Chapter 3
SecurityEasy

There are two ways to prevent unauthorized entry or use of the system:
System Password and SecurityEasy.

System Password

Set system password in the PASSWORD SETTING section of the BIOS, and set the " Password Setting" to **System** in the "BIOS FEATURES SETUP" section. You will be prompted for the password every time the system boots or any time you try to enter BIOS Setup. If the "Password Setting" is set as **Setup**, you will be prompted for the password only when entering BIOS Setup.

SecurityEasy

The GeniuX 4 mainboard provides additional SecurityEasy function to protect the system from unauthorized entry or use. There are three ways to enter the SecurityEasy lock status.

- Push once the button connected to the two-pin header SLEEP after enabling the SecurityEasy Lock function in BIOS Setup. (If the lock function is disabled, this button is used as SLEEP button.)
- "Keyboard inactive Timer" is counted to the preset value-from 4 minute to 1 hour set in the BIOS Setup.
- Push once the hot key (Ctrl + F12) after enabling the Hotkey function in BIOS setup.

In SecurityEasy lock status, the power switch and reset buttons are unresponsive, PS/2 mouse is locked and the keyboard is locked except for the SecurityEasy password entering. The video won't be blank in the lock status. The only way to exit the lock status is to enter SecurityEasy password using the keyboard. This means if you set the lock function as enabled, you must also set the SecurityEasy password.

Please read the notes below thoroughly.

Note 1: The green function(Doze/Standby/Suspend mode) and SecurityEasy lock function can not be enabled at the same time.
Note 2: If lock function is enabled, the SecurityEasy password should be set, no more than six characters.
Note 3: When setting the SecurityEasy password or entering the password to exit the lock status, use the character keys and the <Enter> key located on the alphabetic pad.
Note 4: The serial mouse and the USB keyboard/mouse can't be locked in SecurityEasy lock mode.
Note 5: See also chapter 4 BIOS Description for detailed BIOS information.

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Chapter 4
BIOS Description

Utility Support:

FLASH.EXE

This is a flash memory write/read utility used for the purpose of upgrading your BIOS when necessary. Before doing so, please note:

- **We strongly recommend you only upgrade BIOS when encountering problems.**
- **Before upgrading your BIOS, review the description below to avoid making mistakes, destroying the BIOS and resulting in a non-working system.**

When you are encountering problems, for example, you find your system doesn't support the new CPU which is released after our current mainboard, you may therefore upgrade the BIOS.

Follow the steps exactly for a successful upgrade.

1. Create a bootable system floppy diskette, by typing FORMAT A:/s from the DOS prompt under DOS6.xx or Windows 9x environment.

2. Copy FLASH.EXE from the directory \Utility located on the QDI Mainboard Utility CD onto your new bootable diskette.

3. Download the updated BIOS file from the Website (http://www.qdigrp.com). Please be sure to download the suitable BIOS file for your mainboard.

4. Uncompress the file download, copy the BIOS file (xx.bin) onto the bootable diskette, and note the checksum of this BIOS which is found in readme file.

5. Reboot the system from the bootable diskette created.

6. Then run the FLASH utility at the **A:** prompt. During the process, the system will prompt : "Do you want to save the BIOS(Y/N)" . If you type "Y", the system will prompt for the BIOS name. The system will also display the checksum which should be exactly the same as the checksum viewed in the readme file. Don't turn off power or reset the system until the BIOS upgrade has been completed.

Concerning how to run the FLASH utility, please refer to the following descriptions:

Usage: FLASH [BIOSfile] [/c[<command...>]][/n]

            FLASH [BIOSfile] [/g]

/c: Flashing memory will clear previous settings. Default allows settings to remain.

   <command> function definition:

   c: clear CMOS;

   p: clear PnP;

   d: clear DMI.

/n: programs BIOS without prompting. If this option is chosen:

Be sure your new BIOS is compatible with your mainboard. If not, the system will

be damaged.

/g: Retrieves BIOS file from BIOS ROM.

Examples:

A:\FLASH.EXE BIOSfile.bin

A:\FLASH.EXE BIOSfile.bin /cdpc/n

A:\FLASH.EXE BIOSfile.bin /g

Note: FLASH utility runs incorrectly at Windows DOS prompt.

AWARD BIOS Description

Entering Setup

Power on the computer, when the following message briefly appears at the bottom of the screen during the POST (Power On Self Test), press <Del> key or simultaneously press the <Ctrl> + <Alt> + <Esc> keys, to enter the AWARD BIOS CMOS Setup Utility.

Press <Del> to enter SETUP

Once you have entered, the main menu (Figure 1) appears on the screen. The main menu allows you to select from eleven setup functions and two exit choices. Use the arrow keys to select among the items and press the <Enter> key to accept or enter the sub-menu.
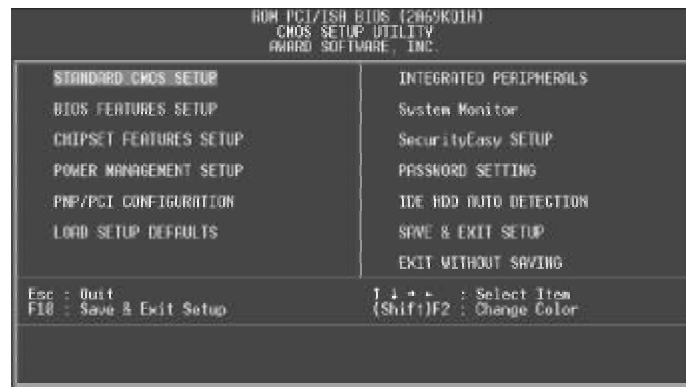

Figure-1 Main Menu

Note:The "System Monitor" item will not be displayed if there is no W83782 system monitor supporting chip on the mainboard.

Load Setup Defaults

The Setup Defaults are common and efficient. It is recommended that users load the setup defaults first, then modify the needed configuration settings.

Standard CMOS Setup

The basic CMOS settings included in "Standard CMOS Setup" are Date, Time, Hard Disk Drive Types, Floppy Disk Drive Types, and VGA etc. Use the arrow keys to highlight the item, then use the <PgUp> or <PgDn> keys to select the value you want in each item.
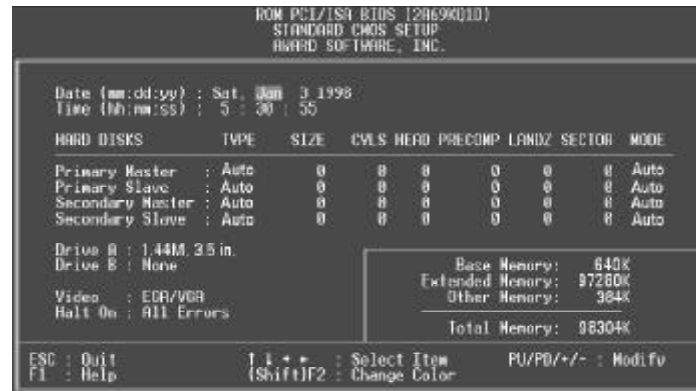
Figure-2   Standard CMOS Setup Menu

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.

BIOS Features Setup


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                    ROM PCI/ISA BIOS (2A69KQ1H)
                         BIOS FEATURES SETUP
                         AWARD SOFTWARE, INC.

ChipAwayVirus On Guard   : Enabled   Video  BIOS Shadow   : Enabled
CPU L1 Cache             : Enabled   C8000-CBFFF Shadow  : Disabled
CPU L2 Cache             : Enabled   CC000-CFFFF Shadow  : Disabled
CPU L2 Cache ECC         : Enabled   D0000-D3FFF Shadow  : Disabled
Quick Power On Self Test : Enabled   D4000-D7FFF Shadow  : Disabled
Boot Sequence            : C,A,SCSI  D8000-DBFFF Shadow  : Disabled
Swap Floppy Drive        : Disabled  DC000-DFFFF Shadow  : Disabled
Boot Up Numlock Status   : On
Gate A20 Option          : Fast      Show Bootup Logo    : Enabled
Password setting         : Setup
MPS Version Control For OS : 1.4
OS Select For DRAM > 64MB  : Non-OS2

                                   ESC : Quit      ↑↓→← : Select Item
                                   F1  : Help      PU/PD/+/- : Modify
                                   F5  : Old Values (Shift)F2 : Color
                                   F7  : Load Setup Defaults
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Figure-3   BIOS Features Setup Menu

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

Item	Option	Description
● ChipAway Virus On Guard	Enabled	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.
	Disabled	Invalidates this function.
● CPU L1/L2 Cache	Enabled	Enables CPU internal Level1/Level2 cache.
	Disabled	Disables CPU internal Level1/Level2 cache.
● CPU L2 Cache ECC	Enabled	Enables CPU L2 Cache ECC(Error Checking and Correction) function.
	Disabled	Disables CPU L2 Cache ECC function.
● Quick Power on Self Test	Enabled	Enables quick POST. BIOS will shorten or skip some check items during POST, to speed up POST after you power on the system.
	Disabled	Normal POST.
● Boot Sequence	C,A,SCSI,... C,CDROM,A LS/ZIP, C	Any of these search sequences can be chosen for booting.
● Swap Floppy Drive	Enabled	Exchanges the assignment of A&B floppy drives.
	Disabled	The assignment of A&B floppy drives are normal.
● Boot Up Numlock Status	On	Keypad is used as number keys.
	Off	Keypad is used as arrow keys.
● Gate A20 Option	Normal	The A20 signal is controlled by the keyboard controller or chipset hardware.
	Fast	Default setting. The A20 signal is controlled by Port 92 or the chipset specific method.

● Password Setting	*System*	The system will not boot and access to BIOS Setup will be denied if the correct password is not entered when prompted.
	Setup	The system will boot up, but access to BIOS Setup will be denied if the correct password is not entered when prompted.
● MPS Version Contro For OS	*1.1*	MPS version is 1.1(usually for UNIX).
	1.4	MPS version is 1.4 (usually for Windows NT).
● OS Select For DRAM>64MB	*Non-OS2*	If your operating system is not OS/2, please select this item.
	OS2	If system DRAM is more than 64MB and the operating system is OS/2, please select this item.
● Video BIOS Shadow	*Enabled*	Video BIOS will be copied to RAM. Video Shadow will increase the video speed.
	Disabled	Video shadow is disabled.
● C8000~CBFFF Shadow: DC000-DFFFF	*Enabled*	Optional ROM will be copied to RAM by 16K bytes per unit.
Shadow:	*Disabled*	The shadow function is disabled.
● Show Bootup	*Enabled*	Enables the logo when system boots up
Logo	*Disabled*	Logo will not be shown when system boots up.

Chipset Features Setup

Figure-4   Chipset Features Setup Menu

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

Item	Option	Description
● SDRAM CAS Latency Time	2	Defines the CLT timing parameter of SDRAM. Latency Time =2xSystem Clocks.
	3	Latency Time =3xSystem Clocks.
● SDRAM Precharge Control	Enabled	Default setting is suggested.
	Disabled	
● DRAM ECC Select	ECC	Provides ECC (Error Checking and Correction) function.
	Non-ECC	Disables ECC function.
● Video RAM Cacheable	Enabled	Beside conventional memory, video RAM area is also cacheable.
	Disabled	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.
● 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.

● Close Empty DIMM /PCI Clock	*Enabled*	Closes empty DIMM/PCI Clock to reduce EMI.
	Disabled	Does not close DIMM/PCI Clock.
● Spread Spectrum Modulated	*Enabled*	Enables Clock Spread Spectrum to reduce EMI.
	Disabled	Disables Clock Spread Spectrum.