

4. BIOS CONFIGURATION

AMI's BIOS ROM has a built-in Setup program that allows users to modify the basic system configuration. This type of information is stored in battery-backed CMOS SRAM so that it retains the Setup information when the power is turned off.

4.1. ENTERING SETUP

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

4.2. CONTROL KEYS

Up arrow	Move to previous item
Down arrow	Move to next item
Left arrow	Move to the item in the left hand
Right arrow	Move to the item in the right hand
Esc key	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 key	Increase the numeric value or make changes
PgDn key	Decrease the numeric value or make changes
F1 key	General help, only for Status Page Setup Menu and Option Page Setup Menu
F2 key	Change color from total 16 colors
F3 key	Reserved
F4 key	Reserved
F5 key	Restore the previous CMOS value from CMOS, only for Option Page Setup Menu
F6 key	Load the default CMOS value from BIOS default table, only for Option Page Setup Menu
F7 key	Load the default
F8 key	Reserved
F9 key	Reserved
F10 key	Save all the CMOS changes, only for Main Menu

4.3. GETTING HELP

4.3.1. Main Menu

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

4.3.2. 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>.

4.4. THE MAIN MENU

Once you enter AMI BIOS CMOS Setup Utility, the Main Menu (Figure 4.1) 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.



Figure 4.1: 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 parameter which the system would be in the safe configuration.

- Load setup defaults

Setup Defaults indicates the value of the system parameter which the system would be in the most appropriate configuration.

- Integrated peripherals

This setup page includes all onboard peripherals.

- Hardware Monitor Setup

This setup page is auto detect fan and temperature status.

- 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.

4.5. STANDARD CMOS SETUP MENU

The items in Standard CMOS Setup Menu (Figure 4.2) are divided into 9 categories. Each category includes none, 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 4.2: Standard CMOS Setup Menu

- Date

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

day	The day, from Sun to Sat, determined by the BIOS and is display-only
month	The month, Jan. through Dec.
date	The date, from 1 to 31 (or the maximum allowed in the month)
year	The year, from 1994 through 2079

- 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 HDDs / Secondary HDDs

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 form your hard disk vendor or the system manufacturer.

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

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

- Floppy Drive A / Floppy 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.

Default value is Disabled.

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

- **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.

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.

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.

4.6. BIOS FEATURES SETUP



Figure 4.3: BIOS Features Setup

- Quick Boot

The default value is Disabled.

Enabled	Enabled Quick Boot Function.
Disabled	Disabled Quick Boot Function.

- 1st / 2nd / 3rd Boot Device

The default value is Floppy or LS-120 / ZIP or ATAPI ZIP or CDROM or SCSI or NET WORK / I20 or IDE-0~IDE-3 or Disabled.

Floppy	Boot Device by Floppy.
LS-120 / ZIP	Boot Device by LS-120 / ZIP.
CDROM	Boot Device by CDROM.
SCSI	Boot Device by SCSI.
NET WORK	Boot Device by NET WORK.
IDE-0~IDE-3	Boot Device by IDE-0~IDE-3.
Disabled	Boot Device by Disabled.
ATAPI ZIP	Boot Device by ATAPI ZIP.

- Floppy Access Control

The default value is Read-Write.

Read-Write	Set Floppy Access Control : Read-Write.
Read-Only	Set Floppy Access Control : Read Only.

- Hard Disk Access Control

The default value is Read-Write.

Read-Write	Set Hard Disk Access Control : Read-Write.
Read-Only	Set Hard Disk Access Control : Read Only.

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

The default value is Disable.

Enable	Enable S.M.A.R.T. Hard Disks
Disable	Disable S.M.A.R.T. Hard Disks

- Boot Up Num-Lock

The default value is On.

On	Keypad is number keys
Off	Keypad is arrow keys

- Floppy Drive Swap

The default value is Disabled.

Enabled	Floppy A & B will be swapped under DOS
Disabled	Floppy A & B will be normal definition

- 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.

The default value is Disabled.

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.

- Primary Display

The default value is VGA / EGA

VGA / EGA	Set Primary Display to VGA / EGA.
CGA 40x25	Set Primary Display to CGA 40x25.
CGA 80x25	Set Primary Display to CGA 80x25.
Mono	Set Primary Display to Mono.
Absent	Set Primary Display to Absent.

- Password Check

The default value is Setup.

Setup	Set Password Check to Setup.
Always	Set Password Check to Always.

- Boot To OS/2 > 64MB

The default value is No.

Yes	Enabled Boot To OS/2.
No	Disabled Boot To OS/2.

- CPU MicroCode Updation

The default value is Enabled

Enabled	Enabled CPU Update Data.
Disabled	Disabled CPU Update Data.

- Internal Cache / External Cache

These two categories speed up memory access. However, it depends on CPU / chipset design. The default value is Disabled.

Enabled	Enable cache
Disabled	Disable cache

- Cache Bus ECC

The default value is Enabled.

Enabled	Enable Cache Bus ECC
Disabled	Disable Cache Bus ECC

- System BIOS Cacheable

The default value is Enabled.

Enabled	Enabled System BIOS Cacheable.
Disabled	Disabled System BIOS Cacheable.

- Video BIOS Shadow

It determines whether video BIOS is able to copy to RAM, however, it is optional from chipset design. Video Shadow will increase the video speed. The default value is Enabled.

Enabled	Video shadow is enabled
Disabled	Video shadow is disabled

- C800 16K Shadow- DC00 16K Shadow

These categories determine whether optional ROM will be copied to RAM by 16 byte. The default value are Disabled.

Enabled	Optional shadow is enabled.
Disabled	Optional shadow is disabled.
Cached	Optional shadow is cached.

4.7. CHIPSET FEATURES SETUP

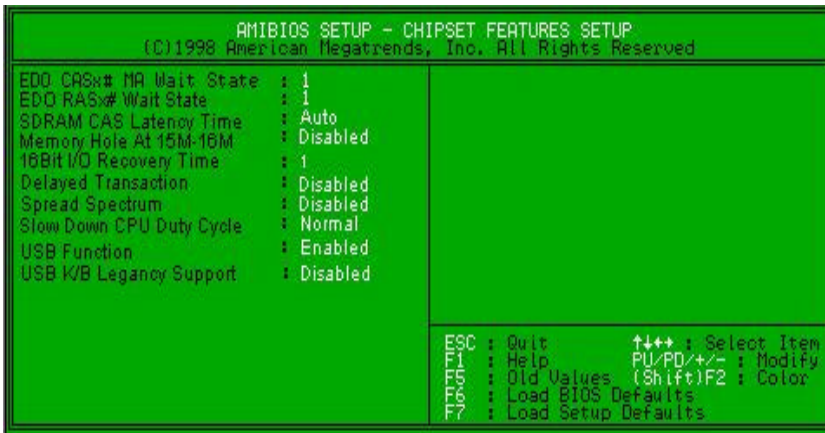


Figure 4.4: Chipset Features Setup

- EDO CASx# MA Wait State

The default value is 1

1	Set EDO CASx# MA Wait State to 1.
2	Set EDO CASx# MA Wait State to 2.

- EDO RASx# Wait State

The default value is 1

1	Set EDO RASx# Wait State to 1.
2	Set EDO RASx# Wait State to 2.

- SDRAM CAS latency Time

The default value is Auto

3	For 67 / 83 MHz SDRAM DIMM module.
2	For 100 MHz SDRAM DIMM module.
Auto	CAS latency time will be set automatically if you have SPD on SDRAM

- Memory Hole At 15M-16M

The default value is Disabled.

Disabled	Normal Setting.
Enabled	Set Address=15~16MB remap to ISA BUS.

- 16 Bit I/O Recovery Time

The default value is 1.

1-4	Set 16 Bit I/O recovery time from 1 to 4.
NA	None.

- Delayed Transaction

The default value is Disabled.

Disabled	Normal operation.
Enabled	For slow speed ISA device in system.

- Spread Spectrum

The default value is Disabled.

Disabled	Disabled this function
Enabled	Enabled Clock Spread Spectrum

- Slow Down CPU Duty Cycle (Optional)

The default value is Normal.

Normal	Normal Operation
12.5%~75.0%	Monitor CPU Temp. will cause system slow down CPU Duty Cycle to 12.5%~75.0%.

- USB Function

The default value is Enabled.

Enabled	Enabled USB Function.
Disabled	Disabled USB Function.

- USB K/B Legacy Support.

The default value is Disabled.

Enabled	Enabled USB K/B Legacy Support Function.
Disabled	Disabled USB K/B Legacy Support Function.

4.8. POWER MANAGEMENT SETUP

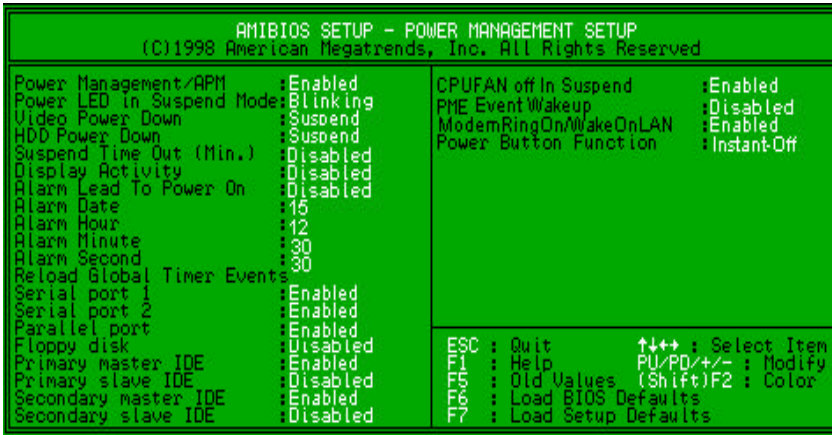


Figure 4.5: Power Management Setup

- Power Management / APM

The default value is Enabled.

Enabled	Enable Green & software APM function.
Disabled	Disable Green & software APM function.

- Power LED in Suspend Mode

The default value is Blinking.

Blinking	Set Power LED in Suspend at Blinking mode.
ON	Set Power LED in Suspend at ON mode.
Off/Dual	Set Power LED in Suspend at Off/Dual mode.

- Video Power Down

The default value is Suspend.

Disabled	Disabled Video Power Down Mode Function.
Suspend	Set Video Power Down Mode to Suspend.

- HDD Power Down

The default value is Suspend.

Disabled	Disabled Hard Disk Power Down Mode Function .
Suspend	Set Hard Disk Power Down Mode to Suspend.

- Suspend Time Out (Min.)

The default value is Disabled.

Disabled	Disabled Suspend Time Out Function .
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.

- Display Activity

The default value is Disabled.

Disabled	Disabled monitor VGA activity.
Enabled	Enabled monitor VGA activity

- Alarm Lead To Power On

The default value is Disabled.

Enabled	Enable alarm function to POWER ON system.
Disabled	Disable Alarm Lead To Power On.

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

- Serial Port1

The default value is Enabled.

Disabled	Disable this function.
Enabled	Enable monitor Serial Port for Green event.

- Serial Port2

The default value is Enabled.

Disabled	Disable this function.
Enabled	Enable monitor Serial Port for Green event.

- Parallel Port

The default value is Enabled

Disabled	Disable this function.
Enabled	Enable monitor Parallel Port for Green event.

- Floppy Disk

The default value is Disabled.

Disabled	Disable this function.
Enabled	Enable monitor Floppy Disk for Green event.

- Primary Master IDE

The default value is Enabled.

Disabled	Disable this function.
Enabled	Enable monitor Primary Master IDE for Green event.

- Primary slave IDE

The default value is Disabled.

Disabled	Disable this function.
Enabled	Enable monitor Primary slave IDE for Green event.

- Secondary Master IDE

The default value is Enabled.

Disabled	Disable this function.
Enabled	Enable monitor Secondary Master IDE for Green event.

- Secondary slave IDE

The default value is Disabled.

Disabled	Disable this function.
Enabled	Enable monitor Secondary slave IDE for Green event.

- CPUFAN Off In Suspend

The default value is Enabled.

Disabled	Disable this function.
Enabled	Stop CPU FAN when entering Suspend mode.

- PME Event Wakeup

The default value is Disabled.

Disabled	Disable this function.
Enabled	Enable PME Event Wakeup.

- ModemRingOn/WakeOnLAN

The default value is Enabled.

Disabled	Disable this function.
Enabled	Enable Modem ring on / Wake on Lan function.

- Power Button Function

The default value is On/Off.

Instant-Off	Soft switch ON/OFF for POWER ON/OFF
Delay 4 sec.	Soft switch ON 4sec. for POWER OFF.

4.9. PNP/PCI CONFIGURATION

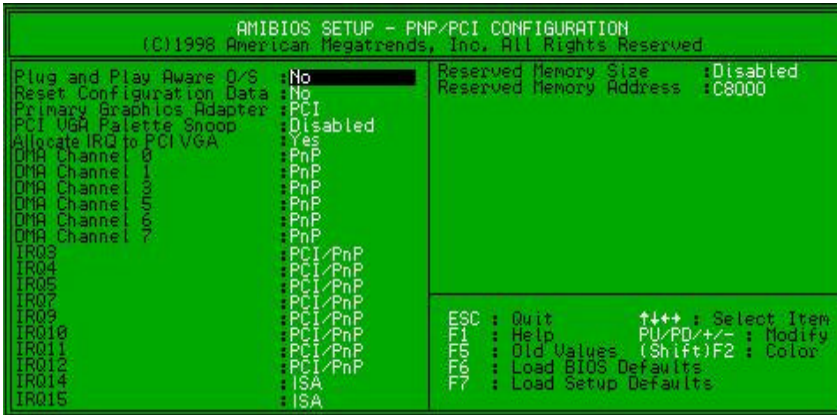


Figure 4.6: PCI Slot Configuration

- Plug and Play Aware O/S

The default value is No.

Yes	Enable Plug and Play Aware O/S function.
No	Disable Plug and Play Aware O/S function.

- Reset Configuration Data

The default value is No.

No	Disable this function.
YES	Enable clear PnP information in ESCD.

- Primary Graphics Adapter

The default value is PCI.

AGP	Primary Graphics Adapter From AGP
PCI	Primary Graphics Adapter From PCI

- PCI VGA Palette Snoop

The default value is Disabled.

Enabled	For having Video Card on ISA Bus and VGA Card on PCI Bus.
Disabled	For VGA Card only.

- Allocate IRQ to PCI VGA

The default value is Yes.

Yes	Assign IRQ For VGA
No	Not assign IRQ For VGA

- DMA Channel (0,1,3,5,6,7) , IRQ (3,4,5,7, 9,10,11,12,14,15) assigned to

The default value is "PnP" or "PCI/PnP".

PnP/ISA	The resource is used by PnP device.
PCI/PnP,ISA	The resource is used by PCI/PnP device (PCI or ISA).

- Reserved Memory Size

The default value is Disabled

Disabled	Disable Reserved Memory Size
16K ~ 64K	Select the MEM. block size.

- Reserved Memory address

The default value is C8000.

C8000 ~ DC000	Select the MEM. block starting address.
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4.10. LOAD BIOS DEFAULTS

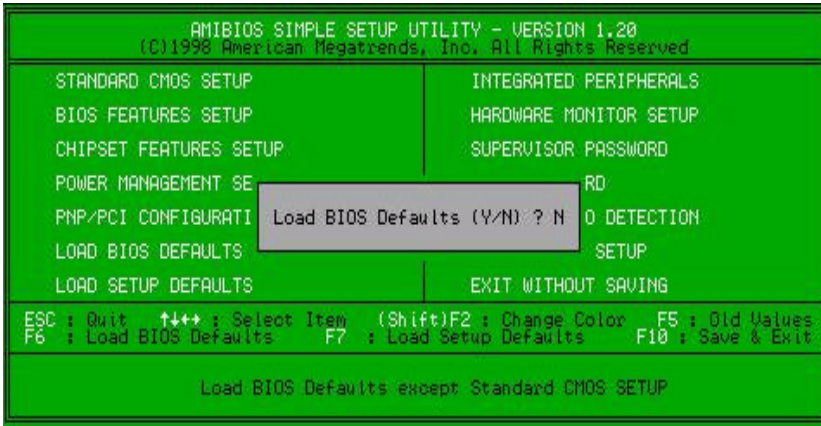


Figure 4.7: Load Bios Defaults

- Load BIOS Defaults

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

4.11. LOAD SETUP DEFAULTS

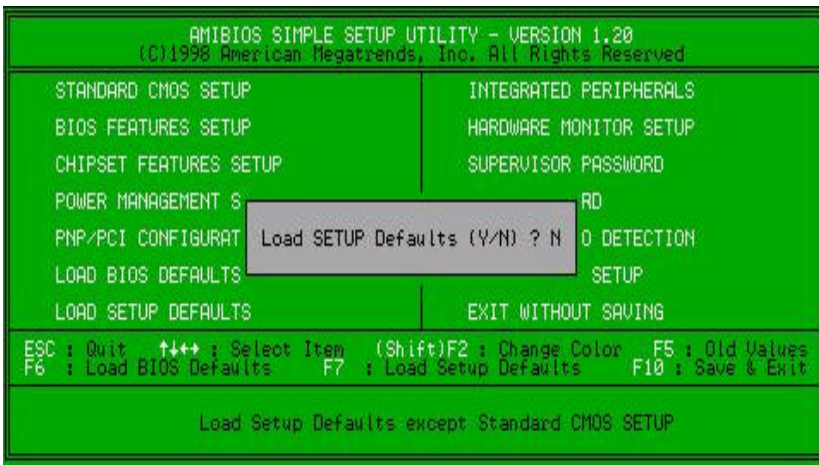


Figure 4.8: Load Setup Defaults

- Load SETUP Defaults
To load SETUP defaults value to CMOS SRAM, enter "Y". If not, enter "N".

4.12. INTEGRATED PERIPHERALS

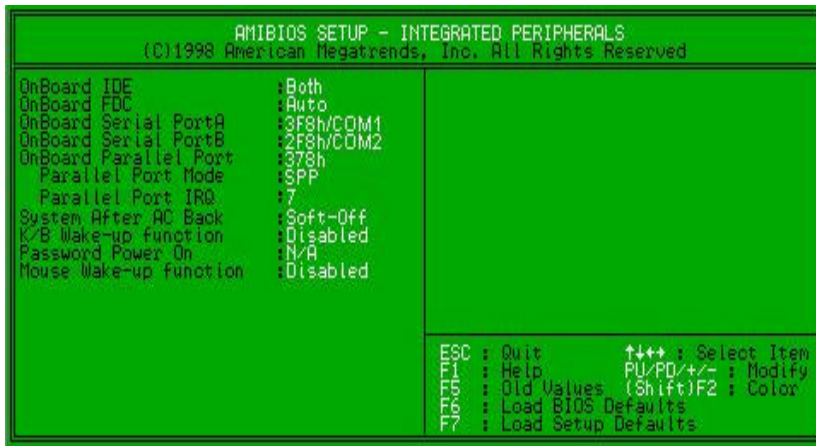


Figure 4.9: Integrated Peripherals

- OnBoard IDE

The default value is Both.

Disabled	Disabled OnBoard IDE
Both	Set OnBoard IDE is Both
Primary	Set OnBoard IDE is Primary
Secondary	Set OnBoard IDE is Secondary

- OnBoard FDC

The default value is Auto.

Auto	Set OnBoard FDC is Auto
Disabled	Disabled OnBoard FDC
Enabled	Enabled OnBoard FDC

- OnBoard Serial Port A

The default value is 3F8h/COM1.

Auto	BIOS will automatically setup the port A address.
3F8h/COM1	Enable onBoard Serial port A and address is 3F8h.
2F8h/COM2	Enable onBoard Serial port A and address is 2F8h.
3E8h/COM3	Enable onBoard Serial port A and address is 3E8h.
2E8h/COM4	Enable onBoard Serial port A and address is 2E8h.
Disabled	Disable onBoard Serial port A.

- OnBoard Serial Port B

The default value is 2F8h/COM2.

Auto	BIOS will automatically setup the port B address.
3F8h/COM1	Enable OnBoard Serial port B and address is 3F8h.
2F8h/COM2	Enable OnBoard Serial port B and address is 2F8h.
3E8h/COM3	Enable OnBoard Serial port B and address is 3E8h.
2E8h/COM4	Enable OnBoard Serial port B and address is 2E8h.
Disabled	Disable OnBoard Serial port B.

- OnBoard Parallel port

The default value is 378h.

378h	Enable OnBoard LPT port and address is 378h.
278h	Enable OnBoard LPT port and address is 278h.
3BCh	Enable OnBoard LPT port and address is 3BCh.
Auto	Set OnBoard LPT port is Auto.
Disabled	Disable OnBoard LPT port.

- Parallel Port Mode

The default value is SPP.

SPP	Using Parallel port as Standard Printer Port.
EPP	Using Parallel port as Enhanced Parallel Port.
ECP	Using Parallel port as Extended Capabilities Port.
ECP+EPP	Using Parallel port as ECP & EPP mode.

- Parallel Port IRQ

The default value is 7.

7	Set Parallel Port IRQ to 7.
5	Set Parallel Port IRQ to 5.

- System After AC Back

The default value is Soft-Off.

Memory	This function depends on computer status
Soft-Off	Set System Soft-Off Status.
Full-On	Set System Full-On Status.

- K/B Wake-up function

The default value is Disabled.

Disabled	Disable this function.
Multikey	Enter multikey combination to Power on system.
POWER Key	If your keyboard have "POWER Key" button, you can press the key to power on your system.

- Password Power On

The default value is N/A.

N/A	Disable this function.
Enter	Enter from 1 to 5 characters to set the Keyboard Power On Password.

- Mouse Wake-up function

The default value is Disabled.

Disabled	Disable this function.
Left-bottom	Double click twice on PS/2 left bottom.
Right-bottom	Double click twice on PS/2 right bottom.

4.13 HARDWARE MONITOR

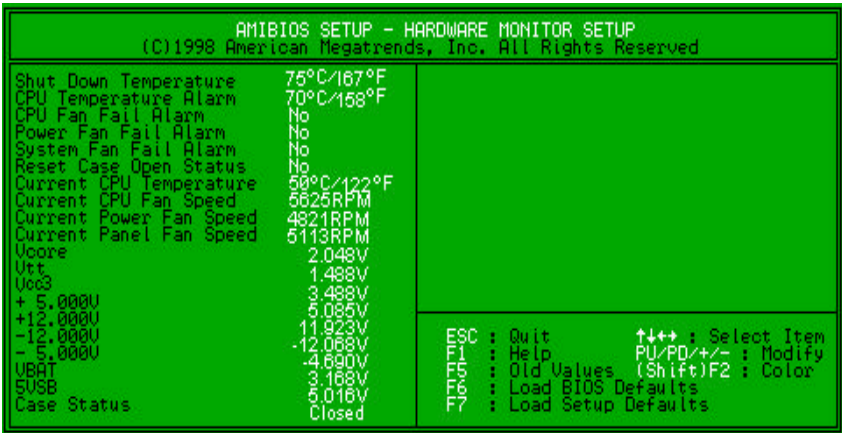


Figure 4.10: Hardware Monitor Setup

- Shutdown Temp. (°C / °F)
 (This function will be effective only for the operating systems that support ACPI Function.)
 The default value is 75°C / 167°F

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 .

- CPU Temperature Alarm. (°C / °F)

The default value is 70°C / 158°F

Disabled	Normal Operation
65°C / 149°F	Monitor CPU Warning Temp. at 65°C / 149°F
70°C / 158°F	Monitor CPU Warning Temp. at 70°C / 158°F
75°C / 167°F	Monitor CPU Warning Temp. at 75°C / 167°F
80°C / 176°F	Monitor CPU Warning Temp. at 80°C / 176°F
85°C / 185°F	Monitor CPU Warning Temp. at 85°C / 185°F
90°C / 194°F	Monitor CPU Warning Temp. at 90°C / 194°F
95°C / 203°F	Monitor CPU Warning Temp. at 95°C / 203°F

- CPU Fan Fail Alarm

No	CPU Fan Fail Alarm Function Disabled.
Yes	CPU Fan Fail Alarm Function Enabled.

- Power Fan Fail Alarm

No	Power Fan Fail Alarm Function Disabled.
Yes	Power Fan Fail Alarm Function Enabled.

- System Fan Fail Alarm

No	System Fan Fail Alarm Function Disabled.
Yes	System Fan Fail Alarm Function Enabled.

- Reset Case Open Status

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 Temperature (°C / °F)

Detect CPU Temperature automatically.

- Current CPU FAN Speed

Detect CPU Fan speed status automatically .

- Current Power FAN Speed
Detect Power Fan speed status automatically .
- Current Panel FAN Speed
Detect Panel Fan speed status automatically .
- Current Voltage (v) V_{CORE} / V_{tt} / V_{cc3} / ±12V / ±5V / V_{BAT} / 5V_{SB}
Detect system' s voltage status automatically.
- Case Status

Opened	Case status is on opened mode.
Closed	Case status is on closed mode.

4.14. 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 4.11: 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 System 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.

4.15. IDE HDD AUTO DETECTION



Figure 4.12: 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.

4.16. SAVE & EXIT SETUP



Figure 4.13: Save & Exit Setup

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

Type "N" will return to Setup Utility.

4.17. EXIT WITHOUT SAVING



Figure 4.14: Exit Without Saving

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

Type "N" will return to Setup Utility.

<p align="center">DECLARATION OF CONFORMITY <small>Per FCC Part 2, Section 2.107(a)</small></p> <p align="center">FC</p> <p>Responsible Party Name: G.B.T. INC. Address: 18385 Valley Blvd., Suite A LA Puente, CA 91744 Phone/Fax No: (818) 854-9338 (818) 854-9339</p> <p>herby declares that the product Product Name: Mother Board Model Number: GA-6ZM7/ZM7A</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>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 interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.</p> <p>Representative Person's Name: <u>ERIC LU</u> Signature: <u>Eric Lu</u> Date: <u>Feb. 10, 1999</u></p>

FCC Compliance Statement:

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 Trädng GmbH
Ausschlager Weg 41, 1F, 20537 Hamburg, Germany

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

Mother Board
GA-6ZM7/ZM7A

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 type="checkbox"/> EN 61000-3-2* | Disturbances in supply systems caused by household appliances and similar electrical equipment "Harmonics" |
| <input type="checkbox"/> EN 55013 | Limits and methods of measurement of radio disturbance characteristics of broadcast receivers and associated equipment | <input checked="" type="checkbox"/> EN 60555-2 | |
| <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 61000-3-3* | Disturbances in supply systems caused by household appliances and similar electrical equipment "Voltage fluctuations" |
| <input type="checkbox"/> EN 55015 | Limits and methods of measurement of radio disturbance characteristics of fluorescent lamps and luminaires | <input checked="" type="checkbox"/> EN 50081-1 | Generic emission standard Part 1: Residual, commercial and light industry |
| <input type="checkbox"/> EN 55020 | Immunity from radio interference of broadcast receivers and associated equipment | <input checked="" type="checkbox"/> EN 50082-1 | Generic immunity standard Part 1: Residual, commercial and light industry |
| <input type="checkbox"/> EN 55022 | Limits and methods of measurement of radio disturbance characteristics of information technology equipment | <input type="checkbox"/> EN 55081-2 | Generic emission standard Part 2: Industrial environment |
| <input type="checkbox"/> DIN VDE 0855 part 10 part 12 | Cabled distribution systems; Equipment for receiving and/or distribution from sound and television signals | <input type="checkbox"/> EN 55082-2 | Generic immunity standard Part 2: Industrial environment |
| <input checked="" type="checkbox"/> CE marking | | <input type="checkbox"/> ENV 55104 | Immunity requirements for household appliances tools and similar apparatus |
| | | <input type="checkbox"/> EN 50091- 2 | EMC requirements for uninterruptible power systems (UPS) |



(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 : Rex Lin

(Stamp)

Date : Feb. 10, 1999