

- The author assumes no responsibility for any errors or omissions that may appear in this document nor does the author make a commitment to update the information contained herein.
- Third-party brands and names are the property of their respective owners.
- Please do not remove any labels on motherboard, this may void the warranty of this motherboard.
- ◆ Due to rapid change in technology, some of the specifications might be out of date before publication of this booklet.



WARNING: Never run the processor without the heatsink properly and firmly attached. PERMANENT DAMAGE WILL RESULT!

Mise en garde: Ne faites jamais tourner le processeur sans que le dissipateur de chaleur soit fix correctement et fermement. UN DOMMAGE PERMANENT EN RÉSULTERA!

Achtung: Der Prozessor darf nur in Betrieb genommen werden, wenn der W rmeableiter ordnungsgem β und fest angebracht ist. DIES HAT EINEN PERMANENTEN SCHADEN ZUR FOLGE!

Advertencia: Nunca haga funcionar el procesador sin el disipador de calor instalado correcta y firmemente. ¡SE PRODUCIRÁ UN DAÑO PERMANENTE!

Aviso: Nunca execute o processador sem o dissipador de calor estar adequado e firmemente conectado. O RESULTADO SERÁ UM DANO PERMANENTE!

警告: 将散热板牢固地安装到处理器上之前,不要运行处理器。过热将永远损坏处理器!

警告: 將散熱器牢固地安裝到處理器上之前,不要運行處理器。過熱將永遠損壞處理器!

경고: 히트싱크를 제대로 또 단단히 부착시키지 않은 제 프로세서를 구동시키지 마십시오. 영구적 고장이 발생합니다!

警告: 冰久的な損傷を防ぐため、ヒートシンクを正しくしっかりと取り付けるまでは、ブロセッサを動作させないようにしてください。



Declaration of Conformity We, Manufacturer/Importer (full address)

G.B.T. Technology Träding 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-8SD533 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* ☑ EN 60555-2	Disturbances in supply systems cause by household appliances and similar electrical equipment "Harmonics"
□ EN 55013	Limits and methods of measurement of radio disturbance characteristics of broadcast receivers and associated equipment	☐ EN 61000-3-3* ⊠ EN 60555-3	Disturbances in supply systems cause by household appliances and similar electrical equipment "Voltage fluctuations"
□ EN 55014	Limits and methods of measurement of radio disturbance characteristics of household electrical applances, portable tools and similar electrical apparatus	⊠ EN 50081-1 ⊠ EN 50082-1	Generic emission standard Part 1: Residual commercial and light industry 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 emission standard Part 2: Industrial environment
⊠ 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 ☐ part 10 ☐ part 12	Cabled distribution systems; Equipment for receiving and/or distribution from sound and television signals	EN50091-2	EMC requirements for uninterruptible power systems (UPS)
□ CE marking		(EC conformi	ty 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 bussiness equipment
□ EN 60335	Safety of household and similar electrical appliances	□ EN 50091-1	General and Safety requirements for uninterruptible power systems (UPS)

Manufacturer/Importer

Signature:

Timmy Huang Timmy Huang

Date: November 18, 2002

DECLARATION OF CONFORMITY

Per FCC Part 2 Section 2.1077(a)



Responsible Party Name: G.B.T. INC. (U.S.A.)

Address: 17358 Railroad Street

City of Industry, CA 91748

Phone/Fax No: (818) 854-9338/ (818) 854-9339

hereby declares that the product

Product Name: Motherboard Model Number: GA-8SD533

Conforms to the following specifications:

FCC Part 15, Subpart B, Section 15.107(a) and Section 15.109(a), Class B Digital Device

Supplementary Information:

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

Representative Person's Name: ERIC LU

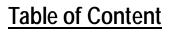
Signature: Eric Lu

Date: November18,2002

GA-8SD533 P4 Titan SDRAM Motherboard

USER'S MANUAL

Pentium*4 Processor Motherboard Rev. 1101 12ME-8SD533-1101



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- ☑ The GA-8SD533 motherboard
- ☑ IDE cable x 2 / Floppy cable x 1
- CD for motherboard driver & utility
- ☑ GA-8SD533 user's manual
- □ I/O Shield
- Pi Quick PC Installation Guide
- ☐ RAID Manual

- ☑ 2 Port USB Cable x 1
- ☐ 4 Port USB Cable x 1
- ☐ SPDIF KIT x 1 (SPD-KIT)
- ☐ IEEE 1394 Cable x 1
- ☐ Audio Combo Kit x 1
- $\ensuremath{\mbox{$arphi}$}$ Motherboard Settings Label



WARNING!

Computer motherboards and expansion cards contain very delicate Integrated Circuit (IC) chips. To protect them against damage from static electricity, you should follow some precautions whenever you work on your computer.

- 1. Unplug your computer when working on the inside.
- Use a grounded wrist strap before handling computer components. If you do not have one, touch both of your hands to a safely grounded object or to a metal object, such as the power supply case.
- 3. Hold components by the edges and try not touch the IC chips, leads or connectors, or other components.
- 4. Place components on a grounded antistatic pad or on the bag that came with the components whenever the components are separated from the system.
- 5. Ensure that the ATX power supply is switched off before you plug in or remove the ATX power connector on the motherboard.

Installing the motherboard to the chassis...

If themotherboard has mounting holes, but they don't line up with the holes on the base and there are no slots to attach the spacers, do not become alarmed you can still attach the spacers to the mounting holes. Just cut the bottom portion of the spacers (the spacer may be a little hard to cut off, so be careful of your hands). In this way you can still attach the motherboard to the base without worrying about short circuits. Sometimes you may need to use the plastic springs to isolate the screw from the motherboard PCB surface, because the circuit wire may be near by the hole. Be careful, don't let the screw contact any printed circuit write or parts on the PCB that are near the fixing hole, otherwise it may damage the board or cause board malfunctioning.

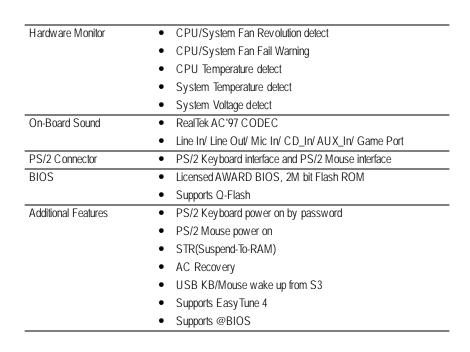
GA-8SD533 Motherboard

Chapter 1 Introduction

Features Summary

 29.5cm x 20cm ATX size form factor, 4 layers PCB.
 Socket 478 for Intel® Micro FC-PGA2 Pentium® 4 processor
 Support Intel * Pentium * 4 (Northwood, 0.13 µm) processor
 Intel Pentium®4 400MHz FSB
 This motherboard can auto detect and optimized setting for
Pentium * 4 FSB 533MHz processor, support by over-clocking
2nd cache depends on CPU
SiS 645 Host/Memory controller
 SiS 961B MuTIOL Media I/O
3 168-pin DIMM sockets
 Supports PC-100/PC-133 SDRAM (Auto)
 Supports only 3.3V SDRAM DIMM
 Supports up to 3GB SDRAM (Max)
• IT8705
1 Universal AGP slot (1X/2X/4X) device support
 5 PCI slot supports 33MHz & PCI 2.2 compliant
2 IDE bus master (UDMA33/ATA66/ATA100/ATA133) IDE ports
for up to 4 ATAPI devices
 Supports PIO mode3,4 (UDMA 33/ATA66/ATA100/ATA133) IDE
& ATAPI CD-ROM
 1 Floppy port supports 2 FDD with 360K, 720K,1.2M, 1.44M
and 2.88M bytes.
 1 Parallel port supports Normal/EPP/ECP mode
 2 Serial ports (COMA&COMB)
• 6 USB 1.1 ports (2 x Rear,4 xFront by cable)
1 Front Audio Connector

to be continued......

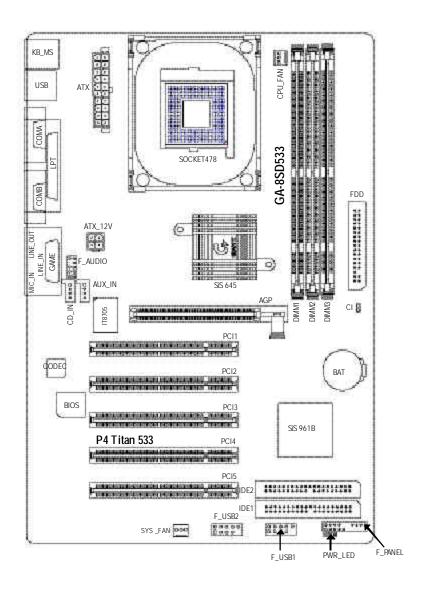




Please set the CPU host frequency in accordance with your processor's specifications. We don't recommend you to set the system bus frequency over the CPU's specification because these specific bus frequencies are not the standard specifications for CPU, chipset and most of the peripherals. Whether your system can run under these specific bus frequencies properly will depend on your hardware configurations, including CPU, Chipsets,SDRAM,Cards... .etc.



GA-8SD533 Motherboard Layout



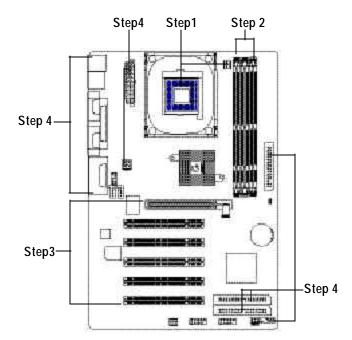
- 7 - Introduction

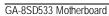




To set up your computer, you must complete the following steps:

- Step 1- Install the Central Processing Unit (CPU)
- Step 2- Install memory modules
- Step 3- Install expansion cards
- Step 4- Connect ribbon cables, cabinet wires, and power supply
- Step 5- Setup BIOS software
- Step 6- Install supporting software tools



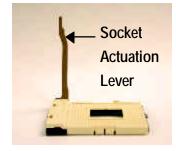


Step 1: Install the Central Processing Unit (CPU)

Step 1-1: CPU Installation



 Angling the rod to 65-degree may be feel a kind of tight, and then continue pull the rod to 90-degree when a noise "cough" made.



2. Pull the rod to the 90-degree directly .



3. CPU Top View



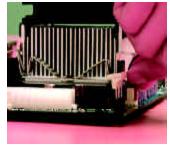
 Locate Pin 1 in the socket and look for a (golden) cut edge on the CPU upper corner. Then insert the CPU into the socket.

- Please make sure the CPU type is supported by the motherboard.
- If you do not match the CPU socket Pin 1 and CPU cut edge well, it will cause improper installation. Please change the insert orientation.

Step 1-2: CPU Heat Sink Installation



 Hook one end of the cooler bracket to the CPU socket first.



Hook the other end of the cooler bracket to the CPU socket.

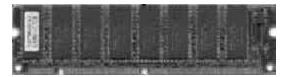
- ◆ Please use Intel approved cooling fan.
- We recommend you to apply the thermal tape to provide better heat conduction between your CPU and heatsink.
 (The CPU cooling fan might stick to the CPU due to the hardening of the thermal paste. During this condition if you try to remove the cooling fan, you might pull the processor out of the CPU socket alone with the cooling fan, and might damage the processor. To avoid this from happening, we suggest you to either use thermal tape instead of thermal paste, or remove the cooling fan with extreme caution.)
- Make sure the CPU fan power cable is plugged in to the CPU fan connector, this completes the installation.
- Please refer to CPU heat sink user's manual for more detail installation procedure.



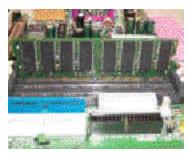




The motherboard has 3 dual in-line memory module (DIMM) sockets. The BIOS will automatically detects memory type and size. To install the memory module, just push it vertically into the DIMM Socket. The DIMM module can only fit in one direction due to the two notch. Memory size can vary between sockets.



SDRAM



 The DIMM slot has two notch, so the DIMM memory module can only fit in one direction.

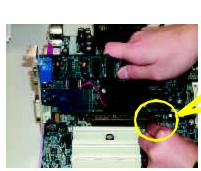


Insert the DIMM memory module vertically into the DIMM socket. Then push it down.

- 3. Close the plastic clip at both edges of the DIMM sockets to lock the DIMM module. Reverse the installation steps when you wish to remove the DIMM module.
- ◆ Please note that the DIMM module can only fit in one direction due to the two notches. Wrong orientation will cause improper installation. Please change the insert orientation.



- 1. Read the related expansion card's instruction document before install the expansion card into the computer.
- 2. Remove your computer's chassis cover, screws and slot bracket from the computer.
- 3. Press the expansion card firmly into expansion slot in motherboard.
- 4. Be sure the metal contacts on the card are indeed seated in the slot.
- 5. Replace the screw to secure the slot bracket of the expansion card.
- 6. Replace your computer's chassis cover.
- 7. Power on the computer, if necessary, setup BIOS utility of expansion card from BIOS.
- 8. Install related driver from the operating system.



AGP Card

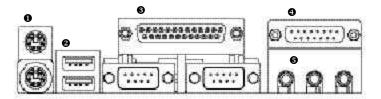


Please carefully pull out the small white-drawable bar at the end of the AGP slot when you try to install/ U ninstall the AGP card. Please align the AGP card to the onboard AGP slot and press firmly down on the slot. Make sure your AGP card is locked by the small white-drawable bar.



Step 4: Connect ribbon cables, cabinet wires, and power supply

Step 4-1: I/O Back Panel Introduction



• PS/2 Keyboard and PS/2 Mouse Connector

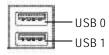


PS/2 Mouse Connector (6 pin Female)

PS/2 Keyboard Connector (6 pin Female)

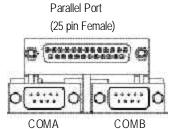
➤ This connector supports standard PS/2 keyboard and PS/2 mouse.

USB Connector



➤ Before you connect your device(s) into USB connector(s), please make sure your device(s) such as USB keyboard, mouse, scanner, zip, speaker..etc. Have a standard USB interface. Also make sure your OS supports USB controller. If your OS does not supportUSB controller, please contact OS vendor for possible patch or driver upgrade. For more information please contact your OS or device(s) vendors.

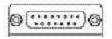




Serial Port (9 pin Male)

➤ This connector supports 2 standard COM ports and 1 Parallel port. Device like printer can be connected to Parallel port; mouse and modem etc can be connected to Serial ports.

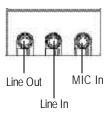
Game /MIDI Ports



Joystick/ MIDI (15 pin Female)

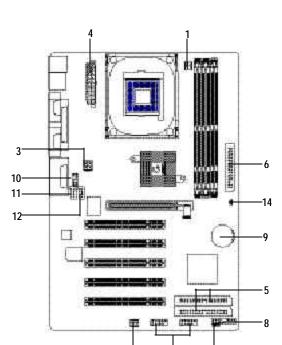
➤ This connector supports joystick, MIDI keyboard and other relate audio devices.





➤ After install onboard audio driver, you may connect speaker to Line Out jack, micro phone to MIC Injack. Device like CD-ROM, walkman etc can be connected to Line-In jack.





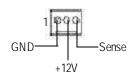
Step 4-2: Connectors Introduction

1) CPU_FAN	9) BAT
2) SYS_FAN	10) F_AUDIO
3) ATX_12V	11) CD_IN
4) ATX	12) AUX_IN
5) IDE1/IDE2	13) F_USB1/F_USB2
6) FDD	14) CI
7) PWR_LED	
8) F_PANEL	



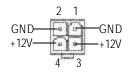


- Please note, a proper installation of the CPU cooler is essential to prevent the CPU from running under abnormal condition or damaged by overheating. The CPU fan connector supports Max. current up to 600 mA.
- 2) SYS_FAN (System FAN Connector)



This connector allows you to link with the cooling fan on the system case to lower the system temperature.

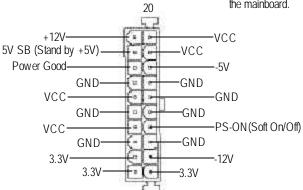
3) ATX_12V (+12V Power Connector)



This connector (ATX _12V) supplies the CPU operation voltage (Vcore).
If this "ATX_12V connector" is not connected, system cannot boot.

4) ATX (ATX Power)

➤ AC power cord should only be connected to your power supply unit after ATX power cable and other related devices are firmly connected to the mainboard.



5) IDE1/ IDE2 [IDE1 / IDE2 Connector(Primary/Secondary)]

IDE2

Important Notice: Please connect first harddisk to IDE1 and connect CDROM to IDE2.

6) FDD (Floppy Connector)



➤ Please connect the floppy drive ribbon cables to FDD. It supports 360K,720K, 1.2M, 1.44M and 2.88M bytes floppy disk types.

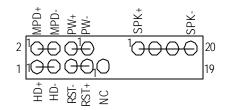
The red stripe of the ribbon cable must be the same side with the Pin1.

7) PWR_LED



PWR_LED is connect with the system power indicator to indicate whether the system is on/off. It will blink when the system enters suspend mode. If you use dual color LED, power LED will turn to another color.

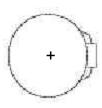
8) F_PANEL (2x10 pins connector)



HD (IDE Hard Disk Active LED)	Pin 1: LED anode(+)
(Blue)	Pin 2: LED cathode(-)
SPK (Speaker Connector)	Pin 1: VCC(+)
(Amber)	Pin 2- Pin 3: NC
	Pin 4: Data(-)
RES (Reset Switch)	Open: Normal Operation
(Green)	Close: Reset Hardware System
PW (Soft Power Connector)	Open: Normal Operation
(Red)	Close: Power On/Off
MSG(Message LED/Power/	Pin 1: LED anode(+)
Sleep LED)(Yellow)	Pin 2: LED cathode(-)
NC(Purple)	NC

➤ Please connect the power LED, PC speaker, reset switch and power switch etc of your chassis front panel to the F_PANEL connector according to the pin assignment above.

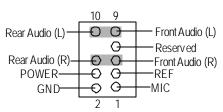
9) BAT (Battery)



CAUTION

- Danger of explosion if battery is incorrectly replaced.
- Replace only with the same or equivalent type recommended by the manufacturer.
- Dispose of used batteries according to the manufacturer's instructions.

10) F_AUDIO (Front Audio Connector)



➤ If you want to use "FrontAudio" connector, you must remove 5-6, 9-10 Jumper. In order to utilize the front audio header, your chassis must have front audio connector. Also please make sure the pinassigment on the cable is the same as the pin assigment on the MB header. To find out if the chassis you are buying support front audio connector, please contact your dealer.

11) CD_IN (CD Audio Line In)



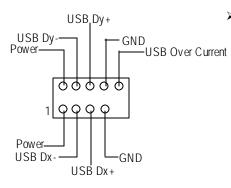
Connect CD-ROM or DVD-ROM audio out to the connector.

12) AUX_IN (AUX In Connector)



Connect other device(such as PCI TV Tunner audio out) to the connector.

13) F_USB1/F_USB2 (Front USB Connector)



Be careful with the polarity of the front panel USB connector. Check the pinassignment while tyou connect the front panel USB cable. Please contact your nearest dealer for optional front panel USB cable.

14) CI (CASE OPEN)



➤ This 2 pin connector allows your system to enable or disable the "Case Open" item in BIOS if the system case begin remove.

GA-8SD533 Motherboard

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Chapter 3 BIOS Setup

BIOS Setup is an overview of the BIOS Setup Program. The program that allows users to modify the basic system configuration. This type of information is stored in battery-backed CMOS RAM so that it retains the Setup information when the power is turned off.

ENTERING SETUP

Powering ON the computer and pressing < Del> immediately will allow you to enter Setup. If you require more advanced BIOS settings, please go to "Advanced BIOS" setting menu. To enter Advanced BIOS setting menu, press "Ctrl+F1" key on the BIOS screen.

CONTROL KEYS

< †>	Move to previous item
<1>	Move to next item
< ← >	Move to the item in the left hand
< →>	Move to the item in the right hand
<enter></enter>	Select Item
<esc></esc>	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>	Increase the numeric value or make changes
<-/PgDn>	Decrease the numeric value or make changes
<f1></f1>	General help, only for Status Page Setup Menu and Option Page Setup Menu
<f2></f2>	Item Help
<f3></f3>	Reserved
<f4></f4>	Reserved
<f5></f5>	Restore the previous CMOS value from CMOS, only for Option Page Setup Menu
<f6></f6>	Load the file-safe default CMOS value from BIOS default table
<f7></f7>	Load the Optimized Defaults
<f8></f8>	Q-Flash function
<f9></f9>	Reserved
<f10></f10>	Save all the CMOS changes, only for Main Menu







Main Menu

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

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>.

The Main Menu (For example: BIOS Ver. : D4)

Once you enter Award BIOS CMOS Setup U tility, the Main Menu (Figure 1) will appear on the screen. The Main Menu allows you to select from eight setup functions and two exit choices. Use arrow keys to select among the items and press <E nter> to accept or enter the sub-menu.

CMOS Setup Utility-Copyright (C) 1984-2002 Award Software

▶ Standard CMOS Features	Top Performance	
▶ Advanced BIOS Features	Load Fail-Safe Defaults	
▶ Integrated Peripherals	Load Optimized Defaults	
▶ Power Management Setup	Set Supervisor Password	
▶ PnP/PCI Configurations	Set User Password	
▶ PC Health Status	Save & Exit Setup	
► Frequency/Voltage Control	Ex it Without Saving	
ESC:Quit	↑↓→←:Select Item	
F8: Q-Flash	F10: Save & Exit Setup	
Time, Date, Hard Disk Type		

Figure 1: Main Menu

• Standard CMOS Features

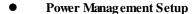
This setup page includes all the items in standard compatible BIOS.

Advanced BIOS Features

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

Integrated Peripherals

This setup page includes all onboard peripherals.



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

• PnP/PCI Configurations

This setup page includes all the configurations of PCI & PnP ISA resources.

• PC Health Status

This setup page is the System auto detect Temperature, voltage, fan, speed.

• Frequency/Voltage Control

This setup page is control CPU's clock and frequency ratio.

• Top Performance

If you wish to maximize the performance of your system, set "Top Performance" as "Enabled".

• Load Fail-Safe Defaults

Fail-Safe Defaults indicates the value of the system parameters which the system would be in safe configuration.

• Load Optimized Defaults

Optimized Defaults indicates the value of the system parameters which the system would be in best performance configuration.

• Set Supervis or pass word

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

• Set User password

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

• Save & Exit Setup

Save CMOS value settings to CMOS and exit setup.

• Exit Without Saving

Abandon all CMOS value changes and exit setup.





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Standard CMOS Features

Date (mm:dd:yy)	Tue, Sep 10 2002	Item Help	
Time (hh:mm:ss)	17:56:23	Menu Level ▶	
		Change the day, month,	
▶IDE Primary Master	[None]	y ear	
▶IDE Primary Slave	[None]		
►IDE Secondary Master	[None]	<week></week>	
►IDE Secondary Slave	[None]	Sun. to Sat.	
Drive A	[1.44M, 3.5"]	<month></month>	
Drive B	[None]	Jan. to Dec.	
Floppy 3 Mode Support	[Disabled]		
		<day></day>	
Halt On	[All, But Keyboard]	1 to 31 (or maximum	
		allowed in the month)	
Base Memory	640K		
Extended Memory	130048K	<year></year>	
Total Memory	131072K	1999 to 2098	
Al X Mayo Enter-Colort	//DI//DD//glue F10.Cov.e F	CC-Evit F1-Conorol Holo	
↑↓→←: Move Enter: Select		ESC:Exit F1:General Help	
F5:Previous Values	F6:Fail-Safe Defaults	F7:Optimized Defaults	

Figure 2: Standard CMOS Features

→ Date

The date format is <week>, <month>, <day>, <y ear>.

Week The w eek, from Sun. to Sat., determined by the BIOS and is display only

▶ Month The month, Jan. Through Dec.

▶ Day The day, from 1 to 31 (or the maximum allowed in the month)

► Year The year, from 1999 through 2098

Time

The times format in <nour> <minute> <second>. The time is calculated base on the 24-hour military-time clock. For example, 1 p.m. is 13:00:00.

→ IDE Primary Master, Slave / IDE Secondary Master, Slave

The category identifies the types of hard disk from drive C to F that has been installed in the computer. There are two types: auto type, and manual type. Manual type is user-definable; Auto type which will automatically detect HDD type.

Note that the specifications of your drive must match with the drive table. The hard disk will not work properly if you enter improper information for this category.

If you select User Type, related information will be asked to enter to the following items. Enter the information directly from the key board and press < Enter>. Such information should be provided in the documentation form your hard disk vendor or the system manufacturer.

▶ Cylinder
 ▶ Head
 ▶ Precomp
 ▶ Landing Zone
 ▶ Sector
 Number of cylinders
 With precomp
 Landing zone
 Number of sectors

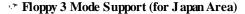
If a hard disk has not been installed select NONE and press <Enter>.

Trive A / Drive B

The category identifies 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"	5.25 inch PC-type standard drive; 360K byte capacity.
▶ 1.2M, 5.25"	5.25 inch AT-type high-density drive; 1.2M byte capacity
	(3.5 inch when 3 Mode is Enabled).
▶ 720K, 3.5"	3.5 inch double-sided drive; 720K byte capacity
▶ 1.44M, 3.5"	3.5 inch double-sided drive; 1.44M byte capacity.
▶ 2.88M, 3.5"	3.5 inch double-sided drive; 2.88M byte capacity.





▶ Disabled Normal Floppy Drive. (Default v alue) Driv e A Enable Drive A is 3 mode Floppy Drive. ▶ Driv e B Enable Drive B is 3 mode Floppy Drive. → Both Enable Drive A & B are 3 mode Floppy Drives.

→ Halt on

The category determines whether the computer will stop if an error is detected during power up. ▶ All Errors Whenever the BIOS detects a non-fatal error the system will be stopped. NO Frrors The system boot will not stop for any error that may be detected 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. (Default value) ▶ All, But Disk ette 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 512K for systems with 512K 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 1MB in the CPU's memory address map.







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Advanced BIOS Features

First Boot Device		[Floppy]			Item Help
	Second Boot Device		[HDD-0]		Menu Level ▶
	Third Boot Device		[CDROM]		Select Boot Device
	Boot Up Floppy Seek		[Disabled]		priority
	Password Check		[Setup]		
	Init Display First		[AGP]		[Floppy]
					Boot from floppy
					[LS120]
					Boot from LS120
					[HDD-0]
					Boot from First HDD
					[HDD-1]
					Boot from second HDD
	↑↓→←: Move Enter:Select	+/-/PU/PD:Value	F10:Save	ESC:Ex	kit F1:General Help
	F5:Previous Values	F6:Fail-Safe Defa	ıults	F7:Optir	nized Defaults

Figure 3: Advanced BIOS Features

First / Second / Third Boot Device

▶ Floppy	Select your boot device priority by Floppy.
₩ LS120	Select your boot device priority by LS120.
→ HDD-0~3	Select your boot device priority by HDD-0~3.
>> SCSI	Select your boot device priority by SCSI.
→ CDROM	Select your boot device priority by CDROM.
₩ ZIP	Select your boot device priority by ZIP.
₩ USB-FDD	Select your boot device priority by USB-FDD.
₩ USB-ZIP	Select your boot device priority by USB-ZIP.
▶ USB-C DROM	Select your boot device priority by USB-C DROM.
₩ USB-HDD	Select your boot device priority by USB-HDD.
▶ LAN	Select your boot device priority by LAN.
▶ Disabled	Select your boot device priority by Disabled.

BIOS Setup



During POST, BIOS will determine the floppy disk drive installed is 40 or 80 tracks. 360K type is 40 tracks 720K, 1.2M and 1.44M 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 $360\ K.$

(Default value)

 \blacktriangleright Enabled BIOS searches for floppy disk drive to determine it is 40 or 80 tracks. Note

that BIOS can not tell from 720 K, 1.2 M or 1.44 M drive type as they are

all 80tracks.

Password Check

→ Setup Ask password when enter setup. (Default value)

⇒System Ask password when system boot.

Init Display First

Select the first initation of the monitor display from AGP or PCI VGA card.

▶ PCI Set Init Display First to PCI.

► AGP Set Init Display First to AGP. (Default v alue)



Integrated Peripherals

CMOS Setup Utility -Copyright (C) 1984-2002 Award Software Integrated Peripherals

	integrated renprierais	
IDE1 Conductor Cable	[Auto]	Item Help
IDE2 Conductor Cable	[Auto]	Menu Level ►
On-Chip Primary PCI IDE	[Enabled]	[Auto]
On-Chip Secondary PCI IDE	[Enabled]	Auto-detect IDE
AC97 Audio	[Enabled]	cable type
USB Controller	[Enabled]	
USB Legacy Support	[Disabled]	[ATA66/100/133]
Onboard Serial Port 1	[3F8/IRQ4]	Set Conductor cable
Onboard Serial Port 2	[2F8/IRQ3]	to ATA66/100/133(80
UART Mode Select	[Normal]	-pins)
×UR2 Duplex Mode	Half	
Onboard Parallel Port	[378/IRQ7]	[ATA33]
Parallel Port Mode	[SPP]	Set Conductor cable
≭ECP Mode Use DMA	3	to ATA33(40-pins)
Game Port Address	[201]	
Midi Port Address	[330]	
Midi Port IRQ	[10]	
↑↓→←: Move Enter:Select	+/-/PU/PD:Value F10:Save ES	SC:Exit F1:General Help
F5:Previous Values	F6:Fail-Safe Defaults F7	:Optimized Defaults

Figure 4: Integrated Peripherals

→ IDE1 Conductor Cable

▶ Auto Will be automatically detected by BIOS. (Default Value)

► ATA66/100/133 Set IDE1 Conductor Cable to ATA66/100/133 (Please make sure your IDE

device and cable is compatible with ATA66/100/133).

▶ ATA33 Set IDE1 Conductor Cable to ATA33 (Please make sure your IDE device

and cable is compatible with ATA33).





▶ Auto Will be automatically detected by BIOS. (Default Value)

► ATA66/100/133 Set IDE2 Conductor Cable to ATA66/100/133 (Please make sure your IDE

device and cable is compatible with ATA66/100/133).

▶ ATA33 Set IDE2 Conductor Cable to ATA33 (Please make sure your IDE device

and cable is compatible with ATA33).

⋄ On-Chip Primary PCI IDE

▶ Disabled Disable onboard 1st channel IDE port.

► Enabled Enable onboard 1st channel IDE port. (Default v alue)

○ On-Chip Secondary PCI IDE

▶ Disabled Disable onboard 2nd channel IDE port.

▶ Enabled Enable onboard 2nd channel IDE port. (Default v alue)

AC97 Audio

▶ Enabled Enable auto detect onboard AC'97 audio. (Default v alue)

▶ Disabled Disable this function.

USB Controller

Disable this function if you are not using onboard USB feature.

▶ Disabled Disable USB Controller.

▶ Enabled Enable USB Controller. (Default v alue)

→ USB Legacy Support

When USB keyboard or mouse is installed, please set at Enabled.

▶ Disabled Disable USB key board or mouse Support. (Default v alue)

▶ Enabled Enable USB key board or mouse support.

Onboard Serial Port 1

▶ Disabled Disable onboard Serial port 1.

▶ 3F8/IRQ4 Enable onboard Serial port 1 and address is 3F8, using IRQ4. (Default v alue)

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

→ Onboard Serial Port 2

▶ Disabled Disable onboard Serial port 2.

▶ 3F8/IRQ4 Enable onboard Serial port 2 and address is 3F8, using IRQ4.

▶ 2F8/IRQ3 Enable onboard Serial port 2 and address is 2F8, using IRQ3. (Default v alue)

▶ 3E8/IRQ4 Enable onboard Serial port 2 and address is 3E8, using IRQ4.
 ▶ 2E8/IRQ3 Enable onboard Serial port 2 and address is 2E8, using IRQ3.

▶ Auto BIOS will automatically setup the port 2 address.

TUART Mode Select

● This feature allows you to determine which Infra Red(IR) function of Onboard I/O chip)

▶ASKIR Using as IR and set to ASKIR Mode.▶IrDA Using as IR and set to IrDA Mode.

Normal Using as standard serial port. (Default Value)

▶SCR Using as smart card Interface.

© UR2 Duplex Mode(When UART Mode Select isn't set [Normal])

This feature allows you to select the IR modes.

→ Half IR Function Duplex Half. (Default Value)

Full IR Function Duplex Full.

Onboard Parallel port

This feature allows you to select from a given set of parameters if the parallel port uses the onboard I/O controller.

▶ Disabled Disable onboard LPT port.

▶ 378/ IRQ7 Enable onboard LPT port and address is 378, using IRQ7. (Default Value)

▶ 278/IRQ5 Enable onboard LPT port and address is 278, using IRQ5.▶ 3BC/IRQ7 Enable onboard LPT port and address is 3BC, using IRQ7.



This feature allows you to connect with an advanced printer via the port mode it supports.

▶ SPP Using Parallel port as Standard Parallel Port. (Default Value)

▶ EPP Using Parallel port as Enhanced Parallel Port.
 ▶ ECP Using Parallel port as Ex tended Capabilities Port.
 ▶ ECP+EPP Using Parallel port as ECP & EPP mode.

→ ECP Mode Use DMA

This feature allows you to select Direct Memory Access(DMA) channel if the ECP mode selected.

▶ 1 Set ECP Mode Use DMA to 1.

▶ 3 Set ECP Mode Use DMA to 3. (Default Value)

Game Port Address

This feature allows you to select the game port address or disable it.

▶ Disabled Disable this function.

▶ 201 Set Game port address to 201. (Default Value)

▶ 209 Set Game port address to 209.

Midi Port Address

This feature allows you to select the Midi port address or disable it.

▶ Disabled Disable this function.

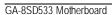
▶ 300 Set Midi port address to 300.

▶ 330 Set Midi port address to 330.(Default Value)

Midi Port IRQ

▶ 5 Set Midi Port IRQ to 5.

▶ 10 Set Midi Port IRQ to 10. (Default Value)



Power Management Setup

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Power Management Setup

ACPI Suspend Type	[S1(POS)]	Item Help
Soft-Off by PWR_BTTN	[Off]	Menu Level ▶
System After AC Back	[Off]	[S1]
IRQ [3-7, 9-15], NMI	[Enabled]	Set suspend type to
ModemRingOn	[Enabled]	Power On Suspend under
PME Event Wake Up	[Enabled]	ACPI OS
Power On by Keyboard	[Disabled]	
Power On by Mouse	[Disabled]	[S3]
Resume by Alarm	[Disabled]	Set suspend type to
x Month Alarm	NA	Suspend to RAM under
x Day (of Month)	0	ACPI OS
x Time (hh:mm:ss)	0:0:0	
Power LED in S1/S3 state	[Blinking]	
↑↓→←: Move Enter:Select	+/-/PU/PD:Value F10:Save	ESC:Exit F1:General Help
F5:Previous Values	F6:Fail-Safe Defaults	F7:Optimized Defaults

Figure 5: Power Management Setup

ACPI Suspend Type

▶ S1(POS) Set ACPI suspend type to S1. (Default Value)

► S3(STR) Set ACPI suspend type to S3.

→ Soft-off by PWR_BTIN

▶ Off User can press Power button to power off system instantly. (Default Value)

▶ Suspend User can press Power button for 4 seconds to power off system. System will

enter suspend mode if button is pressed less than 4 seconds.







▶ Off When AC-power back to the system, the system will be in "Off" state.

(Default Value)

▶ On When AC-power back to the system, the system will be in "On" state.

Last state When AC-power back to the system, the system will return to the Last state

before AC-power off.

• IRQ [3-7, 9-15], NMI

When IRQ[3-7, 9-15] or NMI triggered, the suspend timer will be reloaded to prevent system gets into green mode.

▶ Disabled Disable monitor IRQ[3-7, 9-15] or NMI.

► Enabled Enable monitor IRQ[3-7, 9-15] or NMI. (Default v alue)

◆ ModemRingOn

An incoming call via modem can awake the system from any suspend state or an input signal comes from the other client serv er on the LAN can awake the system from any suspend state.

▶ Disabled Disable Modem Ring on function.

▶ Enabled Enable Modem Ring on. (Default Value)

→ PME Event Wake Up

Set PME as wake up ev ent.

Disabled Disable PME Event wake up function.Enabled Enable PME Event wake up. (Default Value)

Power On by Keyboard

→ Any Key Set Key board power on by any key.

▶ Password Input password (from 1 to 8 characters) and press Enter to set the Keyboard

 $Pow\,er\,\,On\,\,Passw\,ord.$

▶ Disabled Disable this function. (Default Value)





▶ Disabled Disable this function. (Default Value)

▶ Enabled Enable Power On by move or click mouse function.

Resume by Alarm

You can set "Resume by Alarm" item to enabled and key in Data/time to power on system.

▶ Disabled Disable this function. (Default Value)

▶ Enabled Enable alarm function to POWER ON system.

If RTC Alarm Lead To Power On is Enabled.

Month Alarm : NA, $1\sim12$

Day (of Month): 1~31

Time (hh: mm: ss): (0~23):(0~59):(0~59)

Power LED in S1/S3 state

▶ Blinking In standby mode (S1), pow er LED will blink. (Default Value)

▶ Dual/OFF In standby mode(S1):

a. If use single color LED, power LED will turn off.

b. If use dual color LED, power LED will turn to another color.





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PnP/PCI Configurations

PCI 4 IRQ Assignment	[Auto]	Item Help
PCI 1/5 IRQ Assignment	[Auto]	Menu Level ►
PCI 2 IRQ Assignment	[Auto]	
PCI 3 IRQ Assignment	[Auto]	Device(s) using this
		INT:
		Display Cntrlr
		-BUS 1 Dev 0 Func 0
↑↓→←: Move Enter:Select	+/-/PU/PD:Value F10:Save	ESC:Exit F1:General Help
F5:Previous Values	F6:Fail-Safe Defaults F7:Optimized Defaults	

Figure 6: PnP/PCI Configurations

→ PCI 4 IRQ Assignment

▶ Auto Auto assign IRQ to PCI 4. (Default value)
 ▶ 3,4,5,7,9,10,11,12,14,15 Set IRQ 3,4,5,7,9,10,11,12,14,15 to PCI 4.

→ PCI 1/5 IRQ Assignment

▶ Auto Auto assign IR Q to PCI 1/5. (Default value)
 ▶ 3,4,5,7,9,10,11,12,14,15 Set IRQ 3,4,5,7,9,10,11,12,14,15 to PCI 1/5.

→ PCI 2 IRQ Assignment

▶ Auto Auto assign IRQ to PC I 2. (Default value)
 ▶ 3,4,5,7,9,10,11,12,14,15 to PC I 2.

• PCI 3 IRQ Assignment

▶ Auto Auto assign IRQ to PC I 3. (Default value)▶ 3,4,5,7,9,10,11,12,14,15 to PC I 3.

GA-8SD533 Motherboard

PC Health Status

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PC Health Status

Reset Case Open Status	[Disabled]	Item Help
Case Opened	No	Menu Level ▶
VCORE	1.778V	[Disabled]
VCC18	1.856V	Don't reset case
+3.3V	3.2V	open status
+5V	4.945V	
+12V	12.288V	[Enabled]
Current System Temperature	33℃	Clear case open
Current CPU Temperature	68℃	status at next boot
Current CPU FAN Speed	5113 RPM	
Current SYSTEM FAN Speed	0 RPM	
CPU Warning Temperature	[Disabled]	
CPU FAN Fail Warning	[Disabled]	
SYSTEM FAN Fail Warning	[Disabled]	
ALX Mayo Enter Coloct //DI	II/DDA/alua F10.Cov.a FC/	C. Evit F1. Coporal Halp

↑↓→←: Move Enter:Select +/-/PU/PD:Value F10:Save ESC:Exit F1:General Help F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

Figure 7: PC Health Status

⋄ Reset Case Open Status

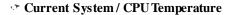
· Case Opened

If the case is closed, "Case Opened" will show "No".

If the case have been opened, "Case Opened" will show "Yes".

If you want to reset "Case Opened" value, set "Reset Case Open Status" to "Enabled" and save CMOS, your computer will restart.

$^{\circ}$ Current Voltage (V) VCORE/ VCC18 / +3.3V / +5V / +12V



▶ Detect System/CPU temperature automatically.

Current CPU/SYSTEM FAN Speed (RPM)

▶ Detect CPU/POWERFan speed status automatically.

• CPU Warning Temperature

₩ Disabled	Don't monitor CPU's temperature. (Default value)
→ 60°/140°F	Alarm when CPU current temperature over than 60°/140°F.
→ 70°/158°F	Alarm when CPU current temperature over than 70°/158°F
№ 80°/176°F	Alarm when CPU current temperature over than $80^{\circ}\!/176^{\circ}\!F$
₩ 90°/194°F	Alarm when CPU current temperature over than 90°/194°F.

→ CPUFAN Fail Warning

▶ Disabled Fan Warning function disable. (Default value)▶ Enabled Enable FAN warning alarm when FAN stops.

⋄ SYSTEM FAN Fail Warning

▶ Disabled Fan Warning function disable. (Default value)▶ Enabled Enable FAN warning alarm when FAN stops.





Frequency/Voltage Control

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Frequency/Voltage Control

CPU Clock Ratio	[15X]	Item Help
Linear Frequency Control	[Disabled]	Menu Level ▶
x CPU Clock (MHz)	100	
x DRAM Clock (MHz)	AUTO	
x AGP Clock (MHz)	AUTO	
x PCI Clock (MHz)	AUTO	
↑↓→←: Move Enter:Select	+/-/PU/PD:Value F10:Save	ESC:Exit F1:General Help
F5:Previous Values	F6:Fail-Safe Defaults	F7:Optimized Defaults

Figure 8: Frequency/Voltage Control

* CPU Clock Ratio

This option will not be shown or not be available if you are using a CPU with the locked ratio.

► 10X~24X It's depends on CPU Clock Ratio.

⋄ Linear Frequency Control

▶ Disabled Disable this function. (Default value)

▶ Enabled Enable this function.

CPU Clock (MHz)

► 100~355 Select CPU Clock to 100MHz~355MHz.

Incorrect using it may cause your system broken. For power End-User use only!

→ DRAM Clock (MHz)

This feature allows you to adjust the DRAM frequency, When "Linear Frequency Control" is set to Enabled.

▶ Please set DR AM Clock according to your requirement.

If you use DDR200 DRAM module, please set "DRAM Clock(MHz)" to 100. If you use DDR333 DRAM module, please set "DRAM Clock(MHz)" to 166.

Incorrect using it may cause your system broken. For power End-User use only!

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▶ Please set AGP Clock according to your requirement.
Incorrect using it may cause your system broken. For power End-User use only!

PCI Clock (MHz)

▶ Please set PCT Clock according to your requirement.
Incorrect using it may cause your system broken. For power End-User use only!



Top Performance

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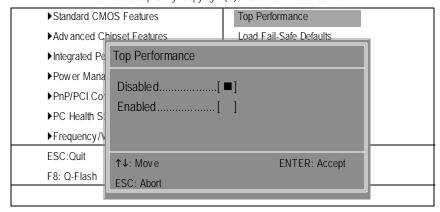


Figure 9: Top Performance

Top Performance

If you wish to maximize the performance of your system, set "Top Performance" as "Enabled".

Disabled Disable this function. (Default Value)Enabled Enable Top Performance function.





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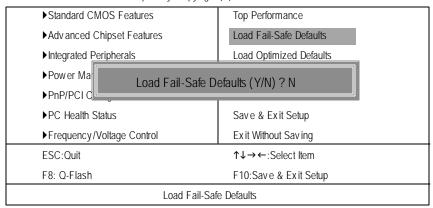


Figure 10: Load Fail-Safe Defaults

Load Fail-Safe Defaults

 $\label{propriate} \mbox{Fail-Safe defaults contain the most appropriate values of the system parameters that allow minimum system performance.}$



Load Optimized Defaults

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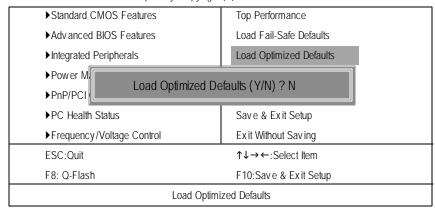


Figure 11: Load Optimized Defaults

Load Optimized Defaults

Selecting this field loads the factory defaults for BIOS and Chipset Features which the system automatically detects.



Set Supervisor/User Password

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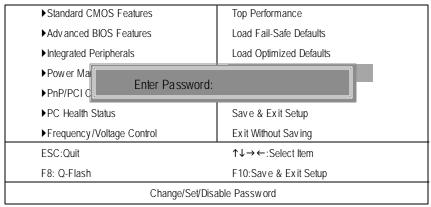


Figure 12: Password Setting

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

Type the password, up to eight characters, and press <Enter>. 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 "PASSWORD DISABLED" will appear to confirm the password being disabled. Once the password is disabled, the system will boot and you can enter Setup freely.

The BIOS Setup program allows you to specify two separate passwords:

SUPERVISOR PASSWORD and a USER PASSWORD. When disabled, any one may access all BIOS Setup program function. When enabled, the Supervisor password is required for entering the BIOS Setup program and having full configuration fields, the User password is required to access only basic items.

If you select "System" at "Password Check" in Advance BIOS Features Menu, you will be prompted for the password every time the system is rebooted or any time you try to enter Setup Menu.

If you select "Setup" at "Password Check" in Advance BIOS Features Menu, you will be prompted only when you try to enter Setup.



Save & Exit Setup

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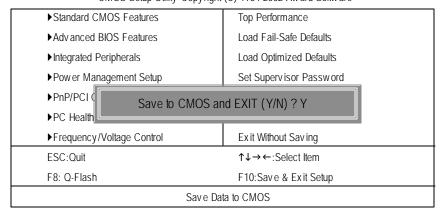
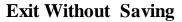


Figure 13: Save & Exit Setup

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





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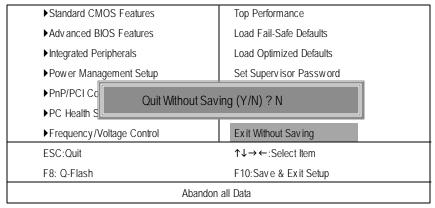


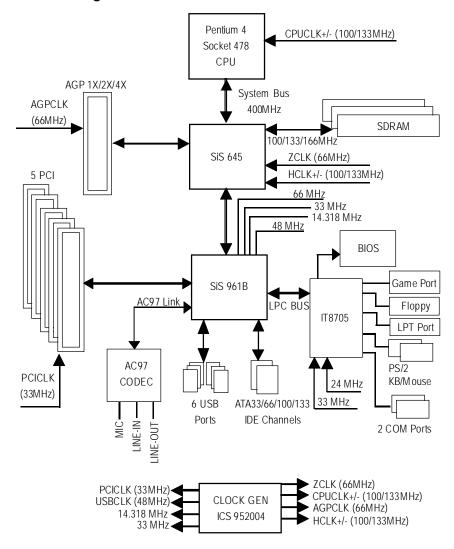
Figure 14: Exit Without Saving

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



Chapter 4 Technical Reference

Block Diagram



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Gigabyte announces @BIOS Windows BIOS live update utility



Have you ever updated BIOS by yourself? Or like many other people, you just know what BIOS is, but always hesitate to update it? Because you think updating newest BIOS is unnecessary and actually you don't know how to update it.

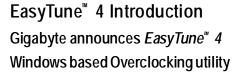
Maybe not like others, you are very experienced in BIOS updating and spend quite a lot of time to do it. But of course you don't like to do it too much. First, download different BIOS from website and then switch the operating system to DOS mode. Secondly, use different flash utility to update BIOS. The above process is not a interesting job. Besides, always be carefully to store the BIOS source code correctly in your disks as if you update the wrong BIOS, it will be a nightmare.

Certainly, you wonder why motherboard vendors could not just do something right to save your time and effort and save you from the lousy BIOS updating work? Here it comes! Now Gigabyte announces @BIOS— the first Windows BIOS live update utility. This is a smart BIOS update software. It could help you to download the BIOS from internetand update it. Not like the other BIOS update software, it's a Windows utility. With the help of "@BIOS', BIOS updating is no more than a click.

Besides, no matter which mainboard you are using, if it's a Gigabyte's product", @BIOS help you to maintain the BIOS. This utility could detect your correctmainboard model and help you to choose the BIOS accordingly. It then downloads the BIOS from the nearest Gigabyte ftp site automatically. There are several different choices; you could use "Internet Update" to download and update your BIOS directly. Or you may want to keep a backup for your current BIOS, just choose "Save Current BIOS" to save it first. You make a wise choice to use Gigabyte, and @BIOS update your BIOS smartly. You are now worry free from updating wrong BIOS, and capable to maintain and manage your BIOS easily. Again, Gigabyte's innovative producterects a milestone in mainboard industries.

For such a wonderful software, how much it costs? Impossible! It's free! Now, if you buy a Gigabyte's motherboard, you could find this amazing software in the attached driver CD. But please remember, connected to internet at first, then you could have a internet BIOS update from your Gigabyte @BIOS.





EasyTune 4 carries on the heritage so as to pave the way for future generations.



Overclock" might be one of the most common issues in computer field. But have many users ever tried it? The answer is probably "no". Because "Overclock" is thought to be very difficult and includes a lot of technical know-how, sometimes "Overclock" is even considered as special skills found only insome enthusiasts. But as to the experts in "Overclock", what's the truth? They may spend quite a lot of time and money to study, try and use

many different hardware or BIOS tools to do "Overclock". And even with these technologies, they still learn that it's quite a risk because the safety and stability of an "Overclock" system is unknown. Now everything is different because of a Windows based overclocking utility "EasyTune 4" --announced by Gigabyte. This windows based utility has totally changed the gaming rule of "Overclock". This is the first windows based overclocking utility is suitable for both normal and power users. Users can choose either "Easy Mode" or "Advanced Mode" for overclocking at their convenience. For users who choose "Easy Mode", they just need to click "Auto Optimize" to have autoed and immediate CPU overclocking. This software will then overdrive CPU speed automatically with the result being shown in the control panel. If users prefer "Overclock" by them, there is also another choice. Click "Advanced Mode" to enjoy "sport drive" class Overclocking user interface. "Advanced Mode", allows users to change the system bus / AGP / Memory working frequency in small increments to get ultimate system performance. It operates in coordination with Gigabyte motherboards. Besides, it is different from other traditional over-clocking methods, EasyTune 4 doesn'trequire users to change neither BIOS nor hardware switch/jumper setting; on the other hand, they can do "Overclock" at easy step. Therefore, this is a safer way for "Overclock" as nothing is changed on software or hardware. If user runs EasyTune 4 over system's limitation, the biggest lost is only to restart the computer again and the side effect is then well controlled. Moreover, if one well-performed system speed has been tested in EasyTune 4, user can "Save" this setting and "Load" it in next time. Obviously, Gigabyte EasyTune 4 has already turned the "Overclock" technology toward to a newer generation. This wonderful software is now free bundled in Gigabyte motherboard attached in driver CD. Users may make a test drive of "EasyTune 4" to find out more amazing features by themselves.

*Some Gigabyte products are not fully supported by EasyTune 4. Please find the products supported list in the web site

*Any "Overclocking action" is at user's risk, Gigabyte Technology will not be responsible for any damage or instability to your processor, motherboard, or any other components.





Method 1: Q-Flash

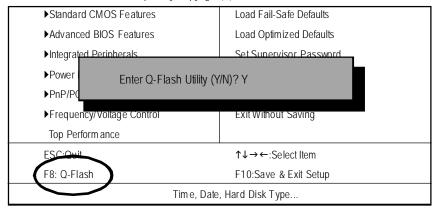
A. What is Q-Flash Utility?

Q-Flash utility is a pre-O.S. BIOS flash utility enables users to update its BIOS within BIOS mode, no more fooling around any OS.

B. How to use Q-Flash?

a. After power on the computer, pressing immediately during POST (Power On Self Test) it will allow you to enter AWARD BIOS CMOS SETUP, then press <F8> to enter Q-Flash utility.

CMOS Setup Utility-Copyright (C) 1984-2002 Award Software



b. Q-Flash Utility

Q-Flash Utility V3.07

Flash Type/Size : SST 49LF002A/ 256K

Keep DMI Data : Yes

Load BIOS from Floppy

Save BIOS to Floppy

Space Bar:Change Value

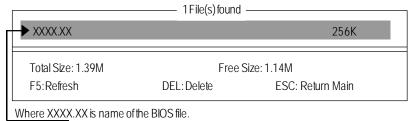
Enter: Run ESC: Reset ↑/↓: Select Item

GA-8SD533 Motherboard



Load BIOS From Floppy

In the A:drive, insert the "BIOS" diskette, then Press Enter to Run.



Press Enter to Run.

Are you sure to update BIOS?
[Enter] to contiune Or [ESC] ot abort...

Press Enter to Run.

!! COPY BIOS Completed -Pass !! Please press any keyto continue

Congratulation! You have completed the flashed and now can restart system.



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BIOS Flash Procedure

We use GA-7VTX motherboard and Flash841 BIOS flash utility as example.

Please flash the BIOS according to the following procedures if you are now under the DOS mode. Flash BIOS Procedure:

STEP 1:

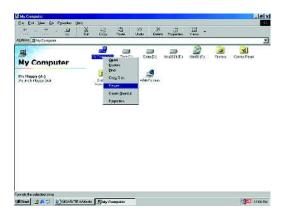
- (1) Please make sure you have set "Auto" for BIOS Feature Setup (BIOS Flash Protection).
- (2) Please make sure your system has installed the extraction utility such as winzip or pkunzip.

 Firstly you have to install the extraction utility such as winzip or pkunzip for unzip the files. Both of these utilities are available on many shareware download pages like http://www.cnet.com

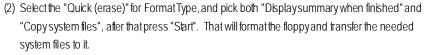
STEP 2: Make a DOS boot diskette. (See example: Windows 98 O.S.)

Beware: Windows ME/2000 are notallowed to make a DOS boot diskette.

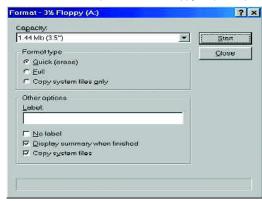
(1) With an available floppy disk in the floppydrive. Please leave the diskette "UN-write protected" type. Double click the "MyComputer" icon from Desktop, then click "3.5 diskette (A)" and right click to select "Format (M)"



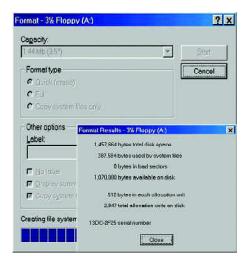




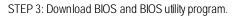
Beware: This procedure will erase all the prior data on that floppy, so please proceed accordingly.



(3) After the floppy has been formatted completely, please press "Close".





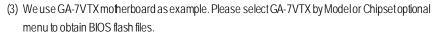


(1) Please go to Gigabyte website http://www.gigabyte.com.tw/index.html, and click "Support".



(2) From Supportzone, click the "Motherboards BIOS & Drivers".



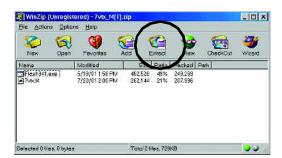




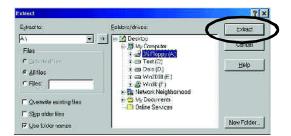
(4) Select an appropriate BIOS version (For example: F4), and click to download the file. It will pop up a file download screen, then select the "Open this file from its current location" and press "OK".



(5) At this time the screen shows the following picture, please click "Extract" button to unzip the files.



(6) Please extract the download files into the clean bootable floppy disk A mentioned in STEP 2, and press "Extract".





(1) Insert the floppy disk (contains bootable program and unzip file) into the floppy drive A. Then, restart the system. The system will boot from the floppy disk. Please press key to enter BIOS setup main menu when system is bootup.

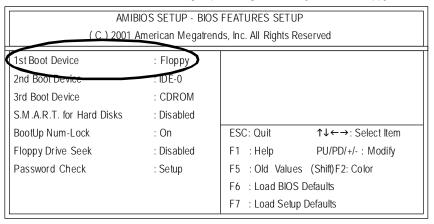


(2) Once you enter the BIOS setup utility, the main menu will appear on the screen. Use the arrows to highlight the item "BIOS FEATURES SETUP".

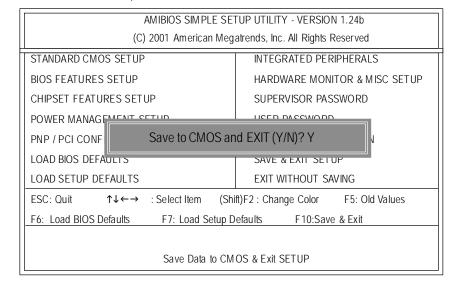
AMIBIOS SIMPLE SETUP UTILITY - VERSION 1.24b				
(C) 1999 American Megatrends, Inc. All Rights Reserved				
STANDARD CMOS SETUP	INTEGRATED PERIPHERALS			
BIOS FEATURES SETUP	HARDWARE MONITOR & MISC SETUP			
CHIPSET FEATURES SETUP	SUPERVISOR PASSWORD			
POWER MANAGEMENT SETUP	USER PASSWORD			
PNP / PCI CONFIGURATION	IDE HDD AUTO DETECTION			
LOAD BIOS DEFAULTS	SAVE & EXIT SETUP			
LOAD SETUP DEFAULTS	EXIT WITHOUT SAVING			
ESC: Quit ↑↓←→ : Select Item (Shi	ft)F2 : Change Color F5: Old Values			
F6: Load BIOS Defaults F7: Load Setup D	efaults F10:Save & Exit			
Time, Date , Hard Disk Type				



(3) Press "Enter" to enter "BIOS FEATURES SETUP" menu. Use the arrows to highlight the item "1st Boot Device", and then use the "Page Up" or "Page Down" keys to select "Floppy".



(4) Press "ESC" to go back to previous screen. Use the arrows to highlight the item "SAVE & EXIT SETUP" then press "Enter". System will ask "SAVE to CMOS and EXIT (Y/N)?" Press "Y" and "Enter" keys to confirm. Now the system will reboot automatically, the new BIOS setting will be taken effectnext boot-up.





(1) After the system boot from floppy disk, type "A:\> dir/w" and press "Enter" to check the entire files in floppy A. Then type the "BIOS flash utility" and "BIOS file" after A:\>. In this case you have to type "A:\> Flash841 7VTX.F4" and then press "Enter".

Starting Windows 98...

Microsoft(R) Windows 98

© Copyright Microsoft Corp 1981-1999

A:\> dir/w

Volume in drive A has no label

Volume Serial Number is 16EB-353D

Directory of A:\

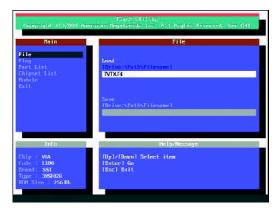
COMMAND.COM 7VTX.F4 FLASH841.EXE

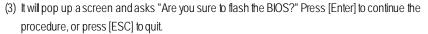
3 file(s) 838,954 bytes

0 dir(s) 324,608 bytes free

A:\> Flash8417VTX.F4

(2) Now screen appears the following Flash Utility main menu. Press "Enter", the highlighted item will locate on the model name of the right-upper screen. Right after that, press "Enter" to start BIOS Flash Utility.





Beware: Please do not turn off the system while you are upgrading BIOS. It will render your BIOS corrupted and system totally inoperative.



(4) The BIOS flash completed. Please press [ESC] to exit Flash Utility.



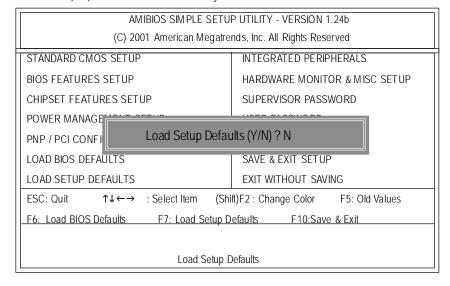


Normally the system redetects all devices after BIOS has been upgraded. Therefore, we highly recommend reloading the BIOS defaults after BIOS has been upgraded. This important step resets everything after the flash.

(1) Take out the floppy diskette from floppy drive, and then restart the system. The bootup screen will indicate your motherboard model and current BIOS version.

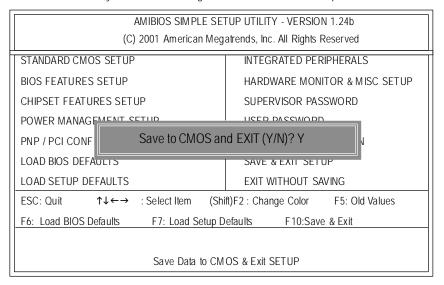


(2) Don't forget to press key to enter BIOS setup again when system is bootup. Use the arrows to highlight the item "LOAD SETUP DEFAULTS" then press "Enter". System will ask "Load Setup Defaults (Y/N)?" Press "Y" and "Enter" keys to confirm.





(3) Use the arrows to highlight the item "SAVE & EXIT SETUP" and press "Enter". System will ask "SAVE to CMOS and EXIT (Y/N)?" Press "Y" and "Enter" keys to confirm. Now the system will reboot automatically, the new BIOS setting will be taken effect next boot-up.



(4) Congratulate you have accomplished the BIOS flash procedure.





BIOS update procedure:

If your OS is Win9X, we recommend that you used Gigabyte @BIOS™ Program to flash BIOS.









Methods and steps:

I. Update BIOS through Internet.

- a. Click "Internet Update" icon.
- b. Click "Update New BIOS" icon.
- c. Select@BIOS™ sever.
- d. Select the exact model name on your motherboard.
- e. System will automatically download and update the BIOS.







- a. Do not click "Internet Update" icon.
- b. Click "Update New BIOS".
- c. Please select "All Files" in dialog box while opening the old file.
- d. Please search for BIOS unzip file, downloading from internet or any other methods (such as: 8SD533.D4).
- e. Complete update process following the instruction.

III. Save BIOS

In the very beginning, there is "Save Current BIOS" icon shown in dialog box. It means to save the current BIOS version.

IV. Check out supported motherboard and Flash ROM:

In the very beginning, there is "Aboutthis program" icon shown in dialog box. It can help you check out which kind of mother board and which brand of Flash ROM are supported.

Note:

- a. In method I, if it shows two or more motherboard's model names to be selected, please make sure your motherboard's model name again. Selecting wrong model name will cause the system unbooted.
- b. In method II, be sure that motherboard's model name in BIOS unzip file are the same as your motherboard's. Otherwise, your system won't boot.
- c. In method I, if the BIOS file you need cannot be found in @BIOS" server, please go onto Gigabyte's web site for downloading and updating it according to method II.
- d. Please note that any interruption during updating will cause system unbooted.





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MEMO



GA-8SD533 Motherboard

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