4. **BIOS CONFIGURATION**

Award's BIOS ROM has a built-in Setup program that allows users to modify the basic system configuration.

This type of information is stored in battery-backed CMOS SRAM so that it retains the Setup information when the power is turned off.

4.1. ENTERING SETUP

Power ON the computer and press immediately will allow you to enter Setup.

The other way to enter Setup is to power on the computer, when the below message appears briefly at the bottom of the screen during the POST (Power On Self Test), press Key or simultaneously press <Ctrl>, <Alt>, and <Esc> keys.

• Press DEL to enter SETUP.

If the message disappears before you respond and you still wish to enter Setup, restart the system to try again by turning it OFF then ON or pressing the "RESET" bottom on the system case.

You may also restart by simultaneously press <Ctrl>,<Alt>, and keys.

4.2. CONTROL KEYS

	
Up arrow	Move to previous item.
Down arrow	Move to next item.
Left arrow	Move to the item in the left hand.
Right arrow	Move to the item in the right hand.
Esc key	Main Menu - Quit and not save changes into CMOS Status Page Setup Menu and Option Page Setup Menu - Exit current page and return to Main Menu.
PgUp key	Increase the numeric value or make changes.
PgDn key	Decrease the numeric value or make changes.
F1 key	General help, only for Status Page Setup Menu and Option Page Setup Menu.
F2 key	Change color from total 16 colors.
F3 key	Calendar, only for Status Page Setup Menu.
F4 key	Reserved.
F5 key	Restore the previous CMOS value from CMOS, only for Option Page Setup Menu.
F6 key	Load the default CMOS value from BIOS default table, only for Option Page Setup Menu.
F7 key	Load the default.
F8 key	Reserved.
F9 key	Reserved.
F10 key	Save all the CMOS changes, only for Main Menu.

4.3. GETTING HELP

4.3.1. Main Menu

The on-line description of the highlighted setup function is displayed at the bottom of the screen.

4.3.2. Status Page Setup Menu / Option Page Setup Menu

Press F1 to pop up a small help window that describes the appropriate keys to use and the possible selections for the highlighted item. To exit the Help Window press <Esc>.

4.4. THE MAIN MENU

Once you enter Award BIOS CMOS Setup Utility, the Main Menu (Figure 4.1) will appear on the screen.

The Main Menu allows you to select setup functions and exit choices. Use arrow keys to select among the items and press <Enter> to accept or enter the sub-menu.

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 SETUP DEFAULTS	
Esc : Quit F10 : Save & Exit Setup	↑↓ + + : Select Item (Shift)F2 : Change Color

Figure 4.1: Main Menu

Standard CMOS setup

This setup page includes all the items in a standard compatible BIOS.

BIOS features setup

This setup page includes all the items of Award special enhanced features.

Chipset features setup

This setup page includes all the items of chipset special features.

• Power management setup

This setup page includes all the items of Green function features.

• PNP/PCI configuration

This setup page includes all the items of PNP/PCI configuration features.

Load BIOS defaults

BIOS defaults indicates the most appropriate value of the system parameter which the system would be in safe configuration.

· Load Setup defaults

Setup defaults indicates the most appropriate value of the system parameter which the system would be in best performance configuration.

• Integrated Peripherals

This setup page includes all the items of peripherals features.

• Supervisor Password

Change, set, or disable password. It allows you to limit access to the system and Setup, or just to Setup.

User Password

Change, set, or disable password. It allows you to limit access to the system.

• IDE HDD auto detection

Automatically configure hard disk parameter.

Save & exit setup

Save CMOS value changes to CMOS and exit setup.

Exit without save

Abandon all CMOS value changes and exit setup.

4.5. STANDARD CMOS SETUP MENU

The items in Standard CMOS Setup Menu (Figure 4.2) are divided into 9 categories. Each category includes no, one or more than one setup items. Use the arrows to highlight the item and then use the <PgUp> or <PgDn> keys to select the value you want in each item.

HARD DISKS TYPE Primary Master : AUTO Primary Slave : AUTO Secondary flaster : AUTO	SIZE Ø	CYLS	HEAD	PRECOMP		FOTOD	
Primary Master : AUTO Primary Slave : AUTO	Ø	2.5			CHINDE O	ECTUR	MODE
Secondary Master : AUTO Secondary Slave : AUTO	0000	ଉଉଉଡ	ଉତ୍ତତ୍ତ	ଅ <u>ଟି</u> ର୍ଚ୍ଚ ଅ	0000	0000	AUTO AUTO AUTO AUTO
Drive A : 1.44M, 3.5 in Drive B : None Floppy 3 Mode Support : Video : EGA/UGA	Disabled			Ext	Base Me ended Me Other Me	mory:	640) 15360) 384)

Figure 4.2: Standard CMOS Setup Menu

Date

The date format is <day>, <date> <month> <year>. Press <F3> to show the calendar.

Day	The day, from Sun to Sat, determined by the BIOS and is display-only
Date	The date, from 1 to 31 (or the maximum allowed in the month)
Month	The month, Jan. through Dec.
Year	The year, from 1994 through 2079

Time

The time format in <hour> <minute> <second>.

The time is calculated base on the 24-hour military-time clock.

For example, 1 p.m. is 13:00:00.

• Primary HDDs / Secondary HDDs

The category identify the types of hard disk from drive C to drive ${\sf F}$

4 devices that has been installed in the computer.

There are three options for definable type; User, Auto and None .

Type User is user-definable; and type Auto means automatically detecting HDD's type and None means No IDE HDD installed.

If you select Type User, related information is asked to be entered to the following items.

Enter the information directly from the keyboard and press <Enter>.

Those information should be provided in the documentation from your hard disk vendor or the system manufacturer.

CYLS.	number of cylinders
HEADS	number of heads
PRECOMP	write precomp
LANDZONE	landing zone
SECTORS	number of sectors

If a hard disk has not been installed select NONE and press <Enter>.

• Drive A type / Drive B type

The category identify the types of floppy disk drive A or drive B that has been installed in the computer.

None	No floppy drive installed
360K, 5.25 in.	5-1/4 inch PC-type standard drive; 360 kilobyte
	capacity.
1.2M, 5.25 in.	5-1/4 inch AT-type high-density drive; 1.2 megabyte capacity (3-1/2 inch when 3 Mode is Enabled).
720K, 3.5 in.	3-1/2 inch double-sided drive; 720 kilobyte capacity
1.44M, 3.5 in.	3-1/2 inch double-sided drive; 1.44 megabyte
	capacity.
2.88M, 3.5 in.	3-1/2 inch double-sided drive; 2.88 megabyte
	capacity.

4-6

5AX

• Floppy 3 Mode Support (for Japan Area)

Disable	Normal Floppy Drive.
Drive A	Drive A is 3 mode Floppy Drive.
Drive B	Drive B is 3 mode Floppy Drive.
Both	Drive A & B are 3 mode Floppy Drive.

Video

The category detects the type of adapter used for the primary system monitor that must match your video display card and monitor.

Although secondary monitors are supported, you do not have to select the type in setup.

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

Halt on

The category determines whether the computer will stop if an error is detected during power up.

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

Memory

The category is display-only which is determined by POST (Power On Self Test) of the BIOS.

Base Memory

The POST of the BIOS will determine the amount of base (or conventional) memory installed in the system.

The value of the base memory is typically 512 K for systems with 512 K memory installed on the motherboard, or 640 K for systems with 640 K or more memory installed on the motherboard.

Extended Memory

The BIOS determines how much extended memory is present during the POST.

This is the amount of memory located above 1 MB in the CPU's memory address map.

Expanded Memory

Expanded Memory in memory defined by the Lotus / Intel / Microsoft (LIM) standard as EMS.

Many standard DOS applications can not utilize memory above 640, the Expanded Memory Specification (EMS) swaps memory which not utilized by DOS with a section, or frame, so these applications can access all of the system memory.

Memory can be swapped by EMS is usually 64K within 1 MB or memory above 1 MB, depends on the chipset design.

Expanded memory device driver is required to use memory as Expanded Memory.

Other Memory

This refers to the memory located in the 640 to 1024 address space. This is memory that can be used for different applications.

DOS uses this area to load device drivers to keep as much base memory free for application programs. Most use for this area is Shadow RAM.

4-8

5AX

4.6. BIOS FEATURES SETUP



Figure 4.3: BIOS Features Setup

Virus Warning

This category flashes on the screen. During and after the system boots up, any attempt to write to the boot sector or partition table of the hard disk drive will halt the system and the following error message will appear, in the mean time, you can run anti-virus program to locate the problem.

The default value is Disabled.

Enabled	Activate automatically when the system boots up causing a warning message to appear when anything attempts to access the boot sector or hard disk partition table.
Disabled	No warning message appears when anything attempts to access the boot sector or hard disk partition table.

CPU Internal Cache / External Cache

These two categories speed up memory access. However, it depends on CPU / chipset design.

The default value is Enabled.

Enabled	Enable cache function.
Disabled	Disable cache function.

CPU Write Allocate

The default value is Disabled.

Enabled	Set CPU Write Allocate to Enabled.
Disabled	Set CPU Write Allocate to Disabled.

Quick Power On Self Test

This category speeds up Power On Self Test (POST) after you power on the computer. If it set to Enable, BIOS will skip some check items during POST.

The default value is Enabled.

Enabled	Enable quick POST.
Disabled	Normal POST.

Boot Sequence

This category determines which drive computer searches first for the disk operating system (i.e., DOS). Default value is A, C, SCSI.

X1, X2, X3	System will first search for X1 disk drive then X2 disk
	drive and then X3 disk drive.

VGA Boot From

The default value is PCI.

AGP	System will boot from AGP Display Card
PCI	System will boot from PCI VGA Card

• Swap Floppy Drive

The default value is Disabled.

Enabled	Floppy A & B will be swapped under DOS.
Disabled	Floppy A & B will be normal definition.

Boot Up Floppy Seek

During POST, BIOS will determine if the floppy disk drive installed is 40 or 80 tracks. 360 type is 40 tracks while 720 , 1.2 and 1.44 are all 80 tracks.

The default value is Enabled.

Enabled	BIOS searches for floppy disk drive to determine if it is 40 or 80 tracks. Note that BIOS can not tell from 720, 1.2 or 1.44 drive type as they are all 80 tracks.
Disabled	BIOS will not search for the type of floppy disk drive by track number. Note that there will not be any warning message if the drive installed is 360 .

Boot Up NumLock Status

The default value is On.

On	Keypad is number keys.
Off	Keypad is arrow keys.

Boot Up System Speed

The default value is High.

High	Set Boot Up System Speed: High.
Low	Set Boot Up System Speed: Low.

Gate A20 Option

The default value is Fast.

Fast	Set Boot Up System Speed: High.
Normal	Set Boot Up System Speed: Low.

Security option

The default value is Setup.

Setup	The system will boot and access to Setup will be denied if
	the correct password is not entered at the prompt.
System	The system will not boot and access to Setup will be
	denied if the correct password is not entered at the prompt.

- To disable security, select PASSWORD SETTING at Main Menu and then you will be asked to enter password. If the user does not type anything and just press <Enter>, it will disable security. Once the security is disabled, the system will boot and you can enter Setup freely.
- PCI/VGA Palette Snoop

The default value are Disabled.

Enabled	For having Video Card on ISA Bus and VGA Card on PCI
	Bus.
Disabled	For VGA Card only.

• OS Select For DRAM>64MB

The default value is Non-OS2.

Non-OS2	Using non-OS2 operating system.
OS2	Using OS2 operating system and DRAM>64MB.

• HDD S.M.A.R.T. Capability

The default value is Disable.

Enable	Enable HDD S.M.A.R.T. Capability
Disable	Disable HDD S.M.A.R.T. Capability

• Report No FDD For WIN 95

The default value is Yes.

No	Function disabled
Yes	Report No FDD For WIN 95

Video BIOS Shadow

It determines whether video BIOS will copied to RAM, however, it is optional from chipset design. Video Shadow will increase the video speed.

|--|

Enabled	Video shadow is enabled.
Disabled	Video shadow is disabled.

4-12

5AX

C8000 - CFFFF Shadow / D0000 - DFFFF Shadow

These categories determine whether optional ROM will be copied to RAM by 16 byte. The default value are Disabled.

Enabled	Optional shadow is enabled.
Disabled	Optional shadow is disabled.

4.7. CHIPSET FEATURES SETUP



Figure 4.4: Chipset Features Setup

Auto Configuration

The default value is Enabled.

Enabled	For General State.
Disabled	For Special SDRAM Timing and ISA CLK.

• Host Read DRAM Command Mode.

The default value is Syn.

Bypass	Set DRAM Cycle Start at T3 clock after ADS#.
Syn.	Set DRAM Cycle Start at T3+1 clock after ADS#.

AT Bus Clock

The default value is CLK2/4.

CLK2/3	Set AT Bus Clock to CLK2/3.
CLK2/4	Set AT Bus Clock to CLK2/4.
7.159MHz	Set AT Bus Clock to 7.159MHz.

• DRAM Timing

The default value is Normal.

Normal	For normal DRAM timing operation.
Fast	For Faster DRAM timing operation.
Slow	For Slower DRAM timing operation.

SDRAM CAS Latency

The default value is AUTO.

3	For Slower SDRAM DIMM module.
2	For Faster SDRAM DIMM module.
Auto	CAS latency time will be set automatically if you have SPD on SDRAM

Pipelined Function

The default value is Enable.

Enable	Enable Pipelined Function.
Disable	Disable Pipelined Function.

Graphics Aperture Size

The default value is 64MB.

16MB	Set Graphics Aperture Size to 16MB.
32MB	Set Graphics Aperture Size to 32MB.
64MB	Set Graphics Aperture Size to 64MB.
128MB	Set Graphics Aperture Size to 128MB.
256MB	Set Graphics Aperture Size to 256MB.

DRAM Data Integrity Mode

The default value is Disable.

ECC	Set DRAM Data Integrity Mode to ECC Mode. (only work at 66, 75 MHz)
Parity	Set DRAM Data Integrity Mode to Parity Mode. (only work at 66, 75 MHz)
Disable	Disable DRAM Data Integrity Mode.

• Memory Hole at 15M-16M

The default value is Disabled.

Enabled	Set Address=15-16MB relocate to ISA BUS.
Disabled	Normal Setting.

ISA Line Buffer

The default value is Enabled.

Enabled	Enable ISA Line Buffer.
Disabled	Disable ISA Line Buffer.

Passive Release

The default value is Enabled.

Enabled	Enable Passive Release.
Disabled	Disable Passive Release.

Delay Transaction

The default value is Disabled.

Enabled	Enable Delay Transaction.	
Disabled	Disable Delay Transaction.	

• Primary Frame Buffer

The default value is 2MB.

The deludit		
1MB	Set Primary Frame Buffer to 1MB.	
2MB	Set Primary Frame Buffer to 2MB.	
4MB	Set Primary Frame Buffer to 4MB.	
8MB	Set Primary Frame Buffer to 8MB.	
16MB	Set Primary Frame Buffer to 16MB.	
ALL	Set Primary Frame Buffer to ALL.	
Disabled	Disable Primary Frame Buffer.	

VGA Frame Buffer

The default value is Enabled.

Enabled	Enable VGA Frame Buffer.
Disabled	Disable VGA Frame Buffer.

Data Merge

The default	It value is Disabled.	
Enabled	Enable Data Merge.	
Disabled	Disable Data Merge.	

IO Recovery Period

The default value is 1 us.

0 us~ 3 us	It's recommended not to program the period longer than 1
	US.

Auto Detect DIMM/PCI Clk

The default value is Enabled.		
1		Enabled Auto Detect DIMM/PCI Clk.
		Disabled Auto Detect DIMM/PCI Clk.

Spread Spectrum

The default value is 0.6% (CNTR)

Disabled Normal	
0.6%(CNTR)	Set Spread Spectrum 0.6%(CNTR) for reducing EMI
	effect.

4.8. POWER MANAGEMENT SETUP

ROM PCI/ISA POWER MANA AWARD SOF	A BIOS (2A5KKG09) AGEMENT SETUP FTWARE, INC.
Power Management : Enable PM Control by APM : Yes MODEM Use IRQ : 3 Video Off After : Suspend Video Off Method : DPMS Support	** External Switch ** Power Button : Instant Off
** PH Monitor ** HDD Power Down : Disable Suspend Mode : Disable Throtte Duty Cycle : Disabled FAN Off After : Suspend CPU Temperature : Disable	
** PM Events ** Primary HDD : Disabled Floppy : Disabled COM Ports : Enabled Keyboard : Enabled LPT Ports : Disabled	ESC : Quit 14++ : Select Iter F1 : Help PU/PD/+/- : Modify F5 : Old Values (Shift)F2 : Color F6 : Load BIOS Defaults F7 : Load Setup Defaults

Figure 4.5: Power Management Setup

Power Management

The default value is Enabled.

Enabled	Enable Green function.
Disabled	Disable Green function.

PM Control by APM

The default value is Yes.

Yes	Enable software APM function.
No	Disable software APM function.

MODEM use IRQ

The default value is 3.

NA	No use IRQ for Modem.
3~5,7,9~11	Assign Available IRQ# for Modem.

Video off Option

The default value is Suspend.

Suspend	Set Video off if system enter Suspend Mode.
Always On	Set Video always on.

Video Off Method

The default value is DPMS Support.

V/H SYNC + Blank	BIOS will turn off V/H-SYNC when gets into
	Green mode for Green monitor power saving.
Blank Screen	BIOS will only black monitor when gets into
	Green mode.
DPMS Support	BIOS will use DPMS Standard to control VGA
	card. (The Green type VGA card will turn of V/H-
	SYNC automatically.)

HDD Power Down

The default value is Disable.

Disable	Disable HDD Power Down mode function.
1-15 mins.	Enable HDD Power Down mode between 1 to 15 mins.

Suspend Mode

The default value is Disable.

Disabled	Disable Suspend Mode.
1 min - 1 Hour	Setup the timer to enter Suspend Mode.

Throttle Duty Cycle

The default value is Disable.

12.5-25%	Set Throttle Duty Cycle is 12.5-25%.
37.5-50%	Set Throttle Duty Cycle is 37.5-50%.
62.5-75%	Set Throttle Duty Cycle is 62.5-75%.
Disable	Disable Throttle Duty Cycle.

FAN off Option

The default value is Suspend.

Suspend	Set FAN off if system enter Suspend Mode.
Always On	Set FAN always on.

CPU Temperature

The default value is Disable.

Auto	Set CPU Temperature Automatically.
65°C / 149°F	Monitor CPU Temp. at 65°C / 149°F. if Temp. > 65°C /
	149°F, the speed of CPU will be slow down.
70°C / 158°F	Monitor CPU Temp. at 70°C / 158°F. if Temp. > 70°C /
	158°F, the speed of CPU will be slow down.
75°C / 167°F	Monitor CPU Temp. at 75°C / 167°F. if Temp. > 75°C /
	167°F, the speed of CPU will be slow down.
80°C / 176°F	Monitor CPU Temp. at 80°C / 176°F. if Temp. > 80°C /
	176°F, the speed of CPU will be slow down.
Disable	Disable the Function.

Primary HDD

The default value is Disabled.

Enabled	Disable Primary HDD Ports Activity.
Disabled	Enable Primary HDD Ports Activity.

Floppy

The default value is Disabled.

Enabled	Enable Floppy Ports Activity.
Disabled	Disable Floppy Ports Activity.

COM Ports

The default value is Enable.

Enabled	Enable COM Ports Activity.

Keyboard

The default value is Enable.

Enabled	Enable Keyboard Activity.
---------	---------------------------

LPT Ports

The default value is Disabled.

Enabled	Enable LPT Ports.
Disabled	Disable LPT Ports.

Power Button

The default value is Instant Off.

Instant off	Soft switch ON/OFF for POWER ON/OFF.
Delay 4Sec.	Soft switch ON 4sec. for POWER OFF.

4.9. PNP/PCI CONFIGURATION

ROM PCI∕ISA BIOS (245KK609) PNP∕PCI CONFIGURATION AWARD SOFTWARE, INC.			
PNP OS Installed : No Resources Controlled By : Manual Reset Configuration Data : Disabled	PCI IRQ Actived By PCI IDE IRQ Map To Primary IDE INI#	Evel PCI-AUTO A B	
IRQ-3 assigned to : PCI/ISA PnP IRQ-4 assigned to : PCI/ISA PnP IRQ-5 assigned to : PCI/ISA PnP IRQ-7 assigned to : PCI/ISA PnP IRQ-10 assigned to : PCI/ISA PnP IRQ-11 assigned to : PCI/ISA PnP IRQ-12 assigned to : PCI/ISA PnP IRQ-14 assigned to : Legacy ISA IRQ-15 assigned to : Legacy ISA IRQ-16 assigned to : Legacy ISA	Secondary IDE INT#	: D	
DMA-0 assigned to : PCI/ISA PnP DMA-1 assigned to : PCI/ISA PnP DMA-3 assigned to : PCI/ISA PnP DMA-5 assigned to : PCI/ISA PnP DMA-6 assigned to : PCI/ISA PnP DMA-7 assigned to : PCI/ISA PnP	ESC: Quit 14++: S F1 : Help PU/PD/+ F5 : Old Values (Shift) F6 : Load BIOS Defaults F7 : Load Setup Defaults	Select Item /- : Modify 72 : Color	

Figure 4.6: PCI Slot Configuration

PNP OS Installed

The default value is No.

Yes	Enable PNP OS Installed function.
No	Disable PNP OS Installed function.

Resources Controlled by

The default value is Manual.

Manual	User can set the PnP resource (I/O Address, IRQ & DMA
	channels) used by legacy ISA DEVICE.
Auto	BIOS automatically use these PnP rescuers.

Reset Configuration Data

The default value is Disabled.

Disabled	Disable this function.
Enabled	Enable clear PnP information in ESCD.

• IRQ (7,12,14,15), IRQ(3,4,5,9,10,11)&DMA(0,1,3,5,6,7) assigned to

The default value is "Legacy ISA" or "PCI/ISA PnP".

Legacy ISA	The resource is used by Legacy ISA device.
PCI/ISA PnP	The resource is used by PCI/ISA PnP device (PCI or ISA).

PCI IRQ Actived By

The default value is Level.

Level	Set PCI IRQ Actived by Level.
Edge	Set PCI IRQ Actived by Edge.

PCI IDE IRQ Map To

The default value is PCI-AUTO.

PCI-AUTO	Map PCI IDE IRQ to PCI slot automatically.
ISA	Map PCI IDE IRQ to ISA slot.

Primary/Secondary IDE INT#

А	Set INTA for primary/secondary PCI IDE.
В	Set INTB for primary/secondary PCI IDE.
С	Set INTC for primary/secondary PCI IDE.
D	Set INTD for primary/secondary PCI IDE.

4.10. LOAD BIOS DEFAULTS



Figure 4.7: Load BIOS Defaults

Load BIOS Defaults

To load BIOS defaults value to CMOS SRAM, enter "Y". If not, enter "N".

4.11. LOAD SETUP DEFAULTS



Figure 4.8: Load Setup Defaults

• Load SETUP Defaults

To load SETUP defaults value to CMOS SRAM, enter "Y". If not, enter "N".

• If there is any problem occurred, loading SETUP DEFAULTS step is recommended.

4.12. INTEGRATED PERIPHERALS

ROM PCI∕ISA BIOS (2A5KKG09) INTEGRATED PERIPHERALS AWARD SOFTWARE, INC.			
On-Chip Primary IDE Master PIO Slave PIO Master Ultra DMA Slave Ultra DMA On-Chip Secondary IDE Master VIO Master PIO Master Ultra DMA Slave Ultra DMA IDE HOD Block Mode On-Chip USB Controller USB Keyboard Support Ring/Wake On LAN Control Onboard FDC Controller Onboard Serial Port 1 Onboard Parallel Port Parallel Port Mode	: Enabled : Auto : Auto : Auto : Enabled : Auto : Auto : Auto : Auto : Enabled : Enabled : Enabled : Enabled : Enabled : Enabled : Enabled : Enabled : Enabled : SF8/IRQ3 : 378/IRQ7 : SPP	KB PWR ON/OFF Function : ☆KB PWR ON/OFF Password : RTC Alarm Controller * Date Alarm * Hour Alarm * Minute Alarm	Disabled Enter : Disabled : NA : 0 : 1

Figure 4.9: Integrated peripherals

- ☆ When KB PWR ON/OFF Function set Enabled, KB PWR ON/OFF Password : Enter will show up.
- * These three items will show up when RTC Alarm Controller is enabled.
- On-Chip Primary IDE

The default value is Enabled.

Enabled	Enable onboard 1st channel IDE port.
Disabled	Disable onboard 1st channel IDE port.

• Master PIO (for onboard IDE 1st channel).

The default value is Auto.

Auto	BIOS will automatically detect the IDE HDD Accessing mode.
Mode0~4	Manually set the IDE Accessing mode.

• Slave PIO (for onboard IDE 1st channel).

The default value is Auto.

Auto	BIOS will automatically detect the IDE HDD Accessing mode.
Mode0~4	Manually set the IDE Accessing mode.

• Master Ultra DMA (for onboard IDE 1sd channel).

The default value is Auto.

Auto	BIOS will automatically detect the IDE HDD Accessing mode.
Disabled	Disable UDMA function.

• Slave Ultra DMA (for onboard IDE 1sd channel).

The default value is Auto.

Auto	BIOS will automatically detect the IDE HDD Accessing mode.
Disabled	Disable UDMA function.

On-Chip Secondary IDE

The default value is Enabled.

Enabled	Enable onboard 2nd channel IDE port.
Disabled	Disable onboard 2nd channel IDE port.

• Master PIO (for onboard IDE 2nd channel).

The default value is Auto.

Auto	BIOS will automatically detect the IDE HDD Accessing
	mode.
Mode0~4	Manually set the IDE Accessing mode.

• Slave PIO (for onboard IDE 2nd channel).

The default value is Auto.

Auto	BIOS will automatically detect the IDE HDD Accessing
	mode.
Mode0~4	Manually set the IDE Accessing mode.

• Master Ultra DMA (for onboard IDE 2nd channel).

The default value is Auto.

Auto	BIOS will automatically detect the IDE HDD Accessing
	mode.
Disabled	Disable UDMA function.

• Slave Ultra DMA (for onboard IDE 2nd channel).

The default value is Auto.

Auto	BIOS will automatically detect the IDE HDD Accessing
	mode.
Disabled	Disable UDMA function.

IDE HDD Block Mode

The default value is Enabled.

Enabled	Enable IDE HDD Block Mode
Disabled	Disable IDE HDD Block Mode

On-Chip USB Controller

The default value is Enabled.

Disabled	Disable USB Controller.
Enabled	Enable USB Controller.

USB Keyboard Support

The default value is Disabled.

Disabled	Disable USB Keyboard Support.
Enabled	Enable USB Keyboard Support.

• Ring / Wake On Lan Control

The default value is Enable.

Enabled	Enable Modem Ring On / Wake On Lan function.
Disabled	Disable this function.

Onboard FDC Controller

The default value is Enabled.

Enabled	Enable onboard Floppy port.
Disabled	Disable onboard Floppy port.

Onboard Serial Port 1

The default value is 3F8/IRQ4.

Auto	BIOS will automatically setup the port 1 address.			
3F8/IRQ4	Enable onboard Serial port 1 and address is 3F8.			
2F8/IRQ3	Enable onboard Serial port 1 and address is 2F8.			
3E8/IRQ4	Enable onboard Serial port 1 and address is 3E8.			
2E8/IRQ3	Enable onboard Serial port 1 and address is 2E8.			
Disabled	Disable onboard Serial port 1.			

Onboard Serial Port 2

The default value is 2F8/IRQ3.

Auto	BIOS will automatically setup the port 2 address.
3F8/IRQ4	Enable onboard Serial port 2 and address is 3F8.
2F8/IRQ3	Enable onboard Serial port 2 and address is 2F8.
3E8/IRQ4	Enable onboard Serial port 2 and address is 3E8.
2E8/IRQ3	Enable onboard Serial port 2 and address is 2E8.
Disabled	Disable onboard Serial port 2.

Onboard Parallel port

The default value is 378/IRQ7.

378/IRQ7	Enable onboard LPT port and address is 378/IRQ7.			
278/IRQ5	Enable onboard LPT port and address is 278/IRQ5.			
Disabled	Disable onboard LPT port.			
3BC/IRQ7	Enable onboard LPT port and address is 3BC/IRQ7.			

KB PWR ON/OFF Function

The default value is Disabled.

Disabled	Disabled KB PWR ON/OFF Function
Enabled	Enabled KB PWR ON/OFF Function

KB PWR ON/OFF Password

The default value is Enter.

€ KB PWR ON/OFF Function Set Enabled, KB PWR ON/OFF Password : Enter will show up. When users enabled KB PWR ON/OFF Function, please set password with three different characters, and press the three different characters password at the same time.

For example, if users set "abc" as password , then he would press "a" "b" "c" at the same time. (a-b-c is hot key).

• RTC Alarm Controller

The default value is Disabled.

Disabled	Disable this function.
Enabled	Enable alarm function to POWER ON system.

If RTC Alarm Controller is Enabled.

Date Alarm :	NA,1~31
Hour Alarm :	0~24
MinuteAlarm :	0~59

4.13. SUPERVISOR / USER PASSWORD

When you select this function, the following message will appear at the center of the screen to assist you in creating a password.



Figure 4.10: Password Setting

Type the password, up to eight characters, and press <Enter>. The password typed now will clear previously entered password from CMOS memory.

You will be asked to confirm the password. Type the password again and press <Enter>. You may also press <Esc> to abort the selection and not enter a password.

To disable password, just press <Enter> when you are prompted to enter password. A message will confirm the password being disabled.

Once the password is disabled, the system will boot and you can enter Setup freely.

PASSWORD DISABLED

If you select System at Security Option of BIOS Features Setup Menu, you will be prompted for the password every time the system is rebooted or any time you try to enter Setup.

If you select Setup at Security Option of BIOS Features Setup Menu, you will be prompted only when you try to enter Setup.

4.14. IDE HDD AUTO DETECTION

			IDE	HDD AU	BIOS (2A69J ITO DECTIO FTWARE, IN	N É		
HARD DISKS TYPE SIZE CYLS HEAD PRECOMP LANDZ SECTOR MODE								
Primary f	Master :							
		Se	lect Prin	hary Ma	ster Option (N=Skip):	N .	
	OPTION	SIZE	CYLS	HEAD	PRECOMP	LANDZ	SECTOR	MODE
	2 M	521	530	32	0	1059	63	LBA
	1	52	1060	16	65535	1059	63	NORMAL
	3	521	530	32	65535	1059	63	LARGE
Note: Some Oses (like SCO-UNIX) must use "NORMAL" for installation ESC : Skip Figure 4.11: IDE HDD Auto Detection								

Type "Y" will accept the H.D.D. parameter reported by BIOS.

Type "N" will keep the old H.D.D. parameter setup. If the hard disk cylinder NO. is over 1024, then the user can select LBA mode or LARGE mode for DOS partition larger than 528 MB.

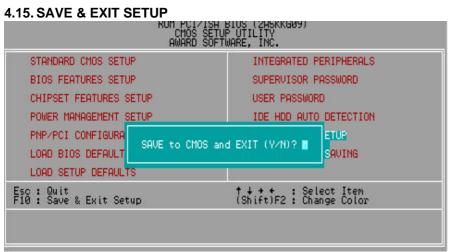


Figure 4.12: Save & Exit Setup

Type "Y" will quit the Setup Utility and save the user setup value to RTC CMOS SRAM.

Type "N" will return to Setup Utility.

BIOS Configuration

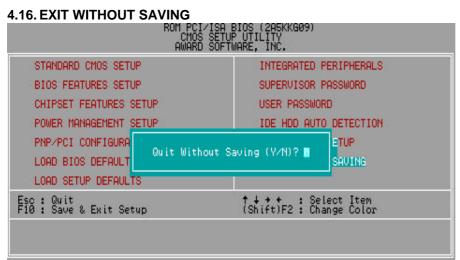


Figure 4.13: Exit Without Saving

Type "Y" will quit the Setup Utility without saving to RTC CMOS SRAM.

Type "N" will return to Setup Utility.

5. Troubleshooting

How to remove "?PCI Universal Serial Bus" under the Windows 95 ?

Method 1:

1.Please Install the file "USBSUPP.EXE" attached in Windows95 OSR2.1 CD $\,$

2.Run this file and then system will restart.

3. Please go to the Device Manager , and remove "?PCI Universal Serial Bus".

4. Please press "Refresh" button.

5.System will request your USB Driver in the directory c:\windows\system\openhci.sys

6. Choose this directory and press "OK", System will find Open HCl's USB Driver.

7.Restart your system.

Method 2:

- 1. Go to the web site of ALi (http://www.ali.com.tw/eframes.htm)
- 2. Download ALi USB Host Controller Supplement.
- 3. Install the file according to readme.



FCC Compliance Statement:

This equipment has been tested and found to comply with limits for a Class B digital device , pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in residential installations. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television equipment reception, which can be determined by turning the

equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- -Reorient or relocate the receiving antenna
- -Move the equipment away from the receiver
- -Plug the equipment into an outlet on a circuit different from that to which the receiver is connected
- -Consult the dealer or an experienced radio/television technician for additional suggestions

You are cautioned that any change or modifications to the equipment not expressly approve by the party responsible for compliance could void Your authority to operate such equipment.

This device complies with Part 15 of the FCC Rules. Operation is subjected to the following two conditions 1) this device may not cause harmful interference and 2) this device must accept any interference received, including interference that may cause undesired operation.

Declaration of Conformity

We, Manufacturer/Importer (full address)

G.B.T. Technology Trading GMBH Ausschlager Weg 41, 1F, 20537 Hamburg, Germany

declare that the product (description of the apparatus, system, installation to which it refers)

Mother Board GA-5AX

is in conformity with (reference to the specification under which conformity is declared) in accordance with 89/336 EEC-EMC Directive

🔲 EN 55011	Limits and methods of measurement of radio disturbance characteristics of industrial, scientific and medical (ISM high frequency equipment	☐ EN 61000-3-2* ⊠ EN60555-2	Disturbances in supply systems caused by household appliances and similar electrical equipment "Harmonics"				
EN55013	Limits and methods of measurement of radio disturbance characteristics of broadcast receivers and associated equipment	☐ EN61000-3-3* ⊠ EN60555-3	Disturbances in supply systems caused by household appliances and similar electrical equipment "Voltage fluctuations"				
EN 55014	Limits and methods of measurement of radio disturbance characteristics of household electrical appliances,	🖾 EN 50081-1	Generic emission standard Part 1: Residual, commercial and light industry				
	portable tools and similar electrical apparatus	I EN 50082-1	Generic immunity standard Part 1: Residual, commercial and light industry				
EN 55015	Limits and methods of measurement of radio disturbance characteristics of fluorescent lamps and luminaries	EN 55081-2	Generic emission standard Part 2: Industrial environment				
EN 55020	Immunity from radio interference of broadcast receivers and associated equipment	EN 55082-2	Generic immunity standard Part 2: Industrial environment				
I EN 55022	Limits and methods of measurement of radio disturbance characteristics of information technology equipment	ENV 55104	Immunity requirements for household appliances tools and similar apparatus				
DIN VDE 0855	Cabled distribution systems; Equipment for receiving and/or distribution from sound and television signals	EN 50091-2	EMC requirements for uninterruptible power systems (UPS)				
CE marking		(EC conformit	y marking)				
	The manufacturer also declares the conformity of above mentioned product with the actual required safety standards in accordance with LVD 73/23 EEC						
EN 60065	Safety requirements for mains operated electronic and related apparatus for household and similar general use	🔲 EN 60950	Safety for information technology equipment including electrical business equipment				
EN 60335	Safety of household and similar electrical appliances	EN 50091-1	General and Safety requirements for uninterruptible power systems (UPS)				
		Manufacturer/Importer					

(Stamp)

Date : MAY. 29, 1998

Signature : Rex Lin Name : Rex Lin