

3 Built-in BIOS Setup Program

SETUP Program

This chapter describes the Award BIOS setup for P5TX-A. The setup program uses a number of menus that you can specify changes to your hardware and turn the special features on or off.

To enter the BIOS setup program, users can turn on or reboot the system. Press the key when the system displays "Press DEL to enter SETUP".

The following screen will be displayed.

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ROM PCI/ISA BIOS <P5TX-A00>
CMOS SETUP UTILITY
AWARD SOFTWARE, INC.

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

Figure 3 -1. SETUP Main Menu



The instructions at the bottom of Main Menu Screen show the items of each option.

- STANDARD CMOS SETUP** - This option allows users to check or modify the basic system configuration.
- BIOS FEATURES SETUP** - This option is used to set the various system options for the users, including the virus warning, external cache, security option, boot operations, and video BIOS shadow, etc.
- CHIPSET FEATURES SETUP** - This option allows users to control the features of chipset.
- POWER MANAGEMENT SETUP** - This option allows users to set the power saving status for reducing the power consumption.

BIOS

- PNP/PCI CONFIGURATION SETUP** - This option is used to set the various system function and internal addresses of the PCI devices. Allows users to configure system IRQ and DMA to **PCI/ISA PnP** or **Legacy ISA** .
- LOAD BIOS DEFAULTS** - Users can load the BIOS default values to boot the system safely.
- LOAD OPTIMUM SETTING** - This option supports the better performance for the system. It is recommended to choose **OPTIMUM SETTING** for the setup.
- INTEGRATED PERIPHERALS** - This option allows users to decide how many kinds peripherals need to change their I/O type , mode and used or not . This options also allows user to set the various system function and onboard PCI IDE controller.
- SUPERVISOR PASSWORD** - Password is required when entering and changing all of the SETUP option or booting your system. Users can change the current password stored in the CMOS by accessing this option.
- USER PASSWORD** - Password is required when booting your system and entering to change only the USER PASSWORD . Users can change the current password stored in the CMOS by accessing this option.
- IDE HDD AUTO DETECTION** - This option can automatic detect the hard disk drive type(s) including the number of cylinders and heads, write pre-compensation time, read/write head landing zone, and number of sectors per track.
- SAVE & EXIT SETUP** - After saving the changes what you have made in the SETUP program, then exit and reboot the system.
- EXIT WITHOUT SAVING** - Abandon all previous settings, then exit and reboot the system.

After choosing an item from the SETUP main menu, move the cursor by using the \uparrow , \downarrow , \rightarrow , \leftarrow arrow keys and press <Enter>. To modify the setting of an option, simply press the <PgUp> or <+> and the <PgDn> or <-> keys. Press the <F2> key when changing the color setting, <F1> for a context sensitive help function, and the <ESC> key when quitting SETUP.

Standard CMOS Setup

ROM PCI/ISA BIOS <P5TX-A00>
STANDARD CMOS SETUP
AWARD SOFTWARE, INC

Data (mm:dd:yy) : Thu, November 12 1996									
Time (hh:mm:ss) : 17 : 58 : 42									
HARD DISKS	TYPE	SIZE	CYLS	HEAD	PRECOMP	LANDZ	SECTOR	MODE	
Primary Master	: Auto	0	0	0	0	0	0	0	Auto
Primary Slave	: Auto	0	0	0	0	0	0	0	Auto
Secondary Master	: Auto	0	0	0	0	0	0	0	Auto
Secondary Slave	: Auto	0	0	0	0	0	0	0	Auto
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: 7168K
									Other Memory: 384K
									Total Memory: 8192K
Esc : Quit									PU/PD/+/- : Modify
F1 : Help									(Shift)F2 : Change Color

Figure 3-2. Standard CMOS SETUP Screen

Date - Allows manual setting of the electronic calendar on the mainboard.

Time - Sets the system's internal clock which includes hour, minutes, and seconds.

Primary Master - Specifies the physical and electronic properties of the standard hard disk drives installed. Relevant specifications include the type, number of cylinders (CYLS), heads (HEAD), write pre-compensation time (PRECOMP), read/write head landing zone (LANDZ), number of sectors per track (SECTOR), and HDD mode (MODE). Selecting "**AUTO**" in the hard disk type item avoids the necessity of loading the HDD specifications and the function of the IDE HDD Auto Detection option in the main menu. The system BIOS will automatically detect the hard drive installed on the system upon bootup.

Drive A:/B: - Specifies the capacity and format of the floppy drive installed in your system.

Floppy 3 Mode Support - If 3 mode floppy is installed, enable this item make floppy diskette only compatible to the Floppy Diskette Format of Japan Spec. : **1.2MB, 3.5inch**. Otherwise, it is compatible to Floppy Diskette Format of IBM PC.

Video - Specifies the display adapter installed.

Halt On - Enables the system to halt on several conditions/options. The default value is set at "**All Errors**."

BIOS

Base/Extended/Other Memory - A small section in the lower right corner of the screen displays important information about your system which includes the base, extended, and other memory sizes. They are updated automatically by the SETUP program according to the status detected by the BIOS self-test. This section of the Standard CMOS SETUP screen is for viewing purpose only and manual modifications are not allowed.

BIOS Features Setup

ROM PCI/ISA BIOS <P5TX-A00>
BIOS FEATURES SETUP
AWARD SOFTWARE, INC.

Virus Warning	: Disabled	Video BIOS Shadow	: Enabled
CPU Internal Cache	: Enabled	C8000-CBFFF Shadow	: Disabled
External Cache	: Enabled	CC000-CFFFF Shadow	: Disabled
Quick Power On Self Test	: Enabled	D0000-D3FFF Shadow	: Disabled
Boot Sequence	: A,C,SCSI	D4000-D7FFF Shadow	: Disabled
Swap Floppy Drive	: Disabled	D8000-DBFFF Shadow	: Disabled
Boot Up Floppy Seek	: Enabled	DC000-DFFFF Shadow	: Disabled
Boot Up NumLock Status	: On		
Boot Up System Speed	: High		
Typematic Rate Setting	: Disabled		
Typematic Rate <Chars/Sec>	: 6		
Typematic Delay <Msec>	: 250		
Security Option	: Setup		
PCI/VGA Palette Snoop	: Disabled		
OS Select For DRAM > 64MB	: Non-OS2		
		ESC : Quit	↑↓←→: Select Item
		F1 : Help	PU/PD/+/- : Modify
		F5 : Old Values	(Shift)F2 : Color
		F6 : Load BIOS Defaults	
		F7 : Load Optimum Setting	

Figure 3 -3. BIOS Features Setup Screen

Virus Warning - Allows the virus warning feature for the hard disk boot sector to display a warning message and produce a beep sound whenever an attempt is made to write on the hard disk's boot sector. The default value for this option is "**Disabled**."

CPU Internal Cache -Enables the internal code/data cache of CPU when set to "**Enabled**" (default).

External Cache - Enables the on-board secondary cache when set to "**Enabled**" (default).

Quick Power On Self Test - Allows the power on self test to run at either a fast or a normal speed. The available options are:

- Enabled (default)
- Disabled

Boot Sequence - Selects the drive where the system would search for the operating system to run with. The available options are:

BIOS

- A,C, SCSI (default)
- C,CDROM, A
- D, A, SCSI
- F,A,SCSI
- SCSI,C,A
- C,A, SCSI
- CDROM,C,A
- E,A,SCSI
- SCSI,A,C
- C Only

Swap Floppy Drive - "**Enabled**" will effectively change the A: drive to B: and the B: to A: drive. "**Disabled**" (default) sets the floppy drives in their default states.

Boot Up Floppy Seek - Checks if the floppy drives installed on the system are correct or not. This option's operation usually occurs when the magnetic heads of the floppy drives produce a sound during power on self test. The available options are:

- Enabled (default)
- Disabled

Boot Up NumLock Status - Sets the <Num Lock> key to either on or off during system boot-up. The available options are:

- On (default)
- Off

Boot Up System Speed - Sets the speed of the system during power on self test sequence. The available options are:

- High (default)
- Low

Typematic Rate Setting - Defines the setting of the keyboard's typematic rate. The available options are:

- Disabled (default)
- Enabled

Typematic Rate <Chars/Sec> - Specifies the key repeat rate, in seconds, of keyboard characters. The available options are:

- 6 (default)
- 8/10/12/15/20/24/30

Typematic Delay <Msec> - Selects the delay, in milliseconds, before a key repeat. The available options are:

- 250 (default)
- 500/750/1000

BIOS

Security Option - Determines whether the password will be asked for in every boot (**System**), or when entering into the SETUP program (**Setup** - default). Refer to the section entitled SUPERVISOR PASSWORD for the password setting procedure.

PCI/VGA Palette Snoop -Selects "Enabled" to solve the abnormal color in Windows while using ISA MPEG and PCI VGA card. The available options are:

- Disabled (default)
- Enabled

OS Select For DRAM > 64MB - Selects the OS if DRAM > 64MB. The available options are:

- Non-OS2 (default)
- OS2

Video BIOS Shadow - Enables the system shadowing and achieve the best performance of the system. The available options are:

- Enabled (default)
- Disabled

C8000-CBFFF, CC000-CFFFF, D0000-D3FFF, D4000-D7FFF, D8000-DBFFF, DC000-DFFFF Shadow - If you have a shadowing of the BIOS at any of the above segments, you may set the appropriate memory cacheable function to "**Enabled**". Otherwise, select "**Disabled**" (default).

Chipset Features Setup

áROM PCI/ISA BIOS <P5TX-A00>
CHIPSET FEATURES SETUP
AWARD SOFTWARE, INC.

Auto Configuration	: Enabled	PCI Passive Release	: Disabled
DRAM Timing	: 60ns	PCI Delayed Transaction	: Enabled
DRAM Leadoff Timing	: 10/6/3	Chip NA# Asserted	: Enabled
DRAM Read Burst <EDO/FP>	: x222/x333	Mem. Drive Str. <MA/RAS>	: Auto
DRAM Write Burst Timing	: x222		
Fast EDO Lead Off	: Enabled		
Refresh RAS# Assertion	: 4 Clks		
Fast RAS To CAS Delay	: 3		
DRAM Page Idle Timer	: 2 Clks		
DRAM Enhanced Paging	: Enabled		
Fast MA to RAS# Dealy	: 1 Clks		
SDRAM <CAS Lat/RAS-to-CAS>:	3/2		
SDRAM Speculative Read	: Disabled		
Speculative Lead Off	: Enabled		
System BIOS Cacheable	: Enabled	ESC : Quit	↑↓←→: Select Item
Video BIOS Cacheable	: Enabled	F1 : Help	PU/PD/+/- : Modify
8 Bit I/O Recovery Time	: 1	F5 : Old Values (Shift)F2 : Color	
16 Bit I/O Recovery Time	: 1	F6 : Load BIOS Defaults	
Memory Hole At 15M-16M	: Disabled	F7 : Load Optimum Setting	

Figure 3 -4. Chipset Features Setup Screen

Auto Configuration - Loads the default values, if “**Enabled**” (default), for the following DRAM and cache options. Otherwise, “**Disabled**” allows you to program each option as required.

- Enabled (default)
- Disabled



*The following items are controlled by **Auto Configuration** when users select “**Enabled**”. For this reason, their default values will be changed by the speed of CPU. These items are :*

“DRAM Leadoff Timing”, “DRAM Read Burst <EDO/FP>“, “DRAM Write Burst Timing”, “Fast EDO Lead Off” and “Refresh RAS# Assertion”.

DRAM Timing - Configures the DRAM read/write timing for the maximum performance. The available options are:

- 60ns (default)
- 70ns

DRAM Leadoff Timing - Determines the leadoff time for R/W to the Cache. The available options (R/W/RAS# Precharge) are:

- 10/6/3 (default)
- 11/7/4 ☆
- 10/6/4
- 11/7/3

DRAM Read Burst <EDO/FP> - Determines the timing for burst read to the cache . If your DRAM type is EDO DRAM, we suggest you select x222 (EDO) timing to get a better performance. The available options are:

- x222/ x333 (default)
- x333/ x444 ☆
- x444/ x444

DRAM Write Burst Timing - Determines the timing for burst write to the cache. If your DRAM type is EDO DRAM , we suggest you select x222 (EDO)timing to get a better performance. The available options are:

- x222 (default)
- x333 ☆
- x444



The default values for Cyrix CPUs such as M2 and P200+ running at 75MHz bus speed.

Fast EDO Lead Off - Pulls in one host clock for all read leadoff latencies for EDO DRAMs if this option is set as enabled. This option has to be disabled if any of the DRAM rows is populated with FPM DRAMS. The available options are:

- Enabled (default)
- Disabled

Refresh RAS# Assertion -Determines the number of clocks RAS# is asserted for Refresh cycles. The available options are:

- 4 Clks (default)
- 5 Clks

Fast RAS To CAS Delay - Selects the RAS-to-CAS delay time for DRAM access. The available options are:

- 3 (default)
- 2

BIOS

DRAM Page Idle Timer - Determines the amount of time in host clocks the MTXC DRAM controller will wait to close a DRAM page after the CPU become idle. The available options are:

- 2 Clks(default)
- 4/6/8 Clks

DRAM Enhanced Paging - The memory controller will keep the page open until a page/row miss if this option is set to disabled. It should be enabled for normal operation. The available options are:

- Enabled (default)
- Disabled

Fast MA to RAS# Delay - Selects the option for DRAM access. The available options are:

- 1 Clk (default)
- 2 Clks

SDRAM (CAS Lat/RAS-to-CAS) - Configs the SDRAM CAS latency time / RAS to CAS delay. The available options are:

- 3/2 (default)
- 3/3 ☆



“SDRAM (CAS Lat /RAS-to-CAS) “ will be shown only when users plug the SDRAM Module.



The default values for Cyrix CPUs such as M2 and P200+ running at 75MHz bus speed.

SDRAM Speculative Read - If this option is set as enabled, the SDRAM read will pull in one host clock for all read leadoff latencies. The available options are:

- Disabled (default)
- Enabled

Speculative Lead Off - If this option is set as enabled, the DRAM controller read request is presented before the final memory target has been decoded to memory controller. The available options are:

- Enabled (default)
- Disabled

System BIOS Cacheable - Allows caching of the different segments where there is system BIOS shadowing. The available options are:

- Enabled (default)
- Disabled

Video BIOS Cacheable - Allows caching of the different segments where there is video BIOS shadowing. The available options are:

- Enabled (default)
- Disabled

8 Bit I/O Recovery Time - Defines the 8-bit I/O recovery time with one of the following system clock options. The available options are:

- 1 (default)
- 2/3/4/5/6/7/8/NA

BIOS

16 Bit I/O Recovery Time- Defines the 16-bit I/O recovery time with one of the following system clock options. The available options are:

- 1 (default)
- 2/3/4/NA

Memory Hole At 15M-16M - Enables this option to reserve the certain space in memory for ISA cards. The available options are:

- Disabled (default)
- Enabled

PCI Passive Release - Enables or disables the passive release mechanism encoded on the PHOLD# signal when “PCI to ISA/IDE Xecelerator” is a PCI master. The available options are:

- Disabled (default)
- Enabled

PCI Delayed Transaction - Enables or Disables the delayed transaction mechanism when the “PCI to ISA/IDE Xecelerator” is the target of a PCI transaction. The available options are:

- Enabled (default)
- Disabled

Chip NA# Assertec - Enables or Disables the memory controller to assert NA# pin. The available options are:

- Enabled (default)
- Disabled ☆



The default values for Cyrix CPUs such as M2 and P200+ running at 75MHz bus speed.

Mem. Drive Str. <MA / RAS> - Controls the strength of the output buffers driving the MA, SRASx#, SCASx#, MWEx# and CKEx pins. The available options are:

- Auto (default)
- 10mA/10mA
- 10mA/16mA
- 16mA/10mA

BIOS

Power Management Setup

ROM PCI/ISA BIOS <P5TX-A00>
Power MANAGEMENT SETUP
AWARD SOFTWARE, INC.

Power Management	: Disabled	** Reload Global Timer Events **	
PM Control by APM	: Yes	IRQ[3-7,9-15],NMI	: Enabled
Video Off Method	: DPMS	Primary IDE 0	: Disabled
Video Off After	: Suspend	Primary IDE 1	: Disabled
Doze Mode	: Disabled	Secondary IDE 0	: Disabled
Standby Mode	: Disabled	Secondary IDE 1	: Disabled
Suspend Mode	: Disabled	Floppy Disk	: Disabled
HDD Power Down	: Disabled	Serial Port	: Disabled
Throttle Duty Cycle	: 62.5%	Parallel Port	: Disabled
ZZ Active in Suspend	: Disabled		
VGA Active Monitor	: Enabled		
Power Button Override	: Enabled		
CPUFAN Off In Suspend	: Enabled		
** Break Event From	Suspend **		
IRQ 8 Clock Event	: Disabled	ESC : Quit	↑↓←→: Select Item
Ring Indication Event	: Enabled	F1 : Help	PU/PD/+/- : Modify
		F5 : Old Values (Shift)F2 : Color	
		F6 : Load BIOS Defaults	
		F7 : Load Optimum Setting	

Figure 3 -5. Power Management Setup Screen

Power Management - Allows user determine how often the Power Saving activating . The available options are:

- Disable (default)
- Min Saving
- Max Saving
- User Define

PM Control by APM - Sets the power management (PM) control by the APM. The available options are:

- Yes (default)
- No

Video Off Method - Sets the video power green method . The available options are:

- DPMS (default)
- Blank Screen
- V/H SYNC+Blank

Video Off After - Turns off screen after selected standby or suspend mode. The available options are:

- Suspend (default)
- Doze
- Standby
- N/A

Doze Mode - Sets the time interval after system inactivity when the system enters DOZE mode. The available options are:

- Disabled (default)
- 1/2/4/6/8/12/20/30/40 Min
- 1 Hour

Standby Mode -Sets the timer interval after system inactivity when the system enters STANDBY mode. The available options are:

- Disabled (default)
- 1 Hour
- 1/2/4/6/8/12/20/30/40 Min

Suspend Mode -Sets the time interval after system inactivity when the system enters SUSPEND mode. The available options are:

- Disabled (default)
- 1 Hour
- 1/2/4/6/8/12/20/30/40 Min

HDD Power Down - Sets the time interval to power down HDD. The available options are:

- Disabled (default)
- 1...15 Min

Throttle Duty Cycle - Selects the percentage of time the STPCLK# signal is asserted which the throttle mode. The available options are:

- 62.5% (default)
- 50.0%,37.5%, 25.0%, 12.5%, 87.5%,75.0%

ZZ Active in Suspend - Determines whether to assert the ZZ signal while in suspend mode or not. The available options are:

- Disabled (default)
- Enabled

VGA Active Monitor - Determines whether to reload burst timer while PCI accesses to VGA I/O addresses or the A and B segment video memory ranges or not. The available options are:

- Enabled (default)
- Disabled

Power Button Override - Sets power button override function. It needs to press power button for over 4 seconds to power off a system if this option is set as enabled. The available options are:

- Enabled (default)
- Disabled

CPU FANOff In Suspend - Turns off CPU fan while in suspend mode. The available options are:

- Enabled (default)
- Disabled

Break Event From Suspend - Sets the resume event to “Enabled” or “Disabled” while system enters the suspend mode.

IRQ 8 Clock Event - The available options are:

- Disabled (default)
- Enabled

Ring Indication Event - The available options are:

- Enabled (default)
- Disabled

BIOS

Reload Global Time Events - Sets the wake up event to “Enabled” or “Disabled” while system enters standby mode.

IRQ[3-7, 9-15], NMI - The available options are:

- Enabled (default)
- Disabled

Primary IDE 0 / 1 - The available options are:

- Disabled (default)
- Enabled

Secondary IDE 0 / 1 - The available options are:

- Disabled (default)
- Enabled

Floppy Disk - The available options are:

- Disabled (default)
- Enabled

Serial Port - The available options are:

- Disabled (default)
- Enabled

Parallel Port - The available options are:

- Disabled (default)
- Enabled

PNP/PCI CONFIGURATION Setup

ROM PCI/ISA BIOS <P5TX-A00>
PNP/PCI CONFIGURATION
AWARD SOFTWARE, INC.

PNP OS Installed : No	PCI IDE IRQ Map To : PCI-AUTO
Resources Controlled By : Auto	Primary IDE INT# : A
Reset Configuration Data : Disabled	Secondary IDE INT# : B
ESC : Quit ↑↓→← : Select Item	
F1 : Help PU/PD/+/- : Modify	
F5 : Old Values (Shift)F2 : Color	
F6 : Load BIOS Defaults	
F7 : Load Optimum Setting	

Figure 3 -6. PNP/PCI CONFIGURATION SETUP Screen

PNP OS Installed - Tells if PnP OS is installed. The available options are:

- No (default)
- Yes

Resources Controlled By - Allows user what kind IRQs assignment to be used. “Manual” or “Automatic” definition. The available options are:

- Auto (default)
- Manual



The default of “**Resources Controlled By**” is *Auto*. If users set *Manual* option for the setting, “**IRQ-3 / IRQ-4 / IRQ-5 / IRQ-7 / IRQ-9 / IRQ-10 / IRQ-11 / IRQ-12 / IRQ-14 / IRQ-15 / DMA-0 / DMA-1 / DMA-3 / DMA-5 / DMA-6 / DMA-7 assigned to**” options below will be shown on the screen.

Reset Configuration Data - To clear the ESCD data which is stored in flash ROM, please set “**Enable**”. This is a one shot switch . After clearing the ESCD, the BIOS will change the value back to “**Disabled**”. The available options are:

- Disabled (default)
- Enabled

PCI IDE IRQ Map To - Most of PCI IDE cards are non-PCI compliant . Defines the IRQ Routing to make them work properly. The available options are:

- PCI-AUTO (default)
- ISA
- PCI-SLOT1
- PCI-SLOT2
- PCI-SLOT3
- PCI-SLOT4



If user sets this option to “**ISA**”, both the “**Primary IDE INT#**” and “**Secondary IDE INT#**” options below will not be shown on the screen.

Primary IDE INT# - Selects a PCI interrupt pin which will be used by the primary channel of a PCI IDE card. The available options are:

- A (default)
- B/C/D

Secondary IDE INT# - Selects a PCI interrupt pin which will be used by the secondary channel of a PCI IDE card. The available options are:

- B (default)
- A/C/D

Load BIOS Defaults

In the event of a loss in memory on the configuration SETUP, the user can restore the information on the BIOS by loading its default values. Loading the BIOS defaults provides safety booting of the system.

Load Optimum Setting

Optimum Setting is considered default values with which the system will be enabled to perform better. This is due to the enabling of some options within the SETUP program. However, if problems are encountered after loading Optimum Setting, reboot the system and load the BIOS defaults instead.

BIOS

INTEGRATED PERIPHERALS

ROM PCI/ISA BIOS <P5TX-A00>
INTEGRATED PERIPHERALS
AWARD SOFTWARE, INC.

IDE HDD Block Mode : Enabled	Onboard Parallel Mode : SPP
IDE Primary Master PIO : Auto	
IDE Primary Slave PIO : Auto	
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	
On-Chip Primary PCI IDE : Enabled	
On-Chip Secondary PCI IDE : Enabled	
USB Keyboard Support : Disabled	
Onboard FDD Controller : Enabled	
Onboard Serial Port 1 : Auto	
Onboard Serial Port 2 : Auto	
UART 2 Mode : Standard	
Onboard Parallel Port : 378/IRQ7	
	ESC : Quit ↑↓→←: Select Item
	F1 : Help PU/PD/+/- : Modify
	F5 : Old Values (Shift) F2 : Color
	F6 : Load BIOS Defaults
	F7 : Load Optimum Setting

Figure 3 -7. Integrated Peripherals SETUP Screen

IDE HDD Block Mode - Determines whether block transfer mode want to use or not . The available options are:

- Enabled (default)
- Disabled

IDE Primary/Secondary Master/ Slave PIO - Sets the advanced hard disk PIO transfer mode which effects your hard disk transfer rate. The program will auto detect the mode of this option you select “*Auto*”. Otherwise, you must set this option by yourself. The available options are:

- Auto (default)
- Mode 0
- Mode 1
- Mode 2
- Mode 3
- Mode 4

IDE Primary / Secondary Master/ Slave UDMA - Sets the advanced hard disk Ultra DMA/33 transfer mode. The available options are:

- Auto (default)
- Disabled

On-Chip Primary/Secondary PCI IDE - Enables or Disables the primary/secondary PCI IDE of IDE controller. Selecting “*Disabled*” can release IRQ14.

- Enabled (default)
- Disabled

USB Keyboard Support - Determines whether to support legacy USB keyboard or not. The available options are:

- Disabled (default)
- Enabled

Onboard FDD Controller - Enables or Disables the FDD on-board controller. The available options are:

- Enabled (default)
- Disabled

Onboard Serial Port 1/2 - Sets the I/O address for serial port 1/2.

- Auto (default of both serial ports)
- 2F8/IRQ3
- 3E8/IRQ4
- Disabled
- 3F8/IRQ4
- 2E8/IRQ3

UART 2 Mode - Determines which type IR module want to use . The available options are:

- Standard (default)
- HPSIR
- ASKIR



If users set this option to "Standard" (default, the following two options will not be shown on the screen.

ID Duplex Mode - Allows users to control the infrared communication duplex mode. The available options are:

- Half (default)
- Full

RxD, TxD Active - Sets RxD and TxD active levels. The available options are:

- Hi/Hi (default)
- Lo/Hi
- Hi/Lo
- Lo/Lo

Onboard Parallel Port - Sets the I/O address for the parallel port. The available options are:

- 378H/IRQ7 (default)
- 278H/IRQ5
- Disabled
- 3BCH/IRQ7



If users set this option to "Disabled", the "Onboard Parallel Mode" option below will not be shown on the screen.

Onboard Parallel Mode - Selects the working mode of parallel port. The available options are:

- SPP (default)
- EPP/SPP
- ECP/EPP
- ECP



1. *If users set this option to "SPP" or "EPP/SPP", the "ECP Mode Use DMA" option below will not be shown on the screen.*

2. *If users set this option to "SPP" or "ECP", the "Parallel Port EPP Type" option below will not be shown on the screen.*

ECP Mode Use DMA - Selects the DMA channel of ECP Mode to transfer your data. The available options are:

BIOS

- 3 (default)
- 1

Parallel Port EPP Type - Determines what version of EPP protocol to be supported. The available options are:

- EPP1.9 (default)
- EPP1.7

SUPERVISOR PASSWORD

The SUPERVISOR PASSWORD utility allows you to set, change, and disable the password which is stored in the BIOS. To change the password setting, press <Enter> on the SUPERVISOR PASSWORD option of the main menu and then type the new password.

Configure the Security Option within the BIOS Features Setup corresponding to the setting in this utility. SUPERVISOR PASSWORD access right is higher than USER PASSWORD .

The password can be at most 8 characters long. The program will require you to confirm the new password before it exits and will enable the utility. To disable the SUPERVISOR PASSWORD, press the <F1> when the program asks you to enter the new password.

USER PASSWORD

USER PASSWORD only can be used when the system is booting . Users only can enter SETUP screen to change the USER PASSWORD.

The password can be at most 8 characters long. The program will require you to confirm the new password before it exits and enables the utility. To disable the USER PASSWORD, press the <F1> as the program asks you to enter the new password.

IDE HDD Auto Detection

The IDE HDD Auto Detection provides auto configuration of the hard drive installed in the system. It supports LBA, Large, and Normal modes. If the system's hard disk drive has a capacity of over 528MB and supports LBA functions, you may enable either the LBA mode or the Large mode. On the other hand, if the hard disk drive's capacity is over 528MB but does support LBA functions, you may enable the Large mode in order to use over 528MB.



- a. The LBA and Large modes will only appear on the screen when the installed hard disk drive is specified to support the LBA mode.
- b. In the case when a hard disk drive's cylinder specification exceeds 1024, and does not support the LBA functions, only the Large mode will be displayed on the screen.
- c. With a hard disk drive supporting cylinders below 1024, only the Normal mode will appear on the screen. The Normal mode will also be shown on the screen under conditions a & b above.
- d. Hard disk drives with less than 528MB total capacity must be set to Normal mode when combined with either old BIOS versions or the Award BIOS.



LBA and Large modes are new specifications which may not be fully supported by all operating systems. An example of which is the current version of UNIX System (R3.2.4) which is still unable to support the LBA function. Therefore, determine the specifications of your hard disk drive and operating system before selecting the drive's mode.

After pressing the <Enter> key on this item of the main menu, the display screen will show the following screen.

```

ROM PCI/ISA BIOS <P5TX-A00>
CMOS SETUP UTILITY
AWARD SOFTWARE, INC.

HARD DISKS      TYPE  SIZE  CYLS HEAD PRECOMP LANDZ SECTOR  MODE
-----
Primary Master :

          Select Primary Master  Option (N=Skip) : N
          +-----+
          | OPTIONS  SIZE  CYLS HEAD PRECOMP LANDZ SECTOR  MODE |
          +-----+
          | 1        0    0    0    0    0    0    NORMAL |
          +-----+

Note: Some OSes (like SCO-UNIX) must use "NORMAL" for installation
Esc : Skip
    
```

Figure 3 -8. IDE HDD Auto Detection Screen

Once the program detects the type of hard disk installed, it will display the relative information such as the type, cylinders, heads, write pre-compensation, landing zone, number of sectors per track, size and mode. A message asking you to accept the IDE HDD detected will also be flashed on the screen.

BIOS

Quitting SETUP

After making all modifications in the SETUP program, go to the option "Save & Exit SETUP" then press the <Enter> key. The program will display the following screen.

Press <Y> to confirm the changes made, and the <N> or the <ESC> keys if further modifications are still necessary before exiting the SETUP program. Once the <Y> key is pressed, the system will automatically exit the program and reboot. However, if you want to cancel all changes made under the SETUP program, go to the option "Exit Without Saving".

Press <Y> and the system will exit the SETUP program then reboot without saving any of the changes made.



You may also use the <F10> key to save the new settings.