In addition, it adopts the new Advanced Graphics Port (AGP) and can be installed with a large capacity of fast SDRAM memory modules.

This chapter contains the following information:

- **About the Manual** explains how the information in this manual is organized
- **Checklist** comprises a list of the standard and optional components that are shipped with this mainboard,
- **Features** highlights the functions and components that make this one of the best value mainboards on the market

About the Manual

The manual consists of the following chapters:

Introduction

Use the **Introduction** chapter to learn about the features of the mainboard, and the checklist of items that are shipped with the package.

Installation

Use the **Installation** chapter to learn how to install the mainboard and get your system up and running.

Setup

Use the **Setup** chapter to configure the mainboard for optimum performance.

Software

Use the **Software** chapter to learn how to use the software drivers and support programs that are provided with this mainboard.

Checklist

Compare the contents of your mainboard package with the standard checklist below. If any item is missing or appears damaged, please contact the vendor of your mainboard package.

Standard Items

- ✓ 1 x P6BX-A+ Mainboard
- ✓ 1 x Cable/Bracket Pack
 - Diskette drive ribbon cable
 - IDE drive ribbon cable
 - Retention Module (for Pentium-II Cartridge)
- ✓ This User's Manual
- ✓ Software Support CD-ROM Disk or diskettes
 - IDE driver
 - LANdesk Client Management Software (optional)

Optional Items

- ✓ System Hardware Monitor IC chip (W83871D)

Features

The key features of the P6BX-A+ mainboard are the high-level of performance and the system support for the latest technologies in personal computing. The P6BX-A+ supports the most powerful processors and graphics sub-systems so that it challenges the performance levels of UNIX-based graphics workstations.

The mainboard also supports state-of-the-art network management software and system monitoring hardware. A P6BX-A+ based system can easily provide an energy efficient workstation or client file server.

High-Performance Processing

The processor Slot-1 (plus the retention module) supports the latest high-performance Pentium-II processors from Intel. The mainboard uses the latest 440BX Pentium-II support logic chips. This chipset also supports a 100 MHz host and memory bus.

Configuration without Jumpers

The P6BX-A+ uses the system BIOS to set the processor clock and voltage so that system configuration for all supported processors can be made using firmware.

Ultra-fast Graphics

The mainboard has a built-in Advanced Graphics Port (AGP) so that you can optionally install any of the new generation of AGP cards. The system meets the AGP 1.0 standard with support for 1X/2X speed transfers and BIOS control of the memory display buffer.

High-capacity Memory Support

The P6BX-A+ has three DIMM (dual in-line memory module) sockets. The sockets can be installed with 3.3 Volt unbuffered SDRAM modules. Each memory module can have up to 128 MB of memory so a maximum of 384 MB can be installed. We recommend that you use 100 MHz SDRAMs with PC/100 specification for maximum performance.

Energy-saving Features

This mainboard uses an ATX power supply and supports ACPI (advanced configuration and power interface). The system BIOS supports automatic wake-up for network and modem calls. Therefore a P6BX-A+ based system can be always online for critical network and other applications yet still meet important energy saving targets.

Maximum Expansion Potential

The P6BX-A+ has seven free expansion slots. Two slots are available for 16-bit ISA cards, and 5 slots support 32-bit PCI card. (one PCI slot and one ISA slot are shared. You can install an ISA card or a PCI card, but not both together.) In addition, there is an AGP slot for the optional installation of an AGP graphics card.

Full Set of I/O Ports

The mainboard has a full range of standard I/O ports;

- Two enhanced IDE channels each supporting two devices
- One floppy diskette connector supporting up to two drives
- One parallel port and two serial ports
- Two USB (universal serial bus) ports
- Two PS/2 ports, one for keyboard and one for pointing device.

Keyboard Power On Switch

Using firmware, you can install your system with power on hot-keys so that you can turn on the system from the keyboard. See the Setup chapter for the procedure to install this feature.

Chapter 2: Installation

Before You Begin

Before you begin to install your P6BX-A+ mainboard, take some precautions to ensure that you avoid the possibility of damage to the product from static electricity. Ensure too that you are installing the mainboard into a suitable case.

Static Electricity

In adverse conditions, static electricity can accumulate and discharge through the integrated circuits and silicon chips on this product. These circuits and chips are sensitive and can be permanently damaged by static discharge.

- ◆ If possible wear a grounding wrist strap clipped to a safely grounded device during the installation.
- ◆ If you don't have a wrist strap, discharge any static by touching the metal case of a safely grounded device before beginning the installation.
- ◆ Leave all components inside their static-proof bags until they are required for the installation procedure.
- ◆ Handle all circuit boards and electronic components carefully. Hold boards by the edges only. Do not flex or stress circuit boards.

Choosing a Case

The P6BX-A+ mainboard has a power connector for an ATX power supply. Ensure that your system is installed with an ATX power unit.

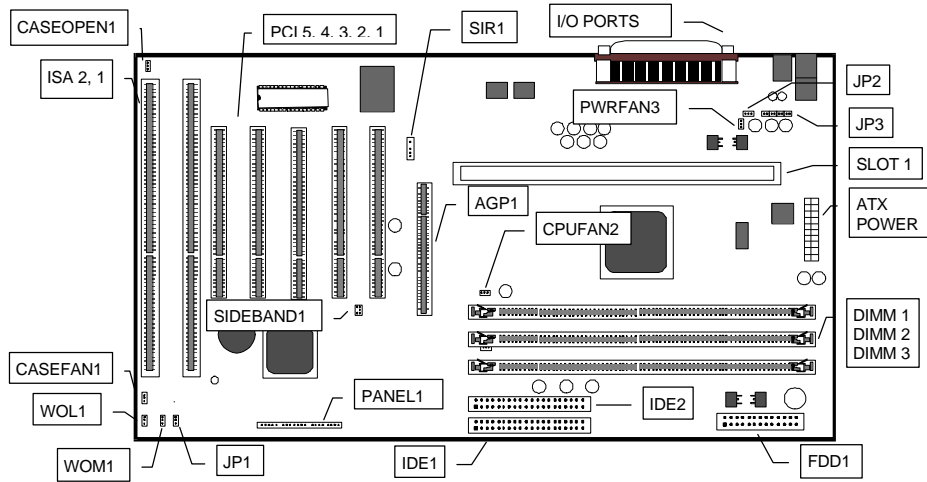
Some features on the mainboard are implemented by cabling connectors on the mainboard to indicators and switches on the system case. Ensure that your case supports all the features required.

The P6BX-A+ mainboard can support one or two floppy diskette drives and four enhanced IDE drives. Ensure that your case has sufficient power and space for all the drives that you intend to install.

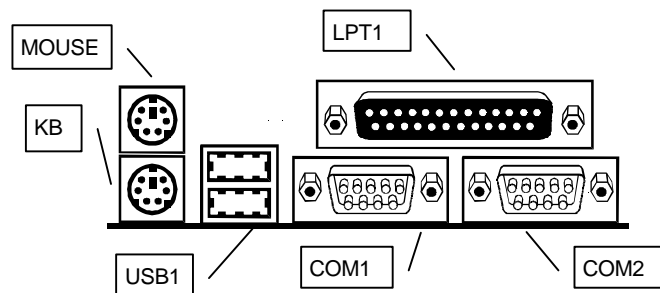
The mainboard uses a standard ATX two-level layout for the I/O ports. Ensure that your case has an I/O template that supports this arrangement of I/O ports.

Mainboard Guide

Use the following illustrations and key to identify the principal components on your mainboard.



Side View of the I/O Ports



Key to Components

Component	Description
COM1	External serial port 1/3
COM2	External serial port 2/4
LPT1	External parallel Port
KBMP2	External PS/2 port for keyboard (lower port)
	External PS/2 port for pointing device (upper port)
USB1	Two external universal serial bus ports
JP1	Clear CMOS memory jumper pins
JP2	Jumper pins for keyboard power on switch
JP3	Jumper pins for keyboard/mouse enable
CASEFAN1	Power connector for internal case-mounted cooling fan
CPUFAN2	Power connector for Pentium-II cartridge cooling fan
PWRFAN3	Power connector for ATX power unit cooling fan
ATX1	Power connector for ATX power supply
SLOT 1	Slot1 for Pentium-II processor cartridge
DIMM 1/2/3	Slots for memory modules
IDE 1/2	Connectors for primary and secondary IDE channels
FDD1	Connector for floppy disk drive
AGP1	Slot for advanced graphics port (AGP) display adapter
CIR1 (optional)	Connector for consumer infrared device CIR
SIR1	Connector for standard infrared device SIR
FIR1 (optional)	Connector for fast infrared device FIR
SIDEBAND1	SB-Link connector (for Creative sound card use only)
PANEL1	Case feature connectors:
	<i>Pins 1 to 3</i> <i>Power indicator LED</i>
	<i>Pins 4 to 5</i> <i>Sleep switch</i>
	<i>Pins 7 to 9</i> <i>Suspend indicator LED</i>
	<i>Pins 10 to 11</i> <i>Case key lock</i>
	<i>Pins 12 to 13</i> <i>System reset switch</i>
	<i>Pins 15 to 18</i> <i>System speaker connector</i>
	<i>Pins 20 to 21</i> <i>Hard disk drive indicator LED</i>
	<i>Pins 22 to 23</i> <i>Power On/Off switch</i>
WOM1	Connector for modem wake-up cable
WOL1	Connector for network wake-up cable
CASEOPEN1	Detects when the case is opened
ISA 1/2	Two slots for 8/16-bit ISA expansion cards
PCI 1/2/3/4/5	Five slots for 32-bit PCI expansion cards

A Note on Jumpers

A jumper consists of two or more pins mounted on the mainboard. Some jumpers might be arranged in a series with each pair of pins numbered differently. Jumpers are used to change the electronic circuits on the mainboard. When a jumper cap is placed on two jumper pins, the pins are SHORT. If the jumper cap is removed (or placed on just a single pin) the pins are OPEN.

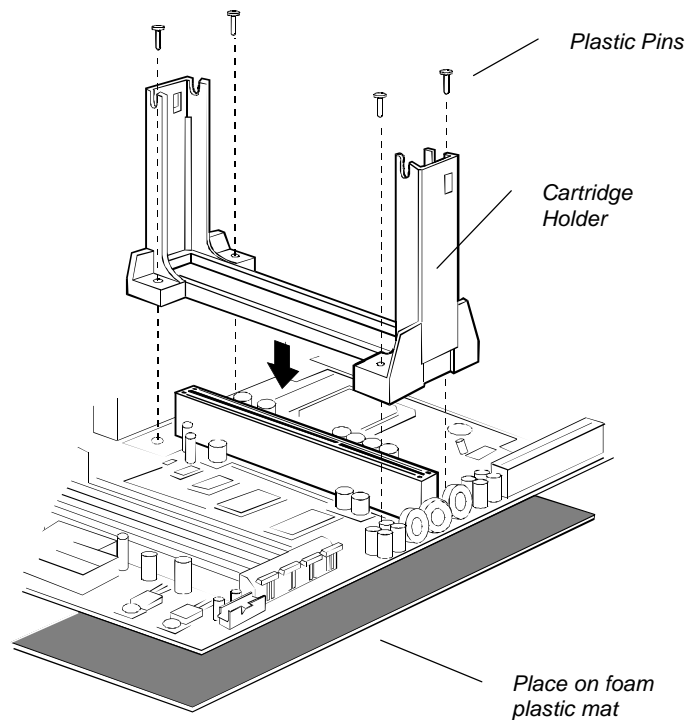
Preparing the Mainboard

Prepare the mainboard by installing the supplied Pentium-II retention module. Then install the Pentium-II cartridge according to the instructions supplied with the cartridge. Complete the processor installation by installing the supplied heat-sink support, and connecting the heat sink power cable to the mainboard connector.

After the processor cartridge is installed, insert your memory modules into the DIMM sockets on the mainboard. Finish the mainboard preparation by checking that the three jumpers (for keyboard power, keyboard/mouse enable, and clear CMOS memory) are at the correct setting.

Install the Pentium-II Processor

1. Place the mainboard on a foam plastic mat so that the pins in the retention module can pass through the mainboard and protrude out through the bottom of the board.
2. Locate the processor SLOT-1 on the mainboard.
3. Unpack the retention module parts, and place the cartridge holder over slot-1. One end of slot-1 has a notch, and one end of the cartridge holder has a cut-out, so the cartridge holder can only be installed correctly.



4. Push the four plastic pins through the holes in the cartridge holder, and through the prepared holes in the mainboard, to secure the cartridge holder in place.
5. Follow the instructions supplied with your Pentium-II processor to install the processor cartridge into the cartridge holder.

Note: The P6BX-A+ does not use jumpers to set the parameters for your processor, such as the core voltage, the clock multiplier, and so on. You can set the parameters for the processor in firmware using the system BIOS. After your system is installed, the BIOS will automatically detect the kind of processor that is installed and implement the correct setting for it. See the next chapter for details.

Install the Memory Modules

For this mainboard, you must use 168-pin Dual In-line Memory Modules (DIMMs) which are installed with SDRAM (Synchronous Dynamic Random Access Memory) (SDRAM). This mainboard can support 100MHz SDRAM and also 66MHz SDRAM. We recommend that you use 100MHz SDRAM with PC/100 compatibility so that your system can run at the maximum speed.

The DIMMs can hold memory capacities from 8 MB through to 128 MB. You can install one, two or three DIMMs in any combination. up to 384 MB of standard SDRAM. Install the first DIMM in the DIMM1 socket. If you install a second or third DIMM, install them in DIMM2 and DIMM3 respectively.

1. The SDRAM sockets are keyed with notches and the DIMMs are keyed with cut-outs so that they can only be installed correctly. Check that the cut-outs on the DIMM edge connector matches the notches in the SDRAM socket.
2. Push the latches on each side of the SDRAM socket down.
3. Install the DIMM into the socket and press it carefully but firmly down so that it seats correctly. The latches at either side of the socket will be levered upwards and latch on the edges of the DIMM when it is installed correctly.

Check the three Jumper Settings

This mainboard only has three jumpers. For most systems the factory defaults will be the correct configuration. Before you install the mainboard, take a moment to check that the three jumpers are at the correct setting.

1. Locate the Clear CMOS jumper JP1. Ensure that the jumper cap is placed on pins 1-2. If you ever need to clear the system CMOS memory, you can do this by moving the jumper cap to short pins 2-3 for a few seconds. When you clear the CMOS memory, the system must be turned off and the power cord disconnected.

Function	Jumper Cap Position
Normal Operation	Short pins 1-2
Clear CMOS Memory	Short pins 2-3



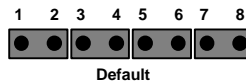
- Locate the Keyboard Power On Switch jumper JP2. When this jumper is enabled, it allows you to create “hot keys” on your system keyboard that will act as a power On/Off switch. See the Integrated Peripherals Option in the Setup chapter for information on installing this function. As a default, the keyboard power switch is enabled. When you have enabled Keyboard Power On, you must ensure that the 5V standby current of the power supply is more than 200 mA.

Function	Jumper Cap Position
Disable keyboard power switch	Short pins 1-2
Enable keyboard power switch	Short pins 2-3



- Locate the Keyboard/Mouse jumper JP3. This jumper can be used to disable the external PS/2 ports. As a default, the PS/2 ports are enabled.

Function	Jumper Cap Position			
	Pins 1-2	Pins 3-4	Pins 5-6	Pins 7-8
Keyboard/Mouse Enable	Short	Short	Short	Short
Keyboard/Mouse Disable	Open	Open	Open	Open



Install the Mainboard in the System Case

Use the screws and mounting brackets supplied with your system case to install the mainboard. Follow the instructions provided by the case manufacturer.

Connect Devices, Switches and Indicators to the Mainboard

Note: You might not need to carry out every step in the following procedure. It depends on the options you are installing, and the features that are supported by your system case.

Note: Ribbon cables are usually keyed so that they can only be installed correctly on the device connector. There is no key on the mainboard connector however, so you must manually ensure that the cable is installed correctly. Each connector has the pin-1 side clearly marked. The pin-1 side of each ribbon cable is always marked with a red stripe on the cable.

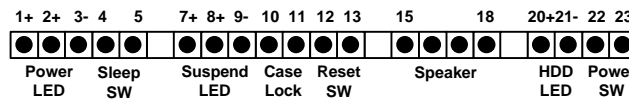
Part One – Internal Connections

- Locate the floppy diskette drive connector FDD1. Use the ribbon cable to connect the floppy diskette drive to the mainboard.
- Locate the Enhanced IDE connectors IDE1 (primary) and IDE2 (secondary). A single IDE cable is provided with the mainboard. Connect the cable to IDE1. The cable has two connectors for IDE devices. If you connect two devices, you must configure one device as Master, and one device as Slave. See the documentation

provided with the devices for information on this. If you need to install more drives, obtain another IDE cable and connect one or two devices to IDE2 following the same procedure as you used with IDE1.

3. Locate the bank of switch and indicator connectors PANEL1. These connectors provide control functions to your system case. Use the table below to make the connections.

Pins	Function
1 to 3	Power indicator LED
4 to 5	Sleep switch
7 to 9	Suspend indicator LED
10 to 11	Case key lock
12 to 13	System reset switch
15 to 18	System speaker connector
20 to 21	Hard disk drive indicator LED
22 to 23	Power On/Off switch



4. Locate the ATX POWER connector. Connect the cable from your system ATX power supply into the connector. The connector is keyed so that it can only be installed correctly.
5. Install expansion cards into the expansion slots. The system will not operate without a display adapter. If you have an AGP display adapter, you can use the dedicated AGP slot. You can use the two ISA slots, and the five PCI slots to install a variety of expansion cards in your system, such as a sound card, a network adapter, a SCSI host adapter, an internal modem card, and so on. ISA slot 1 and PCI slot 5 are shared. This means that you can use one of these slots, but not both of them at the same time.

Part Two – Optional Internal Connections

You may install optional items such as a serial or fast infrared port. If you have installed a network adapter or an internal modem, you can use the wake-up connectors so that your system will automatically resume from a power-saving mode when there is incoming network or modem traffic.

1. Locate the infrared connectors CIR1 (Consumer Infrared), SIR1 (Standard Infrared) and FIR1 (Fast Infrared). Determine if your infrared port is CIR, SIR or FIR and use the cable provided with the infrared device to connect to the correct connector. Secure the infrared device to the appropriate space in the system case.
2. If you have installed a network adapter, connect the cable from the network adapter to WOL1. This will enable your system to resume from a power saving mode when there is network traffic. When you use the LAN wake up function, you must make sure that the 5V standby current from the power supply is more than 700mA.

3. If you have installed an internal modem, connect the cable from the internal modem to WOM1. This will enable your system to resume from a power saving mode when there is modem traffic.
4. If you have installed a Creative PCI Sound Blaster card, you can cable it to the SB-Link connector SIDEBAND1. The SB-Link connector provides a PCI-compatible solution that allows your Sound Blaster to run real-mode DOS game applications.
5. You may install extra cooling fans. Some ATX power units have a cooling fan. You can connect this to the ATX cooling fan power connector PWRFAN3. If you have a case mounted fan, you can connect it to the case cooling fan power connector CASEFAN1.
6. If your case supports a detector that indicates when the case is opened, you can connect the cable to the case open detect connector CASEOPEN1.

Part Three – External Connections

After you have installed the mainboard and completed the internal connections, you can use the external connectors to attach peripheral devices to your system

1. COM1 is a serial port which can be used by serial devices such as a mouse, a fax/modem and so on. Your system identifies this serial port as COM1
2. COM2 is a second serial port. Your system identifies this serial port as COM2.
3. LPT1 is a parallel port which can be used by printers or other parallel communications devices. Your system identifies the parallel port as LPT1
4. USB1 is a stack of two universal serial bus (USB) ports. Some new devices now use the USB interface to take advantage of its faster transmission, and the fact that many devices can be “daisy chained” on a single cable.
5. KBMPS2 is a stack of two mini-DIN PS/2 ports. The lower port is for the use of a keyboard. The upper port can be used by any PS/2 pointing device such as a mouse or a trackball.

Chapter 3: Setup

About the Setup Utility

This chapter explains how to use and modify the BIOS setup utility that is stored on the mainboard. The setup utility stores information about the mainboard components, and the configuration of other devices that are connected to it. The system uses this information to test and initialize components when it is started up, and to make sure everything runs properly when the system is operating. This mainboard lets you use the BIOS setup utility to configure the system for the kind of processor you install instead of using jumpers to make changes to the processor configuration.

The setup utility is installed with a set of default values. The default values are designed to ensure that the system will operate adequately. You will probably have to make changes to the setup utility whenever you add new components to your system such as new disk drives. You may be able to generate increased performance by changing some of the timing values in the setup, but this can be limited by the kind of hardware you are using, for example, the rating of your memory chips. In certain circumstances, the system may generate an error message which asks you to make changes to the setup utility. This happens when the system finds an error during the POST (power on self test) that it carries out at start up.

Starting the Setup Utility

You can only start the setup utility shortly after the computer has been turned on. A prompt appears on the computer display which reads “*Press DEL to run Setup*”. When you see this prompt, press the DEL key, and the system will start the setup utility and display the main menu of the utility.

Using the Setup Utility

When you press the DEL key to start setup, the main menu of the utility appears.

The main menu of the setup utility shows a list of the options that are available in the utility. A highlight shows which option is currently selected. You can use the cursor arrow keys to move the highlight to other options. When an option is highlighted, you can execute the option by pressing the ENTER key.

Some options lead to dialog boxes which ask you verify that that you wish to execute that option. You usually answer these dialogs by typing Y for yes and N for no.

Some options lead to dialog boxes which ask for more information. Setting the User Password or Supervisor Password have this kind of dialog box.

ROM PCI/ISA BIOS (P6BX-A+)
 CMOS SETUP UTILITY
 AWARD SOFTWARE, INC.

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

Some options lead to tables of items. These items usually have a value on the right side. The value of the first item is highlighted, and you can use the cursor arrow keys to select any of the other values in the table of items. When an item is highlighted, you can change the value by pressing the PGUP or PGDN keys, or the PLUS or MINUS keys. The PGUP and PLUS keys cycle forward through the available values, the PGDN and MINUS keys cycle backwards through the values.

When you are in the main menu, you can exit the utility by pressing the ESC key. You can save the current selections and exit the utility by pressing the F10 key. You can change the color scheme of the utility by pressing the F2 key while holding down the SHIFT key.

When you are in one of the options that displays a dialog box, you can return to the main menu by pressing the ESC key.

When you are in one of the options that displays a table of items, you can return to the main menu by pressing the ESC key. For some items, you can display a help message by pressing the F1 key. You can change the color scheme of the utility by pressing the F2 key while holding down the SHIFT key. You can press F5 to discard any changes you have made and return all items to the value that they held when the setup utility was started. You can press F6 to load the displayed items with a standard list of default values. You can press F7 to load the displayed items with a high-performance list of default values.

Standard CMOS Setup Option

This option displays a table of items which defines basic information about your system.

ROM PCI/ISA BIOS (P6BX-A+)
STANDARD CMOS SETUP
AWARD SOFTWARE, INC.

Date (mm:dd:yy) : Thu, Mar 5 1998																	
Time (hh:mm:ss) : 12 : 19 : 52																	
HARD DISKS	TYPE	SIZE	CYLS	HEAD	PRECOMP	LANDZ	SECTOR	MODE									
Primary Master	: None	0	0	0	0	0	0	0 -----									
Primary Slave	: None	0	0	0	0	0	0	0 -----									
Secondary Master	: None	0	0	0	0	0	0	0 -----									
Secondary Slave	: None	0	0	0	0	0	0	0 -----									
Drive A : None				<table border="1"> <tr> <td>Base Memory:</td> <td>0K</td> </tr> <tr> <td>Extended Memory:</td> <td>0K</td> </tr> <tr> <td>Other Memory:</td> <td>512K</td> </tr> <tr> <td colspan="2"><hr/></td> </tr> <tr> <td>Total Memory:</td> <td>512K</td> </tr> </table>				Base Memory:	0K	Extended Memory:	0K	Other Memory:	512K	<hr/>		Total Memory:	512K
Base Memory:	0K																
Extended Memory:	0K																
Other Memory:	512K																
<hr/>																	
Total Memory:	512K																
Drive B : None																	
Floppy 3 Mode Support : Disabled																	
Video : EGA/VGA																	
Halt On : All Errors																	
ESC : Quit		↑ ↓ → ← : Select Item		PU/PD/+/- : Modify													
F1 : Help		(Shift)F2 : Change Color															

Date and Time

The Date and Time items show the current date and time held by your computer. If you are running a Windows operating system, these items will be automatically updated whenever you make changes to the Windows Date and Time Properties utility.

Hard Disk

Defaults: None

These items show the characteristics of any hard disk drives on the four available IDE channels. (Note that SCSI hard disk drives do not appear here.) You can automatically install most modern hard disks using the *IDE HDD Auto Detect Option* from the main menu. However, if you find that a drive cannot be automatically detected, you can use these items to select USER, and then manually enter the characteristics of the drive. The documentation provided with your drive provides the data you need to fill in the values for CYLS (cylinders), HEAD (read/write heads), and so on.

The documentation provided with the drive may not tell you what value to use under the MODE heading. If the drive is smaller than 528 MB, set MODE to Normal. If the drive is larger than 528 MB and it supports Logical Block Addressing, set MODE to LBA. Very few high-capacity drives do not support Logical Block Addressing. If you have such a drive, you might be able to configure it by setting the MODE to Large. If you're not sure which MODE setting is required by your drive, set MODE to Auto and let the setup utility try to determine the mode automatically.

Drive A and Drive B

Default: None

These items define the characteristics of any diskette drive attached to the system. You can connect one or two diskette drives.

Floppy 3 Mode Support

Default: Disabled

Floppy 3 Mode is a special mode that supports 3.5" diskettes with a capacity of 1.2 MB. Outside of Japan, very few people use this kind of diskette.

Video

Default: EGA/VGA

This item defines the video mode of the system. The default value is for the VGA standard which is supported by all current display adapters. If you wish to use an older display adapter which does not support VGA, you can select one of the earlier video standards such as CGA or Hercules.

Halt On

Default: All Errors

This item defines the operation of the system POST (Power On Self Test) routine. You can use this item to select which kind of errors in the POST are sufficient to halt the system.

Base, Extended and Other Memory.

These items show how much memory is available on the system. They are automatically detected by the system so you cannot manually make changes to these items.

BIOS Feature Setup Option

This option displays a table of items which defines more advanced information about your system. You can make modifications to most of these items without introducing fatal errors to your system.

ROM PCI/ISA BIOS (P6BX-A+)
 BIOS FEATURES SETUP
 AWARD SOFTWARE, INC.

CPU Internal Core Speed	: 350MHz	Security Option	: Setup
Virus Warning	: Disabled	Video BIOS Shadow	: Enabled
CPU L1 Cache	: Enabled	C8000-CBFFF Shadow	: Disabled
CPU L2 Cache	: Enabled	CC000-CFFFF Shadow	: Disabled
CPU ECC Function	: Disabled	D0000-D3FFF Shadow	: Disabled
Quick Power On Self Test	: Enabled	D4000-D7FFF Shadow	: Disabled
Boot From LAN First	: Enabled	D8000-DBFFF Shadow	: Disabled
Boot Sequence	: A,C,SCSI	DC000-DFFFF Shadow	: Disabled
Boot Function of Hard Disk	: Enabled		
Boot Function of Drive A	: Enabled		
Swap Floppy Drive	: Disabled		
Hard Disk Write Protected	: Disabled		
Floppy Disk Write Protected	: Disabled		
Boot Up NumLock Status	: On	ESC : Quit	↑↓←→ : Select Item
Gate A20 Option	: Fast	F1 : Help	PU/PD/+/- : Modify
PCI/UGA Palette Snoop	: Disabled	F5 : Old Values (Shift)	F2 : Color
OS Select For DRAM > 64MB	: Non-OS2	F6 : Load BIOS Defaults	
HDD S.M.A.R.T. capability	: Disabled	F7 : Load Optimum Settings	

CPU Internal Core Speed

Default: 233 MHz or 350MHz

This item should be installed with the rated internal core speed of the Pentium-II class processor that is installed in your system. The setup utility will then automatically configure the system with the correct host bus speed, and bus frequency multiplier. If you set this item to Manual, two new items will appear: *CPU Host BUS Frequency* and *CPU Core:Bus Freq. Multiple*. You can use these two items to manually configure the mainboard for the speed of the processor. The values available in these two items will vary, according to the kind of Pentium-II processor that is installed.

Note: Using the three items above, you can configure the mainboard so that it runs a processor faster than the rated clock speed. We strongly recommend that you do not overclock the processor. Overclocking can introduce excess heat, recurring instability, or even complete failure in your system.

Virus Warning

Default: Disabled

When this item is enabled it provides some protection against viruses which try to write to the boot sector and partition table of your hard disk drive. This item is Disabled as a default so that you can install an operating system. We recommend that you enable Virus Warning as soon as you have installed your disk with an OS.

Note: You must disable this item when creating new partitions on a hard disk.

CPU L1 Cache

Default: Enabled

CPU L2 Cache

Default: Enabled

This mainboard is designed for the Pentium-II series of processor cartridges. All these processors feature internal level-1 cache memory, and external level-2 cache memory. Therefore you should enable both these items for better performance.

CPU ECC Function

Default: Disabled (only for 66MHz systems)

This item can be used to enable ECC (error checking and correction) for the level-2 cache memory. We recommend that you leave this item at the default value disabled.

Quick Power On Self Test

Default: Enabled

You can enable this item to shorten the power on testing and have your system start up a little faster.

Boot from LAN First

Default: Enabled

This items lets you specify that the system will try to load an operating system from a network server first, before booting from any of the local drives.

Boot Sequence

Default: A, C, SCSI

This item defines where the system will look for an operating system, and the order of priority. You can boot an operating system from many locations including a SCSI device, a ZIP drive, a floppy diskette drive, or an LS-120 high-capacity diskette drive.

Boot Function of Hard Disk

Default: Enabled

Boot Function of Drive A

Default: Enabled

These items allow the system to boot an operating system from a hard disk drive or a floppy disk drive.

Swap Floppy Drive

Default: Disabled

If you have two floppy diskette drives in your system, this item allows you to swap around the assigned drive letters so that drive A becomes drive B, and drive B becomes drive A.

Hard Disk Write Protected

Default: Disabled

Floppy Disk Write Protected

Default: Disabled

You can use these items to write protect the hard disk drive and floppy disk drive.

Boot Up NumLock Status

Default: On

This item defines if the keyboard Num Lock key is active when your system is started.

Gate A20 Option

Default: Fast

This option provides compatibility with older software written for the 286 processor. Leave this item at the default value Fast.

PCI/VGA Palette Snoop

Default: Disabled

This item can help overcome problems that are caused by some non-standard VGA cards. We recommend that you leave this item at the default value Disabled.

OS Select For DRAM > 64 MB

Default: Non-OS2

This item is required if you have installed more than 64 MB of memory and you are running the OS/2 operating system. Otherwise, leave this item at the default Non-OS2

HDD S.M.A.R.T Capability

Default: Disabled

S.M.A.R.T is an industry acronym for Self-monitoring, Analysis and Reporting Technology. If the documentation of your hard disk states that S.M.A.R.T. is supported, you can enable this item.

Security Option

Default: Setup

If you have installed password protection, this item defines if the password is required at system start up, or if it is only required when a user tries to enter the setup utility.

Video BIOS Shadow

Default: Enabled

This item lets the video BIOS to be copied to system memory for faster performance.

XXXXX-XXXXX Shadow

Default: Disabled

These items allow the BIOS of other devices to be copied to system memory for faster performance.

Chipset Features Option

This option displays a table of items which define timing parameters of the mainboard components including the graphics system, the memory, and the system logic. In general rule, you should leave the items on this page at the default values unless you are very familiar with the technical specifications of your hardware. If you change the values, you may introduce fatal errors or recurring instability into your system.

ROM PCI/ISA BIOS (P6BX-A+)
CHIPSET FEATURES SETUP
AWARD SOFTWARE, INC.

Auto Configuration	: Enabled	AGP Aperture Size (MB)	: 64
EDO DRAM Speed Selection	: 50ns	Clock Spread Spectrum	: Enabled
EDO CAS# MA Wait State	: 1		
EDO RAS# Wait State	: 1		
SDRAM RAS-to-CAS Delay	: 3		
SDRAM RAS Precharge Time	: 3		
SDRAM CAS latency Time	: 3		
SDRAM Leadoff Clock	: 4		
USWC Write Post	: Enabled		
DRAM Data Integrity Mode	: Non-ECC		
Host Bus Fast Data Ready	: Enabled		
System BIOS Cacheable	: Enabled		
Video BIOS Cacheable	: Enabled		
Video RAM Cache Method	: Uncache		
AGP Aperture Cache Method	: Uncache		
8 Bit I/O Recovery Time	: 1	ESC : Quit	↑↓←→ : Select Item
16 Bit I/O Recovery Time	: 1	F1 : Help	PU/PD/+/- : Modify
Memory Hole At 15M-16M	: Disabled	F5 : Old Values (Shift)	F2 : Color
Passive Release	: Enabled	F6 : Load BIOS Defaults	
Delayed Transaction	: Disabled	F7 : Load Optimum Settings	

Auto Configuration

Default: Enabled

Leave this item at the default value Enabled. This will automatically install the correct values for the system memory timing in the next 7 items.

USWC Write Post

Default: Enabled

USWC (uncacheable, speculative write combining) is a cache memory technology. We recommend that you leave this item at the default value Enabled.

Dram Data Integrity Mode

Default: Non-ECC

This item enables or disables ECC (error checking and correction) for the main memory. We recommend that you leave this item at Non-ECC unless you have verified that your memory modules support ECC.

Host Bus Fast Data Ready

Default: Enabled

When this item is enabled, it speeds up memory access by one clock cycle. We recommend that you leave this item at the default value Enabled.

System BIOS Cacheable

Default: Enabled

Video BIOS Cacheable

Default: Enabled

These two items allow the system and video BIOS to be cached for faster performance. We recommend that you leave these items at the default value Enabled.

Video RAM Cache Method
AGP Aperture Cache Method

Default: Uncache
Default: Uncache

These two items can be used to cache the video RAM and AGP aperture using USCW (uncacheable, speculative write combining). We recommend that you leave both these items at the default value Uncache.

8-bit I/O Recovery Time
16-bit I/O Recovery Time

Default: 1
Default: 1

These two items set timing parameters for 8-bit and 16-bit ISA expansion cards. We recommend that you leave these items at the default value 1.

Memory Hole at 15M-16M

Default: Disabled

This item can be used to reserve memory space for some ISA cards that require it. We recommend that you leave this item at the default value Disabled.

Passive Release
Delayed Transaction:

Default: Enabled
Default: Disabled

These two items make the PCI bus compliant with the PCI Specification Ver. 2.1. It provides compatibility with older, slower ISA expansion cards. We recommend that you leave these items at their default values.

AGP Aperture Size (MB)

Default: 64

This item defines the size of the AGP aperture. We recommend that you leave this item at the default value 64.

Clock Speed Spectrum

Default: Enabled

When this item is enabled, it can significantly reduce the EMI (electrical magnetic interference) that your system generates. We recommend that you leave this item at the default value Enabled.

Power Management Setup Option

This option displays a table of items which lets you control the power management of the system. Modern operating systems take care of much of the routine power management. This mainboard supports ACPI (advanced configuration and power interface).

This system supports three levels of power-saving modes; doze mode, standby mode, and suspend mode. Standby mode uses less power than doze mode and suspend mode uses the least power.

The power management in the setup utility lets you specify a timeout for each of the power-saving modes, and a timeout for a hard disk drive power down. A timeout, means a period of time when the system (or the hard disk drive) is inactive. If the timeout completes, the system power-saving mode will execute, or the hard disk drive will power down.

You can resume from the power-saving modes by carrying out any of the activities which are enabled in the list Reload Global Timer Events. If the hard disk has been powered down it will automatically resume to full power when an access to the hard disk is required (this takes just a few seconds).

ROM PCI/ISA BIOS (P6BX-A+)
POWER MANAGEMENT SETUP
AWARD SOFTWARE, INC.

ACPI Function : Enabled	** Reload Global Timer Events **
Power Management : Disable	IRQ(3-7,9-15),NMI : Enabled
Doze Mode : Disable	Primary IDE 0 : Disabled
Standby Mode : Disable	Primary IDE 1 : Disabled
Suspend Mode : Disable	Secondary IDE 0 : Disabled
HDD Power Down : Disable	Secondary IDE 1 : Disabled
HDD Down When Suspend: Enabled	Floppy Disk : Disabled
Throttle Duty Cycle : 62.5%	Serial Port : Enabled
Video Off Method : DPMS	Parallel Port : Disabled
Video Off After : Standby	UGA Active Monitor : Enabled
MODEM Use IRQ : 3	
Soft-Off by PWR-BTTN : Delay 4 Sec.	
CPUFAN Off In Suspend: Enabled	
** Powered On or Resumed By **	
AC Resume : Disabled	ESC : Quit ↑↓→← : Select Item
Modem/NetCard (R1) : Disabled	F1 : Help PU/PD/+/- : Modify
RTC Alarm (IRQ 8) : Disabled	F5 : Old Values (Shift)F2 : Color
	F6 : Load BIOS Defaults
	F7 : Load Optimum Settings

ACPI Function

Default: Enabled

This system supports ACPI (advanced configuration and power management interface) which is an industry standard specification. We recommend that you leave this item at the default value enabled.

Power Management

Default: Disabled

This item acts like a master switch for the power-saving modes and hard disk timeouts. If this item is set to Disabled, all the power-savings modes are disabled. If this item is set to Max Saving, doze, standby, and suspend mode, and the hard disk powerdown will occur after a timeout of 1 minute. If this item is set to Min Saving, doze, standby, and suspend mode will occur after a timeout of 1 hour. The hard disk powerdown will occur after fifteen minutes. If the item is set to User Define, you can insert your own timeouts for the power-saving modes and hard disk powerdown.

Doze Mode

Default: Disabled

If you have selected User Define for the Power Management item, you can set this item to a selection of timeouts from 1 minute to 4 hours.

Standby Mode

Default: Disabled

If you have selected User Define for the Power Management item, you can set this item to a selection of timeouts from 1 minute to 4 hours.

Suspend Mode

Default: Disabled

If you have selected User Define for the Power Management item, you can set this item to a selection of timeouts from 1 minute to 4 hours.

HDD Power Down

Default: Disabled

If you have selected User Define for the Power Management item, you can set this item to a selection of timeouts from 1 minute to 4 hours.

HDD Down When Suspend

Default: Enabled

When this item is enabled, hard disk drives on the primary or secondary IDE channels will power down in suspend mode.

Throttle Duty Cycle

Default: 62.5%

This item defines what percentage of time the system will halt the processor clock when it is in power-saving mode.

Video Off Method

Default: DPMS

This item defines how the video is turned off to save power. As a default, this is set to DPMS (display power management software).

Video Off After

Default: Standby

This item lets you define which level of power-saving mode is required in order to turn off the video display.

Modem Use IRQ

Default: 3

If you would like an incoming call on a modem to automatically resume the system from a power-saving mode, use this item to specify the interrupt request line (IRQ) that is used by the modem.

Soft-Off by PWR-BTTN

Default: Delay 4 Sec.

You can use this item to install a four second delay in powering down the system when the power switch is turned off.

CPUFAN Off In Suspend

Default: Enabled

You can use this item to specify if the CPU cooling fan is turned on or off when the system goes into suspend mode.

Powered On or Resumed By

This list of items specifies system activities which will automatically restart the system when it has been turned off or set in suspend mode.

AC Resume

Default: Disabled

If this is enabled, the system will restart when AC power is supplied to the system.

Modem/NetCard (RI)

Default: Disabled

If this item is enabled, the system will restart when an incoming transmission is received by an internal modem, or a network adapter.

RTC Alarm (IRQ 8)

Default: Disabled

You can use this item to set a time and date for the system to automatically restart.

When you enable this item, two other items appear that let you enter a date and time for the restart.

Reload Global Timer Events

This is a list of system activities which can be used to restart the countdown of the power-saving timeouts. If an item in this list is enabled, and the activity of that item occurs, the timeout counter will begin counting again from the start.

IRQ [3-7, 9-15], NMI

Default: Enabled

If this item is enabled, any activity on the listed IRQs (interrupt request lines) or the NMI (non-masked interrupt) will restart the timeouts.

Primary IDE 0

Default: Disabled

Primary IDE 1

Default: Disabled

Secondary IDE 0

Default: Disabled

Secondary IDE 1

Default: Disabled

Floppy Disk

Default: Disabled

You can use these items to let activity on the IDE devices or floppy disk drives restart the timeouts.

Serial Port

Default: Enabled

Parallel Port

Default: Disabled

When enabled, these items let activity on the serial or parallel ports restart the timeouts.

VGA Active Monitor

Default: Enabled

You can use this item to let activity on the active monitor restart the timeouts.

PNP/PCI Configuration Option

This option displays a table of items that configures how PNP (Plug and Play) and PCI expansion cards operate in your system.

ROM PCI/ISA BIOS (P6BX-A+)
 PNP/PCI CONFIGURATION
 AWARD SOFTWARE, INC.

PNP ISA Initialized By : BIOS Resources Control Method : Auto Reset Configuration Data : Disabled	ESC : Quit ↑↓←→ : Select Item F1 : Help PU/PD/+/− : Modify F5 : Old Values (Shift) F2 : Color F6 : Load BIOS Defaults F7 : Load Optimum Settings
---	---

PNP ISA Initialized By

Default: BIOS

If you have installed a Plug and Play operating system such as Windows 95, you can change this item to PNP OS. When the item is set to PNP OS, you can use the Device Manager utility in the operating system to make changes to the configuration of expansion cards.

Resources Control Method

Default: Auto

You should leave this item at the default Auto. If you find that you cannot get a particular expansion card to work properly, you might be able to solve the problem by changing this item to Manual, and defining the characteristics of the card in the new items which appear.

If you change this item to Manual, the display will list a series of items that allow you to define the assignments of the system interrupt lines (IRQs) and Direct Memory Access (DMA) channels. As a default, these items are set to PCI/ISA PnP. If you install an ISA-bus card that does not support PnP, and it requires a special IRQ and DMA, you can modify the list of assignments. Change the values of the IRQ and DMA that are required to Legacy ISA.

If you change this item to Manual, a new item, Legacy ISA ROM Base, will appear. As a default this item is set to N/A (not available). If the ISA expansion card uses a ROM (read only memory) chip, you might need to use this item to specify the ROM address in order to make the card work properly.

Reset Configuration Data

Default Disabled

If you enable this item and restart the system, any PNP configuration data stored in the BIOS setup will be cleared from memory.

Load BIOS Defaults Option

This option displays a dialog box which allows you to install BIOS defaults for all appropriate items in the whole setup utility. Press the Y key and then the ENTER key to install the defaults. Press the N key and then ENTER to not install the defaults. The BIOS defaults do not place great demands on the system and are generally very stable. If your system is not running correctly, you might like to install the BIOS defaults as a first step in getting your system working properly again. If you only want to install BIOS defaults for a specific option, select and display the option, and press the F6 key.

Load Optimum Settings Option

This option displays a dialog box which allows you install optimum defaults for all appropriate items in the whole setup utility. Press the Y key and then the ENTER key to install the defaults. Press the N key and then ENTER to not install the defaults. The optimum defaults can place some demands on the system that are greater than the performance level of the components, such as the processor and the memory. You could cause fatal errors or recurring instability if you install the optimum defaults when your hardware does not support it. If you only want to install optimum settings defaults for a specific option, select and display that option, and then press the F7 key.

Integrated Peripherals Option

This option displays a list of items which defines the operation of some peripheral items on the system's input/output ports.

ROM PCI/ISA BIOS (P6BX-A+)
INTEGRATED PERIPHERALS
AWARD SOFTWARE, INC.

IDE HDD Block Mode : Enabled	UART Mode Select : Normal
On-Chip Primary PCI IDE: Enabled	
On-Chip Secondary PCI IDE: Enabled	
IDE Primary Master PIO : Auto	Onboard Parallel Port : 378/IRQ7
IDE Primary Slave PIO : Auto	Parallel Port Mode : SPP
IDE Secondary Master PIO : Auto	
IDE Secondary Slave PIO : Auto	
IDE Primary Master UDMA : Auto	
IDE Primary Slave UDMA : Auto	
IDE Secondary Master UDMA: Auto	
IDE Secondary Slave UDMA: Auto	
USB Keyboard Support : Disabled	
POWER ON Function : Hot Key	
Hot Key Power ON : Ctrl-F12	ESC : Quit ↑↓←→ : Select Item
KBC input clock : 8 MHz	F1 : Help PU/PD/+/- : Modify
Onboard FDC Controller : Enabled	F5 : Old Values (Shift)F2 : Color
Onboard Serial Port 1 : 3F8/IRQ4	F6 : Load BIOS Defaults
Onboard Serial Port 2 : 2F8/IRQ3	F7 : Load Optimum Settings

IDE HDD Block Mode

Default: Enabled

Most IDE hard disks can deliver better performance if they use block mode transfer. If your hard disk(s) supports block mode transfer (check the drive documentation) set this item to Enabled to improve performance.

On-Chip Primary PCI IDE

Default: Enabled

This item enables or disables the primary IDE channel that is built into this mainboard. When the channel is enabled the items Master/Slave PIO Mode/UDMA appear. As a default, the PIO mode item is set to Auto and the UDMA item is set to Auto. The system will then automatically detect if a device on the channel requires PIO mode, or Ultra-DMA.

On-Chip Secondary PCI IDE

Default: Enabled

This item enables or disables the secondary IDE channel that is built into this mainboard. When the channel is enabled the items Master/Slave PIO Mode/UDMA appear. As a default, the PIO mode item is set to Auto and the UDMA item is set to Auto. The system will then automatically detect if a device on the channel requires PIO mode, or Ultra-DMA.

Note: You may have to install the Ultra-DMA drivers that are supplied with this mainboard in order to use a UDMA device.

USB Keyboard Support

Default: Disabled

You must enable this item if you are using a keyboard which uses the USB interface.

Power On Function

Default: Hot KEY

This item allows you to power on the system by pressing hot-keys, or typing in a password. If you set this item to Hot Key, another item appears, *Hot Key Power On*. Use this item to choose which hot keys are installed. If you choose Password, another item appears, *KB Power On Password*. Use this item to install a power on password.

KBC Input Clock

Default: 8 MHz

This item sets the clock for the keyboard. We recommend that you leave this item at the default value 8 MHz.

Onboard FDC Controller

Default: Enabled

This item enables or disables the floppy diskette drive controller built into this mainboard.

Onboard Serial Port 1

Default: 3F8/IRQ4

This item lets you disable the built-in serial port 1, or enable it by assigning an I/O address and an Interrupt Request Line (IRQ).

Onboard Serial Port 2

Default: 2F8/IRQ3

This item lets you disable the built-in serial port 2, or enable it by assigning an I/O address and an Interrupt Request Line (IRQ). If you have installed an optional IR port, you should disable the second serial port, and configure the IR port with the following item *UART2 Mode Select*.

UART2 Mode Select

Default: Normal

This item defines the operation of serial port 2. In the default Normal setting, serial port 2 is assigned to the connector on the mainboard. If you have installed an optional infrared port, you must change the setting of this item to either IrDA, or ASKIR. These settings will disable the mainboard serial port connector and assign serial port 2 to the infrared device. IRDA SIR prepares the port to receive infrared communications using the IrDA serial infrared standard. ASKIR prepares the port to receive infrared communications using the ASK serial infrared standard. The ASK standard is supported by many devices made by the Sharp Corp. If you have selected IrDA or ASKIR, two further items appear which let you set the parameters of the IR port. Use the documentation of the IR port to install the correct settings for these items.

Onboard Parallel Port

Default: 378/IRQ7

This item lets you disable the built-in parallel port, or enable it by assigning an I/O address and an Interrupt Request Line (IRQ).

Parallel Port Mode

Default: SPP

This item defines the operation of the parallel port. As a default it is set to SPP (standard parallel port). If you are connected to a parallel device that supports the higher-performance EPP (enhanced parallel port) or the ECP (extended capabilities port) make the appropriate changes to this item, and to the extra items, EPP and ECP configuration, that will appear.

PC Health Monitor Option

You can only use this option if your mainboard is has the optional W83871D sensor chip. This chip monitors voltage levels and temperatures in the system.

ROM PCI/ISA BIOS (P6BX-A+)
PC HEALTH MONITOR
AWARD SOFTWARE, INC.

<pre> **** Warning Messages **** CPU Core Voltage : Enabled Ucc3 Voltage (3.3V) : Enabled Ucc2 Voltage (2.5V) : Enabled Ucc Voltage (5V) : Enabled +12V Voltage : Enabled -12V Voltage : Enabled -5V Voltage : Enabled CPU Fan : Disabled Power Fan : Disabled Chassis Fan : Disabled CPU Temperature : Enabled Mainboard Temperature : Enabled Chassis : Enabled </pre>	<pre> **** PC Status **** CPU Core Voltage : Ucc3 Voltage (3.3V) : Ucc2 Voltage (2.5V) : Ucc Voltage (5V) : +12V Voltage : -12V Voltage : -5V Voltage : CPU Fan : Power Fan : Chassis Fan : CPU Temperature : Mainboard Temperature : Chassis : </pre>
<pre> ESC : Quit f1+< : Select Item F1 : Help PU/PD/+/- : Modify F5 : Old Values (Shift)F2 : Color F6 : Load BIOS Defaults F7 : Load Optimum Settings </pre>	

Warning Messages

The warning messages on the left side of the screen lists the items that can be monitored. If you enable any of these items, the system will generate a warning

message at start up time, if the real temperature or voltage measurement exceeds the normal parameters.

PC Status

The PC status list on the right side of the screen lists the actual temperature or voltage measurement of the items that are being monitored.

Supervisor Password and User Password

These two items can be used to install a Supervisor Password and a User Password. If you log on as Supervisor, you have full access to the system, and you can restrict the permissions granted to someone who logs on as User. For example, a Supervisor can restrict a User from entering the setup utility.

To install a Supervisor or User Password, follow these steps:

1. Highlight the item Supervisor/User password on the main menu and press ENTER.
2. The password dialog box will appear.
3. If you are installing a new password, carefully type in the password. You cannot use more than 8 characters or numbers. The password will differentiate between upper case and lower characters. Press ENTER after you have typed in the password. If you are deleting a password that is already installed just press ENTER when the password dialog box appears.
4. The system will ask you to confirm the new password by asking you to type it in a second time. Carefully type the password again and press ENTER, or just press ENTER if you are deleting a password that is already installed.
5. If you typed the password correctly, the password will be installed.

IDE HDD Auto Detection Option

This item automatically detects and installs any hard disk drives installed on the primary and secondary IDE channel. Most modern drives can be detected. If you are using a very old drive that can't be detected, you can install it manually using the Standard CMOS Setup option.

Setup will check for two devices on the primary IDE channel and then two devices on the secondary IDE channel. At each device, the system will flash an N in the dialog box. Press Enter to skip the device and proceed to the next device. Press Y, then Enter to tell the system to auto-detect the device.

Save And Exit Setup Option

Highlight this item and press ENTER to save the changes that you have made in the setup utility and exit the setup program. When the *Save and Exit* dialog box appears, press Y to save and exit, or press N to return to the setup main menu.

Exit Without Saving Option

Highlight this item and press ENTER to discard any changes that you have made in the setup utility and exit the setup program. When the *Exit Without Saving* dialog box appears, press Y to discard changes and exit, or press N to return to the setup main menu.

Chapter 4: Software

About the Software

The support software for this mainboard is supplied on either a CD-ROM disk, or a floppy diskette, depending on the configuration of the mainboard. Some mainboard configurations do not need all the software described in this chapter.

- ◆ Bus master IDE drivers
- ◆ LANDesk Client Management Software (LDCM) (Optional)
- ◆ Flash BIOS utilities
- ◆ Desktop Management Interface (DMI) utility (Optional)
- ◆ Windows 95 Patch program
- ◆ Winbond system monitor utility (Optional)

General Installation Guide

1. Log on to the directory on the CD-ROM that contains the software.
2. Look for a text file named README.TXT or something similar. Use a text editor to display and read the file. This file may have updated information about the latest versions of the software.
3. Look for a program named SETUP.EXE or INSTALL.EXE and run the program.
4. Follow the directions on the screen to install the software.

Bus master IDE drivers

The Bus master IDE drivers are located in the directory \IDEDRV\TRIONES.

LANDesk Software

The LANDesk software is located in the directories \LDCM with sub-directories for \LDCM\CLIENT and \LDCM\ADMIN. You can use the ALF editor to modify the customized client and Administrator.

When you first setup LDCM, the program will install a version of Internet Explorer (IE) if your system does not already have a version of IE later than 3.02. You must restart the LDCM installation after the installation of IE is completed.

Client Manager uses a simple setup program to install the administrator functionality. Setup installs the LANDesk Client Manager console, DMI Control Panel, and the Notification Monitor.

To run Setup on Windows NT

1. Log in as Administrator or equivalent.
2. Run SETUP.EXE from the Client Manager CD-ROM and follow the instructions on your monitor.

To run Setup on Windows 95

1. Run SETUP.EXE from the Client Manager CD-ROM and follow the instructions on your monitor.

Flash BIOS Utility

The flash BIOS utility can be used to erase the BIOS from the flash BIOS EEPROM on the motherboard, and install an updated version of the BIOS. There are two Flash BIOS utilities on the CD-ROM. One utility is located in \FLASH\ECS, and the other utility is located in \FLASH\AWARD.

DMI Utility

The DMI utility allows system integrators and administrators to make changes to the Desktop Management Interface. It is located in \DMI.

PIIX-4 Windows Patch Program

Most versions of Windows 95 cannot recognize the USB ports and power management routines on Pentium-II motherboards. This patch program named WINP2X4.EXE solves this problem. It is located in the directory \WINPATCH.

System Monitor Utility

The system monitor utility lets you monitor the critical system temperatures and voltages. You must have the optional sensor chip W83781D installed on your mainboard in order to use this utility.

Other Software Questions

Question *How can I install a PCI bridge and support for USB ports on this mainboard?*

Answer Find the file UPG.EXE on the CD or diskettes that ship with your mainboard. Run the file and then restart your system.