



• Swap Floppy Drive	<i>Enabled</i>	Exchanges the assignment of A&B floppy drives.
	<i>Disabled</i>	The assignment of A&B floppy drives are normal.
• Boot up Floppy Seek	<i>Enabled</i>	BIOS searches for the floppy disk drive to determine if the drive is ready for diskette read/write during booting.
	<i>Disabled</i>	Skips the drive seeking to speed up system booting.
• Boot Up Numlock Status	<i>On</i>	Keypad is used as number keys.
	<i>Off</i>	Keypad is used as arrow keys.
• Gate A20 Option	<i>Normal</i>	The A20 signal is controlled by the keyboard controller or chipset hardware.
	<i>Fast</i>	Default setting. The A20 signal is controlled by Port 92 or the chipset specific method.
• Typematic Rate Setting	<i>Enabled</i>	Enables typematic rate and typematic delay programming.
	<i>Disabled</i>	Disables typematic rate and typematic delay programming. The system BIOS will use the default value of these two items.
• Typematic Rate (Chars/Sec)	<i>6-30</i>	Sets the speed of the typematic rate (characters per second).
• Typematic Delay (Msec)	<i>250-1000</i>	Sets the time of the typematic delay.
• Password Setting	<i>System</i>	The system will not boot and access to BIOS Setup will be denied if the correct password is not entered when prompted.
	<i>Setup</i>	The system will boot up, but access to BIOS Setup will be denied if the correct password is not entered when prompted.
• PCI/VGA Palette Snoop	<i>Enabled</i>	Non-standard VGA cards such as graphics accelerators or MPEG video cards may not show colors properly. Enabling this item can solve this problem.
	<i>Disabled</i>	Default setting.
• OS Select For DRAM>64MB	<i>Non-OS2</i>	If your operating system is not OS/2, please select this item.
	<i>OS2</i>	If system DRAM is more than 64MB and the operating system is OS/2, please select this item.
• HDD S.M.A.R.T Capability	<i>Enabled</i>	Enables S.M.A.R.T hard disk support.
• Report NO FDD For WIN95	<i>Disabled</i>	Invalidates this feature.
	<i>Yes</i>	Reports ' No Floppy Disk Drive' for WIN95 to release IRQ6.
• Video BIOS Shadow	<i>No</i>	Does not report ' No Floppy Disk Drive' for WIN95.
	<i>Enabled</i>	Video BIOS will be copied to RAM. Video Shadow will increase the video speed.
	<i>Disabled</i>	Video shadow is disabled.



- C8000-CBFFF Shadow: DC000-DFFFF
Shadow: *Enabled* Optional ROM will be copied to RAM by 16K bytes per unit.
- Show Bootup Logo
Shadow: *Disabled* The shadow function is disabled.
- Show Bootup Logo
Shadow: *Enabled* Enables the logo when system boots up.
- Show Bootup Logo
Shadow: *Disabled* Logo will not be shown when system boots up.

Chipset Features Setup

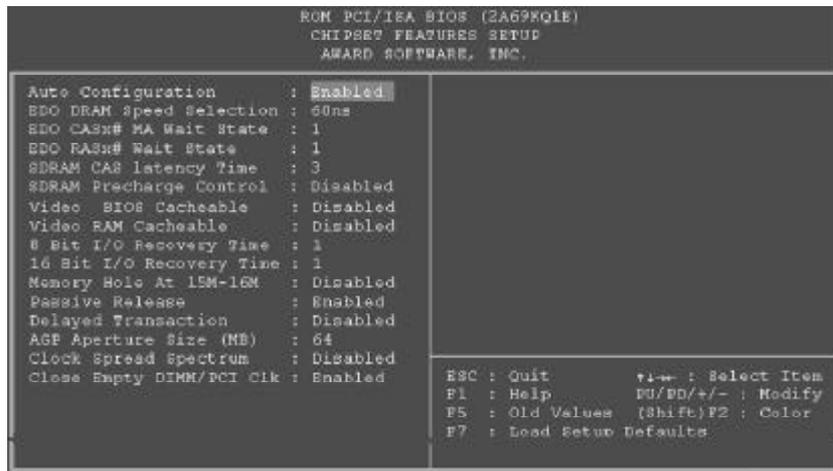


Figure-4 Chipset Features Setup Menu

The following indicates the options of each item and describes their meaning.

<u>Item</u>	<u>Option</u>	<u>Description</u>
• Auto Configuration	<i>Enabled</i>	Automatically configures DRAM Timing according to the value of "DRAM Speed Selection".
	<i>Disabled</i>	Manually configure. *Note: It is recommended that the Enabled option be chosen by common users.
• EDO DRAM Speed Selection	50ns, 60ns	This item is of selected EDO DRAM read/write timing. You must ensure that your DIMMs are as fast as 50ns, otherwise 60ns should be selected .
• EDO CAS# MA Wait State	2	One additional wait state is inserted before the assertion of the first CAS# for page hit cycles. This allows one additional clock of MA setup time to the CAS# for the leadoff page hit cycle. Page miss and row miss timing are not affected by this item.
	1	Without additional wait state.



• EDO RAS# Wait State	2	One additional wait state is inserted before RAS# is asserted for row misses. This provides one clock of additional MAX[13:0] setup time to RAS# assertion. This bit does not affect page misses since the MAX[13:0] lines are setup several clocks in advance of RAS# assertion for page misses. Without additional wait state.
• SDRAM CAS Latency Time	1	Defines the CLT timing parameter of SDRAM. Latency Time=2x system clocks.
	2	Latency Time=2x system clocks.
	3	Latency Time=3x system clocks.
• SDRAM Percharge Control	<i>Enabled</i> <i>Disabled</i>	Default setting is suggested.
• DRAM ECC Select	<i>ECC</i> <i>Non-ECC</i>	Provides ECC (Error Checking and Correction) function. Disables ECC function.
• Video BIOS Cacheable	<i>Enabled</i> <i>Disabled</i>	Beside conventional memory, video BIOS area is also cacheable. Video BIOS area is not cacheable.
• Video RAM Cacheable	<i>Enabled</i> <i>Disabled</i>	Besides conventional memory, video RAM area is also cacheable. Video RAM area is not cacheable.
• 8 Bit I / O Recovery Time.	1~ 8	Defines the ISA Bus 8 bit I/O operating recovery time.
	NA	8 bit I/O recovery time does not exist.
• 16 Bit I / O Recovery Time	1~ 4	Defines the ISA Bus 16 bit I/O operating recovery time.
	NA	16 bit I/O recovery time does not exist.
• Memory hole at 15M-16M	<i>Enabled</i>	Memory hole at 15-16M is reserved for expanded ISA card
	<i>Disabled</i>	Does not set this memory hole.
• Passive Release	<i>Enabled</i> <i>Disabled</i>	Default setting is suggested.
	<i>Enabled</i> <i>Disabled</i>	Default setting is suggested.
• AGP Aperture Size (MB)	4~256	Sets the effective size of the Graphics Aperture to be used in the particular PAC Configuration.
• Clock Spread Spectrum	<i>Enabled</i> <i>Disabled</i>	Enables Clock Spread Spectrum to reduce EMI. Disables Clock Spread Spectrum.
	<i>Enabled</i> <i>Disabled</i>	Closes empty DIMM clock or PCI clock to reduce EMI. Does not close empty DIMM or PCI clock.



Power Management Setup

```

ROM PCI/ISA BIOS (2A69F01E)
POWER MANAGEMENT SETUP
AWARD SOFTWARE, INC.

ACPI function      : Disabled
Power Management  : Min Saving
PM Control by APM : Yes
Video Off Method  : V/H SYNC+Blank
Video Off After   : Standby
MODEM Use IRQ     : NA
Doze Mode         : Disable
Standby Mode      : Disable
Suspend Mode      : Disable
HDD Power Down    : Disable
HDD Down When Suspend: Enabled
Throttle Duty Cycle : 50.0%
VGA Active Monitor : Disabled
Soft-Off by PWR-BTZN : Instant-Off
CPUFAN Off In Suspend: Enabled
Resume by Ring    : Disabled
Resume by Alarm   : Disabled

Wake Up On LAN    : Disabled

IRQ 8 Break Suspend : Disabled
** Reload Global Timer Events **
IRQ[3-7,9-15],NMI : Disabled
Primary IDE 0      : Disabled
Primary IDE 1      : Disabled
Secondary IDE 0    : Disabled
Secondary IDE 1    : Disabled
Floppy Disk        : Disabled
Serial Port        : Enabled
Parallel Port      : Disabled

ESC : Quit      +<=> : Select Item
F1  : Help      PU/PD/+/- : Modify
F5  : old values (shift)+F2 : Color
F7  : Load Setup Defaults

```

Figure-5 Power Management Setup Menu

The following indicates the options of each item and describes their meaning.

<u>Item</u>	<u>Option</u>	<u>Description</u>
• ACPI function	<i>Disabled</i>	Invalidates ACPI function.
	<i>Enabled</i>	Validates ACPI function.
• Power Management	<i>User Define</i>	Users can configure their own Power Management Timer.
	<i>Min Saving</i>	Pre - defined timer values are used. All timers are in their MAX values.
	<i>Max Saving</i>	Pre - defined timer values are used. All timers are in their MIN values.
• PM Control by APM	No	System BIOS will ignore APM when Power Management is enabled.
	Yes	System BIOS will wait for APM' s prompt before it enters any PM mode e.g. Standby or Suspend. Note: If APM is installed, and there is a task running, even when the timer is time out, the APM will not prompt the BIOS to put the system into any power saving mode. But if APM is not installed, this option has no effect.
• Video Off Method	<i>Blank Screen</i>	The system BIOS will only blank off the screen when disabling video.
	<i>V / H SYNC + Blank</i>	In addition to Blank Screen, BIOS will also turn



	<i>DPMS</i>	off the V-SYNC & H - SYNC signals from VGA cards to monitor. This function is enabled only for the VGA card supporting DPMS. Note: When the green monitor can't detect the V/H-SYNC signals, the electron gun will be turned off.
• Video Off After	<i>N/A</i> <i>Suspend</i> <i>Standby</i> <i>Doze</i>	System BIOS will never turn off the screen. Screen blanks after the system enters Suspend mode. Screen blanks after the system enters Standby mode. Screen blanks after the system enters Doze mode.
• MODEM Use IRQ	<i>3,7,5,7,9,10,11</i>	Special wake-up event for Modems.
• Doze mode	<i>NA</i> <i>Disabled</i> <i>1Min ~ 1 Hr</i>	Invalidates this feature. The system never enters Doze mode. Defines the continuous idle time before the system enters Doze mode. If any items defined in "Reload Global Timer Events" are On and activated, the system will be woken up.
• Standby Mode	<i>Disabled 1 Min ~ 1Hr</i>	The system never enters Standby mode. Defines the continuous idle time before the system enters Standby mode. If any items defined in "Reload Global Timer Events" are On and activated, the system will be woken up.
• Suspend Mode	<i>Disabled</i> <i>Min ~ 1Hr</i>	The system never enters Suspend mode. Defines the continuous idle time before the system enters Suspend mode. If any items defined in "Reload Global Timer Events" is On and activated, the system will be woken up.
• HDD Power Down	<i>Disabled</i> <i>1 ~15 Min</i>	HDD' s motor remains on. Defines the continuous HDD idle time before the HDD enters the power saving mode (motor off)
• HDD Down When suspend	<i>Enabled</i>	HDD' s motor will be off when the system enters suspend mode.
• Throttle Duty Cycle	<i>Disabled</i> <i>12.5%</i> <i>25%</i> <i>37.5%</i> <i>50 %</i> <i>62.5%</i>	HDD' s motor remains on. Selects the duty cycle of the STPCLK# signal, slowing down the CPU speed when the system enters the green mode.



	75%	
• VGA Active Monitor	Enabled	VGA active reloads global timer.
	Disabled	VGA active has no influence to global timer.
• Soft-Off by PWR-BTTN	Instant-Off	The system will power off immediately once the "Power" button is pressed.
	Delay 4 Secs	The system will not power off until the "Power" button is pressed continuously for more than 4 seconds.
• CPUFAN Off In Suspend	Enabled	CPU FAN will be automatically turned off when the system enters suspend mode.
	Disabled	CPU FAN remains on when the system enters suspend mode.
• Resume by Ring	Enabled	Allows the system to be powered on when a Ring Indicator signal comes up to UART1 or UART2 from external modem or comes up to WOM# from an internal modem card.
	Disabled	Does not allow Ring Power-On.
• Resume by Alarm	Enabled	RTC alarm can be used to generate a wake event to power up the system which is in power-off status. You can set any time or any date to power up the system.
	Disabled	RTC has no alarm function.
• Wake Up On LAN	Enabled	Allows the system to be powered on when a remote wake-up signal comes up to the WOL header from LAN adapter .
	Disabled	Does not allow wake-up on LAN.
• IRQ 8 Break Suspend	Enabled	Generates a clock event.
	Disabled	Does not generate a clock event.
• IRQ [3-7, 9-15], NMI	Enabled	Reload global timer.
	Disabled	Does not influence the global timer.
.....		
Parallel Port		



PNP/PCI Configuration Setup

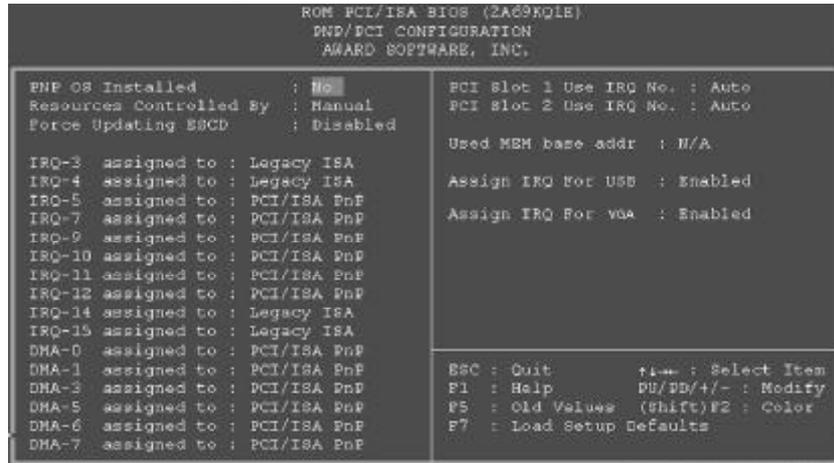


Figure-6 PNP/PCI Configuration Setup Menu

The following indicates the options of each item and describes their meaning.

<u>Item</u>	<u>Option</u>	<u>Description</u>
• PNP OS Installed	Yes No	Device resources assigned by PnP OS. Device resources assigned by BIOS.
• Resources Controlled by	Manual Auto	Assigns the system resources (IRQ and DMA) manually. Assigns system resources (IRQ and DMA) automatically by BIOS.
• Force Updating ESCD	Enabled Disabled	The system BIOS will force updating ESCD once, then automatically set this item as Disabled. Disables the forced update ESCD function.
• IRQ-3~IRQ-15 assigned to	Legacy ISA PCI/ISA PnP	The specified IRQ-x will be assigned to Legacy ISA. The specified IRQ-x will be assigned to ISA or PCI.
• DMA-0~DMA-7 assigned to	Legacy ISA PCI/ISA PnP	The specified DMA-x will be assigned to Legacy ISA. The specified DMA-x will be assigned to ISA or PCI.
• PCI Slot 1/2 use IRQ No.	Auto,3,4,5,7,9 10,11,12,14,15	Assigns an IRQ for PCI slot1/2 manually or automatically.
• Used MEM base	C800/8 ~ 64K N/A	Claims a memory space to be occupied by legacy ISA card. The memory address and the memory size (8/16/32/64K) can be chosen from this option. Invalidates this feature.
• Assign IRQ for USB	Enabled Disabled	Assigns an IRQ for USB. If an USB device is used, Enable this item. Does not assign any IRQ for USB. If no USB device is used, disabling this item can release the IRQ.
• Assign IRQ For VGA	Enabled Disabled	Assigns the needed IRQ for the VGA card. Does not assign an IRQ for the VGA Card, in order to release the IRQ.



Integrated Peripherals

```

ROM PCI/ISA BIOS (2A69KQ1E)
INTEGRATED PERIPHERALS
AWARD SOFTWARE, INC.

IDE HDD Block Mode      : Enabled
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
Init Display First     : PCI Slot
POWER ON Function      : BUTTON ONLY

Onboard FDC Controller : Enabled

Onboard Serial Port 1  : 3F8/IRQ4
Onboard Serial Port 2  : 2F8/IRQ3
Serial Port 2 Mode     : Normal

Onboard Parallel Port  : 378/IRQ7
Parallel Port Mode     : SPP

PWROEN After FWR-Fail : Off

ESC : Quit          +< : Select Item
F1  : Help         F9/PD/*/- : Modify
F5  : Old Values   (Shift)F2 : Color
F7  : Load Setup Defaults

```

Figure-7 Integrated Peripherals Menu

The following indicates the options of each item and describes their meaning.

<u>Item</u>	<u>Option</u>	<u>Description</u>
● IDE HDD Block Mode	<i>Enabled</i>	Allows IDE HDD to read/write several sectors at once.
	<i>Disabled</i>	IDE HDD only reads/writes a sector once.
● IDE Primary/ Secondary Master/Slave PIO	<i>Mode 0 - 4</i>	Defines the IDE primary/secondary master/ slave PIO mode.
	<i>Auto</i>	The IDE PIO mode is defined by auto -detection.
● IDE Primary/ Secondary Master/Slave UDMA	<i>Auto</i>	Ultra DMA mode will be enabled if ultra DMA device is detected.
	<i>Disabled</i>	Disables this function.
● On-chip Primary/Secondary PCI IDE	<i>Enabled</i>	On-chip primary/secondary PCI IDE port is enabled.
	<i>Disabled</i>	On-chip primary/secondary PCI IDE port is disabled.
● USB Keyboard Support	<i>Enabled</i>	USB Keyboard Support is enabled.
	<i>Disabled</i>	USB Keyboard Support is disabled.
● Init Display First Support	<i>PCI Slot</i>	Initializes the PCI VGA first. If a PCI VGA is installed and the onboard AGP is enabled on the system, the first one initialized functions.
	<i>AGP</i>	Initializes the AGP first.
	<i>BUTTON Only</i>	Uses the power button to power up the system.
● POWER ON Function	<i>Password</i>	Enables the Keyboard Password Power-on



		function and disables the power button's power-on function. Other than choosing this option, the password should be entered to implement this function.
	<i>Mouse Left</i>	The system can be powered up by double clicking the left mouse button.
	<i>Mouse Right</i>	The system can be powered up by double clicking the right mouse button. Note: If the option (Password/Mouse Left/ Mouse Right) is chosen, the jumper JP3 must be set as PIN1&PIN 2 closed, or it will prevent you from powering up your system.
• Onboard FDC Controller	<i>Enabled</i> <i>Disabled</i>	Onboard floppy disk controller is enabled. Onboard floppy disk controller is disabled.
• Onboard Serial port 1/2	<i>3F8/IRQ4,</i> <i>2F8/IRQ3,</i> <i>3E8/IRQ4,</i> <i>2E8/IRQ3,</i> <i>Auto</i>	Defines the onboard serial port address and required interrupt number.
• Serial Port 2 Mode	<i>Disabled,</i> <i>Normal</i> <i>ASKIR</i> <i>IrDA</i>	Onboard serial port is disabled. Defines Serial Port 2 as standard serial port. Supports SHARP ASK-IR protocol with maximum baud rate up to 57600bps. Supports IrDA version 1.0 SIR protocol with maximum baud rate up to 115.2Kbps.
• Onboard Parallel Port	<i>378/IRQ7,</i> <i>278/IRQ5,</i> <i>3BC/IRQ7</i> <i>Disabled</i>	Defines onboard parallel port address and IRQ channel.
• Parallel Port Mode	<i>SPP</i> <i>EPP</i> <i>ECP,</i> <i>ECP+EPP</i>	Onboard parallel port is disabled. Defines the parallel port mode as Standard Parallel Port (SPP), Enhanced Parallel Port (EPP), or Extended Capabilities Port (ECP).
• PWRON After PWR-Fail	<i>Off</i> <i>On</i> <i>Former-Sts</i>	The system remains OFF when the AC power supply resumes. The system will be powered up when the AC power supply resumes. Whatever the system status is, before the AC power supply cuts off, the system resumes in the previous status (ON/OFF) when the AC power supply resumes.



System Monitor

```

ROM PCI/ISA BIOS (2A69KQ1E)
System Monitor SETUP
AWARD SOFTWARE, INC.

Current System Temp.      : 30°C/86°F
Current CPU Temperature  : 39°C/102°F
Current CPUFAN Speed     : 4320 RPM
Current PSFAN Speed     : 2150 RPM
Current CHSFAN Speed    : 2010 RPM
VCCVID(CPU) Voltage     : 1.98 V
VTT(+1.5V) Voltage      : 1.37 V
+3.3V Voltage           : 3.32 V
+5V Voltage             : 4.83 V
+12V Voltage            : 11.79 V
-12V Voltage            : -13.50 V
-5V Voltage             : -5.85 V

ESC : Quit      +I+ : Select Item
F1  : Help     BU/PD/+/- : Modify
F5  : old values (Shift)F2 : Color
F7  : Load Setup Defaults

```

Figure-8 System Monitor Menu

The following describes the meaning of each item.

<u>Item</u>	<u>Current Data Shown</u>	<u>Description</u>
• Current System Temp.	30°C/ 86°C	The temperature inside the chassis.
Current CPU Temperature	39°C/ 102°C	The temperature of the CPU core.
• Current CPUFAN Speed	4320RPM	RPM(Revolution Per Minute)-speed of fan connected to the fan header CPUFAN or
Current PSFAN Speed	2150RPM	CHSFAN. Fan speed value is based on an assumption that tachometer signal is two pulses per revolution; In other cases, you should regard it relatively.
Current CHSFAN Speed	2010RPM	
• VCCVID(CPU) Voltage	1.98V	Displays current Voltage values including all significant voltages of the mainboard.
VTT (+1.5) Voltage,	1.37V	
+ 3.3V Voltage	3.32V	+3.3V, +5V, +12V, -12V, -5V are voltages from the ATX power supply, VTT (+1.5)
+ 5V	4.83V	Voltage is GTL Termination Voltage from the on-board regulator, and VCCVID (CPU)
+12V	11.79V	Voltage is CPU Core Voltage from the on board switching Power Supply.
-12V	-13.50V	
- 5V	-5.85V	



Password Setting

When this function is selected, the following message appears at the center of the screen to assist you in creating a password.

ENTER PASSWORD

Type the password, up to eight characters, and press <Enter>. The password typed now will clear any 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.

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 CMOS Setup freely.

PASSWORD DISABLED

If you have selected '**System**' in 'Password Setting' of 'BIOS Features Setup' menu, you will be prompted for the password every time the system reboots or any time you enter CMOS Setup.

If you have selected '**Setup**' at 'Password Setting' from 'BIOS Features Setup' menu, you will be prompted for the password only when you enter CMOS Setup.



IDE HDD Auto Detection

The Enhanced IDE features are included in all Award BIOS. Below is a brief description of these features.

ROM PCI/ISA BIOS (2A69KQ10) 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								
OPTION	SIZE	CYLS	HEAD	PRECOMP	LANDZ	SECTOR	MODE	
2(Y)	541	525	32	0	1049	67	LBA	
1	541	1050	16	65535	1049	63	NORMAL	
3	541	525	32	65535	1049	63	LARG	
Note: Some OSes (like SCO-UNIX) must use "NORMAL" for installation								
ESC: Skip								

Figure-9 IDE HDD Auto Detection Menu

1. Setup Changes

With auto-detection

- BIOS setup will display all possible modes supported by the HDD including NORMAL, LBA and LARGE.
- If HDD does not support LBA modes, no 'LBA' option will be shown.
- If number of physical cylinder is less than or equal to 1024, 'LARGE' option may not be shown.
- Users can select their appropriate mode .

With Standard CMOS Setup

	CYLS	HEADS	PRECOMP	LAND	SECTOR	MODE
	ZONE					
Drive C: User(516MB)	1120	16	65535	1119	59	Normal
Drive D: None(203MB)	684	16	65535	685	38	-----

When HDD type is in 'user' type, the 'MODE' option will be available for users to select their own HDD mode.



2. HDD Modes

The Award BIOS supports 3 HDD modes: NORMAL, LBA and LARGE.

NORMAL

Generic access mode in which neither the BIOS nor the IDE controller will make any transformation during accessing. The maximum number of cylinders, heads and sectors for NORMAL mode are 1024,16 and 63.

If the user sets his HDD to NORMAL mode, the maximum accessible HDD size will be 528 megabytes even though its physical size may be greater than that.

LBA (Logical Block Addressing) mode

A new HDD accessing method to overcome the 528 Megabyte bottleneck. The number of cylinders, heads and sectors shown in setup may not be the number physically contained in the HDD.

During HDD accessing, the IDE controller will transform the logical address described by sector, head and cylinder number into its own physical address inside the HDD. The maximum HDD size supported by LBA mode is 8.4 Gigabytes.

LARGE mode

Some IDE HDDs contain more than 1024 cylinder without LBA support (in some cases, users do not want LBA). The Award BIOS provides another alternative to support these kinds of HDD.

BIOS tricks DOS (or other OS) into recognizing the number of cylinders is less than 1024 by dividing it by 2. At the same time, the number of heads is multiplied by 2. A reverse transformation process will be made inside INT13h in order to access the right HDD address.

If using Auto detect, the BIOS will automatically detect the IDE hard disk mode and set it as one of the three modes.

3. Remark

To support LBA or LARGE mode of HDDs, there must be some softwares involved which are located in Award HDD Service Routine(INT13h).It may fail to access a HDD with LBA (LARGE) mode selected if you are running under an Operating System which replaces the whole INT 13h.

Boot with BIOS defaults

If you have made all the changes to CMOS values and the system can not boot with the CMOS values selected in setup, clear CMOS after power-down, then power on again. System will boot with BIOS default settings.



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Chapter 4

ATI Rage IIC/Pro AGP Graphics Description

The onboard AGP VGA is based on ATI Rage IIC/Pro Graphics Accelerator which brings excellent 2D graphics acceleration, high 3D performance and superior video quality for business and multimedia applications.

Features :

- AGP Bus, AGP V1.0 compliant.
- ATI Rage IIC/Pro 2D/3D/ Video acceleration chip.
- 2MB/4MB SGRAM on board and a SO-DIMM socket for extension use (manufacturing option).
- Excellent 2D Graphics for business applications.
- 3D performance unmatched in its class.
- High quality full screen and full speed video playback.
Supports multi-stream video for video conference.
- Integrated 200 MHz internal DAC, supports resolutions up to 1600x1200 at 76 Hz, true color operation up to 1280x1024 at 85 Hz(depend on video memory size).
- VGA Fully compatible, DPMS for power management support.
- DDC2B for monitoring plug and play support.
- Drivers for major operation systems and APIs including Windows 95/98, Windows NT /4.0, DirectX 5.0, etc.
- Drivers meet Microsoft rigorous WHQL criteria.
- Driver Auto-installation for Windows 95/98/NT.
- Popular games supported.

System Requirements:

Please refer to Chapter2 for information on connecting the VGA monitor on page 10, and how to disable/enable the onboard VGA on page 7. The system requirements are as stated below:

Monitor: Standard VGA monitor. For receiving all benefits from the graphics card, a high resolution multi-frequency monitor is needed.

Operating: Windows 95; Windows 98, Windows NT 4.0 etc.

System