- 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- Due to rapid change in technology, some of the specifications might be out of date before publication of this booklet.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 Wärmeableiter ordnungsgemäß 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 채 프로세서를 구동시키지 마십시오. 영구적 고장이 발생합니다!*

警告: *永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、プ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-6IWMT
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 appliances, 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** CE (EC conformity 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**	
☐ **EN 60335**	Safety of household and similar electrical appliances	☐ **EN 50091-1**	

Manufacturer/Importer

Signature: Timmy Huang
Name: Timmy Huang

Date : December 31, 2002

(Stamp)

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-6IWMT**

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: December 31, 2002

GA-6IWMT(-C)

Socket 370 Processor Motherboard

USER'S MANUAL

Socket 370 Processor Motherboard
Rev. 1101
12ME-6IWMT-1101

Table of Content

Item Checklist

- ☑ The GA-6IWMT(-C) motherboard
- ☑ IDE cable x 1/ Floppy cable x 1
- ☑ CD for motherboard driver & utility
- ☑ GA-6IWMT(-C) user's manual
- ☑ I/O Shield *

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.
2. 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 the motherboard 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.

* For GA-6IWMT only

Chapter 1 Introduction

Features Summary

Form Factor	- 19.0cm x 23.0cm Micro ATX size form factor, 4 layers PCB.
Motherboard	- GA-6IWMT Series: GA-6IWMT / 6IWMT-C
CPU	- Socket 370 processor supports all new Pentium®III processors (FC-PGA & FC-PGA2 package) supports Celeron processors in FC-PGA & FC-PGA2 package supports 66/100/133MHz system bus frequency - 2nd cache depend on CPU
Chipset	- Intel 82810E HOST/AGP/SDRAM Controller - FW82801BA (ICH2)
Memory	- 2 168-pin DIMM sockets - Supports PC-100 SDRAM - Supports only 3.3V SDRAM DIMM - Supports up to 512MB SDRAM (Max)
I/O Control	- W83627HF
Slots	- 3 PCI slot supports 33MHz & PCI 2.2 compliant
On-Board IDE	- 2 IDE bus master (DMA33/ATA66/ATA100) IDE ports for up to 4 ATAPI devices - Supports PIO mode3,4 (UDMA 33/ATA66/ATA100) IDE & ATAPI CD-ROM
On-Board Peripherals	- 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 port (COMA, COMB on board) - 1 VGA port - 4 USB ports (Rear USB x 2, Front USB x 2) - 1 IrDA connector for IR

to be continued......

Hardware Monitor	• CPU/System Fan Revolution detect • CPU temperature detect • System Voltage Detect
On-Board Sound	• AC97 CODEC • Line In/Line Out/Mic In/CD In/Game Port
On-Board LAN*	• Build in RTL8101L Chipset
PS/2 Connector	• PS/2 Keyboard interface and PS/2 Mouse interface
BIOS	• Licensed AWARD BIOS, 2M bit Flash ROM
Additional Features	• STR(Suspend-To-RAM) • AC Recovery • USB KB/Mouse wake up from S3~S5 • Supports @BIOS™ • Supports Easy Tune 4™

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.

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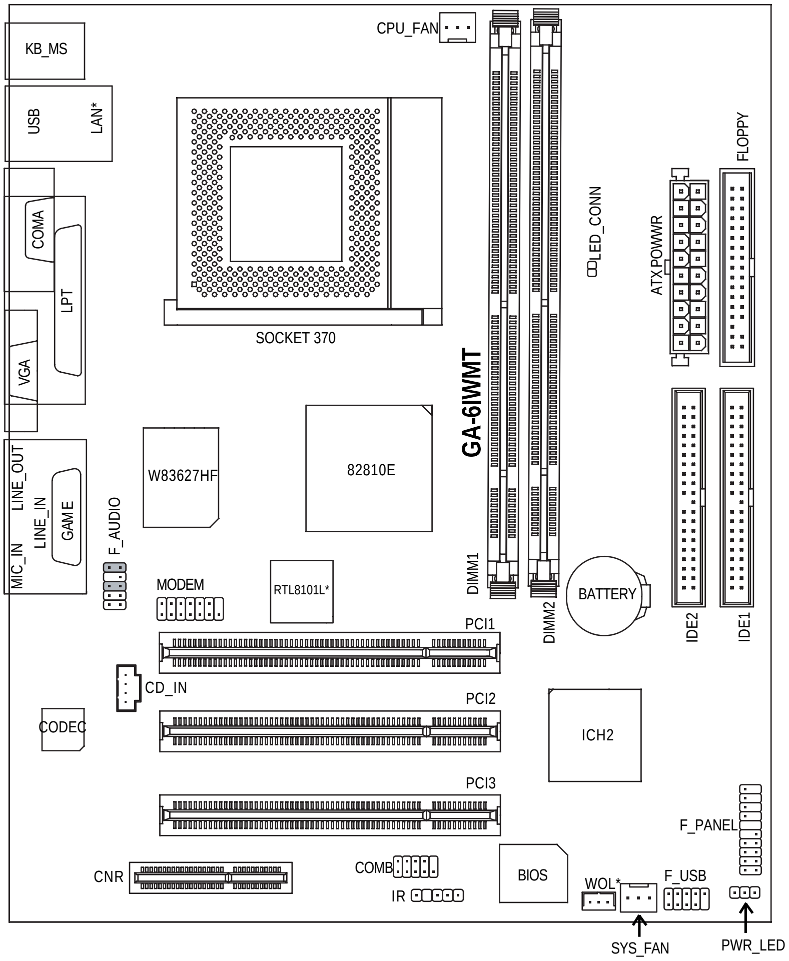
* For GA-6IWMT only

GA-6IWMT(-C) Motherboard Layout



* For GA-6IWMT only

Chapter 2 Hardware Installation Process

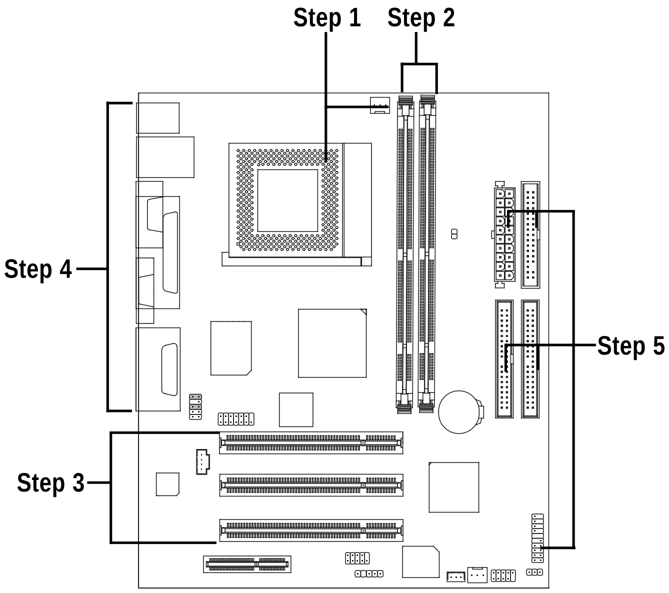
To set up your computer, you must complete the following steps:

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



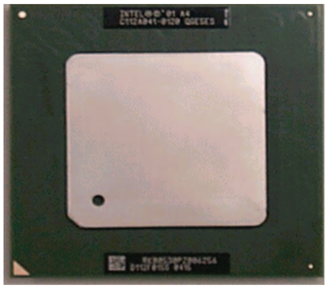
Congratulations! You have accomplished the hardware installation!

Turn on the power supply or connect the power cable to the power outlet. Continue with the BIOS/software installation.

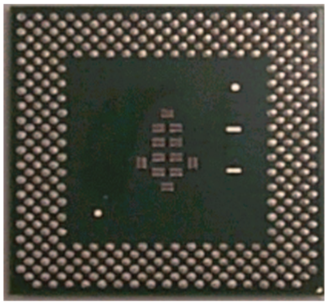
Step 1: Install the Central Processing Unit (CPU)

Step 1-1: CPU Installation

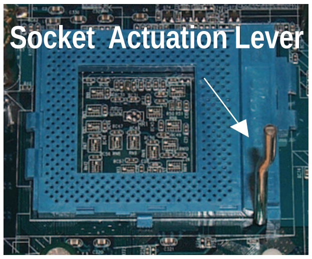
For example: The newest Pentium III processor (FC-PGA2 package).



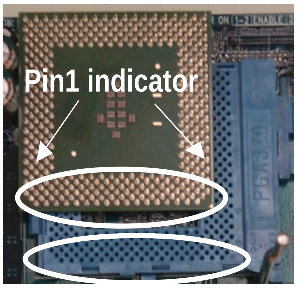
CPU Top View



CPU Bottom View



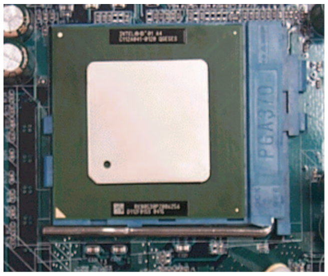
1. Pull up the CPU socket level and up to 90-degree angle.



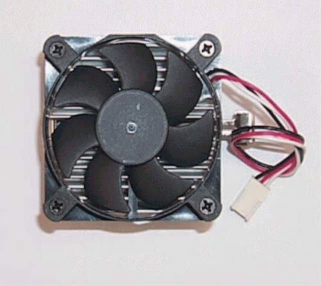
2. Locate Pin 1 in the socket and look for a (golden) cut edge on the CPU upper corner. Then insert the CPU into the socket.

- **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.**

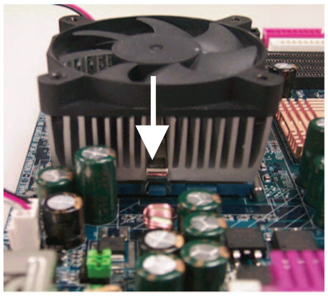
Step 1-2: CPU Heat Sink Installation



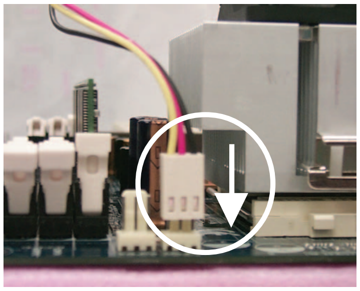
1. Press down the CPU socket lever and finish CPU installation.



2. Use qualified fan approved by Intel.



3. Fasten the heatsink supporting-base onto the CPU socket on the main-board.

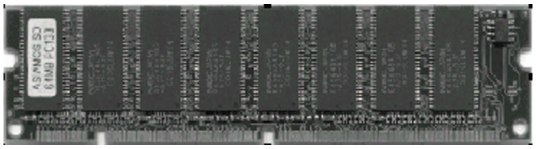


4. Make sure the CPU fan is plugged to the CPU fan connector, than install complete.

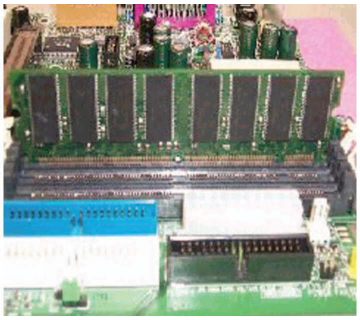
- Please use Intel approved cooling fan.
- We recommend you to apply the thermal paste to provide better heat conduction between your CPU and heatsink.
- Make sure the CPU fan power cable is plugged in to the CPU fan connector, this completes the installation.
- Please refer to CPU heat sink user's manual for more detail installation procedure.

Step 2: Install memory modules

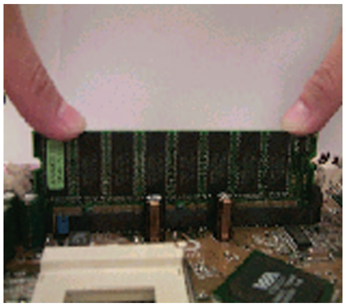
The motherboard has 2 dual in-line memory module (DIMM) sockets support 4 banks. The BIOS will automatically detects memory type and size. To install the memory module, just push it vertically into the DIMM Slot .The DIMM module can only fit in one direction due to the two notch. Memory size can vary between sockets.



SDRAM



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

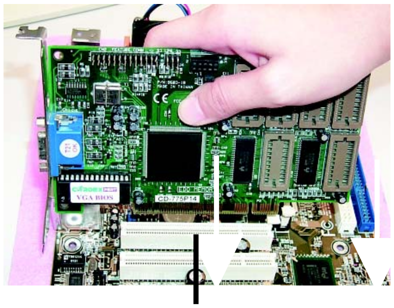


2. Insert the DIMM memory module vertically into the DIMM slot. Then push it down.
3. Close the plastic clip at both edges of the DIMM slots to lock the DIMM module. Reverse the installation steps when you wish to remove the DIMM module.

- **When STR/DIMM LED is ON, do not install/remove SDRAM from socket.**
- **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.**

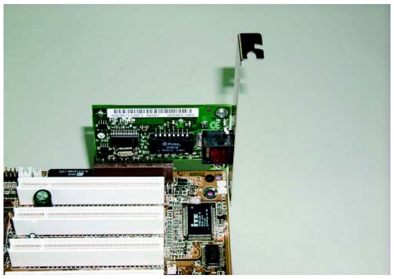
Step 3: Install expansion cards

1. Read the related expansion card's instruction document before install the expansion card into the computer.
2. Remove your computer's chassis cover, necessary 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.



Issues To Beware Of When Installing CNR

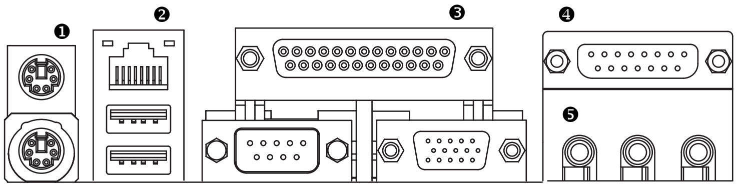
Please use standard CNR card like the one in order to avoid mechanical problem.



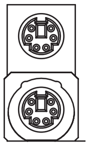
Standard CNR Card

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

Step 4-1: I/O Back Panel Introduction



❶ PS/2 Keyboard and PS/2 Mouse Connector

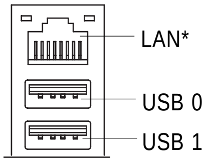


PS/2 Mouse Connector
(6 pin Female)

PS/2 Keyboard Connector
(6 pin Female)

- ➢This connector supports standard PS/2 keyboard and PS/2 mouse.

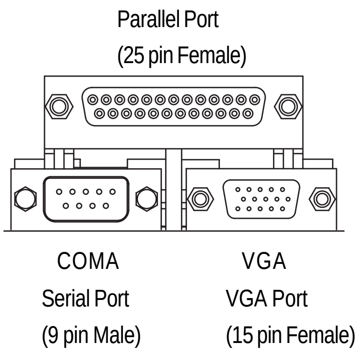
❷ USB & LAN Connector



- ➢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 support USB controller, please contact OS vendor for possible patch or driver upgrade. For more information please contact your OS or device(s) vendors.

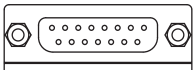
* For GA-6IWMT Only

❸ Parallel Port , Serial Port and VGA Port (LPT/COMA/VGA)



- ➢This connector supports 1 standard COM port ,1 Parallel port and 1 VGA port. Device like printer can be connected to Parallel port ; mouse and modem etc can be connected to Serial ports.

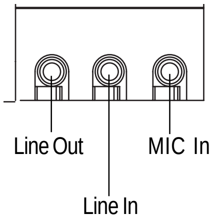
❹ Game /MIDI Ports



Joystick/ MIDI (15 pin Female)

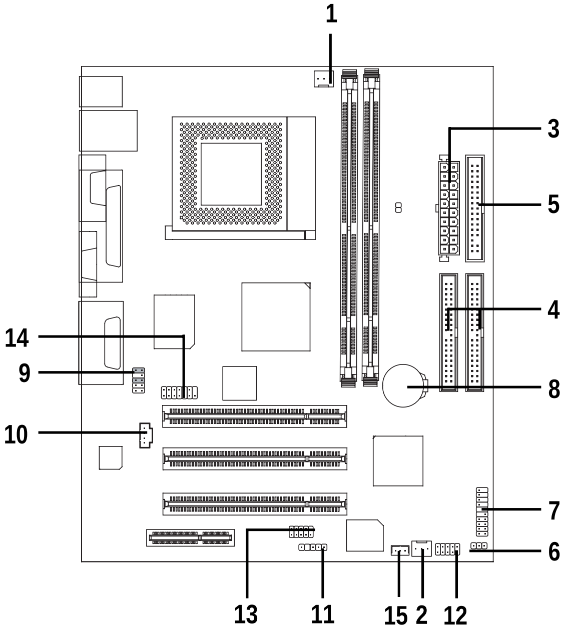
- ➢This connector supports joystick, MIDI keyboard and other relate audio devices.

❺ Audio Connectors



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

Step 4-2: Connectors Introduction

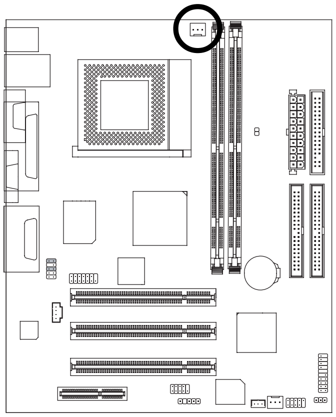


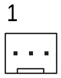
1) CPU_FAN	9) F_AUDIO
2) SYS_FAN	10) CD_IN
3) ATX	11) IR
4) IDE1/IDE2	12) F_USB
5) FDD	13) COMB
6) PWR_LED	14) MODEM
7) F_PANEL	15) WOL*
8) BATTERY	

* For GA-6IWMT Only

1) CPU_FAN (CPU FAN Connector)

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.

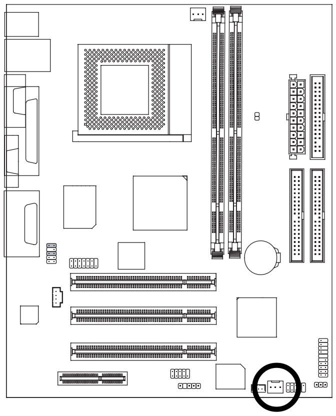


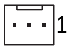


Pin No.	Definition
1	GND
2	+12V
3	Sense

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.

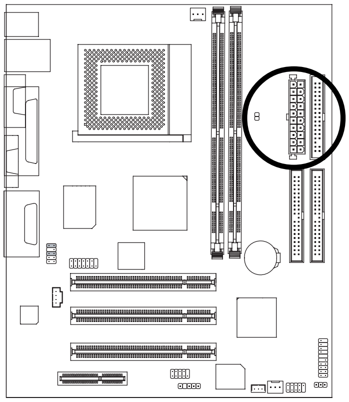


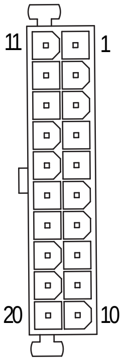


Pin No.	Definition
1	GND
2	+12V
3	Sense

3) ATX_POWER (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.

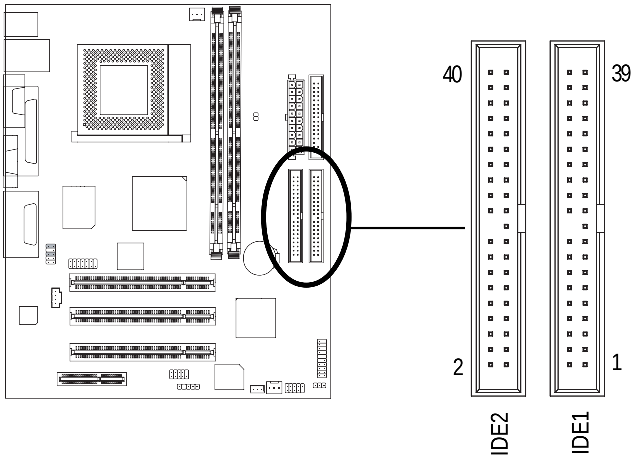




Pin No.	Definition
1	3.3V
2	3.3V
3	GND
4	VCC
5	GND
6	VCC
7	GND
8	Power Good
9	5V SB(stand by +5V)
10	+12V
11	3.3V
12	-12V
13	GND
14	PS_ON(softOn/Off)
15	GND
16	GND
17	GND
18	-5V
19	VCC
20	VCC

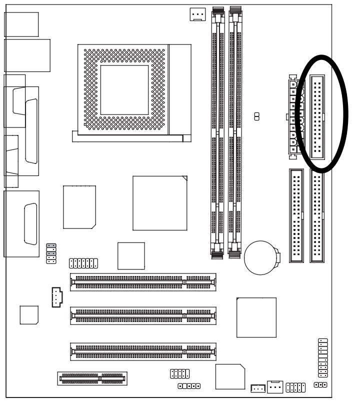
4) IDE1/ IDE2(IDE1/IDE2 Connector)

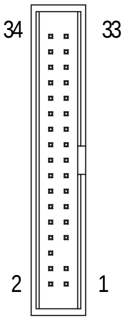
Please connect first harddisk to IDE1 and connect CDROM to IDE2. The red stripe of the ribbon cable must be the same side with the Pin1.



5) FDD (Floppy Connector)

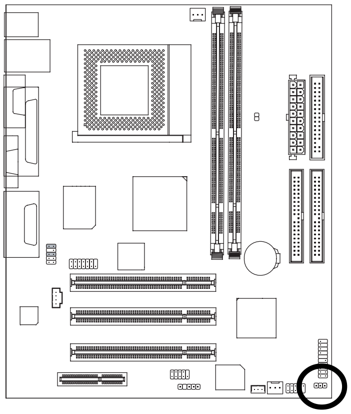
Please connect the floppy drive ribbon cables to FDD. It supports 360K,720K,1.2M,1.44M and 2.88Mbytes floppy disk types. The red stripe of the ribbon cable must be the same side with the Pin1.

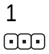




6) PWR_LED

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.

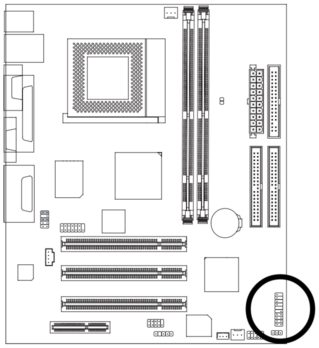


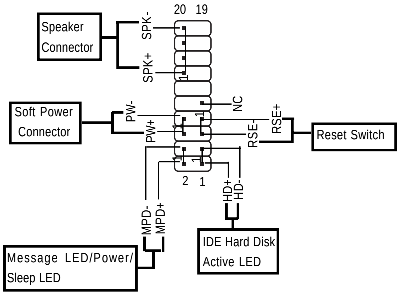


Pin No.	Definition
1	MPD+
2	MPD-
3	MPD-

7) F_PANEL (2x10 pins connector)

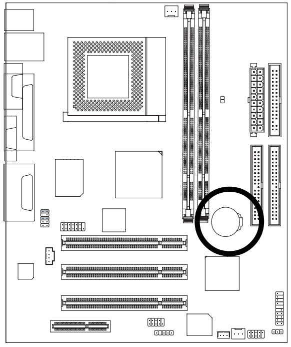
Please connect the power LED, PC peaker, reset switch and power switch etc of your chassis front panel to the F_PANEL connector according to the pin assignment above.



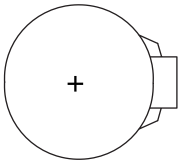


HD (IDE Hard Disk Active LED) (Blue)	Pin 1: LED anode(+) Pin 2: LED cathode(-)
SPK (Speaker Connector) (Amber)	Pin 1: VCC(+) Pin 2- Pin 3: NC Pin 4: Data(-)
RES (Reset Switch) (Green)	Open: Normal Operation Close: Reset Hardware System
PW (Soft Power Connector) (Red)	Open: Normal Operation Close: Power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

8) BATTERY (Battery)



If you want to erase CMOS...
1.Turn OFF the computer and unplug the power cord.
2.Remove the battery, wait for 30 second.
3.Re-install the battery.
4.Plug the power cord and turn ON the computer.

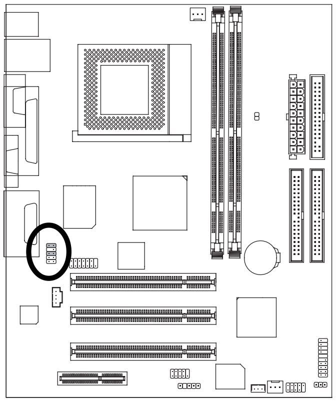


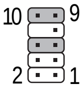
CAUTION

- ❖ 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.

9) F_AUDIO (F_AUDIO Connector)

If you want to use Front Audio 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 pin assigment 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.

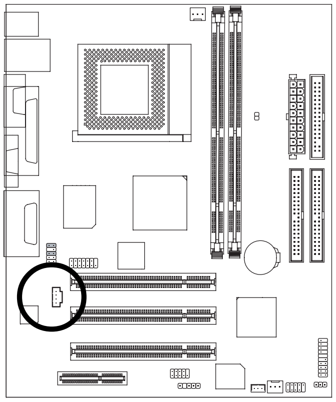


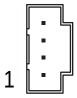


Pin No.	Definition
1	MIC
2	GND
3	REF
4	POWER
5	FrontAudio(R)
6	RearAudio(R)
7	Reserved
8	No Pin
9	FrontAudio (L)
10	RearAudio(L)

10) CD_IN (CD IN,Blank)

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

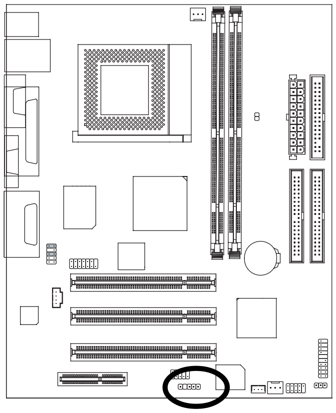


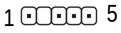


Pin No.	Definition
1	CD-L
2	GND
3	GND
4	CD_R

11)IR

Be careful with the polarity of the IR connectorwhile you connect the IR. Please contact you nearest dealer for optional IR device.

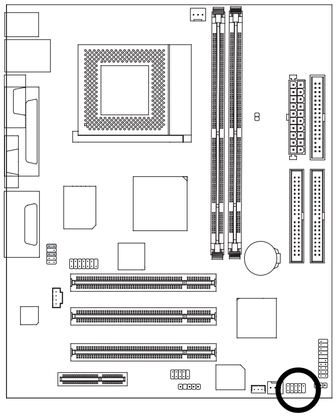


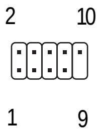


Pin No.	Definition
1	VCC(+5V)
2	NC
3	IR Data Input
4	GND
5	IR DAta Output

12)F_ USB(Front USB Connector, Yellow)

Be careful with the polarity of the front USB connector. Check the pin assignment while you connect the front USB cable. Please contact your nearest dealer for optional front USB cable.

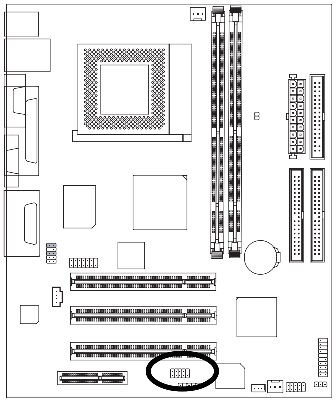


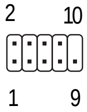


Pin No.	Definition
1	Power
2	Power
3	USB DX-
4	USB Dy-
5	USB DX+
6	USB Dy+
7	GND
8	GND
9	No Pin
10	USB Over Current

13) COM B(COM B Connector)

Be careful with the polarity of the COMB connector. Check the pin assignment while you connect the COMB cable.Please contact your nearest dealer for optional COMB cable.

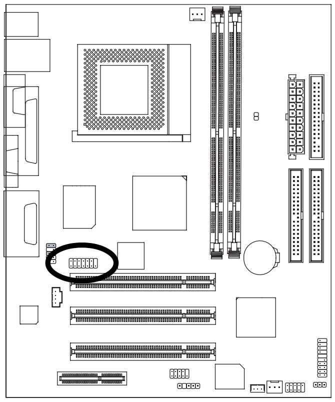


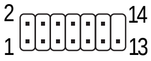


Pin No.	Definition
1	NDCDB-
2	NSINB
3	NSOUTB
4	NDTRB-
5	GND
6	NDSTRB-
7	NRTSB-
8	NCTSB-
9	NRIB-
10	NC

14) MODEM

Please contact your nearest dealer for optional Modem card.

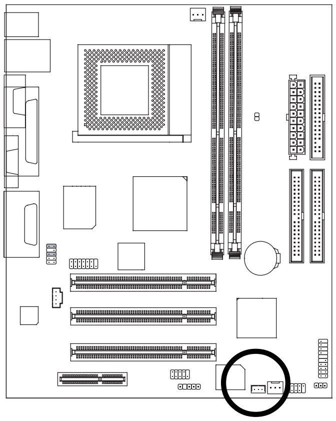


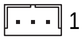


Pin No.	Definition
1	GND
2	VDD33
3	AC OUT
4	VCC
5	AC BCK
6	+12V
7	ACDIN
8	VAUX33
9	AC DOUT
10	NC
11	AC SYNC
12	NC
13	AC RSTB
14	No pin

15)WOL (Wake On Lan) *

This connector allows the remove servers to manage the system that installed this mainboard via your network adapter which also supports WOL.





Pin No.	Definition
1	+5V SB
2	GND
3	Signal

* For GA-6IWMT Only

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.

ENTERINGSETUP

Power ON the computer and press <Del> immediately will allow you to enter Setup. If the message disappears before you respond and you still wish to enter Setup, restart the system to try again by turning it OFF then ON or pressing the "RESET" bottom on the system case. You may also restart by simultaneously press <Ctrl> - <Alt>- <Del> keys.

CONTROLKEYS

<↑>	Move to previous item
<↓>	Move to next item
<←>	Move to the item in the left hand
<→>	Move to the item in the right hand
<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>	General help, only for Status Page Setup Menu and Option Page Setup Menu
<F2>	Item help
<F3>	Reserved
<F4>	Reserved
<F5>	Restore the previous CMOS value from CMOS, only for Option Page Setup Menu
<F6>	Load the default CMOS value from BIOS default table, only for Option Page Setup Menu
<F7>	Load the Setup Defaults
<F8>	Reserved
<F9>	Reserved
<F10>	Save all the CMOS changes, only for Main Menu

GETTINGHELP

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. :F2)

Once you enter AWARD BIOS CMOS Setup Utility, 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 <Enter> to accept or enter the sub-menu.

```
            CMOS Setup Utility-Copyright (C) 1984-2003 Award Software
┌─────────────────────────────────────┬──────────────────────────────────┐
│   ▶Standard CMOS Features           │ ▶Frequency/Voltage Control       │
│   ▶Advanced BIOS Features           │  Load Fail-Safe Defaults         │
│   ▶Advanced Chipset Features        │  Load Optimized Defaults         │
│   ▶Integrated Peripherals           │  Set Supervisor Password         │
│   ▶Power Management Setup           │  Set User Password               │
│   ▶PnP/PCI Configurations           │  Save & Exit Setup               │
│   ▶PC Health Status                 │  Exit Without Saving             │
├─────────────────────────────────────┴──────────────────────────────────┤
│   ESC:Quit                            ↑↓→←:Select Itect                │
│   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.
- **Advanced Chipset Features**

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

- **Integrated Peripherals**

  This setup page includes all onboard peripherals.
- **Power Management Setup**

  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.
- **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 Supervisor password**

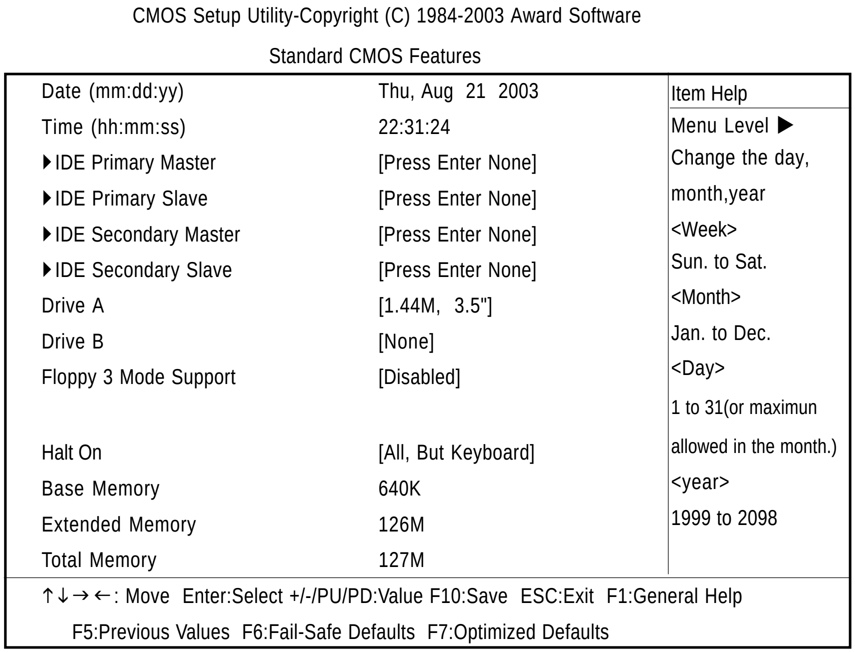
  Change, set, or disable password. It allows you to limit access to the system and Setup, or just to Setup.
- **Set User password**

  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.

Standard CMOS Features



```
            CMOS Setup Utility-Copyright (C) 1984-2003 Award Software
                          Standard CMOS Features
  Date (mm:dd:yy)                Thu, Aug  21  2003          Item Help
  Time (hh:mm:ss)                22:31:24                    Menu Level ▶
 ▸IDE Primary Master             [Press Enter None]          Change the day,
 ▸IDE Primary Slave              [Press Enter None]          month,year
 ▸IDE Secondary Master           [Press Enter None]          <Week>
 ▸IDE Secondary Slave            [Press Enter None]          Sun. to Sat.
  Drive A                        [1.44M,  3.5"]              <Month>
  Drive B                        [None]                      Jan. to Dec.
  Floppy 3 Mode Support          [Disabled]                  <Day>
                                                             1 to 31(or maximun
  Halt On                        [All, But Keyboard]         allowed in the month.)
  Base Memory                    640K                        <year>
  Extended Memory                126M                        1999 to 2098
  Total Memory                   127M
  ↑↓→←: Move  Enter:Select +/-/PU/PD:Value F10:Save  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 <month>, <day>, <year>, <week>.

▸▸Month	The month, Jan. Through Dec.
▸▸Day	The day, from 1 to 31 (or the maximum allowed in the month)
▸▸Year	The year, from 1990 through 2099
▸▸Week	The week, from Sun to Sat, determined by the BIOS and is display only

☞Time

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

☞Primary Master, Slave / 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 keyboard and press <Enter>. Such information should be provided in the documentation form your hard disk vendor or the system manufacturer.

▸▸CYLS.	Number of cylinders
▸▸HEADS	number of heads
▸▸PRECOMP	write precomp
▸▸LANDZONE	Landing zone
▸▸SECTORS	number of sectors

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

☞Floppy Drive 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.

☞ Floppy 3 Mode Support (for Japan Area)

⏩Disabled	Normal Floppy Drive. (Default value)
⏩Drive A	Drive A is 3 mode Floppy Drive.
⏩Drive B	Drive B is 3 mode Floppy Drive.
⏩Both	Drive A & B are 3 mode Floppy Drives.

☞Halt on

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

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

☞ Memory

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

Base Memory

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

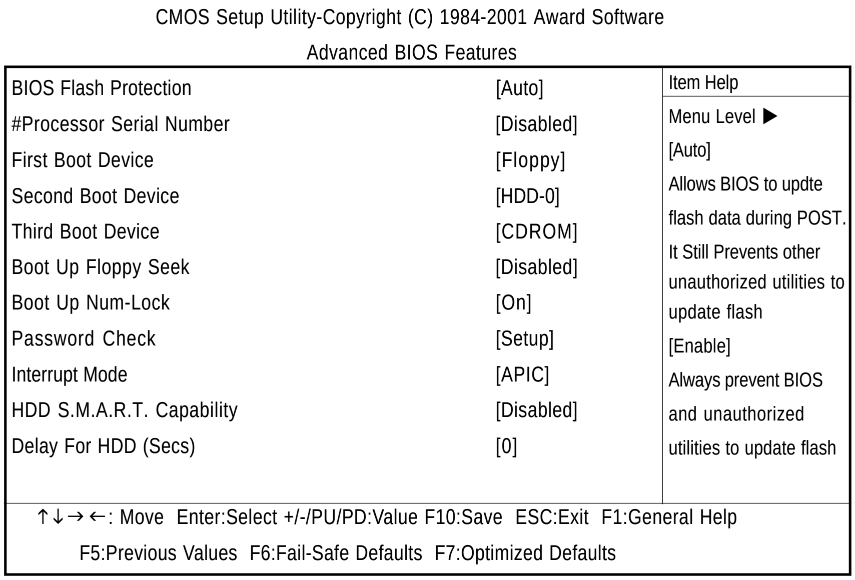
The value of the base memory is typically 512 K for systems with 512 K memory installed on the motherboard, or 640 K for systems with 640 K or more memory installed on the motherboard.

ExtendedMemory

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

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

Advanced BIOS Features



```
            CMOS Setup Utility-Copyright (C) 1984-2001 Award Software
                          Advanced BIOS Features
BIOS Flash Protection                   [Auto]        Item Help
#Processor Serial Number                [Disabled]    Menu Level ▶
First Boot Device                       [Floppy]      [Auto]
Second Boot Device                      [HDD-0]       Allows BIOS to updte
Third Boot Device                       [CDROM]       flash data during POST.
Boot Up Floppy Seek                     [Disabled]    It Still Prevents other
Boot Up Num-Lock                        [On]          unauthorized utilities to
Password Check                          [Setup]       update flash
Interrupt Mode                          [APIC]        [Enable]
HDD S.M.A.R.T. Capability               [Disabled]    Always prevent BIOS
Delay For HDD (Secs)                    [0]           and unauthorized
                                                      utilities to update flash

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

Figure 3: Advanced BIOS Features

#System will detect automatically and show up when you install the Pentium R !!! processor.

☞ BIOS Flash Protection

This field lets you determine the states that flash BIOS.

⏩Auto	BIOS enables flash write access automatically when updating BIOS data/ DMI/ESCD. (Default Value)
⏩Enabled	During POST, DMI/ESCD would not be updated. But flash tools can update BIOS always.

☞Processor Serial Number

This item will show up when you install the PentiumR !!! processor.

⏩Enabled	PentiumR !!! Processor Number Feature. (Default value)
⏩Disabled	Disabled this function.

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-CDROM	Select your boot device priority by USB-CDROM.
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

Boot Up Floppy Seek

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

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.
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)

Boot Up NumLock

On	Keypad is number keys. (Default value)
Off	Keypad is arrow keys.

Password Check

This category allows you to limit access to the system and Setup, or just to Setup.

System	The system can not boot and can not access to Setup page will be denied if the correct password is not entered at the prompt.
Setup	The system will boot, but access to Setup will be denied if the correct password is not entered at the prompt. (Default value)

☞Interrupt Mode

⏩APIC	Through IOAPIC generate more IRQ for system use.(Default value)
⏩PIC	Use AT standard IRQ controlles to generate IRQ.

When you already have IOAPIC enable system and want to upgrade the system please note, since running an IOAPIC enabled OS (like Windows NT,Windows 2000, Windows XP...) system with none IOAPIC HW support will cause the system to hang. Following are some situations users might run into:

1.An IOAPIC enabled OS and change the BIOS setting from IOAPIC to PIC, this will cause your system to hang.

2.An IOAPIC enabled OS and change a processor from IOAPIC supported to none IOAPIC support (like VIA C3, Cyrix® MII, Cyrix® III), and some Intel Pentium® !!!, Celeron™ Processor(certain lot number), this will disable the IOAPIC in the BIOS and cause the system to hang.

When above situation happened you will have to reinstall the OS.

☞HDD S.M.A.R.T. Capability

⏩Enabled	Enabled HDD S.M.A.R.T. Capability.
⏩Disabled	Disabled HDD S.M.A.R.T. Capability. (Default value)

☞Delay For HDD (Secs)

⏩0~15	Set Delay Time For HDD.

Advanced Chipset Features

```
            CMOS Setup Utility-Copyright (C) 1984-2001 Award Software
                             Advanced Chipset Features
SDRAM CAS Latency Time                       [Auto]        Item Help
SDRAM Cycle Time Trac/Trc                    [Auto]        Menu Level
SDRAM RAS-to-CAS Delay                       [Auto]
SDRAM RAS Precharge Time                     [Auto]
CPU Latency Timer                            [Disabled]
Delay Transaction                            [Enable]
AGP Graphics Aperture Size                   [64MB]
SDRAM Buffer Strength                        [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 4: Advanced Chipset Features

☞SDRAM CAS latency Time

»3	For Slower SDRAM DIMM module.
»2	For Fastest SDRAM DIMM module.
»Auto	Set SDRAM CAS latency to Auto.(Default value)

☞SDRAM Cycle Time Trac/Trc

»5/7	Set SDRAM Cycle Time Trac/Trc to 5/7SCLKs.
»6/8	Set SDRAM Cycle Time Trac/Trc to 6/8SCLKs.
»Auto	Set SDRAM Cycle Time Trac/Trc to Auto.(Default value)

☞SDRAM RAS- to-CAS Delay

»3	Set SDRAM RAS-to-CAS delay 3 SCLKs.
»2	Set SDRAM RAS-to-CAS delay 2 SCLKs.
»Auto	Set SDRAM RAS-to-CAS delay to Auto.(Default value)

☞SDRAM RAS Precharge Time

»3	Set SDRAM RAS Precharge Time to 3.
»2	Set SDRAM RAS Precharge Time to 2.
»Auto	Set SDRAM RAS Precharge to Auto.(Default value)

CPU Latency Timer

▸▸Disanled	Disabled CPU Latency Timer. (Default value)
▸▸Enabled	Enabled CPU Latency Timer.

Delay Transaction

▸▸Enabled	Enabled PCI Delay Transaction. (Default Value)
▸▸Disabled	Disabled PCI Delay Transaction.

AGP Graphics Aperture Size (MB)

▸▸64	Set AGP Graphics Aperture Size to 64 MB. (Default Value)
▸▸Disabled	Disable this function.

SDRAM Buffer Strength

▸▸Auto	Set SDRAM Buffer Strength to Auto. (Default value)
▸▸4X	Set SDRAM Buffer Strength to 4X.
▸▸3X	Set SDRAM Buffer Strength to 3X.
▸▸2X	Set SDRAM Buffer Strength to 2X.
▸▸1X	Set SDRAM Buffer Strength to 1X.

Integrated Peripherals

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Integrated Peripherals

IDE1 Conductor Cable	[Auto]
IDE2 Conductor Cable	[Auto]
On-Chip Primary PCI IDE	[Enabled]
On-Chip Secondary PCI IDE	[Enabled]
IDE Primary Master PIO	[Auto]
IDE Primary Slave PIO	[Auto]
IDE Secondary Master PIO	[Auto]
IDE Secondary Slave PIO	[Auto]
IDE Primary Master UDMA	[Auto]
IDE Primary Slave UDMA	[Auto]
IDE Secondary Master UDMA	[Auto]
IDE Secondary Slave UDMA	[Auto]
USB Controller	[Enabled]
USB Keyboard Support	[Disabled]
USB Mouse Support	[Disabled]
Init Display First	[PCI Slot]
AC97 Audio	[Auto]
AC97 Modem	[Auto]
Onboard LAN Device	[Enabled]
Onboard LAN Boot ROM	[Disabled]
Onboard Modem Function	[Disabled]
Mouse power on	[Disabled]
Keyboard power on	[Disabled]
※KB Power ON Password	Enter
Onboard FDC Controller	[Enabled]
Onboard Serial Port 1	[3F8/IRQ4]
Onboard Serial Port 2	[2F8/IRQ3]
UART Mode Select	[Normal]
※RxD,TxD Active	Hi,Lo
※IR Transaction Delay	Enabled
※UR2 Duplex Mode	Half
※Use IR Pins	IR-Rx2Tx2

Item Help

Menu Level ▶

[Auto]

Auto-detect IDE cable type

[ATA 66/100]

Set Conductor cable to ATA66/100(80 PINS) [ATA 33]

Set Conductor cable to ATA33(40PINS)

```
Onboard Parallel Port                          [378/IRQ7]
Parallel Port Mode                             [SPP]
※EPP Mode Select                               EPP1.7
※ECP Mode Use DMA                              3
AC BACK Function                               [Soft-Off]
Game Port Address                              [201]
Midi Port Address                              [330]
Midi Port IRQ                                  [10]
  ↑↓→←: 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: Integrated Peripherals

☞ IDE 1 Conductor Cable

▸▸Auto	Set IDE 1 Conductor cable to auto.(Default value)
▸▸ATA66/100	Set IDE 1 Conductor cable to ATA66/100.
▸▸ATA33	IDE 1 Conductor cable to ATA33.

☞ IDE 2 Conductor Cable

▸▸Auto	Set IDE 2 Conductor cable to auto.(Default value)
▸▸ATA66/100	Set IDE 2 Conductor cable to ATA66/100.
▸▸ATA33	IDE 2 Conductor cable to ATA33.

☞On-Chip Primary PCI IDE

▸▸Enabled	Enable onboard 1st channel IDE port. (Default value)
▸▸Disabled	Disable onboard 1st channel IDE port.

☞On-Chip Secondary PCI IDE

▸▸Enabled	Enable onboard 2nd channel IDE port. (Default value)
▸▸Disabled	Disable onboard 2nd channel IDE port.

☞IDE Primary Master PIO (for onboard IDE 1st channel)

▸▸Auto	BIOS will automatically detect the IDE HDD Accessing mode. (Default value)
▸▸Mode0~4	Manually set the IDE Accessing mode.

☞IDE Primary Slave PIO (for onboard IDE 1st channel)

▸▸Auto	BIOS will automatically detect the IDE HDD Accessing mode. (Default value)
▸▸Mode0~4	Manually set the IDE Accessing mode.

☞IDE Secondary Master PIO (for onboard IDE 2nd channel)

▸▸Auto	BIOS will automatically detect the IDE HDD Accessing mode. (Default value)
▸▸Mode0~4	Manually set the IDE Accessing mode.

☞IDE Primary Master UDMA

▸▸Auto	BIOS will automatically detect the IDE HDD Accessing mode. (Default value)
▸▸Disabled	Disable UDMA function.

☞IDE Primary Slave UDMA

▸▸Auto	BIOS will automatically detect the IDE HDD Accessing mode. (Default value)
▸▸Disabled	Disable UDMA function.

☞IDE Secondary Master UDMA

▸▸Auto	BIOS will automatically detect the IDE HDD Accessing mode. (Default value)
▸▸Disabled	Disable UDMA function.

☞IDE Secondary Slave UDMA

▸▸Auto	BIOS will automatically detect the IDE HDD Accessing mode. (Default value)
▸▸Disabled	Disable UDMA function.

☞USB Controller

▸▸Enabled	Enabled USB Controller. (Default value)
▸▸Disabled	Disabled USB Controller.

☞USB Keyboard Support

▸▸Enabled	Enabled USB Keyboard Support.
▸▸Disabled	Disabled USB Keyboard Support. (Default value)

☞USB Mouse Support

▸▸Enabled	Enabled USB Mouse Support.
▸▸Disabled	Disabled USB Mouse Support. (Default value)

☞Init Display First

▸▸PCI Slot	Set Init Display First to PCI Slot.(Default value)
▸▸Onboard	Set Init Display First to Onboard VGA.

☞AC97 Audio

▸▸Auto	BIOS will automatically detect onboard AC97 Audio or Creative CT5880 audio. (Default value)
▸▸Disabled	Disabled AC97 Audio.

☞AC97 Modem

▸▸Auto	Bios will automatically detect onboard AC97 Modem. (Default value)
▸▸Disabled	Disabled AC97 Modem.

☞ Onboard LAN Device

▸▸Enabled	Enable Onboard LAN function. (Default value)
▸▸Disabled	Disable this function.

☞Onboard LAN Boot ROM

This function decide whether to invoke the boot ROM of the onboard LAN chip.

▸▸Disabled	Disable this function. (Default Value)
▸▸Enabled	Enable this function.

☞Onboard Modem Function

▸▸Enabled	Enable integrated modem device.
▸▸Disabled	Disable integrated modem device.(Default value)

☞Mouse Power On

▸▸Disabled	Disabled this function. (Default value)
▸▸Double Left	Set mouse double click left botton to power on system.
▸▸Double Right	Set mouse double click right botton to power on system.

Keyboard Power On

This feature allows you to set the method for powering-on the system.

Password	Allows you to set up to 5 alphanumeric characters to power-on the system.
Any Key	allows you to touch the keyboard to power on the system.
Disabled	Disabled this function. (Default value)
Keyboard 98	If your keyboard have “POWER Key” button, you can press the key to power on your system.

KB Power ON Password

Enter	Input password (from 1 to 5 characters) and press Enter to set the Key board Power On Password.

Onboard FDC Controller

Enabled	Activate onboard floppy controller.(Default value)
Disabled	Disable floppy function.

Onboard Serial Port 1

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

Onboard Serial Port 2

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

UART Mode Select

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

ASKIR	Set onboard I/O chip UART to ASKIR Mode.
IrDA	Set onboard I/O chip UART to IrDA Mode.
SCR	Set onboard I/O chip UART to SCR Mode.
Normal	Set onboard I/O chip UART to Normal Mode. (Default Value)

RxD, TxDActive

Hi, Hi	Set RxD,TxD Active to Hi, Hi.
Hi, Lo	Set RxD,TxD Active to Hi, Lo. (Default Value)
Lo, Hi	Set RxD,TxD Active to Lo, Hi.
Lo, Lo	Set RxD,TxD Active to Lo, Lo.

IR Transmission Delay

Enabled	Enabled IR Transmission delay. (Default Value)
Disabled	Enabled IR Transmission delay.

UR2 Duplex Mode

Full	IR Function Duplex Full.
Half	IR Function Duplex Half. (Default Value)

Use IR Pins

IR-Rx2Tx2	Enable On Board LPT port and address is 378.(Default Value)
RxD2,TxD2	Enable On Board LPT port and address is 278.

Onboard Parallel port

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

Onboard Parallel Mode

Normal	Using Parallel port as Normal.
EPP	Using Parallel port as Enhanced Parallel Port.
ECP	Using Parallel port as Extended Capabilities Port.
ECP/EPP	Using Parallel port as ECP & EPP mode.
SPP	Using Parallel port as SPP mode. (Default Value)

☞ Parallel Port EPP Type

» EPP 1.9	EPP Version is 1.9. (Default Value)
» EPP 1.7	EPP Version is 1.7.

☞ ECP Mode Use DMA

» 3	ECP Mode Use DMA 3 (Default Value)
» 1	ECP Mode Use DMA 1

☞ AC Back Function

» Memory	System power on depends on the status before AC lost.
» Soft-Off	Always in Off state when AC back. (Default value)
» Full-On	Always power on the system when AC back.

☞ Game Port Address

» Disabled	Disabled this function.
» 201	Set Game Port Address to 201.(Default Value)
» 209	Set Game Port Address to 209.

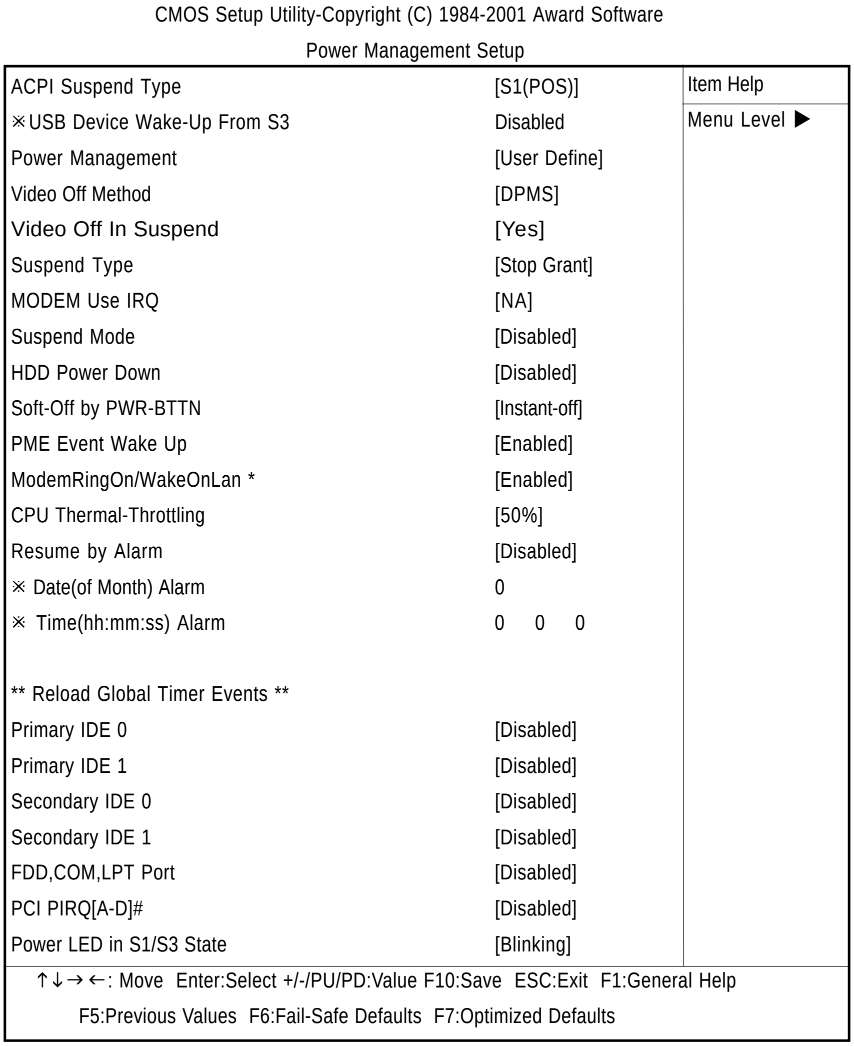
☞ Midi Port Address

» Disabled	Disabled this function.
» 330	Set Game Port Address to 330.(Default Value)
» 300	Set Game Port Address to 300.
» 290	Set Game Port Address to 290.

☞ Midi Port IRQ

» 5	Set 5 for Midi Port IRQ.
» 10	Set 10 for Midi Port IRQ. (Default Value)

Power Management Setup



```
            CMOS Setup Utility-Copyright (C) 1984-2001 Award Software
                          Power Management Setup
ACPI Suspend Type                      [S1(POS)]          Item Help
※USB Device Wake-Up From S3            Disabled           Menu Level ▶
Power Management                       [User Define]
Video Off Method                       [DPMS]
Video Off In Suspend                   [Yes]
Suspend Type                           [Stop Grant]
MODEM Use IRQ                          [NA]
Suspend Mode                           [Disabled]
HDD Power Down                         [Disabled]
Soft-Off by PWR-BTTN                   [Instant-off]
PME Event Wake Up                      [Enabled]
ModemRingOn/WakeOnLan *                [Enabled]
CPU Thermal-Throttling                 [50%]
Resume by Alarm                        [Disabled]
※ Date(of Month) Alarm                 0
※ Time(hh:mm:ss) Alarm                 0   0   0

** Reload Global Timer Events **
Primary IDE 0                          [Disabled]
Primary IDE 1                          [Disabled]
Secondary IDE 0                        [Disabled]
Secondary IDE 1                        [Disabled]
FDD,COM,LPT Port                       [Disabled]
PCI PIRQ[A-D]#                         [Disabled]
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 6: Power Management Setup

* For GA-6IWMT only

ACPI Suspend Type

S1(POS)	Set ACPI suspend type is S1. (Default Value)
S3(STR)	Set ACPI suspend type is S3.

USB Device Wake-Up from S3

Disabled	Disabled USB Device Wake-Up from S3. (Default Value)
Enabled	Enabled USB Device Wake-Up from S3.

Power Management

User Define	For configuring our own power management features. (Default Value)
Min Saving	Enable Green function.
Man Saving	Disable Green function.

Video off Method

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

Video Off In Suspend

Yes	Set Suspend type is stop grant. (Default value)
No	Suspend Set Suspend type is Power on Suspend.

Suspend Type

Stop Grant	Set Suspend type is stop grant. (Default value)
PwrOn Suspend	Set Suspend type is Power on Suspend.

MODEM Use IRQ

NA	Set MODEM Use IRQ to NA.(Default Value)
3	Set MODEM Use IRQ to 3.
4	Set MODEM Use IRQ to 4.
5	Set MODEM Use IRQ to 5.
7	Set MODEM Use IRQ to 7.
9	Set MODEM Use IRQ to 9.
10	Set MODEM Use IRQ to 10.
11	Set MODEM Use IRQ to 11.

Suspend Mode

Disabled	Disabled Suspend Mode. (Default Value)
1 min - 1 Hour	Setup the timer to enter Suspend Mode.

HDD Power Down

Disabled	Disabled HDD Power Down mode function. (Default Value)
1-15 mins.	Enabled HDD Power Down mode between 1 to 15 mins.

Soft-off by Power Button

Instant off	Soft switch ON/OFF for Power Button. (Default Value)
Delay-4Sec	Soft switch ON 4 Sec for Power off.

PME Event Wake UP

Disabled	Disabled this function.
Enabled	Enabled PME Event Wake up. (Default Value)

Modem Ring On/Wake On LAN *

Disabled	Disabled Modem Ring on/wake on Lan function.
Enabled	Enabled Modem Ring on/wake on Lan. (Default Value)

CPU Thermal-Throttling

50.0%	Monitor CPU Temp. will cause system slow down CPU Duty Cycle to 50.0%. (Default Value)
37.5%	Monitor CPU Temp. will cause system slow down CPU Duty Cycle to 37.5%.
25.0%	Monitor CPU Temp. will cause system slow down CPU Duty Cycle to 25.0%.
12.5%	Monitor CPU Temp. will cause system slow down CPU Duty Cycle to 12.5%.
87.5%	Monitor CPU Temp. will cause system slow down CPU Duty Cycle to 87.5%.
75.0%	Monitor CPU Temp. will cause system slow down CPU Duty Cycle to 75.0%.
62.5%	Monitor CPU Temp. will cause system slow down CPU Duty Cycle to 62.5%.

Resume by Alarm

You can set "RTC Alarm Resume" 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.

* For GA-6IWMT only

If RTC Alarm Lead To Power On is Enabled.
Date (of Month) Alarm : Everyday, 1~31
Time (hh: mm: ss) Alarm :(0~23) : (0~59) : (0~59)

☞ Primary/Secondary IDE 0/1

►►Disabled	Disabled this function. (Default value)
►►Enabled	Enabled monitor Primary/Secondary IDE 0/1 for Green event.

☞FDD,COM,LPT Port

►►Disabled	Disabled this function. (Default value)
►►Enabled	Enabled monitor FDC,COM,LPT for Green event.

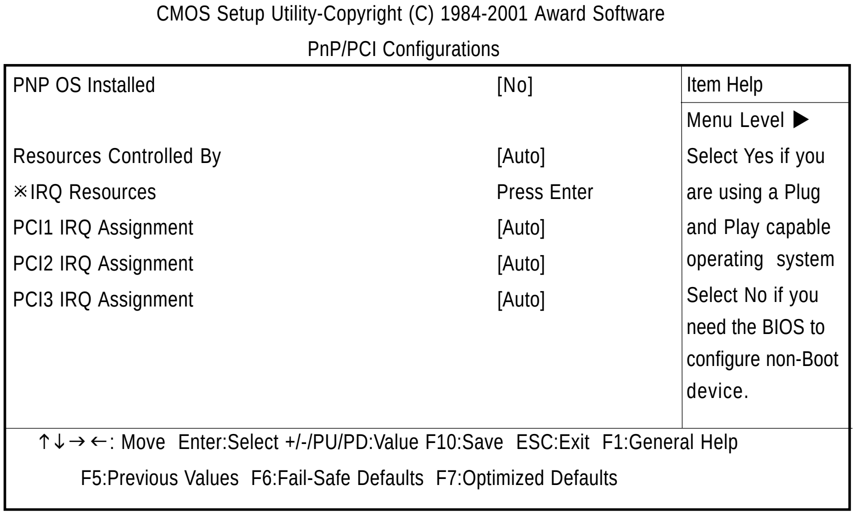
☞PCI PIRQ[A-D]

►►Enabled	Monitor PCI PIRQ[A-D]# IRQ Active.
►►Disabled	Ignore PCI PIRQ[A-D]# IRQ Active. (Default value)

☞Power LED in S1/S3 state

►►Blinking	In standby mode(S1), power 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.

PNP/PCI Configuration



```
            CMOS Setup Utility-Copyright (C) 1984-2001 Award Software
                          PnP/PCI Configurations
PNP OS Installed                        [No]            Item Help
                                                        Menu Level ▶
Resources Controlled By                 [Auto]          Select Yes if you
※IRQ Resources                          Press Enter     are using a Plug
PCI1 IRQ Assignment                     [Auto]          and Play capable
PCI2 IRQ Assignment                     [Auto]          operating  system
PCI3 IRQ Assignment                     [Auto]          Select No if you
                                                        need the BIOS to
                                                        configure non-Boot
                                                        device.
  ↑↓→←: 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: PnP/PCI Configurations

☞PNP OS Install

⏩No	Disable this function. (Default Value)
⏩Yes	Enabled PNP OS install.

☞ Resources Controlled by

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

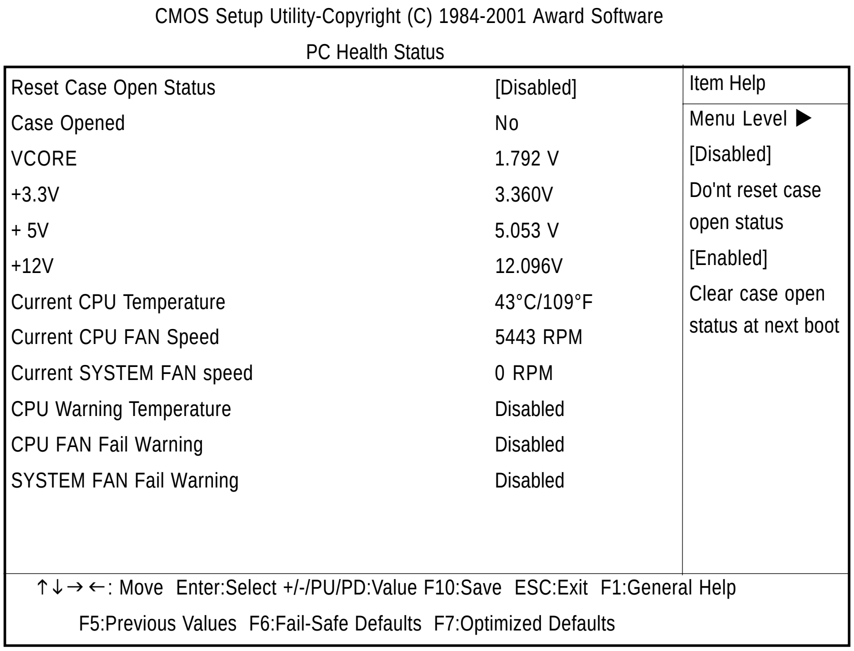
☞ IRQ Resources (3,4,5,7,9,10,11,12,14,15)

⏩PCI Device	The resource is used by PCI device.
⏩Reserved	Set the resource to reserved.

☞PCI Slot1, 2, 3 IRQ Priority

⏩Auto	The system will reserved a free IRQ for PCI slot 1, 2, 3, device. (Default Value)
⏩3	The system will reserved IRQ3 for PCI slot 1, 2, 3 device if no legacy ISA device using IRQ3.
⏩4	The system will reserved IRQ for PCI slot 1, 2, 3 device if no legacy ISA device using IRQ4.
⏩5	The system will reserved IRQ5 for PCI slot 1, 2, 3 device if no legacy ISA device using IRQ5.
⏩7	The system will reserved IRQ7 for PCI slot 1, 2, 3 device if no legacy ISA device using IRQ7.
⏩9	The system will reserved IRQ9 for PCI slot 1, 2, 3 device if no legacy ISA device using IRQ9.
⏩10	The system will reserved IRQ10 for PCI slot 1, 2, 3 device if no legacy ISA device using IRQ10.
⏩11	The system will reserved IRQ11 for PCI slot 1, 2, 3 device if no legacy ISA device using IRQ11.

PC Health Status



```
          CMOS Setup Utility-Copyright (C) 1984-2001 Award Software
                            PC Health Status
Reset Case Open Status            [Disabled]       Item Help
Case Opened                       No               Menu Level ▶
VCORE                             1.792 V          [Disabled]
+3.3V                             3.360V           Do'nt reset case
+ 5V                              5.053 V          open status
+12V                              12.096V          [Enabled]
Current CPU Temperature           43°C/109°F       Clear case open
Current CPU FAN Speed             5443 RPM         status at next boot
Current SYSTEM FAN speed          0 RPM
CPU Warning Temperature           Disabled
CPU FAN Fail Warning              Disabled
SYSTEM FAN Fail Warning           Disabled

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

Figure8: 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.

☞Current Voltage (V) VCORE / +3.3V / +5V / +12V

▸▸Detect system's voltage status automatically.

☞Current CPU Temperature (°C / °F)

▸▸Detect CPU Temp. automatically.

☞ Current CPU / SYSTEM FAN Speed (RPM)

▶▶Detect Fan speed status automatically.

☞CPU Warning Temperature

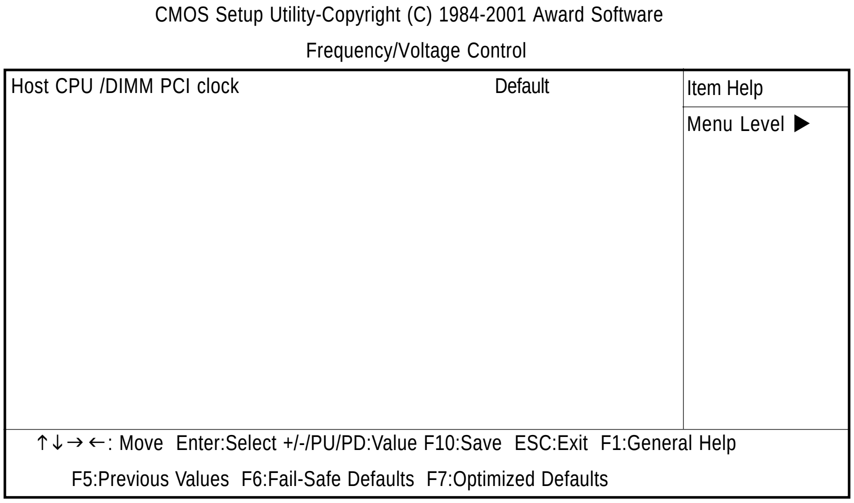
Alarm when current temperature over than selected temperature.

▶▶60°C / 140°F	Monitor CPU Temp. at 60°C / 140°F.
▶▶70°C / 158°F	Monitor CPU Temp. at 70°C / 158°F.
▶▶80°C / 176°F	Monitor CPU Temp. at 80°C / 176°F.
▶▶90°C / 194°F	Monitor CPU Temp. at 90°C / 194°F.
▶▶Disabled	Do'nt monitor current temperature.(Default value)

☞Fan Fail Warning (CPU/ SYSTEM)

▶▶Disabled	Fan Fail Alarm Function Disabled. (Default value)
▶▶Enabled	Alarm when fan stops.

Frequency/Voltage Control



```
            CMOS Setup Utility-Copyright (C) 1984-2001 Award Software
                          Frequency/Voltage Control
Host CPU /DIMM PCI clock                  Default          | Item Help
                                                           | Menu Level ▶

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

Figure 9: Frequency/Voltage Control

☞Host CPU /DIMM PCI clock

⏩Default	It's depends on CPU Clock Ratio.

Load Fail-Safe Defaults

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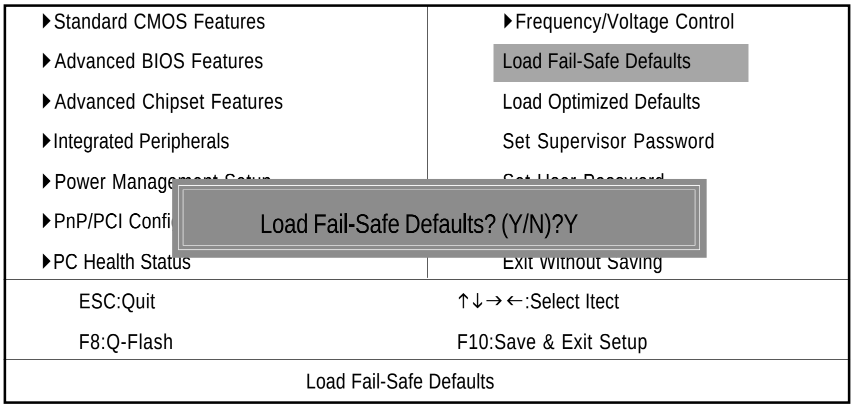


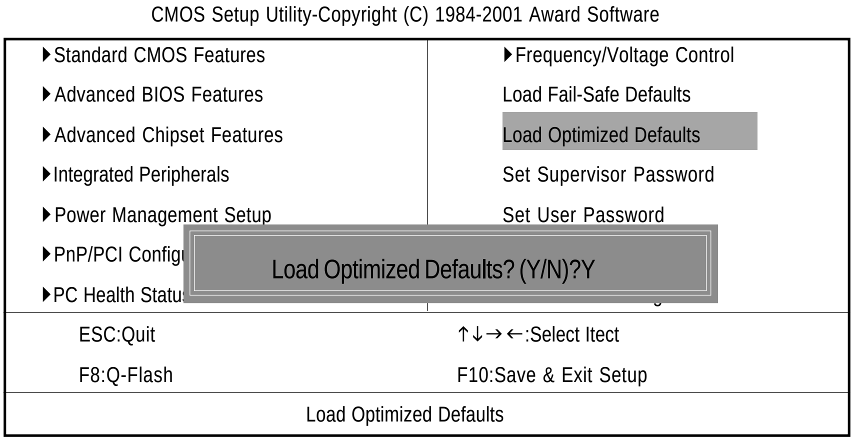
```
▶Standard CMOS Features              ▶Frequency/Voltage Control
▶Advanced BIOS Features               Load Fail-Safe Defaults
▶Advanced Chipset Features            Load Optimized Defaults
▶Integrated Peripherals               Set Supervisor Password
▶Power Manage                         Set User Password
▶PnP/PCI Confi   Load Fail-Safe Defaults? (Y/N)?Y
▶PC Health Status                     Exit Without Saving
    ESC:Quit                     ↑↓→←:Select Itect
    F8:Q-Flash                   F10:Save & Exit Setup
                  Load Fail-Safe Defaults
```

Figure 10: Load Fail-Safe Defaults

Load Fail-Safe Defaults

Fail-Safe defaults contain the most appropriate values of the system parameters that allow minimum system performance.

Load Optimized Defaults



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```
▸Standard CMOS Features          ▸Frequency/Voltage Control
▸Advanced BIOS Features           Load Fail-Safe Defaults
▸Advanced Chipset Features        Load Optimized Defaults
▸Integrated Peripherals           Set Supervisor Password
▸Power Management Setup           Set User Password
▸PnP/PCI Configu
▸PC Health Statu
        Load Optimized Defaults? (Y/N)?Y
ESC:Quit                          ↑↓→←:Select Itect
F8:Q-Flash                        F10:Save & Exit Setup
                 Load Optimized Defaults
```

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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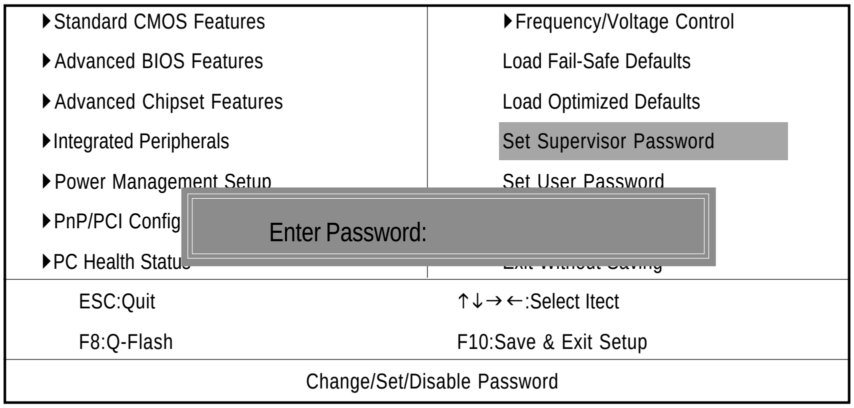


▸Standard CMOS Features	▸Frequency/Voltage Control
▸Advanced BIOS Features	Load Fail-Safe Defaults
▸Advanced Chipset Features	Load Optimized Defaults
▸Integrated Peripherals	Set Supervisor Password
▸Power Management Setup	Set User Password
▸PnP/PCI Config	
▸PC Health Statu	Exit Without Saving

Enter Password:

ESC:Quit	↑↓→←:Select Itect
F8:Q-Flash	F10:Save & Exit Setup

Change/Set/Disable Password

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.

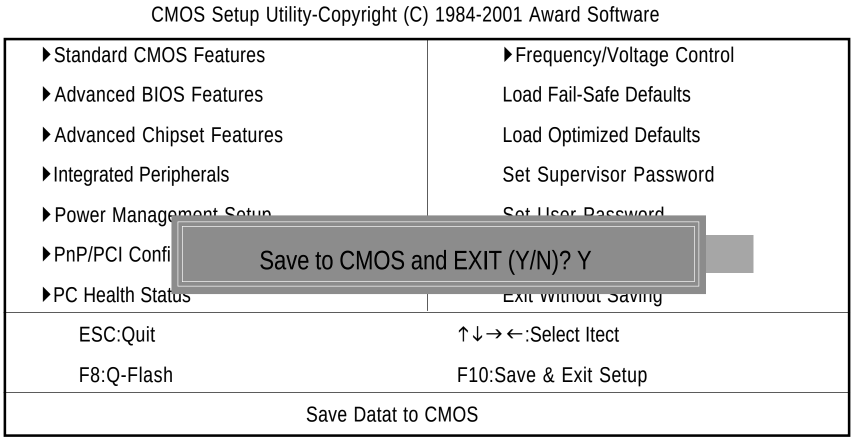
To disable password, just press <Enter> when you are prompted to enter password. A message "PASSWORD DISABLED" will appear to confirm the password being disabled. Once the password is disabled, the system will boot and you can enter Setup freely.

The BIOS Setup program allows you to specify two separate passwords: a SUPERVISOR PASSWORD and a USER PASSWORD**.** When disabled, anyone 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 **"**Security Option**"** 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 "Security Option" in Advance BIOS Features Menu, you will be prompted only when you try to enter Setup.

Save & Exit Setup



CMOS Setup Utility-Copyright (C) 1984-2001 Award Software

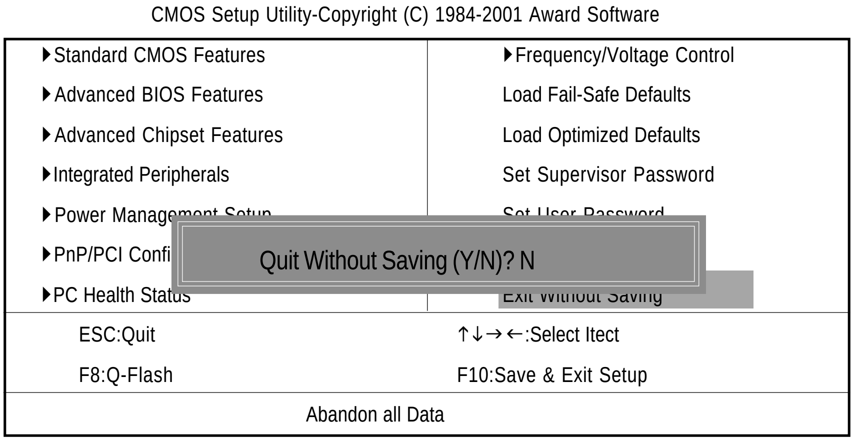
```
▸Standard CMOS Features          ▸Frequency/Voltage Control
▸Advanced BIOS Features           Load Fail-Safe Defaults
▸Advanced Chipset Features        Load Optimized Defaults
▸Integrated Peripherals           Set Supervisor Password
▸Power Management Setup           Set User Password
▸PnP/PCI Confi
▸PC Health Status                 Exit Without Saving

              Save to CMOS and EXIT (Y/N)? Y

   ESC:Quit                       ↑↓→←:Select Itect
   F8:Q-Flash                     F10:Save & Exit Setup

                     Save Datat to CMOS
```

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.

Exit Without Saving



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▸Standard CMOS Features	▸Frequency/Voltage Control
▸Advanced BIOS Features	Load Fail-Safe Defaults
▸Advanced Chipset Features	Load Optimized Defaults
▸Integrated Peripherals	Set Supervisor Password
▸Power Management Setup	Set User Password
▸PnP/PCI Confi	
▸PC Health Status	Exit Without Saving
ESC:Quit	↑↓→←:Select Itect
F8:Q-Flash	F10:Save & Exit Setup

Quit Without Saving (Y/N)? N

Abandon all Data

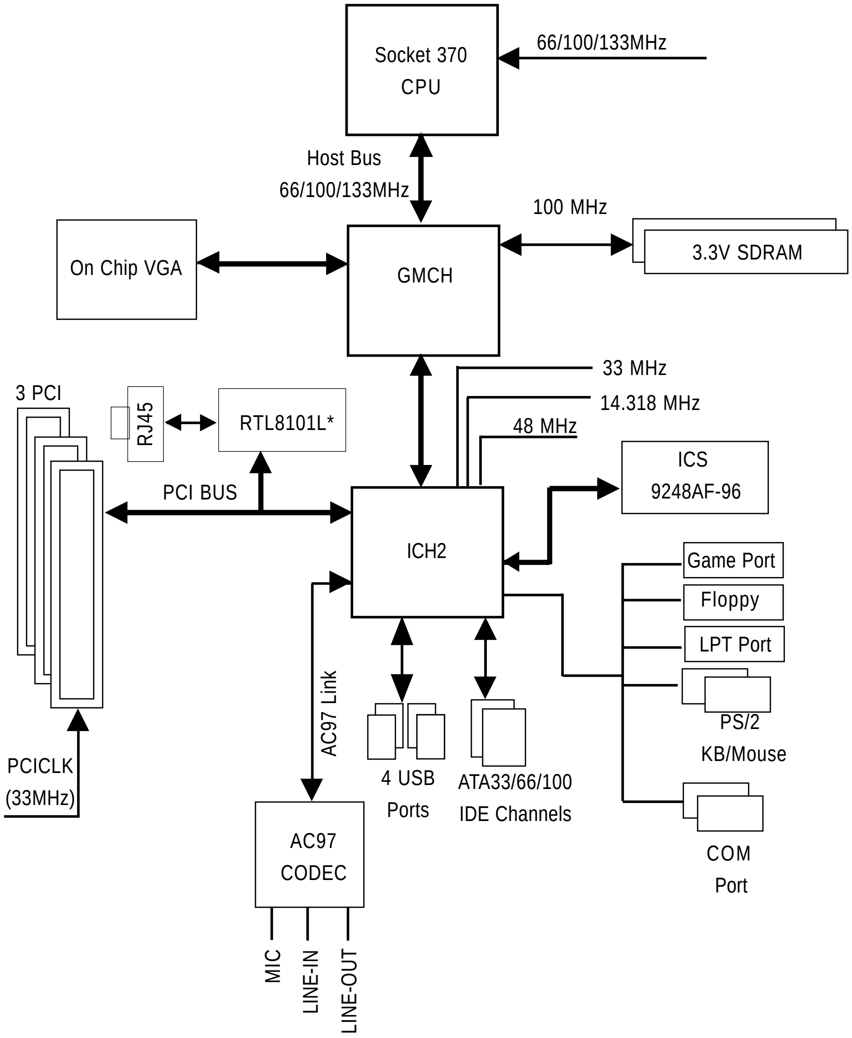
Figure 14: Exit Without Saving

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



* For GA-6IWMT only

BIOS update procedure

Method 1:

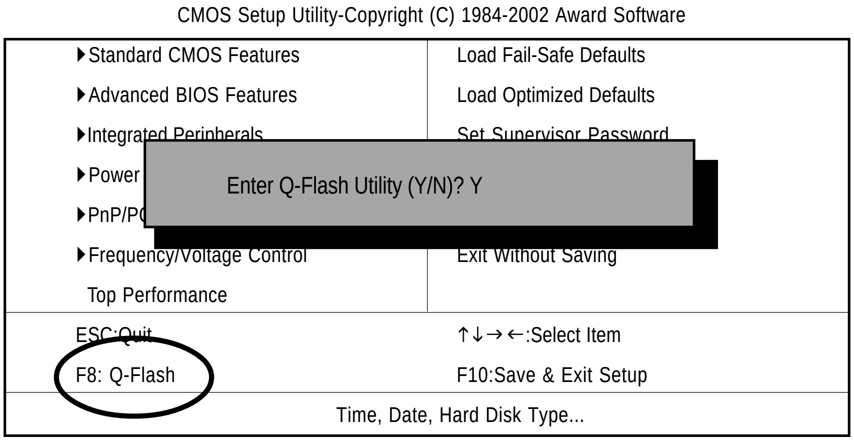
Q-Flash Introduction

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 <Del> 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.

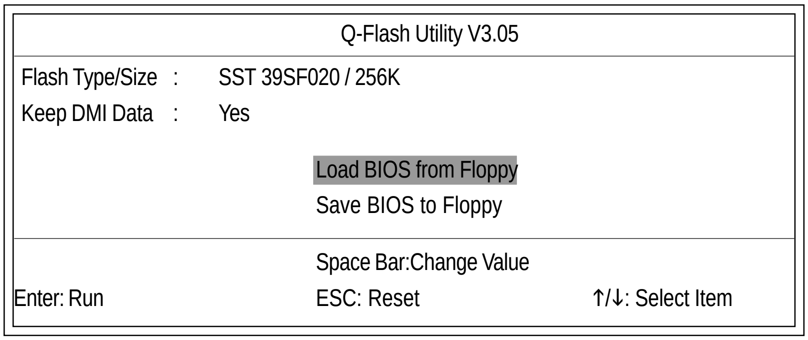


```
CMOS Setup Utility-Copyright (C) 1984-2002 Award Software
▸Standard CMOS Features          Load Fail-Safe Defaults
▸Advanced BIOS Features          Load Optimized Defaults
▸Integrated Peripherals          Set Supervisor Password
▸Power
▸PnP/PC
▸Frequency/Voltage Control       Exit Without Saving
 Top Performance

        Enter Q-Flash Utility (Y/N)? Y

ESC:Quit                         ↑↓→←:Select Item
F8: Q-Flash                      F10:Save & Exit Setup
              Time, Date, Hard Disk Type...
```

b. Q-Flash Utility



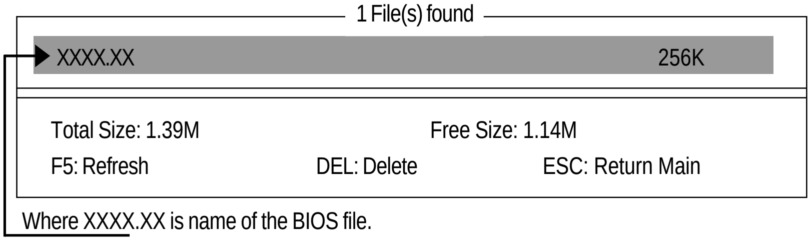
```
                     Q-Flash Utility V3.05
Flash Type/Size  :    SST 39SF020 / 256K
Keep DMI Data    :    Yes

                      Load BIOS from Floppy
                      Save BIOS to Floppy

                      Space Bar:Change Value
Enter: Run            ESC: Reset              ↑/↓: Select Item
```

Load BIOS From Floppy

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



1 File(s) found

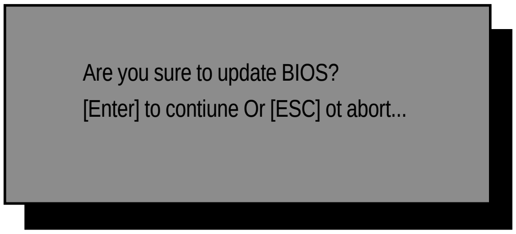
XXXX.XX 256K

Total Size: 1.39M Free Size: 1.14M

F5: Refresh DEL: Delete ESC: Return Main

Where XXXX.XX is name of the BIOS file.

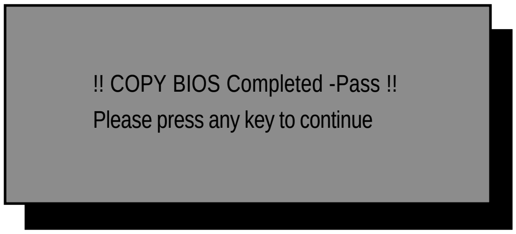
✐Press Enter to Run.



Are you sure to update BIOS?

[Enter] to contiune Or [ESC] ot abort...

✐Press Enter to Run.



!! COPY BIOS Completed -Pass !!

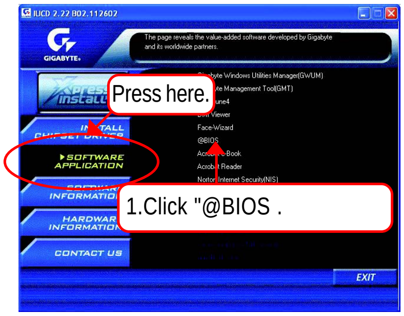
Please press any key to continue

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

Method 2:

If you don't have DOS boot disk, we recommend that you used Gigabyte @BIOS™ program to flash BIOS.

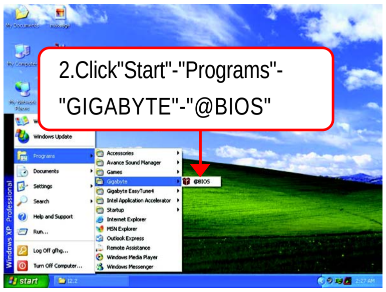
Follow the setup that showing on the scween to install the Utility.



Press here.

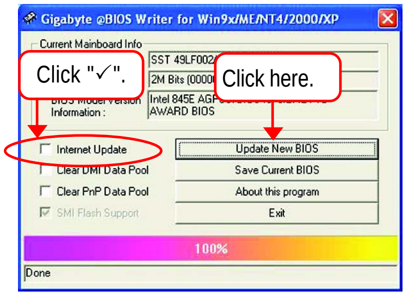
1.Click "@BIOS .

(1)



2.Click"Start"-"Programs"-"GIGABYTE"-"@BIOS"

(2)

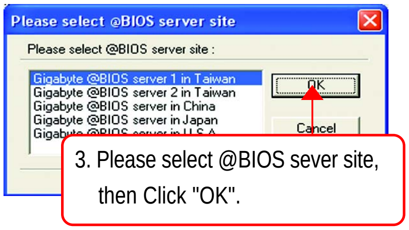


BIOS Model version Information : SST 49LF002 … 2M Bits (0000 … Intel 845E AGP … AWARD BIOS

Click "✓".

Click here.

(3)


Please select @BIOS server site
Please select @BIOS server site :
Gigabyte @BIOS server 1 in Taiwan
Gigabyte @BIOS server 2 in Taiwan
Gigabyte @BIOS server in China
Gigabyte @BIOS server in Japan
Gigabyte @BIOS server in U.S.A.
OK
Cancel

3. Please select @BIOS sever site, then Click "OK".

(4)

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.

II. Update BIOS NOT through Internet:

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: 6IWMT.F1).

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 "About this program" icon shown in dialog box. It can help you check out which kind of motherboard 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^{TM} 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

@ BIOS Introduction

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.

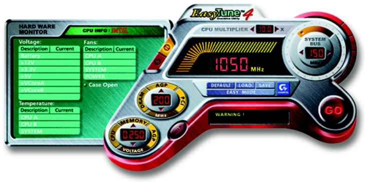
Besides, no matter which mainboard you are using, if it’s a Gigabyte’s product*, @BIOS help you to maintain the BIOS. This utility could detect your correct mainboard model and help you to choose the BIOS accordingly. It then downloads the BIOS from the nearest Gigabyte ftp site automatically. There 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 product erects 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.

Easy Tune™ 4 Introduction

Gigabyte announces *EasyTune™ 4* Windows based Overclocking utility

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 in some 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't require 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.

Chapter 5 Appendix

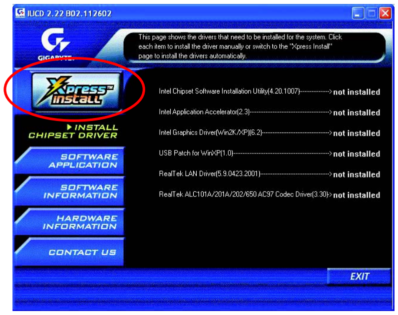
Install Drivers

Picture below are shown in Windows XP (IUCD ver 2.22)

Insert the driver CD-title that came with your motherboard into your CD-ROM drive, the driver CD-title will auto start and show the installation guide. If not, please double click the CD-ROM device icon in "My computer", and execute the setup.exe.

INSTALL CHIPSET DRIVER

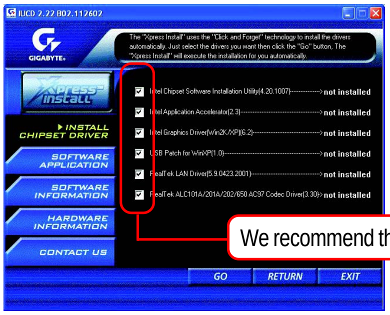
This page shows the drivers that need to be installed for the system. Click each item to install the driver manually or switch to the Xpress Install to install the drivers automatically.



This page shows the drivers that need to be installed for the system. Click each item to install the driver manually or switch to the "Xpress Install" page to install the drivers automatically.

Intel Chipset Software Installation Utility(4.20.1007)------------> not installed
Intel Application Accelerator(2.3)------------> not installed
Intel Graphics Driver(Win2K/XP)(6.2)------------> not installed
USB Patch for WinXP(1.0)------------> not installed
RealTek LAN Driver(5.9.0423.2001)------------> not installed
RealTek ALC101A/201A/202/650 AC97 Codec Driver(3.30)> not installed

The "Xpress Install" uses the"Click and Forget" technology to install the drivers automatically. Just select the drivers you want then click the "GO" button. The Xpress Install will finish the installation for you automatically.

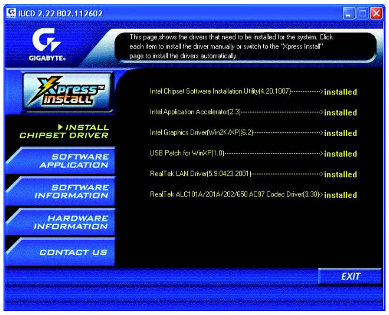


The "Xpress Install" uses the "Click and Forget" technology to install the drivers automatically. Just select the drivers you want then click the "Go" button, The "Xpress Install" will execute the installation for you automatically.

☑ Intel Chipset Software Installation Utility(4.20.1007)------------> not installed
☑ Intel Application Accelerator(2.3)------------> not installed
☑ Intel Graphics Driver(Win2K/XP)(6.2)------------> not installed
☑ USB Patch for WinXP(1.0)------------> not installed
☑ RealTek LAN Driver(5.9.0423.2001)------------> not installed
☑ RealTek ALC101A/201A/202/650 AC97 Codec Driver(3.30)> not installed

We recommend that you install all components in the list.

Massage: Some device drivers will restart your system automatically. After restarting your system the "Xpress Install" will continue to install other drivers.



IUCD 2.22 B02.112602

This page shows the drivers that need to be installed for the system. Click each item to install the driver manually or switch to the "Xpress Install" page to install the drivers automatically.

```
Intel Chipset Software Installation Utility(4.20.1007)---------------->installed
Intel Application Accelerator(2.3)------------------------------------>installed
Intel Graphics Driver(Win2K/XP)(6.2)---------------------------------->installed
USB Patch for WinXP(1.0)---------------------------------------------->installed
RealTek LAN Driver(5.9.0423.2001)------------------------------------->installed
RealTek ALC101A/201A/202/650 AC97 Codec Driver(3.30)->installed
```

NOTE

Driver install finished !

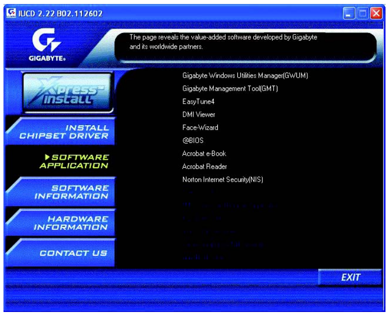
You have to reboot system !

Item Description

- Intel Chipset Software Installation Utility
  Tell the operating system how the chipset components will be configured
- Intel Application Accelerator
  Designed to improve performance of the storage sub-system and overall system performance
- Intel Extreme Graphics Driver
  For Intel® 810E Chipsets
- USB Patch for WinXP
  This patch driver can help you to resolve the USB device wake up S3 hang up issue in XP
- RealTek LAN Driver
  Promise 10/100 LAN driver for 81XX series chips
- RealTek ALC101A/201A/202/650 AC97 Codec Driver
  For Intel® ICH/ICH2/ICH4 AC97 audio

SOFTWARE APPLICATION

This page reveals the value-added software developed by Gigabyte and its worldwide partners.

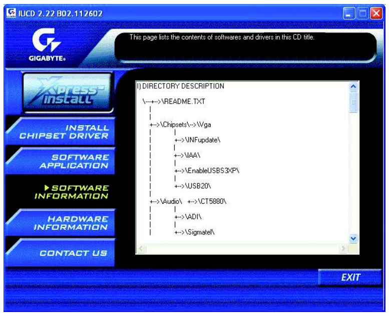


The page reveals the value-added software developed by Gigabyte and its worldwide partners.

- Gigabyte Windows Utilities Manager (GWUM)
  This utility can integrate the Gigabyte's applications in the system tray
- Gigabyte Management Tool (GMT)
  A useful tool which can manage the computer via the network
- EasyTune 4
  Powerful utility that integrates the overclocking and hardware monitoring functions
- DMI Viewer
  Windows based utility which is used to browse the DMI/SMBIOS information of the system
- Face-Wizard
  New utility for adding BIOS logo
- @BIOS
  Gigabyte windows flash BIOS utility
- Acrobat e-Book
  Useful utility from Adobe
- Acrobat Reader
  Popular utility from Adobe for reading .PDF file format documents
- Norton Internet Security (NIS)
  Integrated utility which includes anti-virus, ads, etc.

SOFTWARE INFORMATION

This page list the contects of softwares and drivers in this CD title.



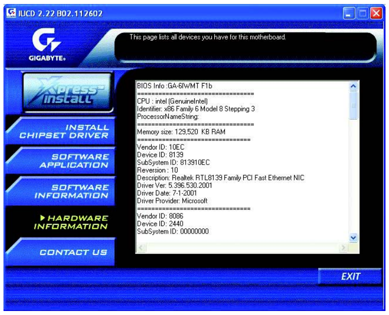
This page lists the contents of softwares and drivers in this CD title.

```
I) DIRECTORY DESCRIPTION

 \---+-->\README.TXT
     |
     |
     +-->\Chipsets\-->\Vga
     |          |
     |          +-->\INFupdate\
     |          |
     |          +-->\IAA\
     |          |
     |          +-->\EnableUSBS3XP\
     |          |
     |          +-->\USB20\
     |
     +-->\Audio\   +-->\CT5880\
     |          |
     |          +-->\ADI\
     |          |
     |          +-->\Sigmatel\
```

HARDWARE INFORMATION

This page lists all device you have for this motherboard.

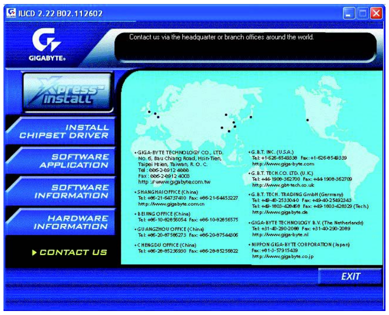


This page lists all devices you have for this motherboard.

```
BIOS Info :GA-6IWMT F1b
==================================
CPU : intel (GenuineIntel)
Identifier: x86 Family 6 Model 8 Stepping 3
ProcessorNameString:
==================================
Memory size: 129,520  KB RAM
=================================
Vendor ID: 10EC
Device ID: 8139
SubSystem ID: 813910EC
Reversion : 10
Description: Realtek RTL8139 Family PCI Fast Ethernet NIC
Driver Ver: 5.396.530.2001
Driver Date: 7-1-2001
Driver Provider: Microsoft
=================================
Vendor ID: 8086
Device ID: 2440
SubSystem ID: 00000000
```

CONTACT US

Contact us via the information in this page all over the world.



Contact us via the headquarter or branch offices around the world.

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  http://www.giga-byte.nl
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Chengdu Office

Tel: 86-28-85236930

Fax: 86-28-85256822

Web Address: www.gigabyte.com.cn

Acronyms

Acronyms	Meaning
ACPI	Advanced Configuration and Power Interface
APM	Advanced Power Management
AGP	Accelerated Graphics Port
AMR	Audio Modem Riser
ACR	Advanced Communications Riser
BIOS	Basic Input / Output System
CPU	Central Processing Unit
CMOS	Complementary Metal Oxide Semiconductor
CRIMM	Continuity RIMM
CNR	Communication and Networking Riser
DMA	Direct Memory Access
DMI	Desktop Management Interface
DIMM	Dual Inline Memory Module
DRM	Dual Retention Mechanism
DRAM	Dynamic Random Access Memory
DDR	Double Data Rate
ECP	Extended Capabilities Port
ESCD	Extended System Configuration Data
ECC	Error Checking and Correcting
EMC	Electromagnetic Compatibility
EPP	Enhanced Parallel Port
ESD	Electrostatic Discharge
FDD	Floppy Disk Device
FSB	Front Side Bus
HDD	Hard Disk Device
IDE	Integrated Dual Channel Enhanced
IRQ	Interrupt Request
I/O	Input / Output
IOAPIC	Input Output Advanced Programmable Input Controller
ISA	Industry Standard Architecture
LAN	Local Area Network

to be continued......

Acronyms	Meaning
LBA	Logical Block Addressing
LED	Light Emitting Diode
MHz	Megahertz
MIDI	Musical Instrument Digital Interface
MTH	Memory Translator Hub
MPT	Memory Protocol Translator
NIC	Network Interface Card
OS	Operating System
OEM	Original Equipment Manufacturer
PAC	PCI A.G.P. Controller
POST	Power-On Self Test
PCI	Peripheral Component Interconnect
RIMM	Rambus in-line Memory Module
SCI	Special Circumstance Instructions
SECC	Single Edge Contact Cartridge
SRAM	Static Random Access Memory
SMP	Symmetric Multi-Processing
SMI	System Management Interrupt
USB	Universal Serial Bus
VID	Voltage ID

Technical Support/RMA Sheet

Customer/Country:	Company:	Phone No.:
Contact Person:	E-mail Add. :	

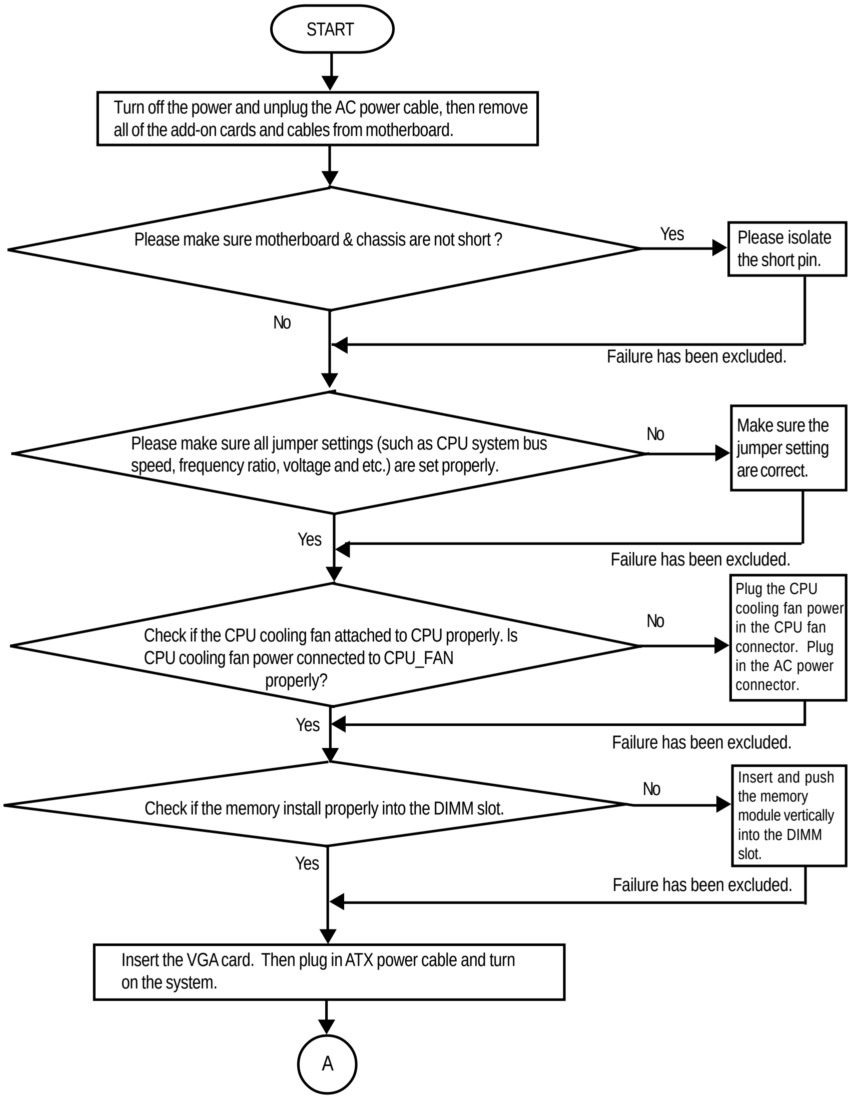
Model name/Lot Number:	PCB revision:
BIOS version:	O.S./A.S.:

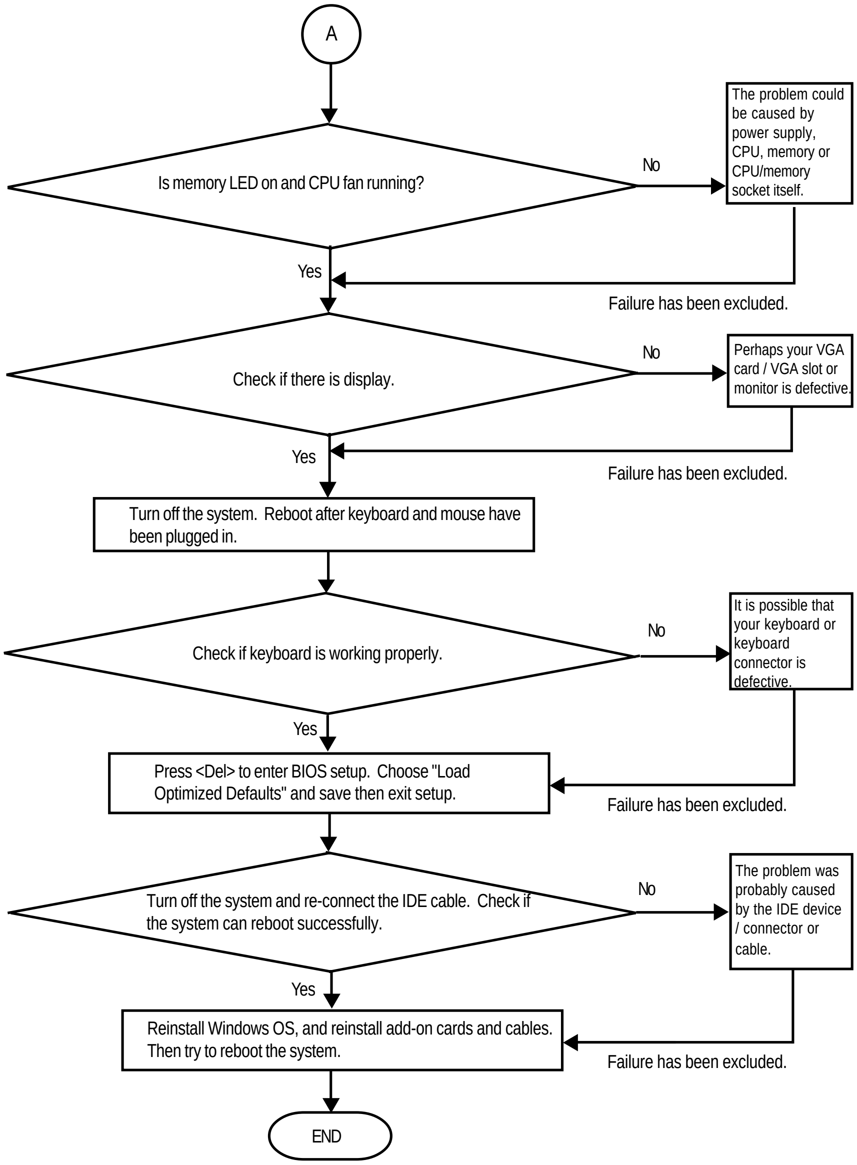
Hardware Configuration	Mfs.	Model name	Size:	Driver/Utility:
CPU				
Memory Brand				
Video Card				
Audio Card				
HDD				
CD-ROM / DVD-ROM				
Modem				
Network				
AMR / CNR				
Keyboard				
Mouse				
Power supply				
Other Device				

Problem Description:

Troubleshooting

If you encounter any trouble during boot up, please follow the troubleshooting procedures .


START
Turn off the power and unplug the AC power cable, then remove all of the add-on cards and cables from motherboard.
Please make sure motherboard & chassis are not short ?
Yes
Please isolate the short pin.
No
Failure has been excluded.
Please make sure all jumper settings (such as CPU system bus speed, frequency ratio, voltage and etc.) are set properly.
No
Make sure the jumper setting are correct.
Yes
Failure has been excluded.
Check if the CPU cooling fan attached to CPU properly. Is CPU cooling fan power connected to CPU_FAN properly?
No
Plug the CPU cooling fan power in the CPU fan connector. Plug in the AC power connector.
Yes
Failure has been excluded.
Check if the memory install properly into the DIMM slot.
No
Insert and push the memory module vertically into the DIMM slot.
Yes
Failure has been excluded.
Insert the VGA card. Then plug in ATX power cable and turn on the system.
A


A
Is memory LED on and CPU fan running?
No
The problem could be caused by power supply, CPU, memory or CPU/memory socket itself.
Yes
Failure has been excluded.
Check if there is display.
No
Perhaps your VGA card / VGA slot or monitor is defective.
Yes
Failure has been excluded.
Turn off the system. Reboot after keyboard and mouse have been plugged in.
Check if keyboard is working properly.
No
It is possible that your keyboard or keyboard connector is defective.
Yes
Press <Del> to enter BIOS setup. Choose "Load Optimized Defaults" and save then exit setup.
Failure has been excluded.
Turn off the system and re-connect the IDE cable. Check if the system can reboot successfully.
No
The problem was probably caused by the IDE device / connector or cable.
Yes
Reinstall Windows OS, and reinstall add-on cards and cables. Then try to reboot the system.
Failure has been excluded.
END

If the above procedure unable to solve your problem, please contact with your local retailer or national distributor for help. Or, you could submit your question to the service mail via Gigabyte website technical support zone
(http://www.gigabyte.com.tw). The appropriate response will be provided ASAP.