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ROM PCI/ISA BIOS (2A69KQ1D)
STANDARD CMOS SETUP
AWARD SOFTWARE, INC.

Date (mm.dd.yy) : Sat, Jan 3 1998
Time (hh:mm:ss) : 5 : 30 : 55

HARD DISKS      TYPE  SIZE  CYLS HEAD PRECOMP LANDZ SECTOR  MODE
Primary Master  : Auto   0    0  0    0    0    0  Auto
Primary Slave   : Auto   0    0  0    0    0    0  Auto
Secondary Master: Auto   0    0  0    0    0    0  Auto
Secondary Slave : Auto   0    0  0    0    0    0  Auto

Drive A : 1.44M, 3.5 in.
Drive B : None

Video : EGA/VGA
Halt On : All Errors

Base Memory: 640K
Extended Memory: 97280K
Other Memory: 384K
Total Memory: 98304K

ESC : Quit      ↑ ↓ + * : Select Item      PU/PD/+/- : Modify
F1 : Help      (Shift)F2 : Change Color
```

Figure-2 Standard CMOS Setup Menu

Hard Disk

Primary Master/Primary Slave/Secondary Master/Secondary Slave

These categories identify the HDD types of 2 IDE channels installed in the computer system. There are three choices provided for the Enhanced IDE BIOS: None, Auto, and User. 'None' means no HDD is installed or set; 'Auto' means the system can auto-detect the hard disk when booting up; by choosing 'user', the related information should be entered regarding the following items. Enter the information directly from the keyboard and press <Enter>:

CYLS	number of cylinders	HEAD	number of heads
PRECOMP	write pre-compensation	LANDZ	landing zone
SECTOR	number of sectors	MODE	HDD access mode

Video

Set this field to the type of video display card installed in your system.

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



Halt On

This category determines whether or not the computer will stop if an error is detected during powering up.

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

Memory

This is a Display-Only Category, 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.
Extended Memory	The BIOS determines how much extended memory is presented during the POST.
Other Memory	This is the memory that can be used for different applications. Shadow RAM is most used in this area.
Total Memory	Total memory of the system equals the sum of the above memory.



SpeedEasy CPU Setup

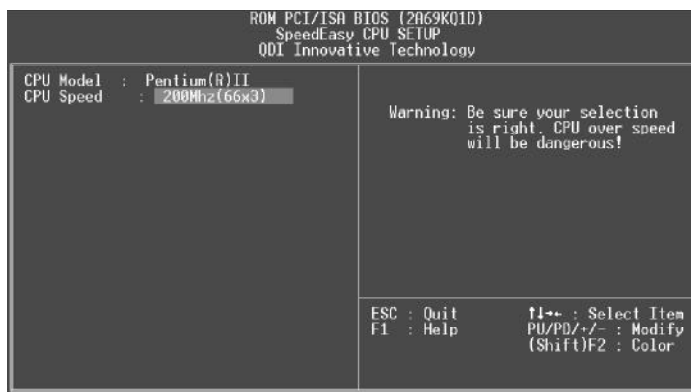


Figure-3 SpeedEasy CPU Setup

The following indicates the options for each item and describes their meanings .

<u>Item</u>	<u>Option</u>	<u>Description</u>
• CPU Model		BIOS automatically detects the CPU model, therefore this item is shown only. It could be Pentium(R)II or Intel (R) Celeron(TM), depending on the processor chosen.
• CPU Speed	<i>SpeedEasy</i>	CPU frequency should be set according to the CPU type. For Celeron™ or Pentium®II (66MHz front-side bus) processors, you can choose from 200MHz (66X3), 233MHz(66X3.5), 266MHz (66x4), 300MHz(66X4.5), or 333MHz (66X5). For Pentium®II processors with 100MHz front-side bus, you can select from 300MHz(100X3), 350MHz (100X3.5), 400MHz (100X4), 450MHz(100X4.5), or 500MHz(100X5).
	<i>Jumper Emulation</i>	This item is only for users who understand all the CPU parameters, i.e. System Bus Frequency ‘ 100MHz/66MHz’ and multiplication of Processor Core Frequency to System Bus frequency “ x3, x3.5, x4, x4.5, x5, x5.5” .

Warning:

Do not set CPU frequency higher than its working frequency. If you do, we will not be responsible for any damages caused.



BIOS Features Setup



Figure-4 BIOS Features Setup Menu

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

<u>Item</u>	<u>Option</u>	<u>Description</u>
• ChipAway Virus On Guard	<i>Enabled</i>	Guards against boot virus threats early in the boot cycle, before they have a chance to load into your system, ensuring your computer boots to a clean operating system.
	<i>Disabled</i>	Invalidates this function.
• CPU L1/L2 Cache	<i>Enabled</i>	Enables CPU internal Level1/Level2 cache.
	<i>Disabled</i>	Disables CPU internal Level1/Level2 cache.
• CPU L2 Cache ECC	<i>Enabled</i>	Enables CPU L2 Cache ECC (Error Checking and Correction) function.
	<i>Disabled</i>	Disables CPU L2 Cache ECC function.
• Quick Power On Self Test	<i>Enabled</i>	Enables quick POST. BIOS will shorten or skip some check items during POST to speed up POST after you power on the computer.
	<i>Disabled</i>	Normal POST.
• Boot From LAN First	<i>Enabled</i>	Boot from LAN is ahead of any boot sequence selection (LAN Adapter must support this function).
	<i>Disabled</i>	Does not boot from LAN first.
• Boot Sequence	<i>C,A,SCSI,... C,CDROM,A LS/ZIP, C</i>	Any search sequency can be chosen for booting



• 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	<i>On</i>	Keypad is used as number keys.
Numlock Status	<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.
• 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.
• 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.
	<i>Disabled</i>	Invalidates this feature.
• Video BIOS Shadow	<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:	<i>Enabled</i>	Optional ROM will be copied to RAM by 16K bytes per unit.
	<i>Disabled</i>	The shadow function is disabled.
• Show Bootup Logo	<i>Enabled</i>	Enables the logo when system boots up
	<i>Disabled</i>	Logo will not be shown when system boots up.



Chipset Features Setup

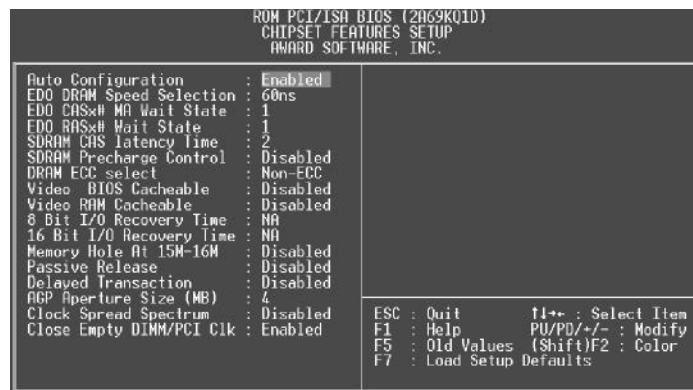


Figure-5 Chipset Features Setup Menu

The following indicates the options for 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 configures. *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 bit.
	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.
	1	Without additional wait state.



• SDRAM CAS Latency Time	2	Defines the CLT timing parameter of SDRAM. Latency Time=2x system clocks.
	3	Latency Time=3x system clocks.
• SDRAM Percharge Control	Enabled	Default setting is suggested.
	Disabled	
• DRAM ECC Select	ECC	Provides ECC (Error Checking and Correction) function.
	Non-ECC	Disables ECC function.
• Video BIOS Cacheable	Enabled	Beside conventional memory, video BIOS area is also cacheable.
	Disabled	Video BIOS area is not cacheable.
• Video RAM Cacheable	Enabled	Besides conventional memory, video BIOS area is also cacheable.
	Disabled	Video BIOS 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	Enabled	Memory hole at 15-16M is reserved for expanded ISA card
	Disabled	Does not set this memory hole.
• Passive Release	Enabled	Default setting is suggested.
	Disabled	
• Delayed Transaction	Enabled	Default setting is suggested.
	Disabled	
• 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	Enabled	Enables Clock Spread Spectrum to reduce EMI.
	Disabled	Disables Clock Spread Spectrum.
• Close Empty DIMM/PCI Clk	Enabled	Closes empty DIMM clock or PCI clock to reduce EMI.
	Disabled	Does not close empty DIMM or PCI clock.



Power Management Setup



Figure-6 Power Management Setup Menu

The following indicates the options for 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>Disabled</i>	Global Power Management (PM) will be disabled.
	<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 entering 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 +</i>	In addition to Blank Screen, BIOS will also turn off the V-SYNC & H - SYNC signals from VGA cards to monitor.
	<i>DPMS</i>	This function is enabled only for the VGA card supporting DPMS. Note: When the green monitor detects the V/H-SYNC signals, the electron gun will be turned off.
• Video Off After	<i>N/A</i>	System BIOS never turns off the screen.
	<i>Suspend</i>	Screen blanks after the system enters Suspend mode.
	<i>Standby</i>	Screen blanks after the system enters Standby mode.
	<i>Doze</i>	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.
	<i>NA</i>	Invalidates this feature.
• Doze mode	<i>Disabled</i>	The system never enters Doze mode.
	<i>1Min ~ 1 Hr</i>	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 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' are On and activated, the system will be woken up.
• HDD Power Down	<i>Disabled 1 ~15 Min</i>	HDD' s motor will not be off. Defines the continuous HDD idle time before the HDD enters the power saving mode (motor off).
• HDD Down	<i>Enabled</i>	HDD' s motor will be off when the system enters suspend mode.
When suspend	<i>Disabled</i>	HDD' s motor will no be off.
• Throttle Duty Cycle	<i>12.5% 25% 37.5% 50 % 62.5%</i>	Selects the duty cycle of the STPCLK# signal , slowing down the CPU speed when the system enters the green mode.



<ul style="list-style-type: none"> • Soft-Off by PWR-BTTN 	75%	<p>The system will power off immediately once the ' Power' button is pressed.</p> <p>The system will not power off until the ' Power' button is pressed continuously for more than 4 seconds.</p>
	87.5%	
	<i>Instant-Off</i>	
<ul style="list-style-type: none"> • CPUFAN Off In Suspend 	<i>Delay 4 Secs</i>	<p>CPU fan will be automatically turned off when the system enters suspend mode.</p> <p>CPU fan remains on when the system enters suspend mode.</p>
	<i>Enabled</i>	
<ul style="list-style-type: none"> • Resume by Ring 	<i>Disabled</i>	<p>Allows the system to be powered on when a ring indicator signal comes up to UART1 or UART2 from an external modem or comes up to WOM header from an internal modem card.</p> <p>Does not allow Ring Power-On.</p>
	<i>Enabled</i>	
<ul style="list-style-type: none"> • Resume by Alarm 	<i>Disabled</i>	<p>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 date, any time to power up the system.</p> <p>RTC has no alarm function.</p>
	<i>Enabled</i>	
<ul style="list-style-type: none"> • Wake Up On LAN 	<i>Disabled</i>	<p>Allows the system to be powered on when a remote wake up signal comes up to the WOL header from LAN adapter .</p> <p>Does not allow wake-up on LAN.</p>
	<i>Enabled</i>	
<ul style="list-style-type: none"> • IRQ8 Break suspend 	<i>Disabled</i>	<p>Generates a clock event.</p> <p>Does not generate a clock event.</p>
	<i>Enabled</i>	
<ul style="list-style-type: none"> • IRQ [3-7, 9-15], NMI 	<i>Disabled</i>	<p>Reloads global timer.</p> <p>Does not influence the global timer.</p>
	<i>Enabled</i>	
.....		
Parallel Port		



PNP/PCI Configuration Setup

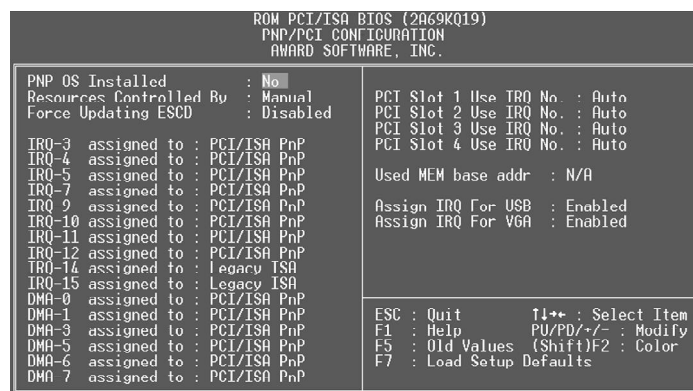


Figure-7 PNP/PCI Configuration Setup Menu

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

<u>Item</u>	<u>Option</u>	<u>Description</u>
• PNP OS Installed	Yes	Device resources assigned by PnP OS.
	No	Device resources assigned by BIOS.
• Resources Controlled By	Manual	Assigns the system resources (IRQ and DMA) manually .
	Auto	Assigns system resources (IRQ and DMA) automatically by BIOS.
• Force Updating ESCD	Enabled	The system BIOS will force updating ESCD once, then automatically set this item as Disabled.
	Disabled	Disables the forced update ESCD function.
• IRQ-3~IRQ-15 assigned to	Legacy ISA	The specified IRQ-x will be assigned to ISA only.
	PCI/ISA PnP	The specified IRQ-x will be assigned to ISA or PCI.
• DMA-0~DMA-7 assigned to	Legacy ISA	The specified DMA-x will be assigned to ISA only.
	PCI/ISA PnP	The specified DMA-x will be assigned to ISA or PCI.
• PCI Slot 1/2/3/4 use IRQ No.	Auto,3,4,5,7,9 10,11,12,14,15	Assigns an IRQ for PCI slot1/2/3/4 manually or automatically.
• Used MEM base addr	C800/8 ~ 64K	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 the options.
	N/A	Invalidates this feature.



- Assign IRQ for USB

Enabled

Assigns an IRQ for USB. If an USB device is used, enable this item.

Disabled

Does not assign an IRQ for USB. If no USB device used, disabling this item can release the IRQ.

- Assign IRQ for VGA

Enabled

Assigns the needed IRQ for the VGA Card.

Disabled

Does not assign an IRQ for the VGA card, in order to release the IRQ.



Integrated Peripherals

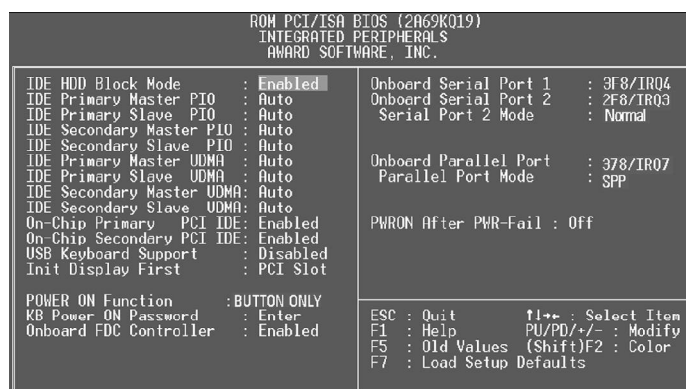


Figure-8 Integrated Peripherals Menu

The following indicates the options for 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	<i>PCI SLOT</i>	Initializes the PCI VGA first. If a PCI VGA card and an AGP card are installed together in the system, the one initialized first functions.
	<i>AGP</i>	Initializes the AGP first.
• POWER ON Function	<i>BUTTON ONLY</i>	Use the power button to power up the system.
	<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.
		Note: If this option(Password) is chosen, the jumperJP2 must be set as PIN1&PIN 2 closed, or this 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 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.
		Onboard serial port address and IRQ are automatically assigned.
• 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 version1.0 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>	Defines onboard parallel port address and IRQ channel.
	<i>Disabled</i>	Onboard parallel port is disabled.
• Parallel Port Mode	<i>SPP</i> <i>EPP</i> <i>ECP,</i> <i>ECP+EPP</i>	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 resumes OFF when the AC power supply powers on. The system will be powered up when the AC power supply powers on. Whatever the system status is, before the AC power supply powers down, the system resumes in the previous status (ON/OFF) when the AC power supply powers on.



System Monitor

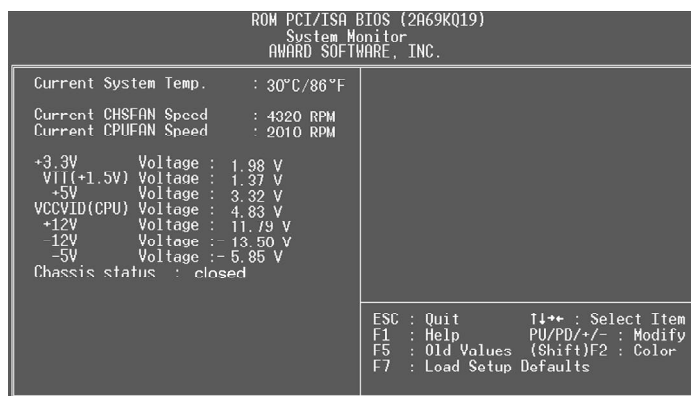


Figure-9 System Monitor Menu

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 CHSFAN Speed	2010RPM	RPM(Revolution Per Minute) speed of fan
Current CPUFAN Speed	4320RPM	connected to the fan header CPUFAN or 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.
• + 3.3V Voltage	1.98V	Displays current Voltage values including all the most important voltages of the mainboard.
VTT (+1.5) Voltage,	1.37V	+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)
VCCVID(CPU) Voltage		Voltage is CPU Core Voltage from the on board switching Power Supply.
+12V	11.79V	
-12V	-13.50V	
- 5V	-5.85V	
• Chassis Status:	Closed	Indicates status of chassis is closed.
	Opened	Indicates status of chassis is open.



SecurityEasy Setup

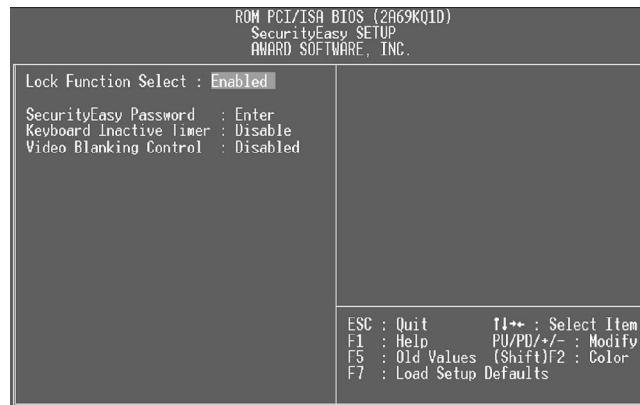


Figure-10 SecurityEasy Setup Menu

The following describes the options for each item and describes their meaning

<u>Item</u>	<u>Current Data Shown</u>	<u>Description</u>
• Lock Function Select	<i>Enable Disable</i>	Enables the LOCK function. The system never enters LOCK mode.
• SecurityEasy Password	<i>Enter</i>	The SecurityEasy password is the only option to exit LOCK mode. When you select this function. The following message 'ENTER PASSWORD' appears at the center of the screen to assist you in creating a password. Type the SecurityEasy Password no more than six characters, then 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>.
• Keyboard Inactive Timer	<i>Disable 1Min~ 1 Hour</i>	The system will not enter the LOCK mode due to the Keyboard Inactive Timer. Set the continuous idle time of the keyboard before the system enters the LOCK mode.
• Video Blanking Control	<i>Enable Disable</i>	Video is blank in the LOCK mode. Video is normal in the LOCK mode.

Note: See also Chapter 3



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 BIOS 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 try to enter BIOS 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 BIOS Setup.



IDE HDD Auto Detection

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

ROM PC/ISA BIOS (2A69KQ10) CMOS SETUP UTILITY AWARDS 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-11 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, also Auto detect.

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.

Auto detect

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.



Appendix A

QDI Motherboard Utility CD-ROM

A QDI Motherboard Utility CD-ROM is supplied with each motherboard. The contents used for this motherboard are:

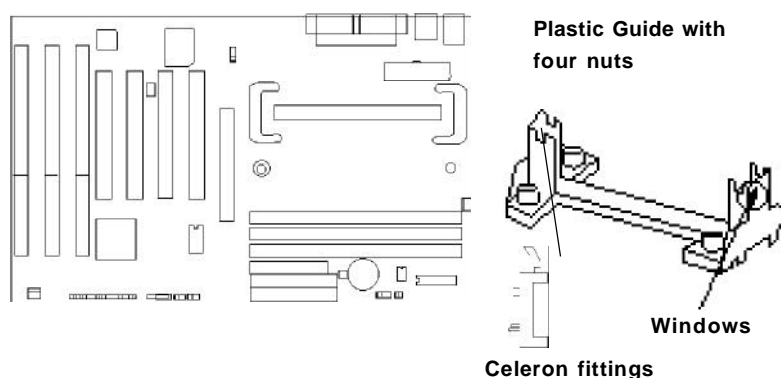
1. Chipset Dispatches:
Intel Chipset Drivers included in the directory \ChipDrv\Intel can be used for this motherboard.
 - a. Intel PIIX4 Driver, included in directory \ChipDrv\Intel\PIIX4
This driver is for Windows 95/OSR2 which supports the latest Intel PCI devices such as the PCI IDE hard disk controller, PCI USB device etc. It can also remove the yellow question mark in the Device Manager of Windows 95 after installation.
Running \ChipDrv\Intel\PIIX4\Setup.exe for installation.
 - b. Intel Bus Master Driver, included in directory \ChipDrv\Intel\BMIDE
It's Intel Bus Master Driver for Windows 95, which can enhance the capability of IDE data transaction up to Ultra DMA/33MB supported by 440BX chipset or other ultimate chipset.
Running \ChipDrv\Intel\BMIDE\Setup.exe for installation.
2. PC-cillin Anti-Virus software:
Windows 95 English version is located in the directory \Pccillin\Win95. Running Setup.exe for installation.
Windows NT English version is located in the directory \Pccillin\WinNT4.0. Running Setup.exe for installation. S/N is PNEF-9991-6558-5857-5535.
3. QDI ManageEasy:
Running Setup.exe from the directory \QME to install the ManageEasy. For detailed information about QDI ManageEasy, refer to the ManageEasy Manual included in the directory \Doc. Please note, hardware is a manufacturing option.
4. QDI SecurityEasy:
This software provides a convenient access method to activate SecurityEasy. Other than pushing the SLEEP button, clicking the watchdog icon on the task bar also allows the system to enter Lock Status. Running \QSE\lock.exe for Windows 95 and Windows NT installation. (After installation refer to readme file for details by clicking Start/Programs/Security Easy Access). Please note, hardware is a manufacturing option.
5. QDI Motherboard Utility:
FLASH.EXE
CBLOGO.EXE
LFEXE
Refer to the online help for information on how to use these utilities.
6. Documents for QDI Motherboard:
The files included in the directory \Doc are:
Adobe Acrobat Reader V3.0 —ar32e301.exe
ManageEasy Manuals—QMEV12.PDF.



Appendix B.

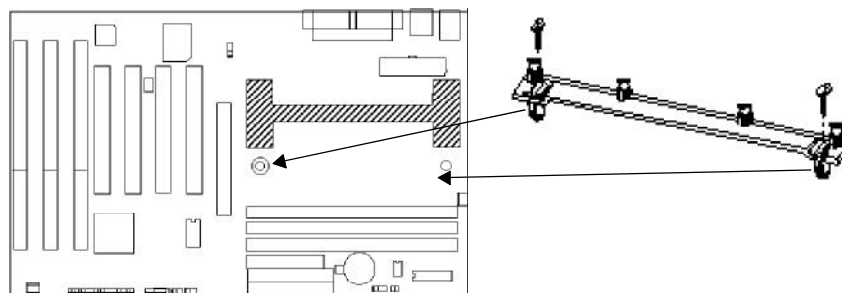
Retention Mechanism & Pentium® II/ Celeron™ Processor Installation Procedures

1. Place Plastic Guide with plastic caps on the motherboard, and secure all four caps.



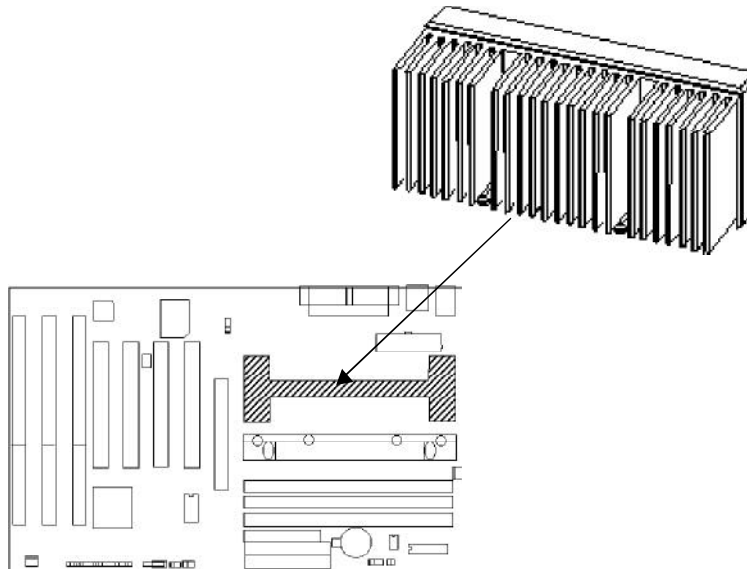
- Note: 1. Please choose four caps which match the motherboard.
2. If choosing to use Celeron™ Processor, snap-on Celeron fittings onto the Plastic Guide.
 3. Please note the Plastic Guide has one orientation. If one way doesn't fit, change the direction to the other way. Do not forcefully press the Plastic Guide onto the motherboard.

2. Install HSSBASE (Heatsink Support Base) on motherboard, then insert the two plastic pins through the HSSBASE securing it to the motherboard.

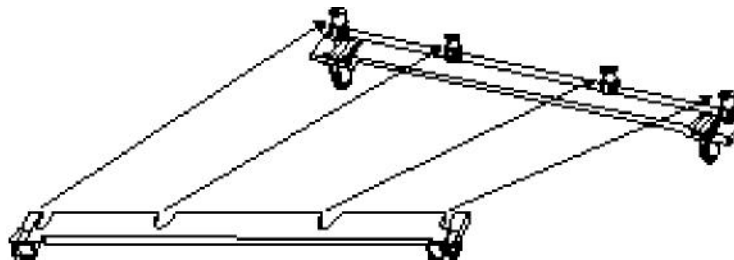




3. Insert Pentium® II or Celeron™ Processor in Slot1.

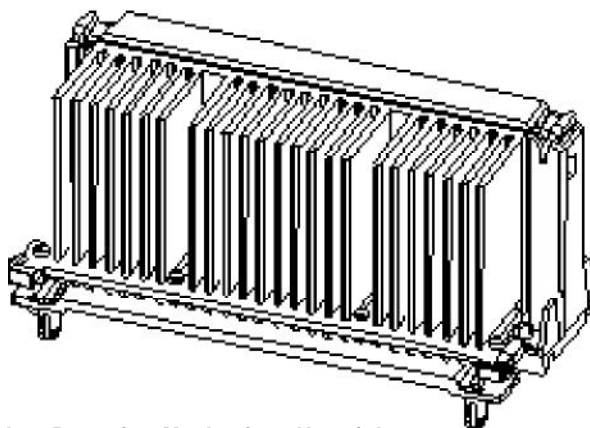


4. Clip Plastic Bar onto the HSSBASE through the fins on the processors' heatsink.





5. The Retention Mechanism installation procedure is completed as shown below.



**S.E.C Cartridge, Retention Mechanism, Heatsink support, and ATX Form Factor Heatsink Isometric View
Not To Scale**

Remark:

Please skip step2 and step4 for Boxed Pentium® II Processor and refer to relevant details of this kind of processor for your installation.



Appendix C. Boot Logo

When you power on or reset your system, the picture listed below will be shown on the screen.



If you press <Esc>, it switches to the booting message screen. Otherwise, it enters operating system directly. You can use ' **cblogo.exe** ' (included on the QDI Motherboard Utility CD) to replace it by any other logo which you prefer. Regarding the method of using **cblogo.exe** utility, please refer to it' s online help. If you don' t prefer the logo displayed on the screen during boot up, set the ' Show Bootup Logo' option as Disabled in the ' BIOS FEATURES SETUP' section of the BIOS

*** We reserve the right of modifying the default full-logo of QDI without further notification.**

Item Checklist

Completely check your package. If you discover damaged or missing items, contact your retailer.

- ☒ P6I440BX/B1S motherboard
- ☒ QDI Motherboard Utility CD-ROM
- ☒ Retention Module
- ☒ I/O shield
- ☒ 1 IDE ribbon cable
- ☒ 1 floppy ribbon cable
- ☒ User' s manual

Notice

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If you need any further information, please visit our web-site: "www.qdigrp.com".

Board Layout of P6I440BX/B1S V1.0