8VM533M-RZ / 8VM533M-RZ-C

Intel® Pentium® 4 Processor Motherboard

User's Manual

Rev. 1003

12ME-VM533MRZ-1003

Notice

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Due to rapid change in technology, some of the specifications might be out of date before publication of this booklet.

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.

Declaration of Conformity

We, Manufacturer/Importer
(full address)

G.B.T. Technology Trading GMbH
Ausschlager Weg 41, 1F, 20537 Hamburg, Germany

declare that the product
(description of the apparatus, system, installation to which it refers)

Mother Board

8VM533M-RZ

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 caused 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 caused 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	Generic emission 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 50082-1	Generic immunity standard Part 1: Residual commercial and light industry
☐ EN 55020	Immunity from radio interference of broadcast receivers and associated equipment	☐ EN 50081-2	Generic emission standard Part 2: Industrial environment
☒ EN 55022	Limits and methods of measurement of radio disturbance characteristics of information technology equipment	☐ EN 50082-2	Generic emission standard: Part 2: Industrial environment
☐ DIN VDE 0855 ☐ part 10 ☐ part 12	Cabled distribution systems; Equipment for receiving and distribution from sound and television signals	☐ ENV 50104	Immunity requirements for household appliances tools and similar apparatus
		☐ EN 50091-2	EMI 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 „VDE 0805/EN 60950 IEC 950"

☐ EN 60065	Safety requirements for mains operated electronic and related apparatus for household and similar general use	☐ EN 60950	Safety of information technology equipment including electrical business equipment
☐ EN 60335	Safety of household and similar electrical devices	☐ EN 50091-1	General and Safety requirements for uninterruptible power systems (UPS)

Manufacturer/Importer

(Stamp)

Date: Feb. 20, 2004

Signature:

Name: Jimmy Huang

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: 8VM533M-RZ

Conforms to the following specifications:

FCC Part 15, Subpart B, Section 15.107(a) and Section 15.109 (z), 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: Feb. 20 ,2004

Preparing Your Computer

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.

English

Table of Contents

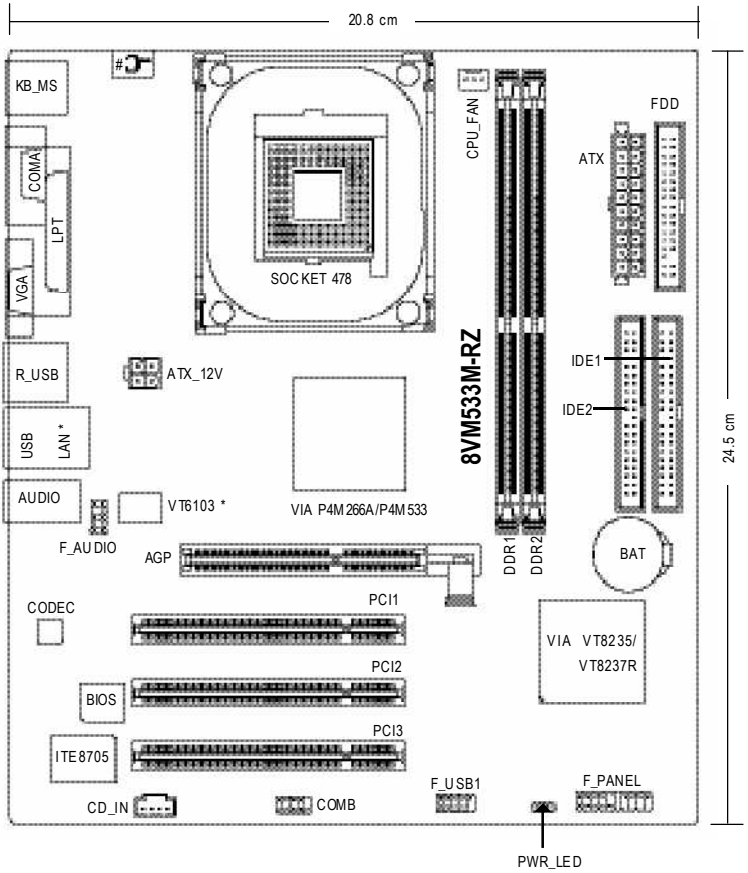
Chapter 1 Introduction

Features Summary

CPU	• Socket 478 for Intel® Pentium® 4 (Northwood) with HT Technology • Intel® Pentium® 4 533/400MHz FSB • 2nd cache depends on CPU
Chipset	• North Bridge: VIA P4M266A/P4M533 • South Bridge: VIA VT8235/VT8237R
Memory	• 2 184-pin DDR DIMM sockets, supports up to 2GB DRAM (Max) • Supports DDR266/DDR200 DIMM • Supports only 2.5V DDR SDRAM
Slots	• 1 AGP slot 4X (1.5V) device support • 3 PCI slots support 33MHz & PCI 2.2 compliant
On-Board IDE	• 2 IDE controller provide IDE HDD/CD-ROM(IDE1, IDE2) with PIO, Bus Master (Ultra DMA33/ATA66/ATA100/ATA133) operation modes • Can connect up to 4 IDE devices
On-Board Floppy	• 1 Floppy port supports 2 FDD with 360K, 720K,1.2M, 1.44M and 2.88M bytes
On-Board Peripherals	• 1 Parallel port supports Normal/EPP/ECP mode • 1 Serial port (COMA), 1 VGA port, COMB onboard • 6 USB 2.0/1.1 ports (4 x Rear, 2 x Front by cable) • 1 Front Audio connector • 1 PS/2 Keyboard • 1 PS/2 Mouse
On-Board LAN *	• Builit-in VIA 6103 chipset * • 1 RJ45 port *
On-Board Sound	• VIA VT1616 CODEC • Support 2/6 channel • Line Out / Line In / Mic In • CD In
BIOS	• Licensed AWARD BIOS • Supports Q-Flash™
I/O Control	• ITE8705
Hardware Monitor	• CPU Fan Revolution detect • CPU Fan Fail Warning • CPU temperature detect • System Voltage Detect
Additional Features	• Supports @BIOS™ • Supports EasyTune 4™
Form Factor	• Micro ATX size form factor, 24.5cm x 20.8cm

"*" For 8VM533M-RZ only.

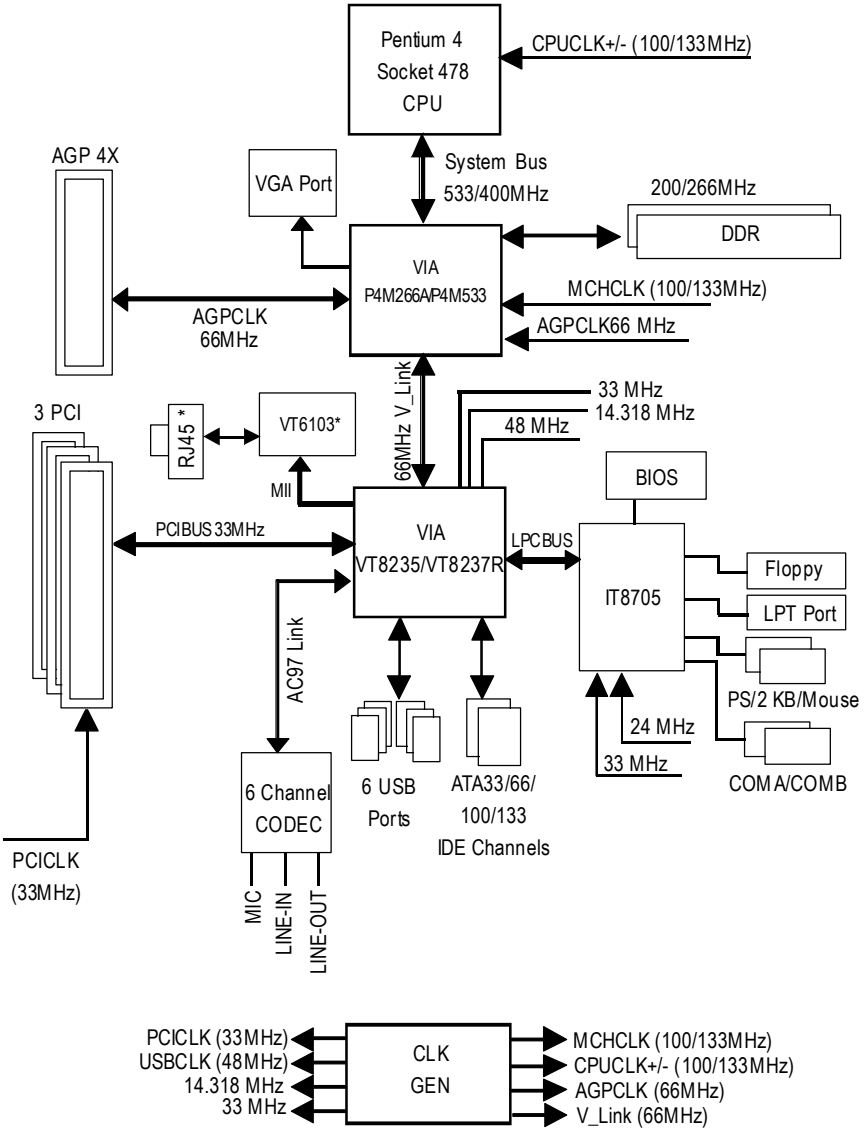
8VM533M-RZ Series Motherboard Layout



"*" For 8VM533M-RZ only.

"#" For 8VM533M-RZ-C only.

Block Diagram



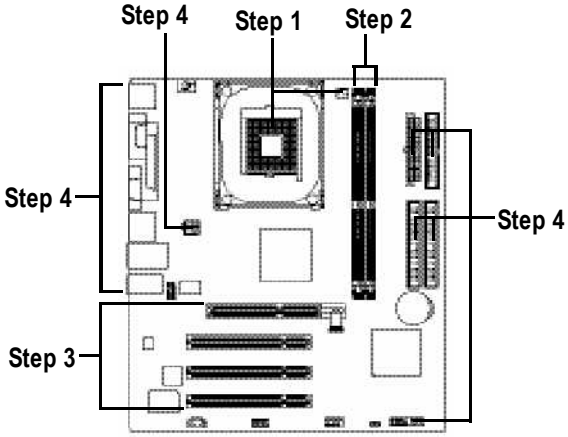
"*" For 8VM533M-RZ only.

English

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



Step 1: Install the Central Processing Unit (CPU)

CAUTION

Before installing the processor, adhere to the following warning:

1. Please make sure the CPU type is supported by the motherboard.
2. The processor will overheat without the heatsink and/or fan, resulting in permanent irreparable damage.
3. 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.
4. Apply thermal grease between the processor and cooling fan.
5. Never run the processor without the heatsink properly and firmly attached. Permanent damage will result.
6. 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, Memory, Cards...etc.

NOTE

HT functionality requirement content :

Enabling the functionality of Hyper-Threading Technology for your computer system requires all of the following platform components:

- CPU: An Intel® Pentium 4 Processor with HT Technology
- Chipset: An VIA Chipset that supports HT Technology
- BIOS: A BIOS that supports HT Technology and has it enabled
- OS: An operation system that has optimizations for HT Technology

Step 1-1: CPU Installation

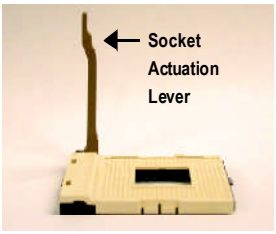


Figure 1.
Pull the rod to the 90-degree directly.

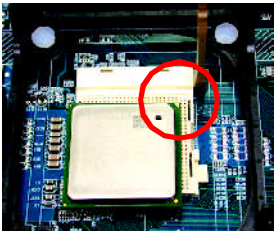


Figure 2.
Locate Pin 1 in the socket and look for a (golden) cut edge on the CPU upper corner. Insert the CPU into the socket. (Do not force the CPU into the socket.) Then move the socket lever to the locked position while holding pressure on the center of the CPU.

Step 1-2: CPU Cooling Fan Installation

Figure 1.
Apply the thermal tape(or grease) to provide better heat conduction between your CPU and cooling fan.

Figure 2.
Fasten the cooling fan supporting-base onto the CPU socket on the motherboard.

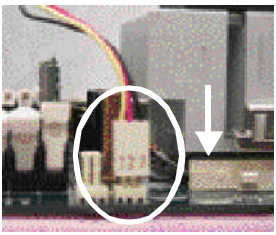


Figure 3.
Make sure the CPU fan is plugged to the CPU fan connector, than install complete.

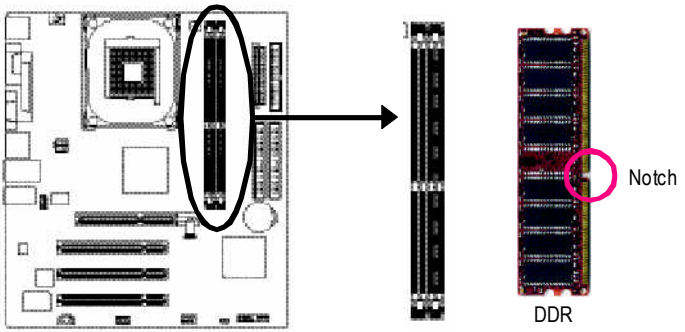
Step 2: Install Memory Modules

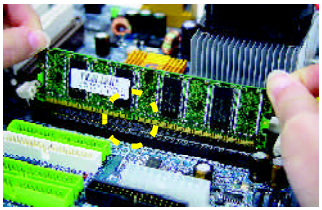
CAUTION

Before installing the memory modules, adhere to the following warning:

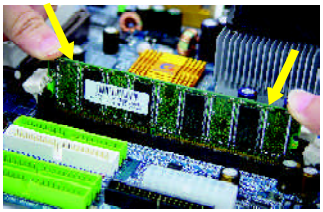
1. Please note that the DIMM module can only fit in one direction due to the one notch. Wrong orientation will cause improper installation. Please change the insert orientation.

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





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



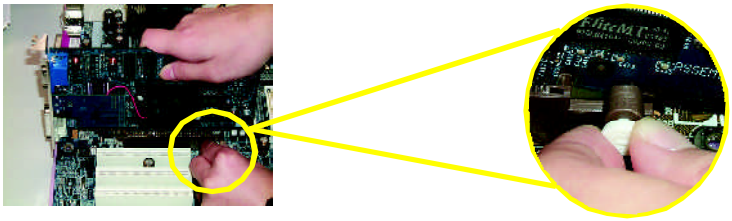
2. Insert the DIMM memory module vertically into the DIMM socket. Then push it down.

3. Close the plastic clip at both edges of the DIMM sockets to lock the DIMM module.
   Reverse the installation steps when you wish to remove the DIMM module.

Step 3: Install AGP Card

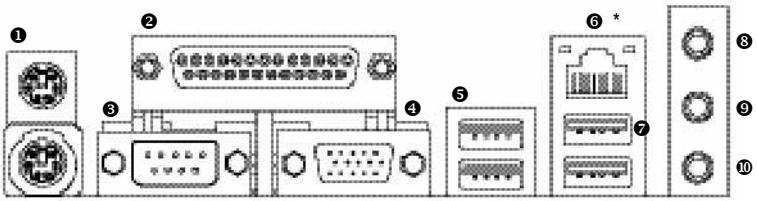
1. Read the relateAGP card's instruction document before install the AGP card into the computer.
2. If your AGP card has "AGP 4X(1.5V) notch" (show below), please make sure your AGP card is AGP 4X(1.5V).

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



Step 4: Install I/O Peripherals Cables

Step 4-1: I/O Back Panel Introduction



❶ **PS/2 Keyboard and PS/2 Mouse connector**
This connector supports standard PS/2 keyboard and PS/2 mouse.

❷ **Parallel port (LPT)**
Device like printer can be connected to Parallel port.

❸ **Serial port (COMA)**
Mouse and modem etc. can be connected to Serial port.

❹ **VGA port**
Monitor can be connected to VGA port.

❺/❼ **USB port**
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 8VM533M-RZ only.

❻ **LAN port ***

LAN is fast Ethernet with 10/100Mbps speed.

❽ **Line In jack**

Devices like CD-ROM, walkman etc. can be connect to Line In jack.

❾ **Line Out jack**

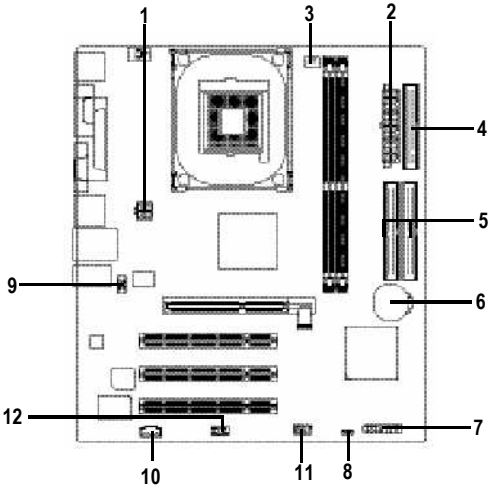
Connect the stereo speakers or earphone to this connector.

❿ **MIC In jack**

Microphone can be connect to MIC In jack.

After installation of the audio driver, you are able to use 2/4/6-channel audio feature by software selection. You can connect "Front speaker" to "Line Out" jack, Connect "Rear speaker" to "Line In" jack and connect "Center/Subwoofer" to "MIC In" jack.

Step 4-2: Connectors Introduction

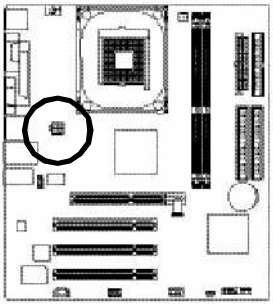


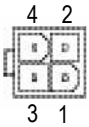
1) ATX_12V	7) F_PANEL
2) ATX	8) PWR_LED
3) CPU_FAN	9) F_AUDIO
4) FDD	10) CD_IN
5) IDE1 / IDE2	11) F_USB1
6) BAT	12) COMB

"*" For 8VM533M-RZ only.

1) ATX_12V (+12V Power Connector)

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

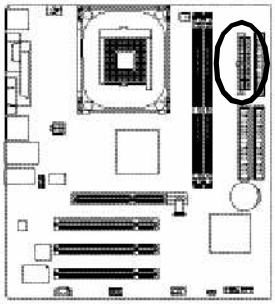


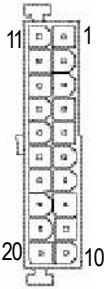


Pin No.	Definition
1	GND
2	GND
3	+12V
4	+12V

2) ATX (ATX Power)

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

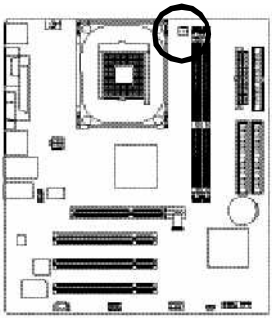




Pin No.	Definition	Pin No.	Definition
1	3.3V	11	3.3V
2	3.3V	12	-12V
3	GND	13	GND
4	VCC	14	PS_ON(softon/off)
5	GND	15	GND
6	VCC	16	GND
7	GND	17	GND
8	PowerGood	18	-5V
9	5VSB (stand by +5V)	19	VCC
10	+12V	20	VCC

3) 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.

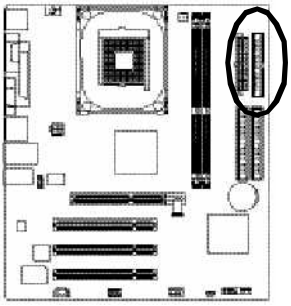


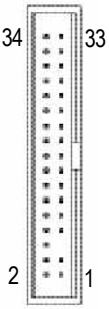
Pin No.	Definition
1	GND
2	+12V
3	Sense

4) FDD (Floppy Connector)

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

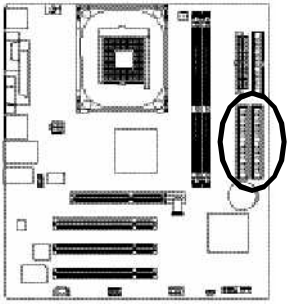
The red stripe of the ribbon cable must be the same side with the Pin1.

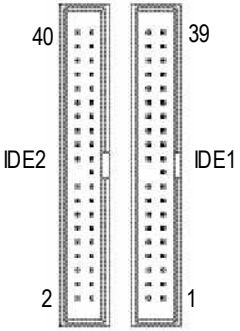




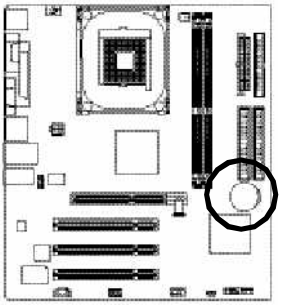
5) IDE1 / IDE2 (IDE1 / IDE2 Connector)

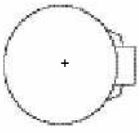
Important Notice: Please connect first hard disk to IDE1 and connect CD-ROM to IDE2. The red stripe of the ribbon cable must be the same side with the Pin1.





6) BAT (BATTERY)





CAUTION

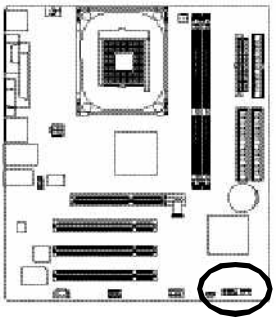
- Danger of explosion if battery is incorrectly replaced.
- Replace only with the same or equivalent type recommended by the manufacturer.
- Dispose of used batteries according to the manufacturer's instructions.

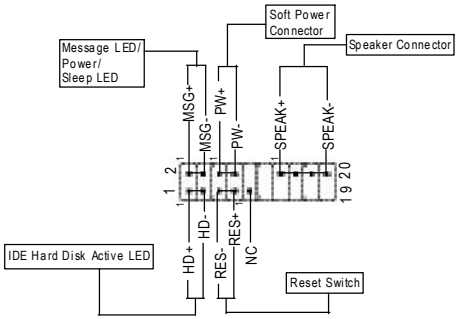
If you want to erase CMOS...

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.

7) F_PANEL (2 x 10 pins Connector)

Please connect the power LED, PC speaker, reset switch and power switch etc of your chassisfront panel to the F_PANEL connector according to the pin assignment below.

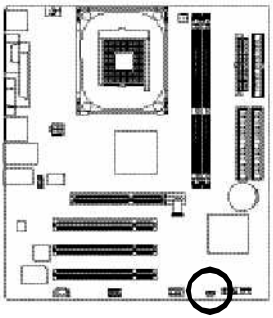




HD (IDE Hard Disk Active LED)	Pin 1: LED anode(+) Pin 2: LED cathode(-)
SPK(Speaker Connector)	Pin 1: VCC(+) Pin 2- Pin 3: NC Pin 4: Data(-)
RES (Reset Switch)	Open: Normal Operation Close: Reset Hardware System
PW (Soft Power Connector)	Open: Normal Operation Close: Power On/Off
MSG (Message LED/Power/Sleep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

8) PWR_LED

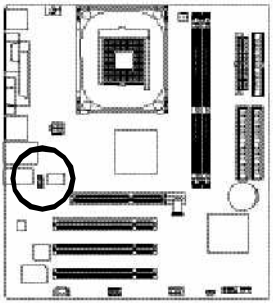
PWR_LED is connect with the system power indicator to indicate whether the system is on/off. It will blink when the system enters suspend mode. If you use dual color LED, power LED will turn to another color.



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

9) F_AUDIO (Front Audio Connector)

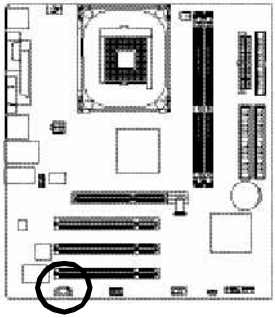
In order to utilize the front audio header, your chassis must have front audio connector. Also please make sure the pin assigment on the cable is the same as the pin assigment on the MB header. To find out if the chassis you are buying support front audio connector, please contact your dealer. Please note, you can have the alternative of using front audio connector or of using rear audio connector to play sound.

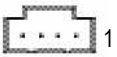


Pin No.	Definition
1	MIC
2	GND
3	REF
4	Power
5	FrontAudio (R)
6	RearAudio (R)
7	Reserved
8	No Pin
9	FrontAudio (L)
10	RearAudio (L)

10) CD_IN (CD In Connector)

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

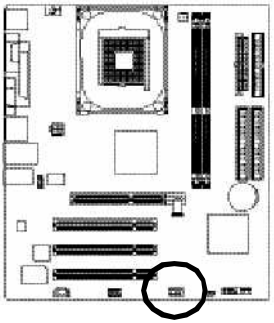




Pin No.	Definition
1	CD-L
2	GND
3	GND
4	CD-R

11) F_USB1 (Front USB Connector)

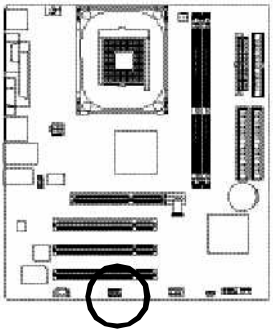
Be careful with the polarity of the front USB connector. Check the pin assignment carefully while you connect the front USB cable, incorrect connection between the cable and connector will make the device unable to work or even damage it. For optional front USB cable, please contact your local dealer.



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	NC

12) COMB (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	NDSRB-
7	NRTSB-
8	NCTSB-
9	NRIB-
10	No Pin

Chapter 2 BIOS Setup

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

ENTERING SETUP

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

CONTROL KEYS

<↑><↓><← ><→>	Move to select item
<Enter>	Select Item
<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
<F5>	Restore the previous CMOS value from CMOS, only for Option Page Setup Menu
<F6>	Load the file-safe default CMOS value from BIOS default table
<F7>	Load the Optimized Defaults
<F8>	Q-Flash utility
<F9>	System Information
<F10>	Save all the CMOS changes, only for Main Menu

Main Menu

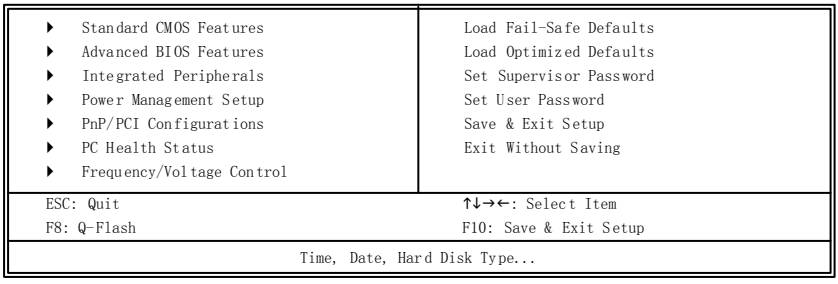
The on-line description of the highlighted setup function is displayed at the bottom of the screen.

Status Page Setup Menu / Option Page Setup Menu

Press F1 to pop up a small help window that describes the appropriate keys to use and the possible selections for the highlighted item. To exit the Help Window press <Esc>.

The Main Menu (For example: BIOS Ver. : F4a)

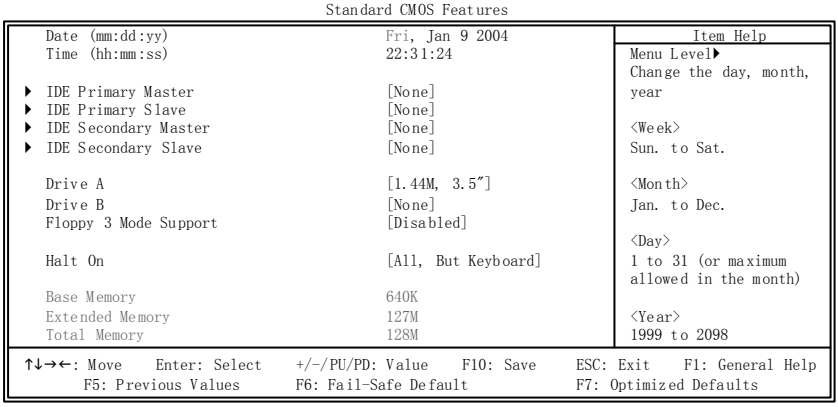
Once you enter Award BIOS CMOS Setup Utility, the Main Menu (as figure below) will appear on the screen. The Main Menu allows you to select from eight setup functions and two exit choices. Use arrow keys to select among the items and press <Enter> to accept or enter the sub-menu.



If you can't find the setting you want, please press "Ctrl+F1" to search the advanced option hidden.

- **Standard CMOS Features**
  This setup page includes all the items in standard compatible BIOS.
- **Advanced BIOS Features**
  This setup page includes all the items of Award special enhanced features.
- **Integrated Peripherals**
  This setup page includes all onboard peripherals.
- **Power Management Setup**
  This setup page includes all the items of Green function features.
- **PnP/PCI Configuration**
  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 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



Date

The date format is <week>, <month>, <day>, <year>.

- Week The week, from Sun to Sat, determined by the BIOS and is display only
- Month The month, Jan. Through Dec.
- Day The day, from 1 to 31 (or the maximum allowed in the month)
- Year The year, from 1999 through 2098

Time

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

IDE Primary Master, Slave / IDE Secondary Master, Slave

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

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

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

- Cylinder Number of cylinders
- Head Number of heads
- Precomp Write precomp
- Landing Zone Landing zone
- Sector Number of sectors

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

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 Keyboard — 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.

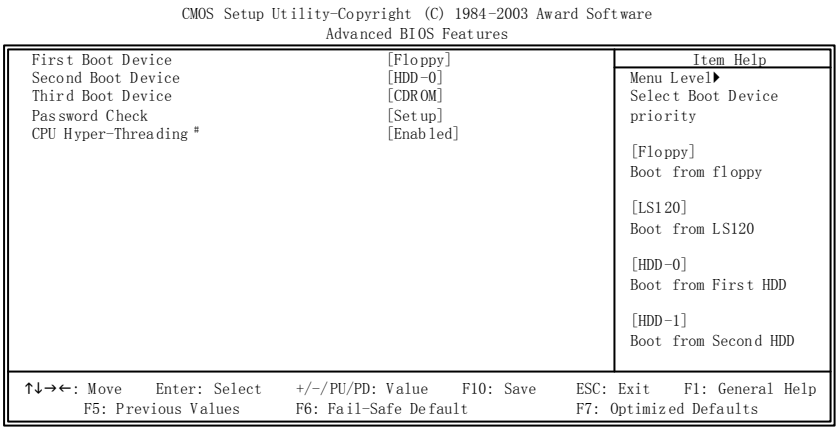
The value of the base memory is typically 512K for systems with 512K memory installed on the motherboard, or 640K for systems with 640K or more memory installed on the motherboard.

Extended Memory

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

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

Advanced BIOS Features



"#" System will detect automatically and show up when you install the Intel® Pentium® 4 processor with HT Technology.

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.

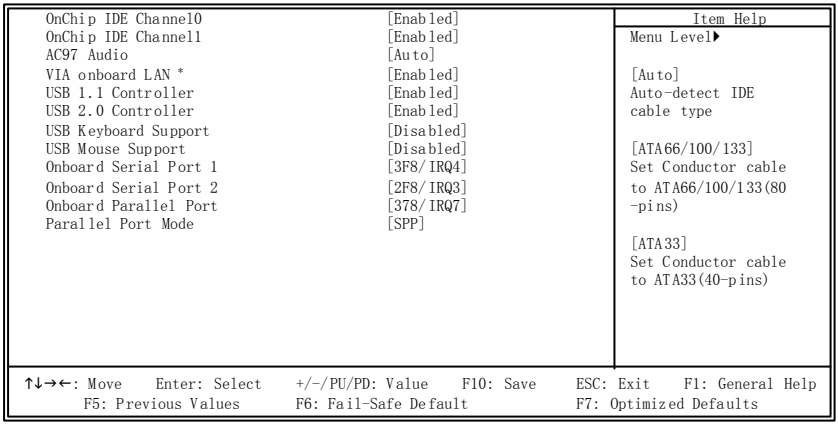
Password Check

- 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)

CPU Hyper-Threading

- Enabled — Enables CPU Hyper Threading Feature. Please note that this feature is only working for operating system with multi processors mode supported. (Default value)
- Disabled — Disables CPU Hyper Threading.

Integrated Peripherals



- **OnChip IDE Channel0**
  When enabled, allows you to use the onboard primary PCI IDE. If a hard disk controller card is used, set at Disabled.
  - Enabled Enable onboard 1st channel IDE port. (Default value)
  - Disabled Disable onboard 1st channel IDE port.

- **OnChip IDE Channel1**
  When enabled, allows you to use the onboard secondary PCI IDE. If a hard disk controller card is used, set at Disabled.
  - Enabled Enable onboard 2nd channel IDE port. (Default value)
  - Disabled Disable onboard 2nd channel IDE port.

- **AC97 Audio**
  - Auto Enable onboard AC'97 audio function. (Default value)
  - Disabled Disable this function.

- **VIA onboard LAN ***
  - Enable Enable onboard LAN function.(Default value)
  - Disable Disable onboard LAN function.

- **USB 1.1 Controller**
  Disable this option if you are not using the onboard USB feature.
  - Enabled Enable USB1.1 Controller. (Default value)
  - Disabled Disable USB1.1 Controller.

- **USB 2.0 Controller**
  Disable this option if you are not using the onboard USB 2.0 feature.
  - Enabled Enable USB 2.0 Controller. (Default value)
  - Disabled Disable USB 2.0 Controller.

"*" For 8VM533M-RZ only.

- **USB Keyboard Support**
  - Enabled — Enable USB key board support.
  - Disabled — Disable USB key board support. (Default v alue)
- **USB Mouse Support**
  - Enabled — Enable USB mouse support.
  - Disabled — Disable USB mouse support. (Default v alue)
- **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 v alue)
  - 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 v alue)
  - 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.
- **Onboard Parallel port**
  - 378/IRQ7 — Enable onboard LPT port and address is 378/IRQ7. (Default v alue)
  - 278/IRQ5 — Enable onboard LPT port and address is 278/IRQ5.
  - Disabled — Disable onboard LPT port.
  - 3BC/IRQ7 — Enable onboard LPT port and address is 3BC/IRQ7.
- **Parallel Port Mode**
  - SPP — Using Parallel port as Standard Parallel Port. (Default v alue)
  - EPP — Using Parallel port as Enhanced Parallel Port.
  - ECP — Using Parallel port as Ex tended Capabilities Port.
  - ECP+EPP — Using Parallel port as ECP & EPP mode.

Power Management Setup

CMOS Setup Utility-Copyright (C) 1984-2003 Award Software
Power Management Setup

			Item Help
	ACPI Suspend Type	[S1(POS)]	Menu Level▸
x	USB Device Wake-Up From S3	Disabled	[S1]
	Soft-Off by PWR-BTTN	[Instant-Off]	Set suspend type to
	AC Back Function	[Soft-Off]	Power On Suspend under
	Keyboard Power On	[Disabled]	ACPI OS
	Mouse Power On	[Disabled]	
	PME Event Wake Up	[Enabled]	
	Resume by Alarm	[Disabled]	[S3]
x	Date (of Month) Alarm	Everyday	Set suspend type to
x	Time (hh:mm:ss) Alarm	0 : 0 : 0	Suspend to RAM under
			ACPI OS

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

ACPI Suspend Type

- S1(POS) Set ACPI suspend type to S1. (Default value)
- S3(STR) Set ACPI suspend type to S3.

USB Device Wakeup From S3(When ACPI Suspend Type is set [S3/STR])

USB device wakeup From S3 can be set when ACPI standby state set to S3/STR.

- Enabled USB Device can wakeup system from S3.
- Disabled USB Device can't wakeup system from S3. (Default value)

Soft-off by PWR-BTTN

- Instant-off Press power button then Power off instantly. (Default value)
- Delay 4 Sec. Press power button 4 sec to Power off. Enter suspend if button is pressed less than 4 sec.

AC Back Function

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

Keyboard Power On

This feature allows you to set the method for powering-on the system.
The option "Password" allows you to set up to 8 alphanumeric characters to power-on the system.
The option "Keyboard 98" allows you to use the standard keyboard 98 to power on the system.

- Password Enter from 1 to 8 characters to set the keyboard power on password.
- 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.

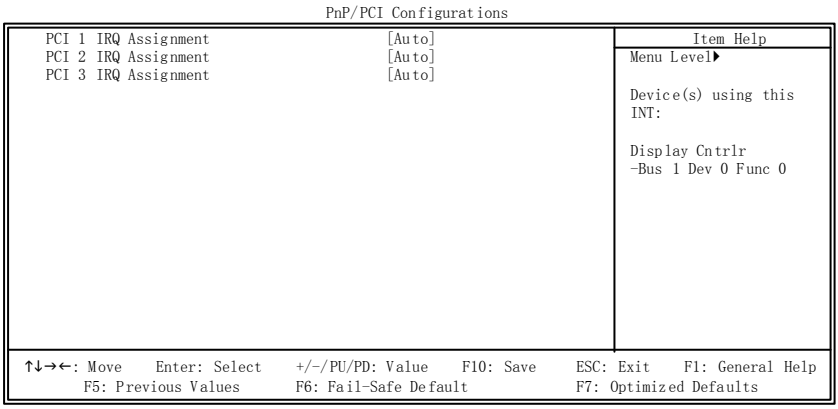
Mouse Power On

- Disabled Can't Power on system by Mouse Event. (Default value)
- Enabled Can Power on system by Mouse Event.

- **PME Event Wake Up**
  When set at Enabled, any PCI-PM event awakes the system from a PCI-PM controlled state.
  This feature requires an ATX power supply that provides at least 1A on the +5VSB lead.
  - Disabled — Disable this function.
  - Enabled — Enable PME as wake up event. (Default value)

- **Resume by Alarm**
  You can set "Resume by Alarm" item to enabled and key in Data/time to power on system.
  - Disabled — Disable this function. (Default Value)
  - Enabled — Enable alarm function to POWER ON system.
    If RTC Alarm Lead To Power On is Enabled.
    Date (of Month) Alarm : Everyday, 1~31
    Time (hh: mm: ss) Alarm : (0~23) : (0~59) : (0~59)

PnP/PCI Configurations



- **PCI 1 IRQ Assignment**
  - Auto — Auto assign IRQ to PCI 1. (Default value)
  - 3,4,5,7,9,10,11,12,14,15 — Set IRQ 3,4,5,7,9,10,11,12,14,15 to PCI 1.

- **PCI 2 IRQ Assignment**
  - Auto — Auto assign IRQ to PCI 2. (Default value)
  - 3,4,5,7,9,10,11,12,14,15 — Set IRQ 3,4,5,7,9,10,11,12,14,15 to PCI 2.

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

PC Health Status

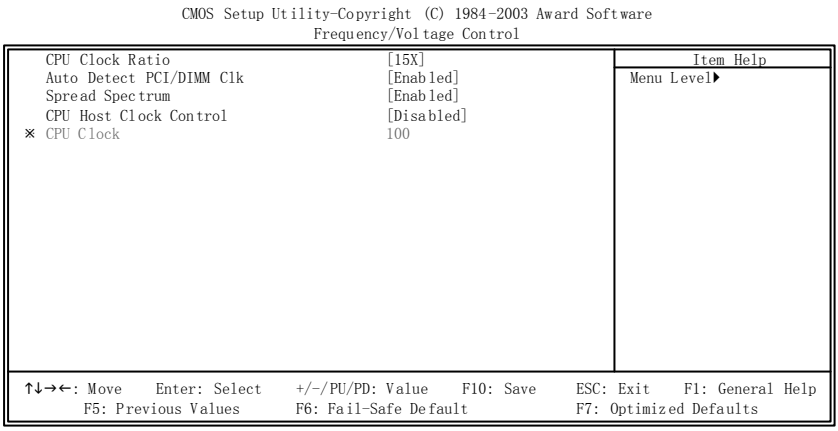
CMOS Setup Utility-Copyright (C) 1984-2003 Award Software
PC Health Status

		Item Help
Vcore	1.54V	Menu Level▸
DDR25V	2.544V	
+3.3V	3.360V	
+12V	11.92V	Don't reset case open status
Current CPU Temperature	45° C	
Current CPU FAN Speed	4440 RPM	
CPU FAN Fail Warning	[Disabled]	Clear case open status at next boot

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

- **Current Voltage (V) Vcore / DDR25V / +3.3V / +12V**
  - Detect system's voltage status automatically.
- **Current CPU Temperature**
  - Detect CPU temperature automatically.
- **Current CPU FAN Speed (RPM)**
  - Detect CPU Fan speed status automatically.
- **CPU FAN Fail Warning**
  - Disabled — Fan warning function disable. (Default value)
  - Enabled — Fan warning function enable.

Frequency/Voltage Control



※ This item will be available when "CPU Host Clock Control" is set to Enabled.

CPU Clock Ratio

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

- 15X~21X It depends on CPU Clock Ratio.

This setup option will automatically assign by CPU detection.
For C-Stepping P4: 8X,10X~24X default: 15X
For Northwood CPU: 12X~24X default: 16X
The option will display "Locked" and read only if the CPU ratio is not changeable.

Auto Detect PCI/DIMM Clk

- Disabled Disable auto detect PCI/DIMM Clk.
- Enabled Enable auto detect PCI/DIMM Clk. (Default value)

Spread Spectrum

- Disabled Disable spread spectrum.
- Enabled Enable spread spectrum. (Default value)

CPU Host Clock Control

Note: If system hangs up before enter CMOS setup utility, wait for 20 sec for times out reboot. When time out occur, system will reset and run at CPU default Host clock at next boot.

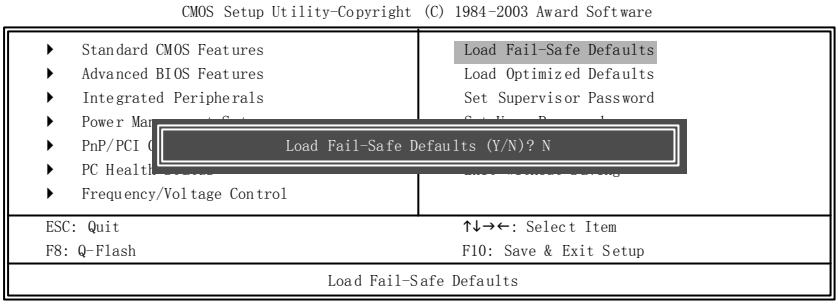
- Disabled Disable CPU Host Clock Control. (Default value)
- Enabled Enable CPU Host Clock Control.

CPU Clock

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

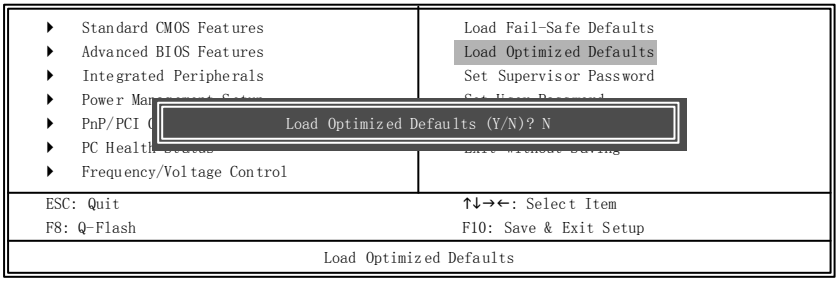
- 100 Set CPU Clock to 100MHz~132MHz.
- 133 Set CPU Clock to 133MHz~165MHz.

Load Fail-Safe Defaults



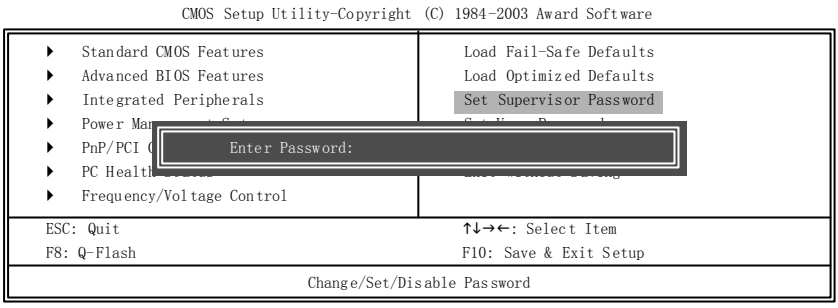
Fail-Safe defaults contain the most appropriate values of the system parameters that allow minimum system performance.

Load Optimized Defaults



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

Set Supervisor/User Password



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

Type the password, up to eight characters, and press <Enter>. You will be asked to confirm the password. Type the password again and press <Enter>. You may also press <Esc> to abort the selection and not enter a password.

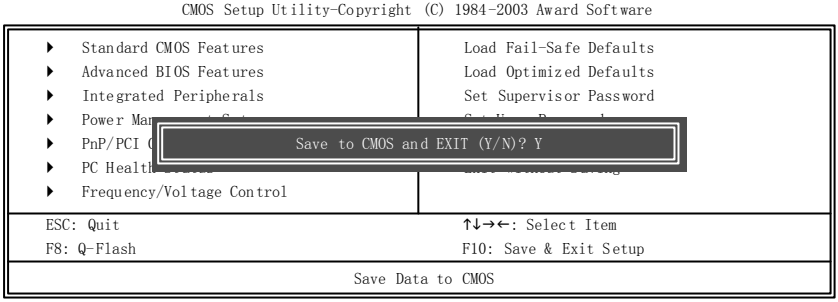
To disable password, just press <Enter> when you are prompted to enter password. A message "PASSWORD DISABLED" will appear to confirm the password being disabled. Once the password is disabled, the system will boot and you can enter Setup freely.

The BIOS Setup program allows you to specify two separate passwords:
SUPERVISOR PASSWORD and a USER PASSWORD. When disabled, 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 "Password Check" in Advance BIOS Features Menu, you will be prompted for the password every time the system is rebooted or any time you try to enter Setup Menu.

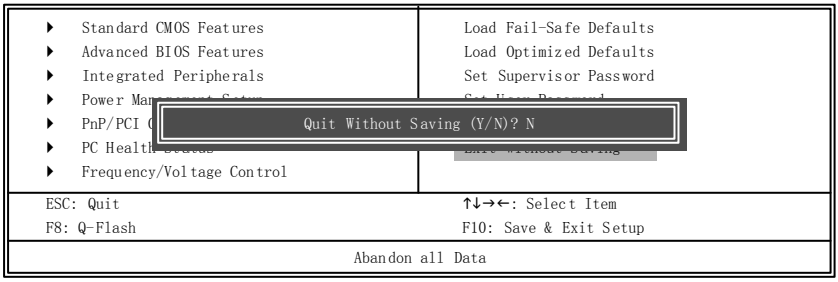
If you select "Setup" at "Password Check" in Advance BIOS Features Menu, you will be prompted only when you try to enter Setup.

Save & Exit Setup



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



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

Chapter 3 Install Drivers

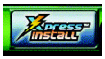
Install Drivers

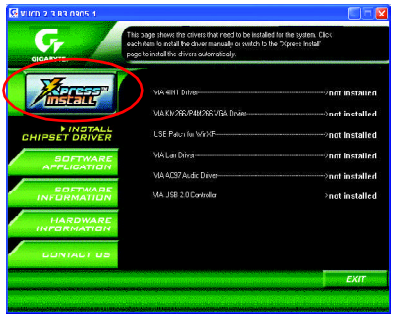
NOTE

Pictures below are shown in Windows XP (CD ver. 2.3)

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.

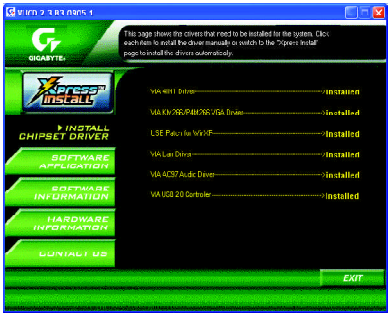
INSTALL CHIPSET DRIVER

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  to install the drivers automatically.



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

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



Driver install finished!! you have to reboot system!!

Item Description

- VIA 4IN1 Driver

  For INF, AGP, IDE and DMA Driver.
- VIA KM266/P4M266 VGA Driver

  For VIA KM266/P4M266 VGA driver.
- USB Path for WinXP

  This patch driver can help you to resolve the USB device wake up S3 hang up issue in XP.
- VIA Lan Driver *

  For VIA LAN driver.
- VIA AC97 Audio Driver

  Audio driver for VIA AC97 codec chipset.
- VIA USB 2.0 Controller

  For VIA VT8233 (VT6203) / VIA VT8235 / VIA VT8237/ VIA VT8237R south bridge.

For USB2.0 driver support under Windows XP operating system, please use Windows Service Pack. After install Windows Service Pack, it will show a question mark "?" in "Universal Serial Bus controller" under "Device Manager". Please remove the question mark and restart the system (System will auto-detect the right USB2.0 driver).

"*" For 8VM533M-RZ only.

Contact Us

- **Taiwan (Headquarters)**

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http://tw.giga-byte.com/TechSupport/ServiceCenter.htm
Non-Tech. Support (Sales/Marketing) :
http://ggts.gigabyte.com.tw/nontech.asp
WEB address (English): http://www.gigabyte.com.tw
WEB address (Chinese): http://chinese.giga-byte.com

- **U.S.A.**

G.B.T. INC.
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- **Germany**

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Non-Tech. Support (Sales/Marketing) :
http://ggts.gigabyte.com.tw/nontech.asp
WEB address : http://www.gigabyte.de

- **Japan**

NIPPON GIGA-BYTE CORPORATION
WEB address : http://www.gigabyte.co.jp

- **Singapore**

GIGA-BYTE SINGAPORE PTE. LTD.
Tech. Support :
http://tw.giga-byte.com/TechSupport/ServiceCenter.htm
Non-Tech. Support (Sales/Marketing) :
http://ggts.gigabyte.com.tw/nontech.asp

- **U.K.**

G.B.T. TECH. CO., LTD.
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http://uk.giga-byte.com/TechSupport/ServiceCenter.htm
Non-Tech. Support (Sales/Marketing) :
http://ggts.gigabyte.com.tw/nontech.asp
WEB address : http://uk.giga-byte.com

- **The Netherlands**

GIGA-BYTE TECHNOLOGY B.V.
TEL: +31 40 290 2088
NL Tech.Support: 0900-GIGABYTE (0900-44422983)
BE Tech.Support: 0900-84034
FAX: +31 40 290 2089
Tech. Support :
http://nz.giga-byte.com/TechSupport/ServiceCenter.htm
Non-Tech. Support (Sales/Marketing) :
http://ggts.gigabyte.com.tw/nontech.asp
WEB address : http://www.giga-byte.nl

- **China**

NINGBO G.B.T. TECH. TRADING CO., LTD.
Tech. Support :
http://cn.giga-byte.com/TechSupport/ServiceCenter.htm
Non-Tech. Support (Sales/Marketing) :
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- **Australia**

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Non-Tech. Support (Sales/Marketing) :
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WEB address : http://www.giga-byte.com.au

- **France**

GIGABYTE TECHNOLOGY FRANCES S.A.R.L.
Tech. Support :
http://tw.giga-byte.com/TechSupport/ServiceCenter.htm
Non-Tech. Support (Sales/Marketing) :
http://ggts.gigabyte.com.tw/nontech.asp
WEB address : http://www.gigabyte.fr

- **Russia**

Moscow Representative Office Of Giga-Byte Technology Co., Ltd.
Tech. Support :
http://tw.giga-byte.com/TechSupport/ServiceCenter.htm
Non-Tech. Support (Sales/Marketing) :
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- **Poland**

Representative Office Of Giga-Byte Technology Co., Ltd. POLAND
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http://ggts.gigabyte.com.tw/nontech.asp
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