

## FCC Compliance Statement:

<p style="text-align: center;"><b>DECLARATION OF CONFORMITY</b> <b>FCC</b></p> <p>Responsible Party Name: G.B.T. INC. Address: 18305 Valley Blvd., Suite#A LA Parant, CA 91744 Phone/Fax No: (818) 854-9338/ (818) 854-9339</p> <p>I hereby declares that the product Product Name: Mother Board Model Number: GA-6CMC7.GA-6CMC7R</p> <p>Conforms to the following specifications: FCC Part 15, Subpart B, Section 15.107(a) and Section 15.109(a), Class B Digital Device</p> <p><b>Supplementary Information:</b> 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 interference received, including that may cause undesired operation.</p> <p>Representative Person's Name: <u>ERIC LIU</u> Signature: <u>Eric Liu</u> Date: <u>Mar. 24, 2000</u></p>
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This equipment has been tested and found to comply with limits for a Class B digital device , pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in residential installations. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television equipment reception, which can be determined by turning the

equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Move the equipment away from the receiver
- Plug the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/television technician for additional suggestions

You are cautioned that any change or modifications to the equipment not expressly approve by the party responsible for compliance could void Your authority to operate such equipment.

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

## Declaration of Conformity

We, Manufacturer/Importer  
(full address)

**G.B.T. Technology Trading GmbH**  
**Ausschlagler Weg 41, 1F, 20537 Hamburg, Germany**

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

**Mother Board**  
GA-6CMC7, GA-6CMC7R

is in conformity with  
(reference to the specification under which conformity is declared)  
in accordance with 89/336 EEC-EMC Directive

<input type="checkbox"/> EN 55011	Limits and methods of measurement of radio disturbance characteristics of industrial, scientific and medical (ISM) high frequency equipment	<input checked="" type="checkbox"/> EN 61000-3-2* <input checked="" type="checkbox"/> EN60555-2	Disturbances in supply systems caused by household appliances and similar electrical equipment " Harmonics"
<input type="checkbox"/> EN55013	Limits and methods of measurement of radio disturbance characteristics of broadcast receivers and associated equipment	<input type="checkbox"/> EN61000-3-3* <input checked="" type="checkbox"/> EN60555-3	Disturbances in supply systems caused by household appliances and similar electrical equipment " Voltage fluctuations"
<input type="checkbox"/> EN 55014	Limits and methods of measurement of radio disturbance characteristics of household electrical appliances, portable tools and similar electrical apparatus	<input checked="" type="checkbox"/> EN 50081-1 <input checked="" type="checkbox"/> EN 50082-1	Generic emission standard Part 1: Residual, commercial and light industry Generic immunity standard Part 1: Residual, commercial and light industry
<input type="checkbox"/> EN 55015	Limits and methods of measurement of radio disturbance characteristics of fluorescent lamps and luminaries	<input type="checkbox"/> EN 55081-2	Generic emission standard Part 2: Industrial environment
<input type="checkbox"/> EN 55020	Immunity from radio interference of broadcast receivers and associated equipment	<input type="checkbox"/> EN 55082-2	Generic immunity standard Part 2: Industrial environment
<input checked="" type="checkbox"/> EN 55022	Limits and methods of measurement of radio disturbance characteristics of information technology equipment	<input type="checkbox"/> ENV 55104	Immunity requirements for household appliances tools and similar apparatus
<input type="checkbox"/> DINVDE0855 <input type="checkbox"/> part 10 <input type="checkbox"/> part 12	Cabled distribution systems; Equipment for receiving and/or <b>distribution</b> from sound and television signals	<input type="checkbox"/> EN 50091- 2	EMC requirements for uninterruptible power systems (UPS)

CE marking



(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**

<input type="checkbox"/> EN 60065	Safety requirements for mains operated electronic and related apparatus for household and similar general use	<input type="checkbox"/> EN 60950	Safety for information technology equipment including electrical business equipment
<input type="checkbox"/> EN 60335	Safety of household and similar electrical appliances	<input type="checkbox"/> EN 50091-1	General and Safety requirements for uninterruptible power systems (UPS)

Manufacturer/Importer

Signature : Rex Lin

Name : RexLin

(Stamp)

Date : Mar. 24, 2000

**6CMC7 Series**  
**Socket 370 Processor Motherboard**

**USER'S MANUAL**

Socket 370 Processor Motherboard  
REV. 1.1 Second Edition  
R-11-02-000425

## How this manual is organized

This manual is divided into the following sections:

<b>1) Revision List</b>	Manual revision information
<b>2) Item Checklist</b>	Product item list
<b>3) Features</b>	Product information & specification
<b>4) Hardware Setup</b>	Instructions on setting up the motherboard
<b>5) Performance &amp; Block Diagram</b>	Product performance & block diagram
<b>6) Suspend to RAM</b>	Instructions STR installation
<b>7) BIOS Setup</b>	Instructions on setting up the BIOS software
<b>8) Appendix</b>	General reference

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## Revision History

Revision	Revision Note	Date
1.1	Initial release of the 6CMC7/ 6CMC7R motherboard user' s manual.	Mar.2000
1.1	Second release of the 6CMC7/6CMC7R motherboard user' s manual.	Apr.2000

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## Item Checklist

- The 6CMC7/ 6CMC7R Motherboard
- Cable for IDE / Floppy device
- CD (IUCD) for motherboard utilities
- Internal USB Cable (Optional)
- 6CMC7/ 6CMC7R User' s Manual

## Summary of Features

Form factor	<ul style="list-style-type: none"> <li>• 25 cm x 24.5 cm Micro ATX SIZE form factor, 4 layers PCB.</li> </ul>
CPU	<ul style="list-style-type: none"> <li>• Socket 370 processor Intel Pentium® III 100/133MHz FSB, Coppermine core FC-PGA Intel Celeron™ 100MHz FSB, Mendocino core PPGA VIA Cyrix® III 133MHz FSB, PPGA (Optional)</li> <li>• 2<sup>nd</sup> cache in CPU (Depend on CPU)</li> </ul>
Chipset	<ul style="list-style-type: none"> <li>• 82820 HOST / AGP / RDRAM Controller</li> <li>• 82801AA(ICH) I/O Controller Hub</li> <li>• 82805AA(MTH) Memory Translator Hub</li> </ul>
Clock Generator	<ul style="list-style-type: none"> <li>• Supports 100 / 133MHz 110/120/140/150 MHz clocks (reserved)</li> </ul>
Memory	<ul style="list-style-type: none"> <li>• 2 168-pin DIMM Sockets Support 2 banks.</li> </ul>
I/O Control	<ul style="list-style-type: none"> <li>• ITE IT8712</li> </ul>
Slots	<ul style="list-style-type: none"> <li>• 1 AMR (Audio Modem Riser) slot</li> <li>• 1 Universal AGP slot (1X / 2X / 4X 1.5V / 3.3V device support)</li> <li>• 3 32-bit Master PCI Bus slots(for 6CMC7)</li> <li>• 2 32-bit Master PCI Bus slots(for 6CMC7R)</li> </ul>
On-Board IDE	<ul style="list-style-type: none"> <li>• An IDE controller on the Intel® 82801AA PCI chipset provides IDE HDD/ CD-ROM with PIO, Bus Master and Ultra DMA33/ATA66 operation modes</li> <li>• Can connect up to four IDE devices</li> </ul>
On-Board Peripherals	<ul style="list-style-type: none"> <li>• 1 Floppy port supports 2 FDD with 360K, 720K, 1.2M, 1.44M and 2.88M bytes</li> <li>• 1 Parallel ports supports SPP/EPP/ECP mode</li> <li>• 2 Serial ports (COM A &amp; COM B)</li> <li>• 2 USB ports (Front USB port optional)</li> <li>• 1 IrDA connector</li> <li>• Smart Card Reader Connector</li> </ul>
Hardware Monitor (Optional)	<ul style="list-style-type: none"> <li>• CPU/Power Supply/System Fan Revolution detect</li> <li>• CPU Fan Control</li> <li>• System Voltage Detect</li> <li>• CPU Overheat Warning</li> <li>• Chassis Intrusion Detect</li> <li>• Display Actual Current Voltage</li> </ul>

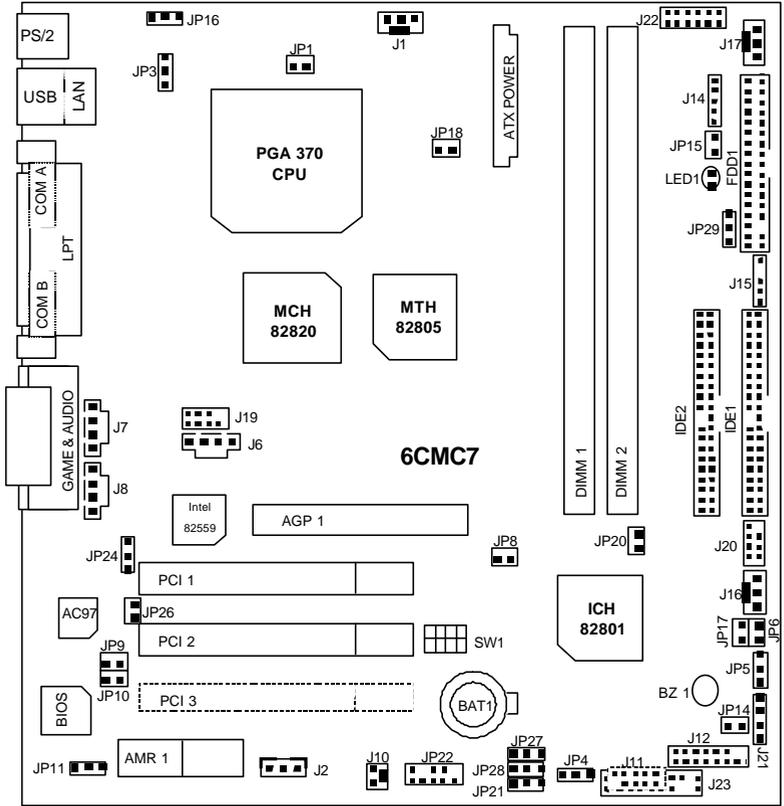
To be continued...

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Summary of Features

On-Board Sound	<ul style="list-style-type: none"><li>• AC' 97</li><li>• Line In / Line Out / Mic In / AUX In / CD In / TEL / Game Port</li></ul>
PS/2 Connector	<ul style="list-style-type: none"><li>• PS/2<sup>®</sup> Keyboard interface and PS/2<sup>®</sup> Mouse interface</li></ul>
BIOS	<ul style="list-style-type: none"><li>• Licensed AMI BIOS, 4M bit FWH</li></ul>
On-Board LAN	<ul style="list-style-type: none"><li>• Intel<sup>®</sup> GD 82559(Optional)</li></ul>
Additional Features	<ul style="list-style-type: none"><li>• Internal/External Modem Wake up</li><li>• STR (Suspend-To-RAM)</li><li>• Wake On LAN</li><li>• PS/2 Keyboard Password Wake up</li><li>• PS/2 Mouse Wake up</li><li>• System after AC back</li><li>• Poly fuse for keyboard, USB, Game port over- current protection</li><li>• USB KB/MS Wake Up from S3</li></ul>

# 6CMC7/ 6CMC7R Motherboard Layout



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6CMC7/ 6CMC7R Motherboard

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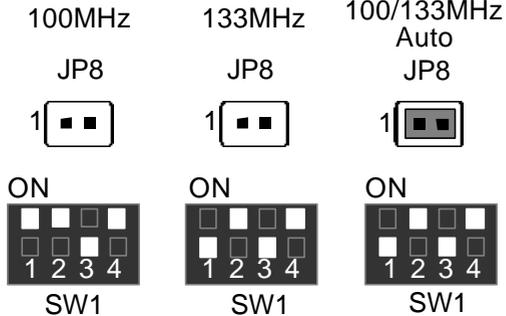
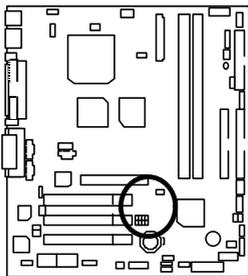
## CPU Speed Setup

The system bus frequency can be switched at 100MHz, 133MHz and Auto by adjusting JP8 & SW1. The CPU Frequency is control by BIOS.

JP8 / SW1 Select the System Speed at 100MHz , 133MHz and Auto.

CPU CLK	SW1				JP8	AGP CLK
	1	2	3	4		
100	O	O	X	O	OFF	66.6
105	O	O	O	O	OFF	70
110	O	X	O	O	OFF	73.3
115	O	X	O	X	OFF	76.6
120	O	X	X	X	OFF	80.0
125	X	O	O	O	OFF	83.3
133	X	O	X	O	OFF	66.6
140	X	X	O	X	OFF	70.0
150	X	X	X	X	OFF	75.0
Auto	X	O	X	O	ON	66.6

(O: ON / X: OFF)

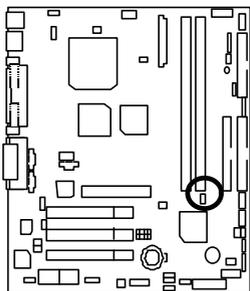


- JP8 Open : Force 100MHz  
Close : Auto

## Over Clock Jumper Setting

(We don't guaranteed over clock jumper to work → JP20,JP29,J22)

JP20: SDRAM Over Clock (Optional)



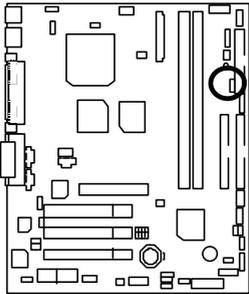
Pin No.	Definition
Open	Turbo
Close	Normal (Default)

Close : Normal (Default)		Open : Turbo	
CPU CLK	DRAM CLK	CPU CLK	DRAM CLK
100	100	100	100
* 105	105	* 105	105
* 110	110	* 110	110
* 115	115	* 115	115
* 120	120	* 120	120
* 125	94	* 125	125
133	100	* 133	133
* 140	105	* 140	140
* 150	112	* 150	150

If instability should occur to your system, please adjust JP29.

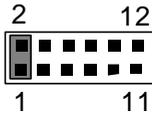
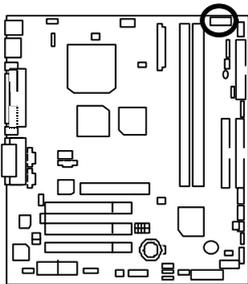
(\* this setting are not guaranteed)

JP29 : Over Clock Voltage for SDRAM (Optional)



Pin No.	Definition
1-2close	Over Clock
2-3close	Normal (Default)

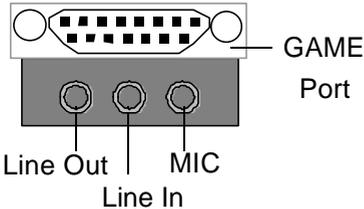
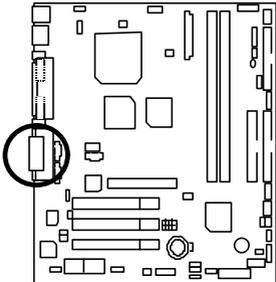
J22 : Over Voltage CPU Speed Up (Optional)(**Magic Booster**)



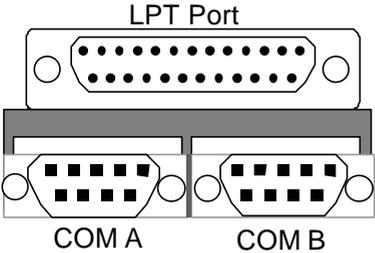
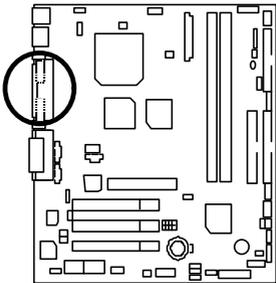
Pin No.	Definition
1-2 close	Normal (Default)
3-4 close	10%
5-6 close	20%
7-8 close	30%
9-10 close	40%
11-12 close	50%

# Connectors

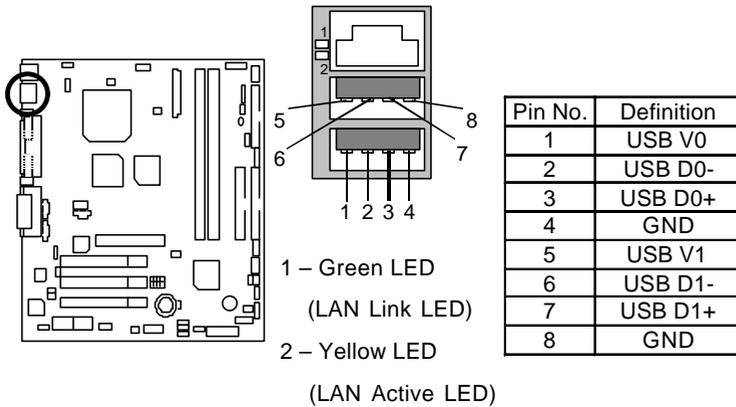
## GAME & Audio Port



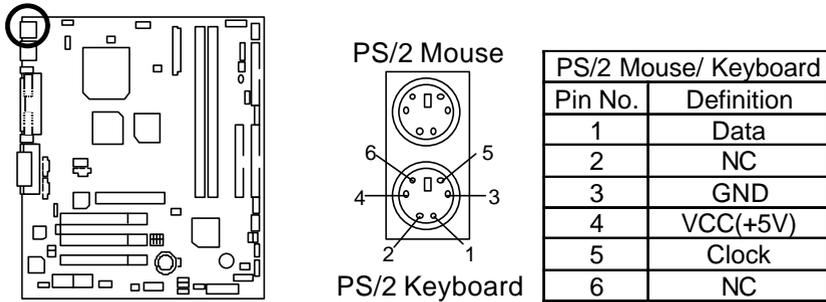
## COM A / COM B / LPT Port



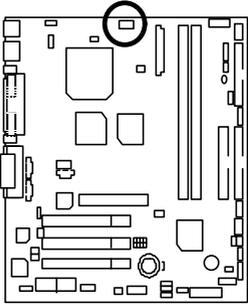
USB & LAN : USB & LAN Connector



PS/2 Keyboard & PS/2 Mouse Connector

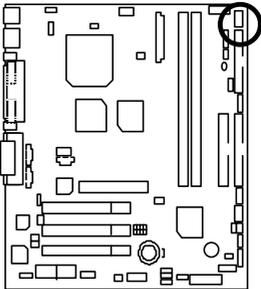


## J1 : CPU FAN



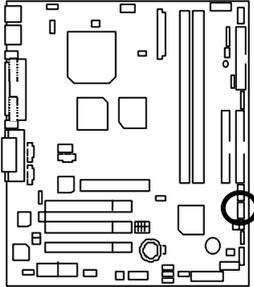
Pin No.	Definition
1	Control
2	+12V
3	SENSE

## J17 : Power FAN



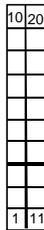
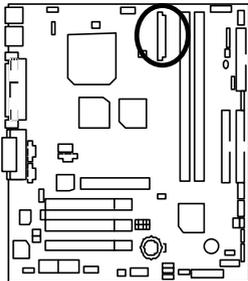
Pin No.	Definition
1	Control
2	+12V
3	SENSE

J16 : System FAN



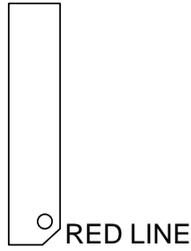
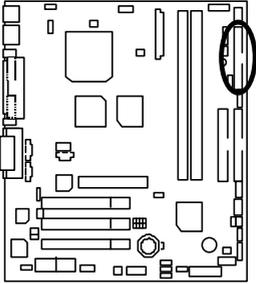
Pin No.	Definition
1	Control
2	+12V
3	SENSE

ATX Power

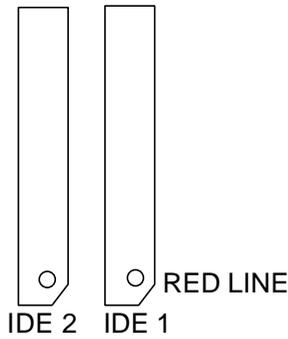
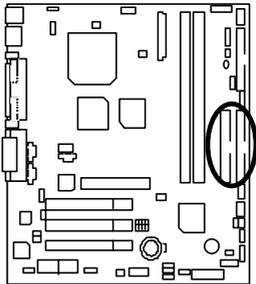


Pin No.	Definition
3,5,7,13,15-17	GND
1,2,11	3.3V
4,6,19,20	VCC
10	+12V
12	-12V
18	-5V
8	Power Good
9	5V SB stand by+5V
14	PS-ON(Soft On/Off)

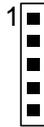
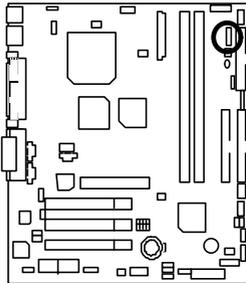
Floppy Port



IDE1(Primary) , IDE2 (Secondary) Port

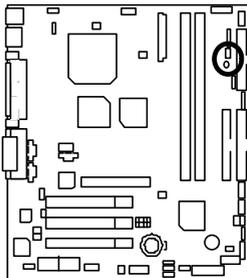


## IR



PIN No.	Definition
1	VCC(+5V)
2	NC
3	IR data input
4	GND
5	IR data output

## JP15 : STR LED Connector & DIMM LED



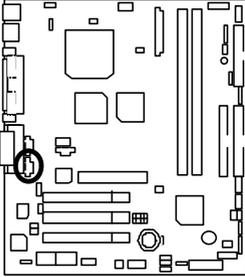
STR LED Connector External.

JP15



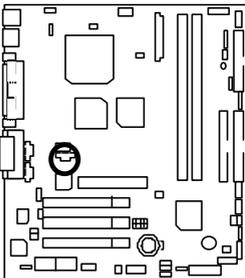
DIMM LED

## J8 : AUX\_IN



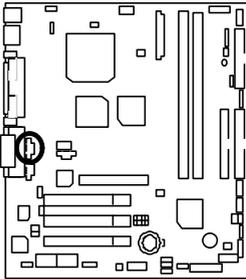
Pin No.	Definition
1	AUX-L
2	GND
3	GND
4	AUX-R

## J6 : CD Audio Line In



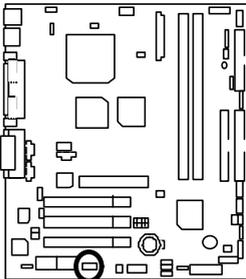
Pin No.	Definition
1	CD-L
2	GND
3	GND
4	CD-R

J7 : TEL(The connector is for internal modem card with voice connector)



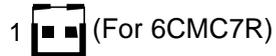
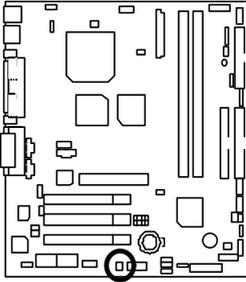
Pin No.	Definition
1	Signal-In
2	GND
3	GND
4	Signal-Out

J2: Wake On LAN



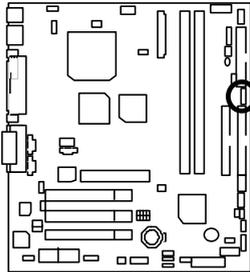
Pin No.	Definition
1	+5V SB
2	GND
3	Signal

## J10: Ring Power On



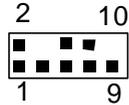
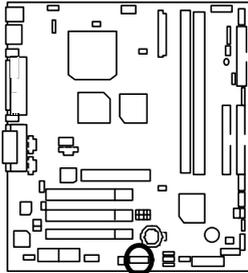
Pin No.	Definition
1	Signal
2	GND

## J15 : External SMBUS Device Connector



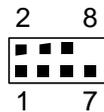
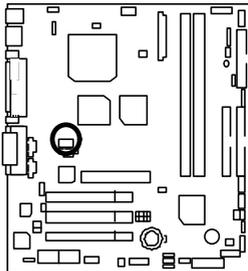
Pin No.	Definition
1	SMB CLK
2	NC
3	GND
4	SMB DATA
5	+5V

### JP22 : Front Panel USB Port



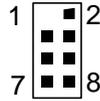
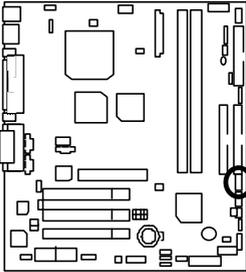
Pin No.	Definition
1,4,5,10	NC
2	+5V
3,7,9	GND
6	USBP1+
8	USBP1-

### J19 : Audio PIN



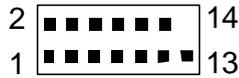
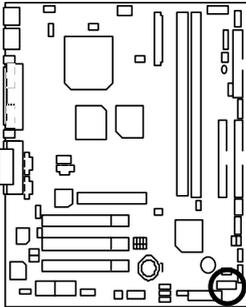
Pin No.	Definition
1	Line out_L
2	Line out_R
3,4,5,6	GND
7	+12V

## J20 : CD/IN PIN



Pin No.	Definition
2	CD_L
3,7	VCC
4,6	GND
8	CD_R

## J12: Smart Card Reader

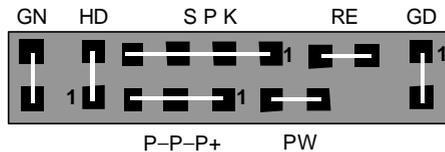
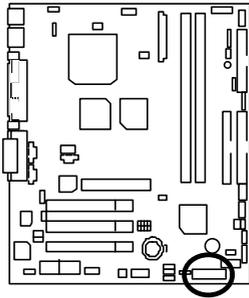


Pin No.	Definition
2,3,4,8,9,13, 14	NC
1	VCC
5	SCRFET-
6	SCRREST
7	SCRCLK
10	SCRIO
11	GND
12	SCRPRES-



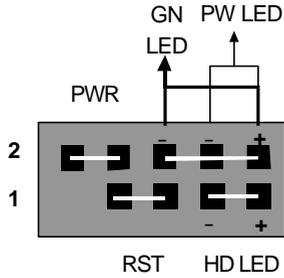
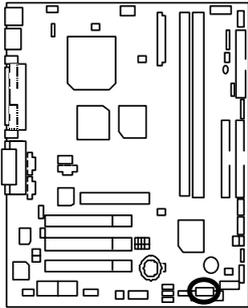
## Panel and Jumper Definition

J23 : For 2X11 Pins Jumper (for 6CMC7)

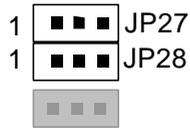
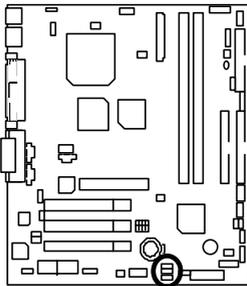


GN (Green Switch)	Open: Normal Operation Close: Entering Green Mode
GD (Green LED)	Pin 1: LED anode(+) Pin 2: LED cathode(-)
HD (IDE Hard Disk Active LED)	Pin 1: LED anode(+) Pin 2: LED cathode(-)
SPKR (Speaker Connector)	Pin 1: VCC(+) Pin 2- Pin 3: NC Pin 4: Data(-)
RE (Reset Switch)	Open: Normal Operation Close: Reset Hardware System
P+P-P-(Power LED)	Pin 1: LED anode(+) Pin 2: LED cathode(-) Pin 3: LED cathode(-)
PW (Soft Power Connector)	Open: Normal Operation Close: Power On/Off

J11 : Panel Jumper (for 6CMC7R)

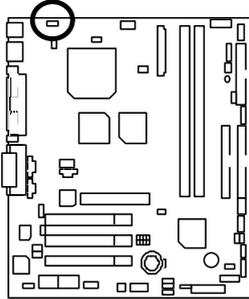


JP27 & JP28 : USB Port Selection (Optional)



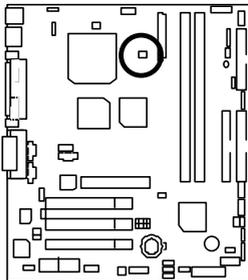
	FPUSB	BPUSB
JP27	1-2 close	2-3 close
JP28	1-2 close	2-3 close

JP16 : PS/2 Keyboard Power On



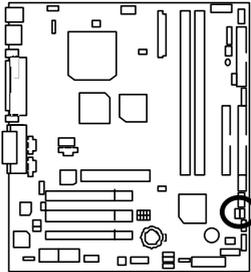
Pin No.	Definition
1-2 close	Keyboard Power on
2-3 close	Normal (Default)

JP18 : STR Selection



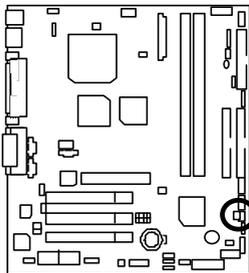
Pin No.	Definition
Open	STR Disable (Default)
Close	STR Enable

### JP17 : Case Open



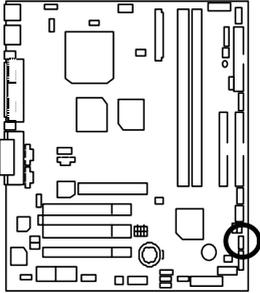
Pin No.	Definition
1	Signal
2	GND

### JP6 : Timeout Reboot Function



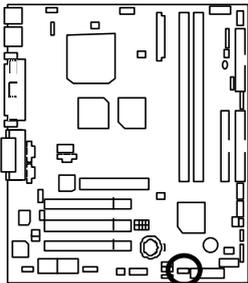
Pin No.	Definition
Open	Timeout reboot
Close	No Reboot on timeout (Default)

JP5: Safe mode / Recovery / Normal



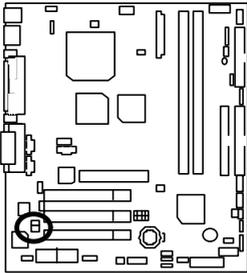
Pin No.	Definition
1-2close	Normal (Default)
2-3close	Safe mode
1-2-3open	Recovery

JP4 : Clear CMOS Function (Optional)



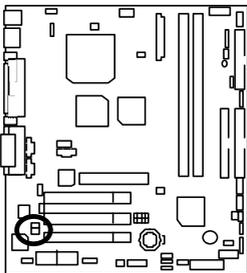
Pin No.	Definition
1-2 close	Clear CMOS
2-3 close	Normal (Default)

### JP9 : Top Block Lock



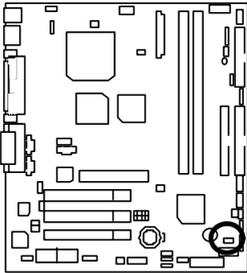
Pin No.	Definition
Close	Top Block Unlock (Default)
Open	Top Block lock

### JP10 : FWH Write Protection (Optional)



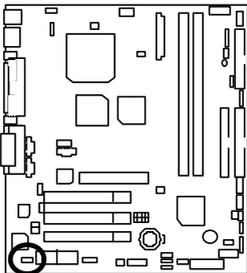
Pin No.	Definition
Close	Write Protect
Open	Normal (Default)

JP14 : Buzzer Enabled (Optional)



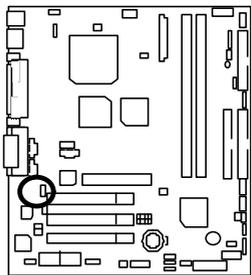
Pin No.	Definition
Open	Internal Buzzer Disabled
Close	Internal Buzzer Enabled (Default)

JP11 : AMR Selection



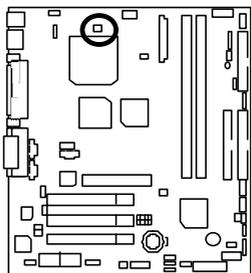
Pin No.	Definition
1-2close	AMR Secondary
2-3close	AMR Primary AC'97 Disabled (Disabled Onboard CODEC)

JP24: Onboard LAN Function (Optional)



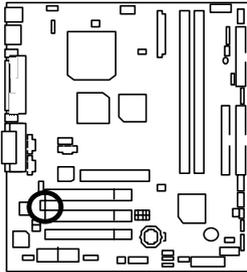
Pin No.	Definition
1-2 close	Onboard LAN Enabled (Default)
2-3 close	Onboard LAN Disabled

JP1: Cyrix CPU Turbo Function (Optional)



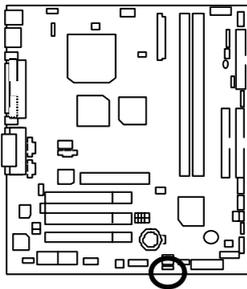
Pin No.	Definition
Open	Normal
Close	Force 133

JP26: PME Function (Optional)



Pin No.	Definition
Open	PME Disable (Default)
Close	PME Enable

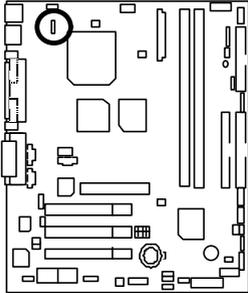
JP21 : Front USB Device Wake up Selection (Optional)



Pin No.	Definition
1-2 close	Front USB Device Wake Up
2-3 close	Normal (Default)

(If you want to use "USB KB/Mouse Wake from S3" function, you have to set the BIOS setting "USB KB/Mouse Wake from S3" enabled, and the jumper "JP21" enabled).  
 \*(Power on the computer and as soon as memory counting starts, press <Del>. You will enter BIOS Setup. Select the item "POWER MANAGEMENT SETUP", then select "USB KB/Mouse Wake from S3". Remember to save the setting by pressing "ESC" and choose the "SAVE & EXIT SETUP" option.)

JP3: USB Device Wake up Selection

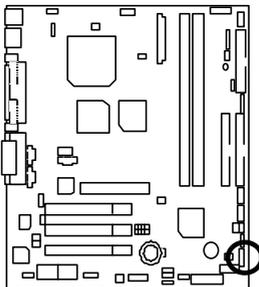


Pin No.	Definition
1-2 close	Enabled USB Device Wake up
2-3 close	Normal (Default)

(If you want to use **"USB KB Wakeup from S3"** function, you have to set the BIOS setting "USB KB Wakeup from S3" enabled, and the jumper **"JP3"** enabled).

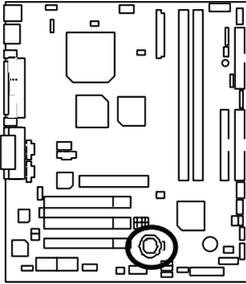
\*(Power on the computer and as soon as memory counting starts, press <Del>. You will enter BIOS Setup. Select the item **"POWER MANAGEMENT SETUP"**, then select **"USB KB Wakeup from S3: Enabled"**. Remember to save the setting by pressing "ESC" and choose the "SAVE & EXIT SETUP" option.)

J21 : SPK (Optional)



Pin No.	Definition
1	VCC (+)
2	NC
3	NC
4	Data (-)

## BAT1 : Battery



- ⚠ 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.

## Performance List

The following performance data list is the testing results of some popular benchmark testing programs.

These data are just referred by users, and there is no responsibility for different testing data values gotten by users. (The different Hardware & Software configuration will result in different benchmark testing results.)

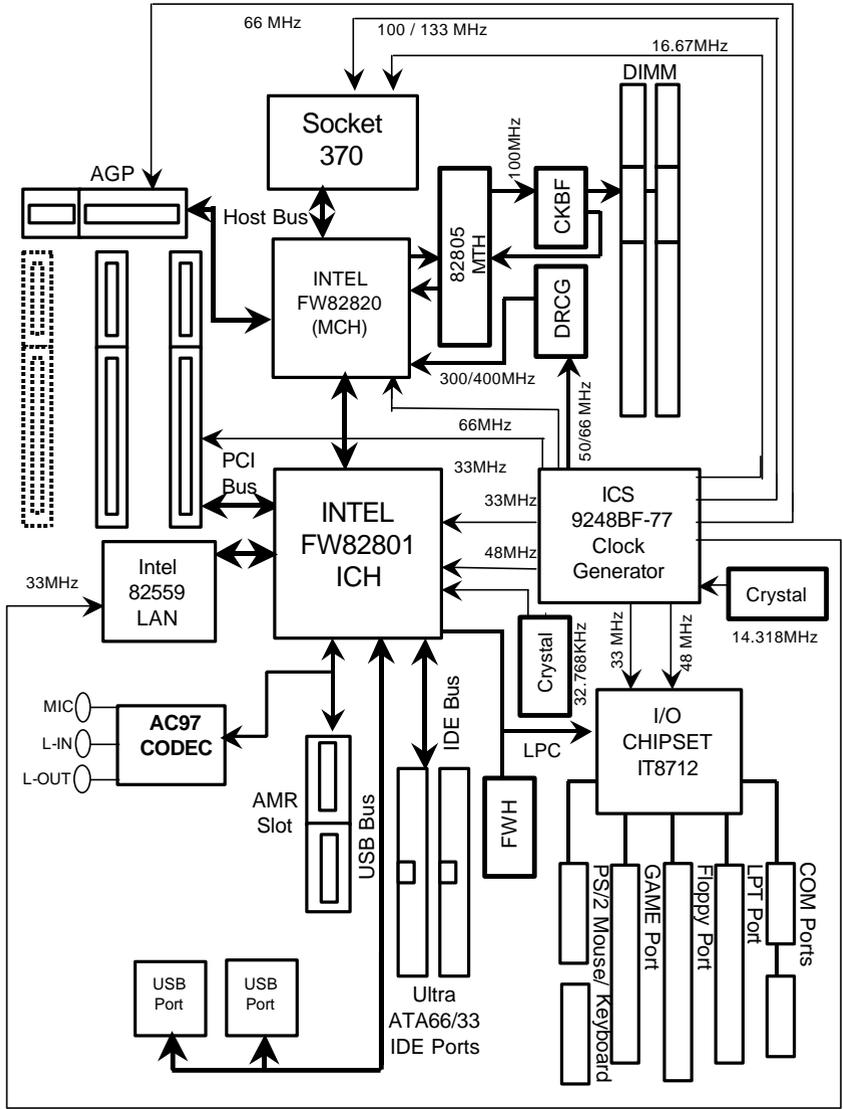
- CPU Pentium® III 733/700MHz processor
- DRAM (128x1)MB SDRAM (NEC D4564841G5-A75-9JF)
- CACHE SIZE 256 KB included in CPU
- DISPLAY GA-660 PLUS
- STORAGE Onboard IDE (QUANTUM KA13600AT)
- O.S. Windows NT™4.0 SPK6
- DRIVER Display Driver at 1024 x 768 x 16bit colors x 75Hz.

Processor	Intel Pentium® III	
	733(133x5.5)	700(100x7)
<b>Winbench99</b>		
CPU mark 99	63.1	60
FPU Winmark 99	3890	3760
Business Disk Winmark 99	5690	5520
Hi-End Disk Winmark 99	13200	13200
Business Graphics Winmark 99	354	341
Hi-End Graphics Winmark 99	689	664
<b>Winstone99</b>		
Business Winstone 99	41.2	40.7
Hi-End Winstone 99	41.5	40.3

- CPU Celeron 350 MHz processor
- DRAM (128x1)MB SDRAM (NEC D4564841G5-A75-9JF)
- CACHE SIZE 256 KB included in CPU
- DISPLAY GA-660 PLUS
- STORAGE Onboard IDE (QUANTUM KA13600AT)
- O.S. Windows NT™4.0 SPK6
- DRIVER Display Driver at 1024 x 768 x 16bit colors x 75Hz.

Processor	Intel Celeron
	350MHz (100x3.5)
<b>Winbench99</b>	
CPU mark 99	28.9
FPU Winmark 99	1870
Business Disk Winmark 99	4680
Hi-End Disk Winmark 99	12700
Business Graphics Winmark 99	166
Hi-End Graphics Winmark 99	319
<b>Winstone99</b>	
Business Winstone 99	27.1
Hi-End Winstone 99	25.1

# Block Diagram



## Suspend to RAM Installation

### Suspend to RAM Installation

#### A.1 Introduce STR function:

Suspend-to-RAM (STR) is a Windows 98 ACPI sleep mode function. When recovering from STR (S3) sleep mode, the system is able, in just a few seconds, to retrieve the last "state" of the system before it went to sleep and recover to that state. The "state" is stored in memory (RAM) before the system goes to sleep. During STR sleep mode, your system uses only enough energy to maintain critical information and system functions, primarily the system state and the ability to recognize various "wake up" triggers or signals, respectively.

#### A.2 STR function Installation

Please use the following steps to complete the STR function installation.

##### Step-By-Step Setup

##### Step 1:

To utilize the STR function, the system must be in Windows 98 ACPI mode.

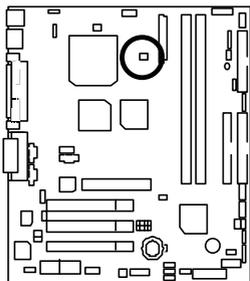
Putting Windows 98 into ACPI mode is fairly easy.

##### Setup with Windows 98 CD:

- A. Insert the Windows 98 CD into your CD-ROM drive, select Start, and then Run.
- B. Type (without quotes) "**D:\setup /p j**" in the window provided. Hit the enter key or click OK.
  - In Windows 98 second edition version, all the bios version dated 12/01/99 or later are ACPI compatible. Just type "D:\Setup", the operating system will be installed as ACPI mode.▫
- C. After setup completes, remove the CD, and reboot your system  
(This manual assumes that your CD-ROM device drive letter is D:).

**Step 2:**

(If you want to use STR Function, please set jumper JP18 (Closed.)



Pin No.	Definition
Open	STR Disable (Default)
Close	STR Enable

**Step 3:**

Power on the computer and as soon as memory counting starts, press <Del>. You will enter BIOS Setup. Select the item **"POWER MANAGEMENT SETUP"**, then select **"ACPI Sleep Type: S3 /STR"**. Remember to save the settings by pressing "ESC" and choose the **"SAVE & EXIT SETUP"** option.

Congratulation! You have completed the installation and now can use the STR function.

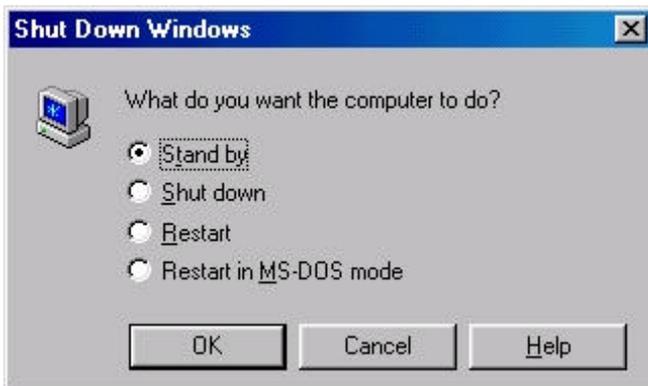
### A.3 How to put your system into STR mode?

There are two ways to accomplish this:

1. Choose the "Stand by" item in the "Shut Down Windows" area.
  - A. Press the "Start" button and then select "Shut Down"



- B. Choose the "Stand by" item and press "OK"

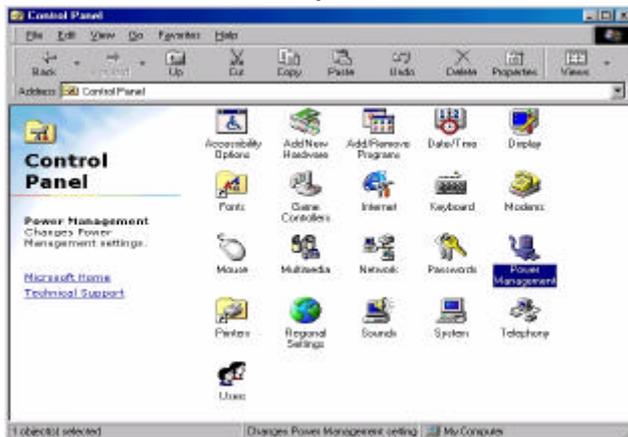


2. Define the system "power on" button to initiate STR sleep mode:

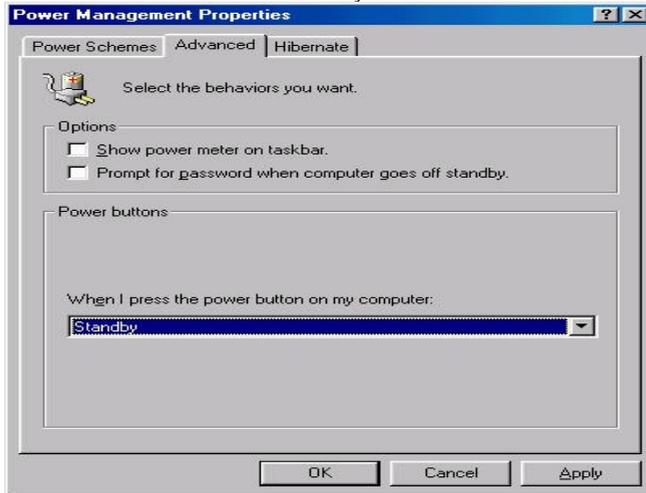
A. Double click "My Computer" and then "Control Panel"



B. Double click the " Power Management" item.



C. Select the "Advanced" tab and "Standby" mode in Power Buttons.



**Step 4:**

Restart your computer to complete setup.

Now when you want to enter STR sleep mode, just momentarily press the "Power on" button..

**A.4 How to recover from the STR sleep mode?**

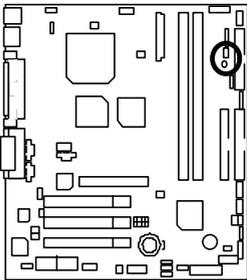
There are seven ways to "wake up" the system:

1. Press the "Power On" button.
2. Use the "PS/2 Keyboard Power On" function.
3. Use the "PS/2 Mouse Power On" function.
4. Use the "Resume by Alarm" function.
5. Use the "Modem Ring On" function.
6. Use the "Wake On LAN" function.
7. Use the "USB Device Wake Up" function.



**A.5 Notices :**

1. In order for STR to function properly, several hardware and software requirements must be satisfied:
  - A. Your ATX power supply must comply with the ATX 2.01 specification (provide more than 720 mA 5V Stand-By current).
  - B. Your SDRAM must be PC-100 compliant.
  
2. Jumper JP15 is provided to connect to the STR LED in your system chassis. [Your chassis may not provide this feature.] The STR LED will be illuminated when your system is in STR sleep mode.



**STR LED Connector External.**



**DIMM LED**



## Memory Installation

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 Slot .The DIMM module can only fit in one direction due to the two notch. Memory size can vary between sockets.

Install memory in any combination table:

DIMM	168-pin SDRAM DIMM Modules	
DIMM1	Supports 16 / 32 / 64 / 128 / 256 MB	X 1 pcs
DIMM2	Supports 16 / 32 / 64 / 128 / 256 MB	X 1 pcs

 Page index for BIOS Setup	Page
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Standard CMOS Setup	P.48
BIOS Features Setup	P.51
Chipset Features Setup	P.53
Power Management Setup	P.55
PNP/ PCI Configuration	P.59
Load BIOS Defaults	P.61
Load Setup Defaults	P.62
Integrated Peripherals	P.63
Hardware Monitor Setup	P.67
Supervisor / User Password	P.69
IDE HDD Auto Detection	P.70
Save & Exit Setup	P.71
Exit Without Saving	P.72





## 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

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" button on the system case. You may also restart by simultaneously press <Ctrl> – <Alt>– <Del> keys.

### CONTROL KEYS

<↑>	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>	Reserved
<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

## GETTING HELP

### 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

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

AMIBIOS SIMPLE SETUP UTILITY – VERSION 1.21 (C) 1999 American Megatrends, Inc. All Rights Reserved	
STANDARD CMOS SETUP	INTEGRATED PERIPHERALS
BIOS FEATURES SETUP	HARDWARE MONITOR SETUP
CHIPSET FEATURES SETUP	SUPERVISOR PASSWORD
POWER MANAGEMENT SETUP	USER PASSWORD
PNP / PCI CONFIGURATION	IDE HDD AUTO DETECTION
LOAD BIOS DEFAULTS	SAVE & EXIT SETUP
LOAD SETUP DEFAULTS	EXIT WITHOUT SAVING
ESC: Quit    ↑↓→← : Select Item    (Shift)F2 : Change Color    F5: Old Values F6: Load BIOS Defaults    F7: Load Setup Defaults    F10: Save & Exit	
Time, Date , Hard Disk Type...	

Figure 1: Main Menu

- **Standard CMOS Setup**

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

- **BIOS Features Setup**

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

- **Chipset Features Setup**

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

- **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.

- **Load BIOS Defaults**

BIOS Defaults indicates the value of the system parameters which the system would be in safe configuration.

- **Load Setup Defaults**

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

- **Integrated Peripherals**

This setup page includes all onboard peripherals.

- **Hardware Monitor Setup**

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

- **Supervisor password**

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

- **User password**

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

- **IDE HDD auto detection**

Automatically configure hard disk parameters.

- **Save & Exit Setup**

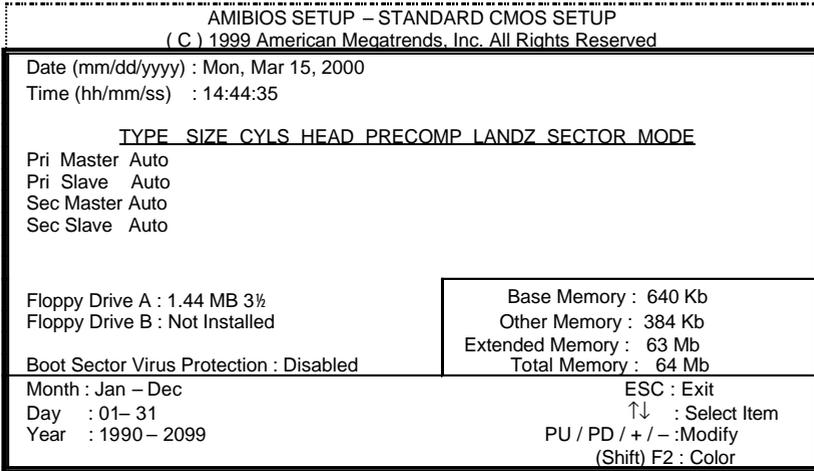
Save CMOS value settings to CMOS and exit setup.

- **Exit Without Saving**

Abandon all CMOS value changes and exit setup.

## Standard CMOS Setup

The items in Standard CMOS Setup Menu (Figure 2) are divided into 10 categories. Each category includes no, one or more than one setup items. Use the arrows to highlight the item and



then use the <PgUp> or <PgDn> keys to select the value you want in each item.

Figure 2: Standard CMOS Setup

- 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 1980 through 2099

- 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 user definable type. User 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 from 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 type / 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 in.	5.25 inch PC-type standard drive; 360K byte capacity.
1.2M, 5.25 in.	5.25 inch AT -type high-density drive; 1.2M byte capacity (3.5 inch when 3 Mode is Enabled).
720K, 3.5 in.	3.5 inch double-sided drive; 720K byte capacity
1.44M, 3.5 in.	3.5 inch double-sided drive; 1.44M byte capacity.
2.88M, 3.5 in.	3.5 inch double-sided drive; 2.88M byte capacity.

- **Boot Sector Virus Protection**

If it is set to enable, the category will flash on the screen when there is any attempt to write to the boot sector or partition table of the hard disk drive. The system will halt and the following error message will appear in the mean time. You can run anti-virus program to locate the problem.

Enabled	Activate automatically when the system boots up causing a warning message to appear when anything attempts to access the boot sector or hard disk partition table
Disabled	No warning message to appear when anything attempts to access the boot sector or hard disk partition table <b>(Default Value)</b>

- **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.

**Other Memory**

This refers to the memory located in the 640 K to 1024 K address space. This is memory that can be used for different applications.

DOS uses this area to load device drivers to keep as much base memory free for application programs. Most use for this area is Shadow RAM.

**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.

## BIOS Features Setup

AMIBIOS SETUP – BIOS FEATURES SETUP	
( C ) 1999 American Megatrends, Inc. All Rights Reserved	
1 <sup>st</sup> Boot Device	Floppy
2 <sup>nd</sup> Boot Device	IDE-0
3 <sup>rd</sup> Boot Device	CDROM
S.M.A.R.T. for Hard Disks	Disabled
BootUp Num-Lock	On
Floppy Drive Seek	Disabled
Password Check	Setup
Processor Serial Number	Enabled
BIOS Write Protect	Disabled
ESC: Quit                      ↑↓→←: Select Item F1 : Help                      PU/PD+/-/ : Modify F5 :Old Values (Shift)F2:Color F6 : Load BIOS Defaults F7 : Load Setup Defaults	

Figure 3: BIOS Features Setup

- **1st / 2nd / 3rd Boot Device**

Floppy	Boot Device by Floppy.
LS/ZIP A:	Boot Device by LS/ZIP A:.
CDROM	Boot Device by CDROM.
SCSI	Boot Device by SCSI.
NETWORK	Boot Device by NETWORK.
IDE-0~IDE-3	Boot Device by IDE-0~IDE-3.
Disabled	Boot Device by Disabled.
ATAPI ZIP C:	Boot Device by ATAPI ZIP C:.

- **S.M.A.R.T. for Hard Disks**

Enable	Enable S.M.A.R.T. Hard for Disks.
Disable	Disable S.M.A.R.T. Hard for Disks. <b>(Default Value)</b>

- **Boot Up Num-Lock**

On	Keypad is number keys. <b>(Default Value)</b> .
Off	Keypad is arrow keys.

- **Floppy Drive Seek**

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

Enabled	BIOS searches for floppy disk drive to determine if it is 40 or 80 tracks. Note that BIOS can not tell from 720, 1.2 or 1.44 drive type as they are all 80 tracks.
Disabled	BIOS will not search for the type of floppy disk drive by track number. Note that there will not be any warning message if the drive installed is 360. <b>(Default Value)</b>

- **Password Check**

Setup	Set Password Check to Setup. <b>(Default Value)</b>
Always	Set Password Check to Always.

- **Processor Serial Number**

Disabled	Disabled Processor Serial Number.
Enabled	Enabled Processor Serial Number. <b>(Default Value)</b>

- **BIOS Write Protect**

Enabled	Enabled BIOS Write Protect.
Disabled	Disabled BIOS Write Protect. <b>(Default Value)</b>

## Chipset Features Setup

AMIBIOS SETUP – CHIPSET FEATURES SETUP	
( C ) 1999 American Megatrends, Inc. All Rights Reserved	
SDRAM CAS Latency	Auto
Memory Buffer Strength	Auto
ICH Delayed Transaction	Enabled
ICH DCB Enable	Disabled
Graphics Aperture Size	64 MB
CPU Ratio Selection	3.0x
USB Controller	Enabled
USB Legacy Support	Disabled
ESC: Quit                    ↑↓→←: Select Item F1 : Help                    PU/PD+/-/: Modify F5 :Old Values (Shift)F2:Color F6 : Load BIOS Defaults F7 : Load Setup Defaults	

Figure 4: Chipset Features Setup

- **SDRAM CAS Latency**

Auto	Set SDRAM CAS Latency is Auto.(Default Value)
3 SCLKS	Set SDRAM CAS Latency is 3SCLKS.
2 SCLKS	Set SDRAM CAS Latency is 2SCLKS.

- **Memory Buffer Strength**

Auto	Set Memory Buffer Strength is Auto. (Default Value)
X1	Set Memory Buffer Strength is X1.
X2	Set Memory Buffer Strength is X2.

- **ICH Delayed Transaction**

Disabled	Disabled ICH Delayed Transaction.
Enabled	Enabled ICH Delayed Transaction .(Default Value)

- **ICH DCB Enable**

Disabled	Disable ICH DCB. (Default Value)
Enabled	Enable ICH DCB.

- **Graphics Aperture Size**

64 MB	Display Graphics Aperture Size is 64MB. <b>(Default Value)</b>
32 MB	Display Graphics Aperture Size is 32MB.
16 MB	Display Graphics Aperture Size is 16MB.
4 MB	Display Graphics Aperture Size is 4MB.
8 MB	Display Graphics Aperture Size is 8MB.
128 MB	Display Graphics Aperture Size is 128MB.
256 MB	Display Graphics Aperture Size is 256MB.

- **CPU Ratio Selection**

2.0x(Safe)/2.5x/3.0x/3.5x/4.0x/4.5x/5.0x/5.5x/6.0x/6.5x/7.0x/7.5x/8.0x
--

- **USB Controller**

Disabled	Disable USB Controller.
Enabled	Enable USB Controller. <b>(Default Value)</b>

- **USB Legacy Support**

USB Legacy Support can be set when USB Function is Enable.

Disabled	Disable USB Legacy Support. <b>(Default Value)</b>
Keyb+ Mouse	USB Keyboard and Mouse Support.
Keyboard	USB Keyboard Support.

## Power Management Setup

AMIBIOS SETUP – POWER MANAGEMENT SETUP ( C ) 1999 American Megatrends, Inc. All Rights Reserved			
ACPI Sleep Type	S1/POS	RTC Alarm Date	Every Day
USB KB/MS Wakeup From S3	Disabled	RTC Alarm Hour	00
HDD Power Down	Disabled	RTC Alarm Minute	00
Suspend Mode	Disabled	RTC Alarm Second	00
K/B & PS/2 Mouse Access	Monitor		
FDC/LPT/COM Ports Access	Monitor		
Pri. Master IDE Access	Monitor		
Pri. Slave IDE Access	Ignore		
Sec. Master IDE Access	Monitor		
Sec. Slave IDE Access	Ignore		
PIRQ[A] IRQ Active	Ignore		
PIRQ[B] IRQ Active	Ignore		
PIRQ[C] IRQ Active	Ignore		
PIRQ[D] IRQ Active	Ignore		
Soft-off by Power Button	Instant Off		
System After AC Back	Soft-Off	ESC: Quit	↑↓→←: Select Item
Modem Use IRQ	4	F1 : Help	PU/PD+/-/ : Modify
Modem Ring On/Wake On Lan	Enabled	F5 :Old Values	(Shift)F2:Color
PME Event Wake Up	Enabled	F6 : Load BIOS Defaults	
Resume by Alarm	Disabled	F7 : Load Setup Defaults	

Figure 5: Power Management Setup

- **ACPI Sleep Type**

S1/POS	Set ACPI Sleep type is S1. <b>(Default Value)</b>
S3/STR	Set ACPI Sleep type is S3.

- **USB KB/MS Wakeup From S3**

USB KB/MS Wakeup From S3 can be set when ACPI Sleep Type set to S3/STR.

Enabled	Enable USB KB/MS Wakeup From S3.
Disabled	Disable USB KB/MS Wakeup From S3. <b>(Default Value)</b>

- **HDD Power Down**

Disabled	Disabled Hard Disk Power Down Mode Function. <b>(Default Value)</b>
Suspend	Set Hard Disk Power Down Mode to Suspend.
Stand By	Set Hard Disk Power Down Mode to Stand By.

- **Suspend Mode**

Disabled	Disabled Suspend Time Out Function. <b>(Default Value)</b>
1	Enabled Suspend Time Out after 1min.
2	Enabled Suspend Time Out after 2min.
4	Enabled Suspend Time Out after 4min.
8	Enabled Suspend Time Out after 8min.
10	Enabled Suspend Time Out after 10min.
20	Enabled Suspend Time Out after 20min.
30	Enabled Suspend Time Out after 30min.
40	Enabled Suspend Time Out after 40min.
50	Enabled Suspend Time Out after 50min.
60	Enabled Suspend Time Out after 60min.

- **K/B & PS/2 Mouse Access**

Monitor	Monitor Keyboard & PS/2 Mouse Access. <b>(Default Value)</b>
Ignore	Ignore Keyboard & PS/2 Mouse Access.

- **FDC/LPT/COM Port Access**

Monitor	Monitor FDC/LPT/COM Port Access. <b>(Default Value)</b>
Ignore	Ignore FDC/LPT/COM Port Access.

- **Primary Master IDE Access**

Monitor	Monitor Primary Master IDE Access. <b>(Default Value)</b>
Ignore	Ignore Primary Master IDE Access.

- **Primary slave IDE Access**

Monitor	Monitor Primary slave IDE Access.
Ignore	Ignore Primary slave IDE Access. <b>(Default Value)</b>

- **Secondary Master IDE Access**

Monitor	Monitor Secondary Master IDE Access. <b>(Default Value)</b>
Ignore	Ignore Secondary Master IDE Access.

- **Secondary slave IDE Access**

Monitor	Monitor Secondary slave IDE Access.
---------	-------------------------------------

6CMC7/ 6CMC7R Motherboard

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Ignore	Ignore Secondary slave IDE Access. <b>(Default Value)</b>
--------	---

- **PIRQ[A] IRQ Active**

Monitor	Monitor PIRQ[A] IRQ Active.
Ignore	Ignore PIRQ[A] IRQ Active. <b>(Default Value)</b>

- **PIRQ[B] IRQ Active**

Monitor	Monitor PIRQ[B] IRQ Active.
Ignore	Ignore PIRQ[B] IRQ Active. <b>(Default Value)</b>

- **PIRQ[C] IRQ Active**

Monitor	Monitor PIRQ[C] IRQ Active.
Ignore	Ignore PIRQ[C] IRQ Active. <b>(Default Value)</b>

- **PIRQ[D] IRQ Active**

Monitor	Monitor PIRQ[D] IRQ Active.
Ignore	Ignore PIRQ[D] IRQ Active. <b>(Default Value)</b>

- **Soft-off by Power Button**

Instant-off	Soft switch ON/OFF for POWER ON/OFF. <b>(Default Value)</b>
Delay 4 Sec.	Soft switch ON 4sec. for POWER OFF.

- **System After AC Back**

Memory	This function depends on computer status.
Soft-Off	Set System Soft-Off Status. <b>( Default value )</b>
Full-On	Set System Full-On Status.

- **Modem USE IRQ**

3, 4, <b>(Default Value)</b> 5, 7, N/A
--

- **Modem Ring On / Wake On Lan**

Disabled	Disabled Modem Ring On / Wake On Lan.
Enabled	Enabled Modem Ring On / Wake On Lan. <b>(Default Value)</b>

- **PME Event Wake Up**

Disabled	Disable PME Event Wake Up.
Enabled	Enabled PME Event Wake Up. <b>(Default Value)</b>

- **Resume by Alarm**

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

Disabled	Disable this function. <b>(Default Value)</b>
Enabled	Enable alarm function to POWER ON system.

If RTC Alarm Lead To Power On is Enabled

Alarm Date :	Every Day,1~31
Alarm Hour:	0~23
Alarm Minute :	0~59
Alarm Second :	0~59

## PNP/PCI Configuration

AMIBIOS SETUP – PNP / PCI CONFIGURATION	
( C ) 1999 American Mecatrends, Inc. All Rights Reserved	
PNP OS Installed	No
Reset Configuration Data	Disabled
VGA Boot From	AGP
PCI VGA Palette Snoop	Disabled
DMA-0	PnP
DMA-1	PnP
DMA-3	PnP
DMA-5	PnP
DMA-6	PnP
DMA-7	PnP
IRQ-3	PCI/PnP
IRQ-4	PCI/PnP
IRQ-5	PCI/PnP
IRQ-7	PCI/PnP
IRQ-9	PCI/PnP
IRQ-10	PCI/PnP
IRQ-11	PCI/PnP
ESC: Quit                    ↑↓ → ←: Select Item F1 : Help                    PU/PD+/-/ : Modify F5 :Old Values            (Shift)F2:Color F6 : Load BIOS Defaults F7 : Load Setup Defaults	

Figure 6: PNP/PCI Configuration

- PNP OS Installed**

Yes	Enable PNP OS Installed function.
No	Disable PNP OS Installed function. ( <b>Default value</b> )

- Reset Configuration Data**

Disabled	Disable this function. ( <b>Default value</b> )
Enabled	Clear PnP information in ESCD & update DMI data.

- VGA Boot From**

AGP	Primary Graphics Adapter From AGP. ( <b>Default Value</b> )
PCI	Primary Graphics Adapter From PCI.

- PCI/VGA Palette Snoop**

Enabled	For having Video Card on ISA Bus and VGA Card on PCI Bus.
Disabled	For VGA Card only. ( <b>Default Value</b> )

- **DMA -( 0,1,3,5,6,7 )**

ISA/ EISA	The resource is used by Legacy ISA device.
PnP	The resource is used by PnP device.

- **IRQ -( 3,4,5,7,9, 10,11), assigned to ( "ISA / EISA" or "PCI/PnP" )**

ISA/ EISA	The resource is used by Legacy ISA device.
PCI/PnP	The resource is used by PCI/ PnP device.

## Load BIOS Defaults

AMIBIOS SIMPLE SETUP UTILITY-VERSION 1.21 ( C ) 1999 American Megatrends, Inc. All Rights Reserved	
STANDARD CMOS SETUP	INTEGRATED PERIPHERALS
BIOS FEATURES SETUP	HARDWARE MONITOR SETUP
CHIPSET FEATURES SETUP	SUPERVISOR PASSWORD
POWER MANAGEMENT SETUP	USER PASSWORD
PNP/PCI CONFIGURATION	IDE HDD AUTO DETECTION
LOAD BIOS DEFAULTS	Load BIOS Defaults (Y/N)?
LOAD SETUP DEFAULTS	EXIT WITHOUT SAVING
ESC : Quit    ↑↓→← : Select Item    (Shift) F2 : Change Color    F5 : Old Values F6 : Load BIOS Defaults    F7: Load Setup Defaults    F10: Save & Exit	
Load BIOS Defaults except Standard CMOS SETUP	

Figure 7: Load BIOS Defaults

- **LOAD BIOS DEFAULTS**

To load BIOS defaults value to CMOS , enter "Y". If not, enter "N".

## Load Setup Defaults

AMIBIOS SIMPLE SETUP UTILITY-VERSION 1.21 ( C ) 1999 American Megatrends, Inc. All Rights Reserved	
STANDARD CMOS SETUP	INTEGRATED PERIPHERALS
BIOS FEATURES SETUP	HARDWARE MONITOR SETUP
CHIPSET FEATURES SETUP	SUPERVISOR PASSWORD
POWER MANAGEMENT SETUP	USER PASSWORD
PNP/PCI CONFIGURATION	
LOAD BIOS DEFAULTS	LOAD SETUP DEFAULTS
Load Setup Defaults (Y/N)?	
LOAD SETUP DEFAULTS	EXIT WITHOUT SAVING
ESC : Quit    ↑↓→← : Select Item    (Shift) F2 : Change Color    F5 : Old Values F6 : Load BIOS Defaults    F7 : Load Setup Defaults    F10: Save & Exit	
Load Setup Defaults except Standard CMOS SETUP	

Figure 8: Load SETUP Defaults

- **LOAD SETUP DEFAULTS**

To load SETUP defaults value to CMOS , enter "Y". If not, enter "N".

## Integrated Peripherals

AMIBIOS SETUP – INTEGRATED PERIPHERALS	
( C ) 1999 American Megatrends, Inc. All Rights Reserved	
On-Chip PCI IDE	Both
AC97 Audio	Auto
AC97 Modem	Auto
OnBoard FDC Controller	Enabled
OnBoard Serial Port A	Auto
OnBoard Serial Port B	Auto
Serial Port B Mode	Normal
IR Duplex Mode	N/A
OnBoard Parallel Port	Auto
Parallel Port Mode	ECP
Parallel Port IRQ	Auto
Parallel Port DMA	Auto
OnBoard Midi Port	330
Midi IRQ Select	10
OnBoard Game Port	201
Keyboard PowerOn Function	Disabled
Specific Key for PowerOn	N/A
Mouse Power-on function	Disabled

ESC: Quit	↑↓→←: Select Item
F1 : Help	PU/PD+/-/: Modify
F5 :Old Values	(Shift)F2:Color
F6 : Load BIOS Defaults	
F7 : Load Setup Defaults	

Figure 9: Integrated Peripherals

- **On-Chip PCI IDE**

Disabled	Disabled On-Chip PCI IDE.
Both	Set On-Chip PCI IDE is Both. <b>(Default Value)</b>
Primary	Set On-Chip PCI IDE is Primary.
Secondary	Set On-Chip PCI IDE is Secondary.

- **AC97 Audio**

Auto	Enabled On Board AC97 Audio. <b>(Default Value)</b>
Disabled	Disabled On Board AC97 Audio.

- **AC97 Modem**

Auto	Enabled On Board AC97 Modem.
Disabled	Disabled On Board AC97 Modem. <b>(Default Value)</b>

- **OnBoard FDC Controller**

Auto	Set OnBoard FDC Controller is Auto.
Disabled	Disabled OnBoard FDC Controller.
Enabled	Enabled OnBoard FDC Controller. <b>(Default Value)</b>

- **On Board Serial Port A**

Auto	BIOS will automatically setup the port A address. <b>(Default Value)</b>
3F8/COM1	Enable on Board Serial port A and address is 3F8.
2F8/COM2	Enable on Board Serial port A and address is 2F8.
3E8/COM3	Enable on Board Serial port A and address is 3E8.
2E8/COM4	Enable on Board Serial port A and address is 2E8.
Disabled	Disable on Board Serial port A.

- **On Board Serial Port B**

Auto	BIOS will automatically setup the port B address. <b>(Default Value)</b>
3F8/COM1	Enable on Board Serial port B and address is 3F8.
2F8/COM2	Enable on Board Serial port B and address is 2F8.
3E8/COM3	Enable on Board Serial port B and address is 3E8.
2E8/COM4	Enable on Board Serial port B and address is 2E8.
Disabled	Disable on Board Serial port B.

- **Serial Port B Mode**

Normal	Normal operation. <b>(Default Value)</b>
IrDA	Onboard I/O chip supports IrDA.
ASKIR	Onboard I/O chip supports ASKIR.

- **IR Duplex Mode**

Half Duplex	IR Function Duplex Half. <b>(Default Value)</b>
Full Duplex	IR Function Duplex Full.

- **On Board Parallel port**

378	Enable On Board LPT port and address is 378.
278	Enable On Board LPT port and address is 278.
3BC	Enable On Board LPT port and address is 3BC.
Auto	Set On Board LPT port is Auto. <b>(Default Value)</b>

---

Disabled	Disable On Board LPT port.
----------	----------------------------

- **Parallel Port Mode**

EPP	Using Parallel port as Enhanced Parallel Port.
ECP	Using Parallel port as Extended Capabilities Port. <b>(Default Value)</b>
Normal	Normal Operation.

- **Parallel Port IRQ**

7	Set Parallel Port IRQ is 7.
5	Set Parallel Port IRQ is 5.
Auto	Set Parallel Port IRQ is Auto. <b>(Default Value)</b>

- **Parallel Port DMA**

3	Set Parallel Port DMA is 3.
1	Set Parallel Port DMA is 1.
Auto	Set Parallel Port DMA is Auto. <b>(Default Value)</b>

- **On Board Midi Port**

Disabled	Disabled On Board Midi Port.
300	Set On Board Midi Port is 300.
330	Set On Board Midi Port is 330. <b>(Default Value)</b>

- **Midi IRQ Select**

IRQ 9 / 5 / 7 / 10 <b>(Default Value)</b>
---

- **On Board Game Port**

Disabled	Disabled On Board game port.
201	Set onboard game port is 201. <b>(Default Value)</b>
209	Set onboard game port is 209.

- **Keyboard PowerOn Function**

Password	Enter from 1 to 5 characters to set the Keyboard Power On Password.
Power Key	If your keyboard have "POWER Key" button, you can press the key to power on your system.
Disabled	Disabled Keyboard Power On Function. <b>(Default Value)</b>



- **Specific Key for Power On**

N/A	Disable this function. <b>(Default Value)</b>
Password	Enter from 1 to 5 characters to set the Keyboard Power On Password .

- **Mouse Power-on function**

Disabled	Disabled Mouse Power on . <b>(Default Value)</b>
Enabled	Enabled Mouse Power on .

## Hardware Monitor Setup

AMIBIOS SETUP – HARDWARE MONITOR SETUP			
( C ) 1999 American Megatrends, Inc. All Rights Reserved			
ACPI Shut Down Temp.	75°C/167°F	+5V SB	+4.945 V
CPU Temp. Alarm	70°C/158°F		
CPU Fan Fail Alarm	No		
Power Fan Fail Alarm	No		
System Fan Fail Alarm	No		
Reset Case Open Status	No		
Case Status	Closed		
Current CPU Temp.	65°C/ 149°F		
Current System Temp.	35°C/ 95°F		
Current CPU Fan Speed	5273 RPM		
Current System Fan Speed	0 RPM		
Current Power Fan Speed	0 RPM		
CPU VID	1.65 V		
Vcore	+1.680 V		
Vtt	+1.488 V		
Vio	+3.312 V	ESC: Quit	↑↓→←: Select Item
+5.000V	+5.030 V	F1 : Help	PU/PD+/-: Modify
+12.000V	+12.288 V	F5 :Old Values	(Shift)F2:Color
-12.000V	-11.579 V	F6 : Load BIOS Defaults	
Battery	+3.056 V	F7 : Load Setup Defaults	

Figure 10: Hardware Monitor Setup

- **ACPI Shutdown Temp.**

(This function will be effective only for the operating systems that support ACPI Function.)

Disabled	Normal Operation.
60°C / 140°F	Monitor CPU Temp. at 60°C / 140°F, if Temp. > 60°C / 140°F system will automatically power off .
65°C / 149°F	Monitor CPU Temp. at 65°C / 149°F, if Temp. > 65°C / 149°F system will automatically power off .
70°C / 158°F	Monitor CPU Temp. at 70°C / 158°F, if Temp. > 70°C / 158°F system will automatically power off .
75°C / 167°F	Monitor CPU Temp. at 75°C / 167°F, if Temp. > 75°C / 167°F system will automatically power off. <b>(Default Value)</b>

- **CPU Temp. Alarm**

65°C / 149°F	Monitor CPU Temp. at 65°C / 149°F.
70°C / 158°F	Monitor CPU Temp. at 70°C / 158°F. <b>(Default Value)</b>
75°C / 167°F	Monitor CPU Temp. at 75°C / 167°F.
Disabled	Disabled this function.

- **Fan Fail Alarm**

CPU / Power / System

No	Fan Fail Alarm Function Disabled. <b>(Default Value)</b>
Yes	Fan Fail Alarm Function Enabled.

- **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 "Yes" and save CMOS, your computer will restart.

- **Current CPU Temp.**

Detect CPU Temp. automatically.

- **Current System Temp.**

Detect System Temp. automatically.

- **CPU FAN / Power FAN / System FAN Speed (RPM)**

Detect Fan speed status automatically.

- **Current CPU VID / VCORE / Vtt / Vio /  $\pm 12V$  / +5V / Battery / +5VSB**

Detect system' s voltage status automatically.



## 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.

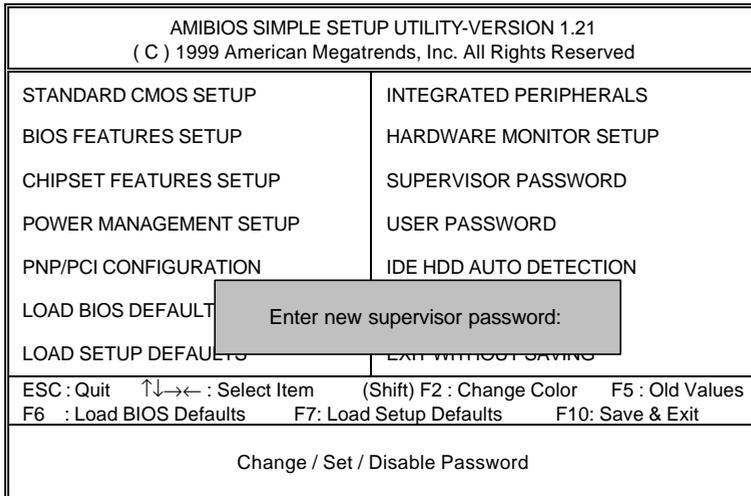


Figure 11: Password Setting

Type the password, up to eight characters, and press <Enter>. The password typed now will clear the previously entered password from CMOS memory. You will be asked to confirm the password. Type the password again and press <Enter>.

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.

If you select Always at Security Option in BIOS Features Setup 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 BIOS Features Setup Menu, you will be prompted only when you try to enter Setup.

## IDE HDD AUTO Detection

AMIBIOS SETUP – STANDARD CMOS SETUP ( C ) 1999 American Megatrends, Inc. All Rights Reserved	
Date (mm/dd/yyyy) : Fri Mar. 25, 2000 Time (hh/mm/ss) : 10:36:24 TYPE SIZE CYLS HEAD PRECOMP LANDZ SECTOR MODE	
Pri Master : Auto Pri Slave : Auto Sec Master: Auto Sec Slave : Auto	
Floppy Drive A: 1.44 MB 3 ½ Floppy Driver B: Not Installed	Base Memory : 640 kb Other Memory: 384 kb Extended Memory: 31mb Total Memory: 32mb
Boot Sector Virus Protection : Disabled	
Month: Jan – Dec Day: 01 – 31 Year : 1990 – 2099	ESC : Exit ↑↓ : Select Item PU/PD/+/- : Modify (Shift)F2 : Color

Figure 12: IDE HDD Auto Detection

Type "Y" will accept the H.D.D. parameter reported by BIOS.

Type "N" will keep the old H.D.D. parameter setup. If the hard disk cylinder number is over 1024, then the user can select LBA mode or LARGER mode for DOS partition larger than 528 MB.

## Save & Exit Setup

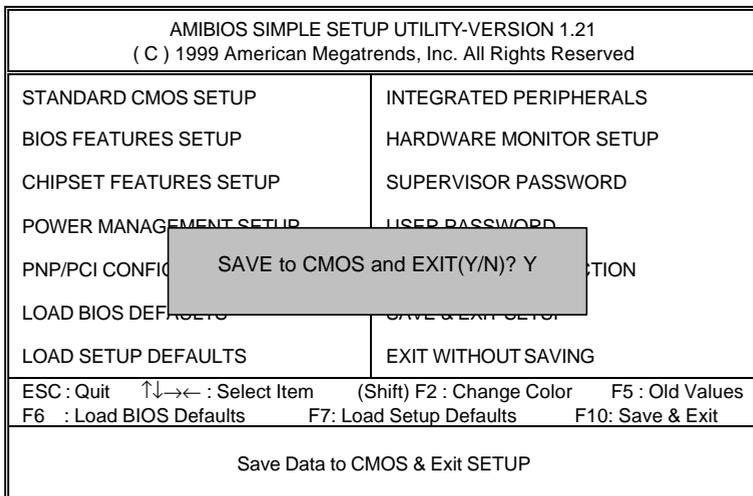


Figure 13: Save & Exit Setup

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

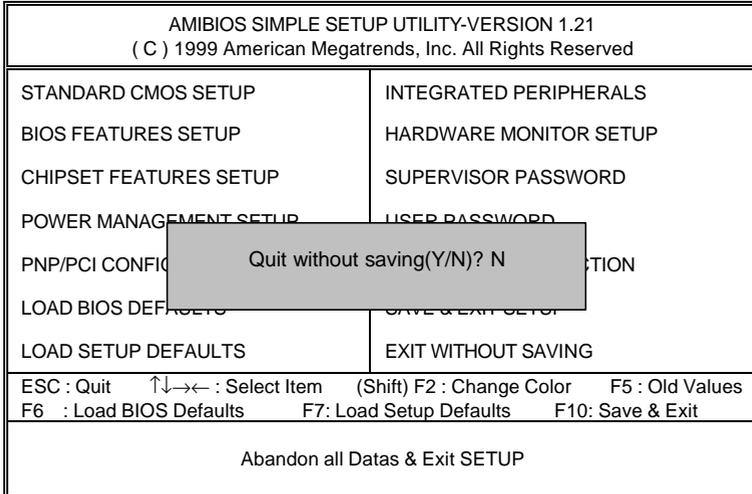


Figure 14: Exit Without Saving

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

Type "N" will return to Setup Utility.

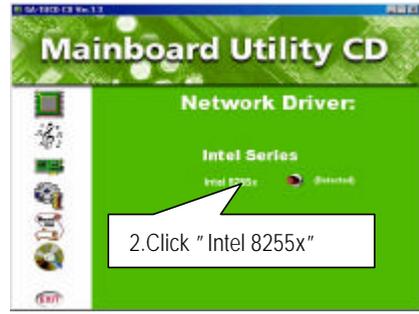
# Appendix

## Appendix A: Intel 825x Network Driver Installation

Insert the support CD that came with your motherboard into your CD-ROM drive or double-click the CD drive icon in **My Computer** to bring up the setup screen.



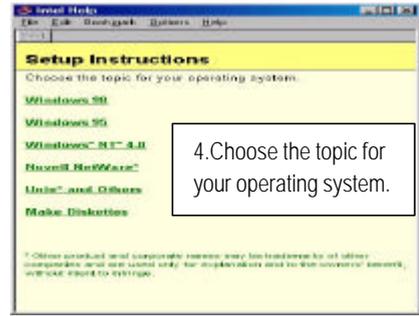
(1)



(2)



(3)



(4)

## Appendix B : BIOS Flash Procedure

BIOS update procedure:

- ✓ Please check your BIOS vendor (AMI or AWARD) on the motherboard.
- ✓ It is recommended you copy the AWDFlash.exe or AMIFlash.exe in driver CD (D:\>Utility\BIOSFlash) and the BIOS binary files into the directory you made in your hard disk.  
【 i.e:C:\>Utility\ (C:\>Utility : denotes the driver and the directory where you put the flash utilities and BIOS file in.) 】
- ✓ Restart your computer into MS-DOS mode or command prompt only for Win95/98, go into the directory where the new BIOS file are located use the utility AWDFlash.exe or AMIFlash.exe to update the BIOS.
- ✓ Type the following command once you have enter the directory where all the files are located  
C:\utility\ AWDFlash or AMIFlash <filename of the BIOS binary file intended for flashing>
- ✓ Once the process is finished, reboot the system

📌 Note: Please download the newest BIOS from our website ([www.gigabyte.com.tw](http://www.gigabyte.com.tw)) or contact your local dealer for the file.

### Appendix C: Issues To Beware Of When Installing AMR

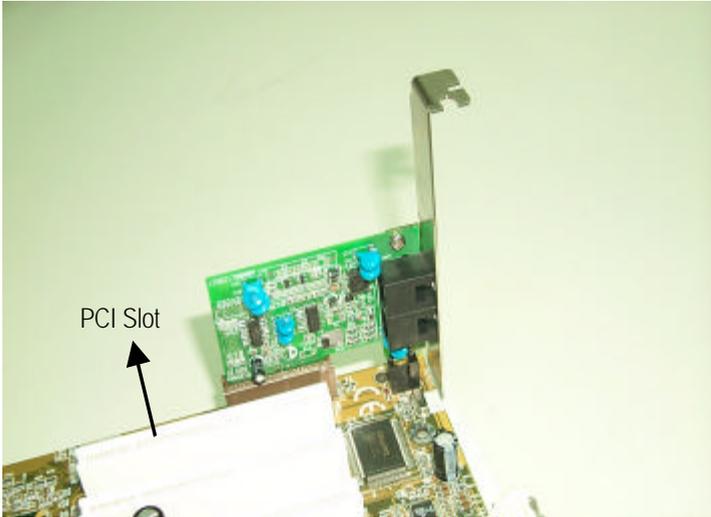


Figure A: Inverse AMR Card (Only for 6CMC7)

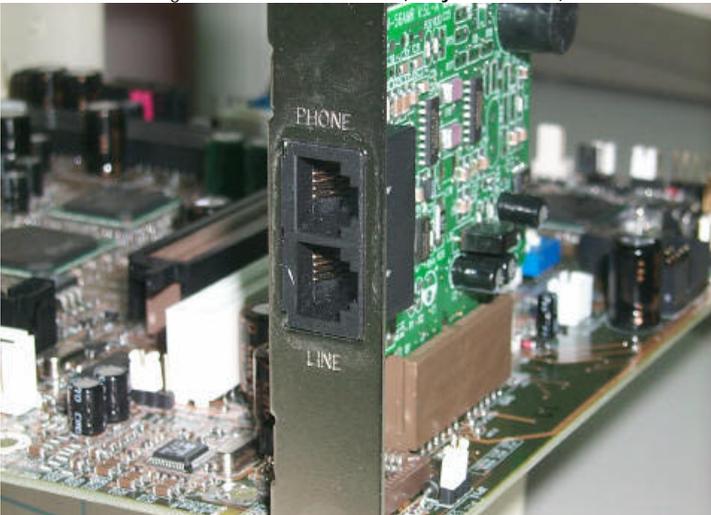


Figure B: Non inverse AMR Card (Only for 6CMC7R)

## Appendix D: Acronyms

Acor.	Meaning
ACPI	Advanced Configuration and Power Interface
POST	Power-On Self Test
LAN	Local Area Network
ECP	Extended Capabilities Port
APM	Advanced Power Management
DMA	Direct Memory Access
MHz	Megahertz
ESCD	Extended System Configuration Data
CPU	Central Processing Unit
SMP	Symmetric Multi-Processing
USB	Universal Serial Bus
OS	Operating System
ECC	Error Checking and Correcting
IDE	Integrated Dual Channel Enhanced
SCI	Special Circumstance Instructions
LBA	Logical Block Addressing
EMC	Electromagnetic Compatibility
BIOS	Basic Input / Output System
SMI	System Management Interrupt
IRQ	Interrupt Request
NIC	Network Interface Card
A.G.P.	Accelerated Graphics Port
S.E.C.C.	Single Edge Contact Cartridge
LED	Light Emitting Diode
EPP	Enhanced Parallel Port
CMOS	Complementary Metal Oxide Semiconductor
I/O	Input / Output
ESD	Electrostatic DISCHARGE
OEM	Original Equipment Manufacturer
SRAM	Static Random Access Memory
VID	Voltage ID
DMI	Desktop Management Interface
MIDI	Musical Interface Digital Interface

### 6CMC7/ 6CMC7R Motherboard

IOAPIC	Input Output Advanced Programmable Input Controller
DIMM	Dual Inline Memory Module
DRAM	Dynamic Random Access Memory
PAC	<u>P</u> <u>C</u> <u>I</u> <u>A</u> <u>G</u> <u>P</u> . <u>C</u> <u>o</u> <u>n</u> <u>t</u> <u>r</u> <u>o</u> <u>l</u> <u>l</u> <u>e</u> <u>r</u>
AMR	Audio Modem Riser

To be continued...

Acor.	Meaning
PCI	Peripheral Component Interconnect
RIMM	Rambus in-line Memory Module
DRM	Dual Retention Mechanism
ISA	Industry Standard Architecture
MTH	Memory Translator Hub
CRIMM	Continuity RIMM