

4. BIOS CONFIGURATION

Award'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 Award 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.

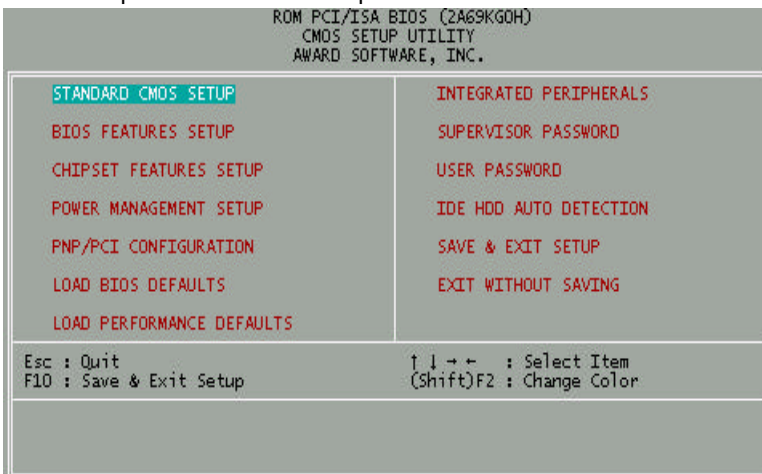


Figure 4.1: Main Menu

- 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 Award 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 most appropriate value of the system parameters that the system would be in safe configuration.
- Load Performance defaults
Performance Defaults indicates the value of the system parameters that the system would be in the best performance configuration.
- Integrated peripherals
This setup page includes all onboard peripherals.
- 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 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 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 is <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>.

- Drive A type / Drive B type

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.

- Floppy 3 Mode Support (for Japan Area)

Disabled	Normal Floppy Drive.
Drive A	Drive A is 3 mode Floppy Drive.
Drive B	Drive B is 3 mode Floppy Drive.
Both	Drive A & B are 3 mode Floppy Drives.

- Video

The category detects the type of adapter used for the primary system monitor that must match your video display card and monitor. Although secondary monitors are supported, you do not have to select the type in setup.

EGA/VGA	Enhanced Graphics Adapter/Video Graphics Array. For EGA, VGA, SVGA, or PGA monitor adapters.
CGA 40	Color Graphics Adapter, power up in 40 column mode.
CGA 80	Color Graphics Adapter, power up in 80 column mode.
MONO	Monochrome adapter, includes high resolution monochrome adapters.

- Halt on

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

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

- Memory

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

Base Memory

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

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

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.

Expanded Memory

Expanded Memory in memory defined by the Lotus / Intel / Microsoft (LIM) standard as EMS.

Many standard DOS applications can not utilize memory above 640 K; the Expanded Memory Specification (EMS) swaps memory, which not utilized by DOS with a section, or frame, so these applications, can access all of the system memory.

Memory can be swapped by EMS is usually 64 K within 1 MB or memory above 1 MB, depends on the chipset design.

Expanded memory device driver is required to use memory as Expanded Memory.

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

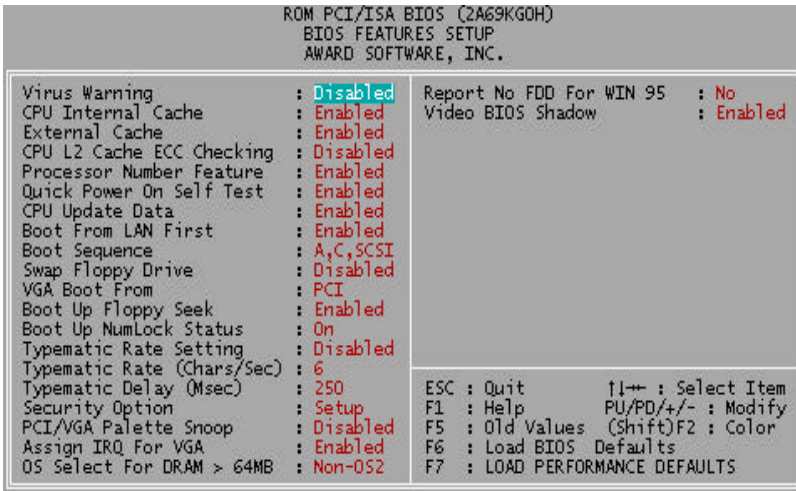


Figure 4.3: BIOS Features Setup

- Virus Warning

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.

- CPU Internal Cache / External Cache

These two categories speed up memory access. However, it depends on CPU / chipset design.

The default value is Enabled.

Enabled	Enable cache.
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Disabled	Disable cache.
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- CPU L2 Cache ECC Checking

The default value is Disabled.

Enabled	Enable CPU L2 Cache ECC Checking.
Disabled	Disable CPU L2 Cache ECC Checking.

- Processor Number Feature

This item will set Enabled when you install the Pentium III processor

The default value is Enabled.

Enabled	Pentium III Processor Number Feature.
Disabled	Disable this function

- Quick Power On Self Test

This category speeds up Power On Self Test (POST) after you power on the computer. If it is set to Enable, BIOS will shorten or skip some check items during POST.

The default value is Enabled.

Enabled	Enable quick POST.
Disabled	Normal POST.

- CPU Update Data

The default value is Enabled.

Enabled	Enable CPU Update Data.
Disabled	Normal CPU Update Data.

- Boot From LAN First

The default value is Enabled.

Auto	Enable Boot From LAN First Function
Enabled	Enable Boot From LAN First
Disabled	Disable Boot From LAN First

☞ You can set “Auto” or “Enabled” to boot from LAN first.

- **Boot Sequence**

This category determines which drive computer searches first for the disk operating system (i.e., DOS).

The default value is A, C, SCSI.

X1, X2, X3	System will first search for X1 disk drive then X2 disk drive and then X3 disk drive.
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- **Swap Floppy Drive**

The default value is Disabled.

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

- **VGA Boot From**

The default value is PCI.

AGP	System will boot from AGP Display Card.
PCI	System will boot from PCI VGA Card.

- **Boot Up Floppy Seek**

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

The default value is Enabled.

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

- **Boot Up NumLock Status**

The default value is On.

On	Keypad is number keys.
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Off	Keypad is arrow keys.
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- Typematic Rate Setting

The default value is Disabled.

Enabled	Enable Keyboard Typematic rate setting.
Disabled	Disable Keyboard Typematic rate setting.

- Typematic Rate (Chars / Sec.)

The default value is 6.

6-30	Set the maximum Typematic rate from 6 chars. Per second to 30 characters. Per second.
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- Typematic Delay (Msec.)

The default value is 250.

250-1000	Set the time delay from first key to repeat the same key in to computer.
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- Security Option

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

The default value is Setup.

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

- **To disable security, select PASSWORD SETTING at Main Menu and then you will be asked to enter password. Do not type anything and just press <Enter>, it will disable security. Once the security is disabled, the system will boot and you can enter Setup page freely.**

- 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.

- Assign IRQ For VGA

The default value is Enabled.

Enabled	Assign a specific IRQ for VGA.
Disabled	No IRQ is assigned for VGA.

- OS Select For DRAM>64MB

The default value is Non-OS2.

Non-OS2	Using non-OS2 operating system.
OS2	Using OS2 operating system and DRAM>64MB.

- Report No FDD For WIN 95

The default value is No.

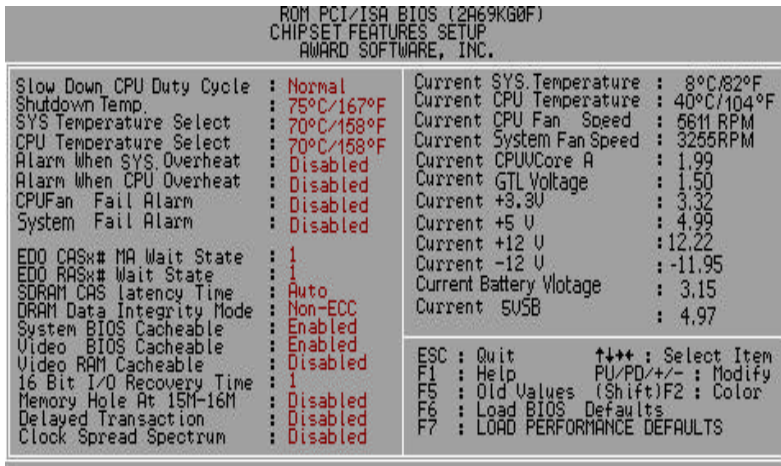
No	Assign IRQ6 For FDD.
Yes	FDD Detect IRQ6 Automatically.

- 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.



4.7. CHIPSET FEATURES SETUP

Figure 4.4: Chipset Features Setup

- Slow Down CPU Duty Cycle

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%.

- 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
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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 .

- Sys. Temperature Select

The default value is 70°C /158°F.

65°C / 149°F	Monitor Sys. Temperature at 65°C / 149°F.
70°C / 158°F	Monitor Sys. Temperature at 70°C / 158°F.
75°C / 167°F	Monitor Sys. Temperature at 75°C / 167°F.

- CPU Temperature Select

The default value is 70°C /158°F.

65°C / 149°F	Monitor CPU Temperature at 65°C / 149°F.
70°C / 158°F	Monitor CPU Temperature at 70°C / 158°F.
75°C / 167°F	Monitor CPU Temperature at 75°C / 167°F.

- Alarm When Sys. Overheat

The default value is Disabled.

Disabled	Disable this function.
Enabled	Alarm When the temperature of Sys. exceeds the limit.

- Alarm When CPU Overheat

The default value is Disabled.

Disabled	Disable this function.
Enabled	Alarm When the temperature of CPU exceeds the limit.

- CPU Fan Fail Alarm

The default value is Disabled.

Disabled	Disable this function.
Enabled	Alarm When CPU Fan Failed.

- System Fan Fail Alarm

The default value is Disabled.

Disabled	Disable this function.
Enabled	Alarm When System Fan Failed.

- 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

- DRAM Data Integrity Mode

This value will depend on the DRAM type.

Non-ECC	For 64bit standard type DIMM module.
ECC	For 72bit ECC type DIMM module.

- System BIOS Cacheable

The default value is Enabled.

Enabled	Enable System BIOS Cacheable.
Disabled	Disable System BIOS Cacheable.

- Video BIOS Cacheable

The default value is Enabled.

Enabled	Enable video BIOS Cacheable.
Disabled	Disable video BIOS Cacheable.

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 restart your computer.

- Video RAM Cacheable

The default value is Disabled.

Disabled	Disable this function.
Enabled	Enable this function to get better VGA performance; while some brands of VGA must be disabled this function (e.g.ET4000W32P).

- 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.

- Memory Hole At 15M-16M

The default value is Disabled.

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

- Delayed Transaction

The default value is Disabled.

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

- Clock Spread Spectrum

The default value is Disabled.

Disabled	Disabled this function
Enabled	Enabled Clock Spread Spectrum

- Current Sys. Temperature
Detect Sys. Temperature automatically.
- Current CPU Temperature
Detect CPU Temperature automatically.
- Current CPU Fan Speed
Detect CPU Fan speed status automatically.
- Current System Fan Speed
Detect System Fan speed status automatically.
- Current CPUVCOREA / GTL / +3.3V / +5V / ±12V / 5VSB
Detect system' s voltage status automatically.

4.8. POWER MANAGEMENT SETUP

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ROM PCI/ISA BIOS (2A69KG0A)
POWER MANAGEMENT SETUP
AWARD SOFTWARE, INC.

Power Management      : Enabled
PM Control by APM    : Yes
Video Off Method     : DPMS
Suspend Mode        : Disable
HDD Power Down      : Disable
VGA Active Monitor  : Disabled
Soft-Off by PWR-BTNN : Instant-Off
CPUFAN Off In Suspend : Enabled
PME Event Wakeup    : Disabled
ModemRingOn/WakeOnLan : Enabled
Resume by Alarm     : Disabled
*Date(of Month) Alarm : 0
*Time(hh:mm:ss) Alarm : 0: 0: 0

** Reload Global Timer Events **
IRQ[3-7,9-15],NMI  : Enabled
Primary IDE 0      : Disabled
Primary IDE 1      : Disabled
Secondary IDE 0    : Disabled
Secondary IDE 1    : Disabled
Floppy Disk        : Enabled
Serial Port        : Enabled
Parallel Port      : Disabled

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

Figure 4.5: Power Management Setup

* These two items will show up when "Resume by Alarm" is Enabled.

- Power Management

The default value is Enable.

Enable	Enable Green function.
Disable	Disable Green function.

- PM Control by APM

The default value is Yes.

Yes	Enable software APM function.
No	Disable software APM function.

- Video Off Method

The default value is DPMS.

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

- Suspend Mode

The default value is Disable.

Disable	Disable Suspend Mode.
1 Min - 1 Hour	Setup the timer to enter Suspend Mode.

- HDD Power Down

The default value is Disable.

Disable	Disable HDD Power Down mode function.
1-15 mins.	Enable HDD Power Down mode between 1 to 15 mins.

- VGA Active Monitor

The default value is Disabled.

Disabled	Disable monitor VGA activity.
Enabled	Enable monitor VGA activity.

- Soft-off by PWR-BTTN

The default value is Instant-Off.

Instant-off	Soft switch ON/OFF for POWER ON/OFF.
Delay 4 Sec.	Soft switch ON 4 seconds for POWER OFF.

- 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 PME Event Wakeup.
Enabled	Enable PME Event Wakeup.

- ModemRingOn / WakeOnLan

The default value is Enabled.

Disabled	Disable these functions.
Enabled	Enable these functions.

- Resume by Alarm

The default value is Disabled.

Disabled	Disable this function.
Enabled	Enable alarm function to POWER ON system.

If the "Resume by Alarm" is Enabled.

Date (of Month) Alarm :	0~31
Time (hh: mm: ss) Alarm :	(0~23) : (0~59) : (0~59)

- IRQ [3-7,9-15], NMI

The default value is Enabled.

Disabled	Disable this function.
Enabled	Enable monitor IRQ [3-7,9-15] for Green event.

- Primary IDE 0 / 1

The default value is Disabled.

Disabled	Disable this function.
Enabled	Enable monitor Primary IDE 0 / 1 for Green event.

- Secondary IDE 0 / 1

The default value is Disabled.

Disabled	Disable this function.
Enabled	Enable monitor Secondary IDE 0 / 1 for Green event.

- Floppy Disk

The default value is Enabled.

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

- Serial Port

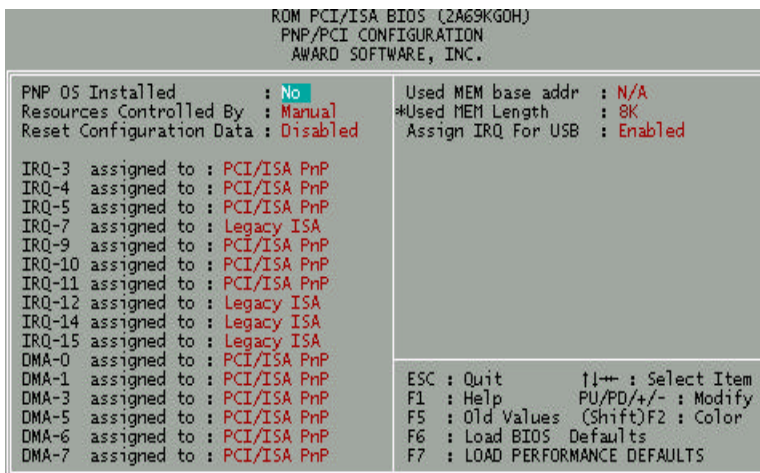
The default value is Enabled.

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

- Parallel Port

The default value is Disabled.

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



4.9. PNP/PCI CONFIGURATION

Figure 4.6: PNP/PCI Configuration

* This item will show up when “Used MEM base addr” has been set.

- PNP OS Installed

The default value is No.

Yes	Enable PNP OS Installed function.
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No	Disable PNP OS Installed function.
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- Resources Controlled by

The default value is Manual.

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

- Reset Configuration Data

The default value is Disabled.

Disabled	Disable this function.
Enabled	Enable clear PnP information in ESCD.

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

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

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

- Used MEM base addr

The default value is N/A.

N/A	Disable the MEM. block using.
C800 ~ DC00	Select the MEM. block starting address.

- Used MEM Length

The default value is 8K.

8K ~ 64K	Select the MEM. block size.
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- Assign IRQ For USB

The default value is Enabled.

Enabled	Assign a specific IRQ for USB.
Disabled	No IRQ is assigned for USB.

4.11. LOAD PERFORMANCE DEFAULTS

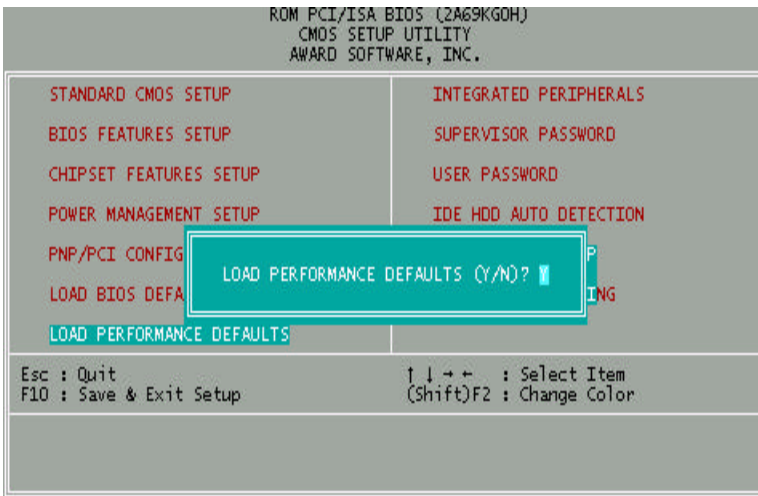


Figure 4.8: Load Performance Defaults

- Load Performance Defaults

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

4.12. INTEGRATED PERIPHERALS

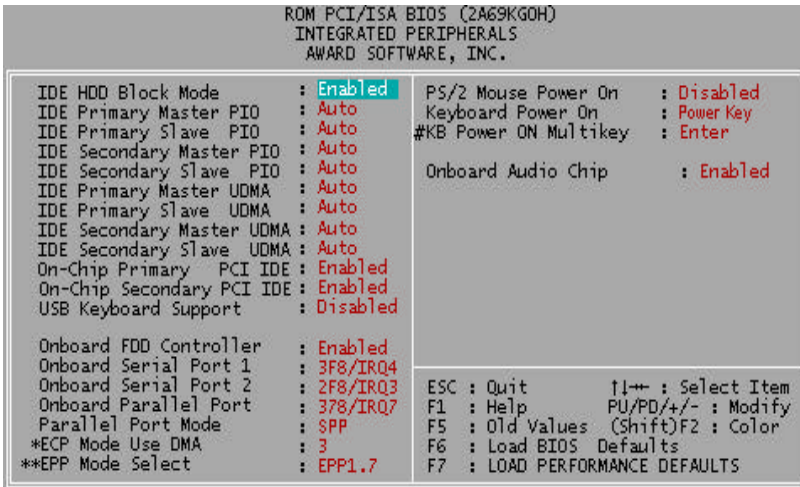


Figure 4.9: Integrated Peripherals

- * This item will show up if On board Parallel Mode set to ECP or ECP/EPP.
- ** This item will show up if On board Parallel Mode set to EPP/SPP or ECP/EPP.
- # This item will show up when “Keyboard Power On: Multikey” is selected.

- IDE HDD Block Mode

The default value is Enabled.

Enabled	Enable IDE HDD Block Mode.
Disabled	Disable IDE HDD Block Mode.

- IDE Primary Master PIO (for onboard IDE 1st channel).

The default value is Auto.

Auto	BIOS will automatically detect the IDE HDD Accessing mode.
Mode0~4	Manually set the IDE Accessing mode.

- IDE Primary Slave PIO (for onboard IDE 1st channel).

The default value is Auto.

Auto	BIOS will automatically detect the IDE HDD Accessing mode.
Mode0~4	Manually set the IDE Accessing mode.

- IDE Secondary Master PIO (for onboard IDE 2nd channel).

The default value is Auto.

Auto	BIOS will automatically detect the IDE HDD Accessing mode.
Mode0~4	Manually set the IDE Accessing mode.

- IDE Secondary Slave PIO (for onboard IDE 2nd channel).

The default value is Auto.

Auto	BIOS will automatically detect the IDE HDD Accessing mode.
Mode0~4	Manually set the IDE Accessing mode.

- IDE Primary Master UDMA.

The default value is Auto.

Auto	BIOS will automatically detect the IDE HDD Accessing mode.
Disabled	Disable UDMA function.

- IDE Primary Slave UDMA.

The default value is Auto.

Auto	BIOS will automatically detect the IDE HDD Accessing mode.
Disabled	Disable UDMA function.

- IDE Secondary Master UDMA.

The default value is Auto.

Auto	BIOS will automatically detect the IDE HDD Accessing mode.
Disabled	Disable UDMA function.

- IDE Secondary Slave UDMA.

The default value is Auto.

Auto	BIOS will automatically detect the IDE HDD Accessing mode.
Disabled	Disable UDMA function.

- On-Chip Primary PCI IDE

The default value is Enabled.

Enabled	Enable onboard 1st channel IDE port.
Disabled	Disable onboard 1st channel IDE port.

- On-Chip Secondary PCI IDE

The default value is Enabled.

Enabled	Enable onboard 2nd channel IDE port.
Disabled	Disable onboard 2nd channel IDE port.

- USB Keyboard Support

The default value is Disabled.

Enabled	Enable USB Keyboard Support.
Disabled	Disable USB Keyboard Support.

- Onboard FDD Controller

The default value is Enabled.

Enabled	Enable onboard FDD port.
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Disabled	Disable onboard FDD port.
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- Onboard Serial Port 1

The default value is 3F8/IRQ4.

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

- Onboard Serial Port 2

The default value is 2F8/IRQ3.

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

- Onboard Parallel port

The default value is 378/IRQ7.

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

- 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.

✱ As ECP,ECP/EPP Mode is selected, two options can be defined:

1. ECP Mode use DMA: 3
2. ECP Mode use DMA: 1

✱ ✱ As EPP/SPP, ECP/EPP Mode is Selected, two options can be defined:

1. Parallel Port EPP Type : EPP 1.9
2. Parallel Port EPP Type : EPP 1.7

- PS/2 Mouse Power on

The default value is Disabled.

Disabled	Disable PS/2 Mouse Power on .
Right Double	Click twice on PS/2 mouse Right button to Power on system.
Left Double	Click twice on PS/2 mouse Left button to Power on system.

- Keyboard Power on

The default value is POWER Key.

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

- KB Power ON Multikey

Enter	Enter from 1 to 5 characters to set the Keyboard Power On Password.
-------	---

- Onboard Audio Chip

The default value is Disabled.

Disabled	Disable this function.
Enabled	Enable Audio Chip.

4.13. 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.

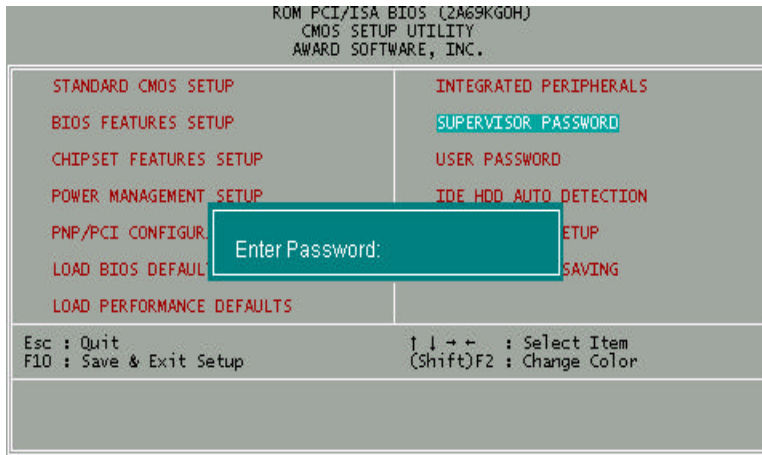


Figure 4.10: Supervisor / User Password

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>. You may also press <Esc> to abort the selection and not enter a password.

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

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.

4.14. IDE HDD AUTO DETECTION

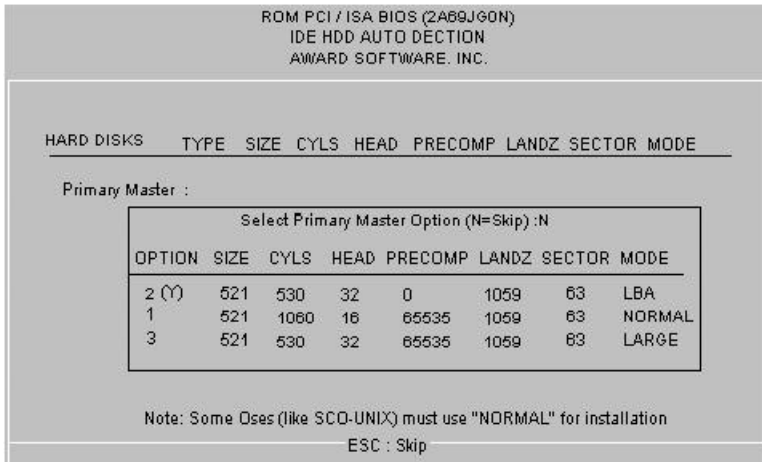


Figure 4.11: IDE HDD Auto Detection

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 LARGE mode for DOS partition larger than 528 MB.

4.15. SAVE & EXIT SETUP

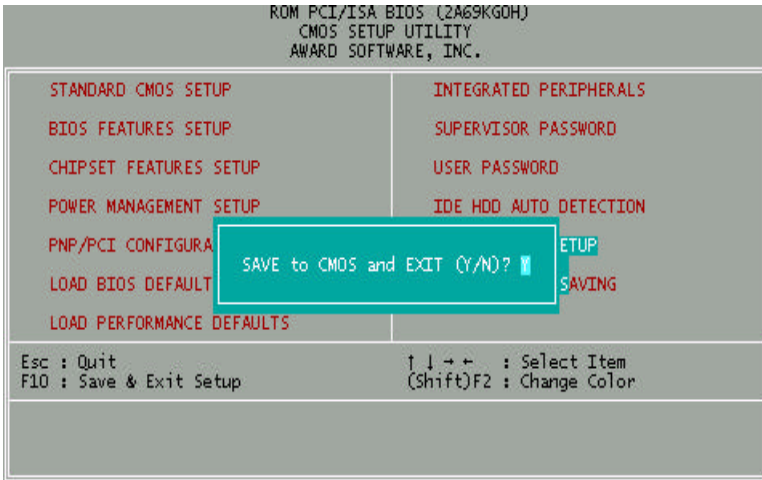


Figure 4.12: Save & Exit Setup

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

Type "N" will return to Setup Utility.

4.16. EXIT WITHOUT SAVING

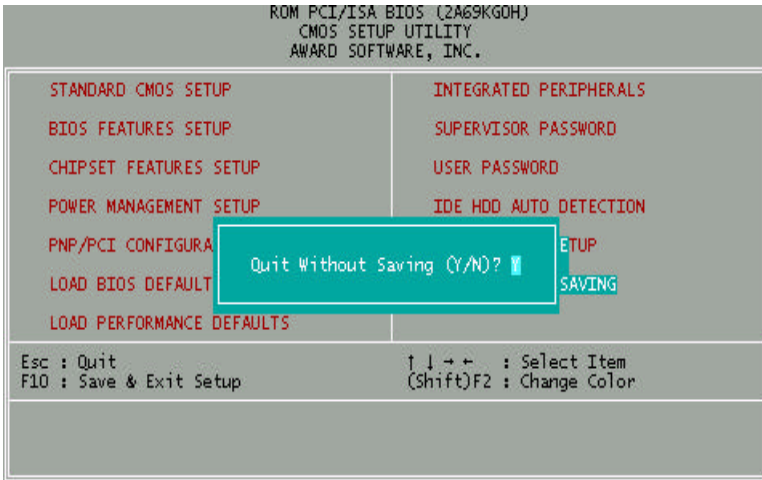


Figure 4.13: Exit Without Saving

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

Type "N" will return to Setup Utility.

APPENDIX A: ATi Rage Pro SPECIFICATION

A.1. KEY FEATURES

- ❑ Built-in **ATi Rage Pro** high-performance 3D graphics accelerations chip.
- ❑ Built-in 2MB / 4MB high speed SGRAM (Optional).
- ❑ For AGP 1.0 Interface compliant.
- ❑ High performance 2D and 3D graphics acceleration.
- ❑ **MPEG-I / MPEG-II** video playback acceleration.
- ❑ Integral 230 MHz RAMDAC.
- ❑ Compatible **OpenGL**, **Direct 3D** and **Direct Draw**.
- ❑ Compatible **DDC1** and **DDC2AB+** monitor configuration and display power management signaling (**DPMS**).

A.2. Resolutions and Color Palette Table

2MSGRAM

Resolutions	Refresh Rate	Color Palette		
		8bits(256) Colors	High Colors	Ture Colors
640 ; 480	60Hz	£ ¾	£ ¾	£ ¾
	70Hz	£ ¾	£ ¾	£ ¾
	72Hz	£ ¾	£ ¾	£ ¾
	75Hz	£ ¾	£ ¾	£ ¾
	85Hz	£ ¾	£ ¾	£ ¾
	90Hz	£ ¾	£ ¾	£ ¾
	100Hz	£ ¾	£ ¾	£ ¾
	120Hz	£ ¾	£ ¾	£ ¾
	160Hz	£ ¾	£ ¾	£ ¾

800 ; 1000	60Hz	£ ¾	£ ¾	£ ¾
	72Hz	£ ¾	£ ¾	£ ¾
	75Hz	£ ¾	£ ¾	£ ¾
	85Hz	£ ¾	£ ¾	£ ¾
	90Hz	£ ¾	£ ¾	£ ¾
	100Hz	£ ¾	£ ¾	£ ¾
	120Hz	£ ¾	£ ¾	£ ¾
	160Hz	£ ¾	£ ¾	£ ¾
1024 ; 1068	60Hz	£ ¾	£ ¾	
	70Hz	£ ¾	£ ¾	
	72Hz	£ ¾	£ ¾	
	75Hz	£ ¾	£ ¾	
	85Hz	£ ¾	£ ¾	
	90Hz	£ ¾	£ ¾	
	100Hz	£ ¾	£ ¾	
	120Hz	£ ¾	£ ¾	
	140Hz	£ ¾	£ ¾	
150Hz	£ ¾	£ ¾		
1152 ; 1064	60Hz	£ ¾	£ ¾	
	70Hz	£ ¾	£ ¾	
	80Hz	£ ¾	£ ¾	
	85Hz	£ ¾	£ ¾	
	100Hz	£ ¾	£ ¾	
1280 ; 1024	60Hz	£ ¾		
	70Hz	£ ¾		
	74Hz	£ ¾		
	75Hz	£ ¾		
	85Hz	£ ¾		

A.3. Installation Notes for Windows 95 Display Driver

You need to install ATI's Rage Pro enhanced driver for Windows 95 to take advantage of you card's higher performance, resolutions, and special features not available using the standard VGA display driver.

Note: Windows 95 will require a re-start to implement certain display settings

- 1) Insert the ATi CD-ROM into your CD-ROM drive.

Note: CD ROM drives that are configured for Auto Insert Notification will automatically load the ATI Installation application. Proceed to Step 5 to complete the installation.

- 2) Click Start.
- 3) Select Run.
- 4) Type the following:
D:\ATISSETUP (D being the letter of your CD-ROM drive.)
- 5) Click on Display Driver icon.
- 6) Follow the on screen instructions

For correct resolution and refresh rate operation, you need to select a monitor following the installation. Please refer to the online help for more information.

A.4. Installation Notes for Software MPEG for Windows 95

- 1) Insert the ATI CD-ROM into your CD-ROM drive.

Note: CD ROM drives that are configured for Auto Insert Notification will automatically load the ATI Installation application. Proceed to Step 5 to complete the installation.

- 2) Click Start.
- 3) Select Run.
- 4) Type the following:
D:\ATISSETUP (D being the letter of your CD-ROM drive.)
- 5) Click on ATI Video Player
- 6) Select 'Custom Setup' and click Next.
- 7) Ensure that the 'ATI VIDEO PLAYER' option is checked.
- 8) Click Finish to complete the install.

To open the ATI VIDEO PLAYER for Windows 95:

- 1) Click Start.
- 2) Select Programs.
- 3) Select ATI Multimedia.
- 4) Click ATI VIDEO PLAYER.

For information about using the controls of the ATI VIDEO PLAYER, see the online help.

A.5. VESA Support

The VESA modes supported by your Rage Pro chipset are dependent upon the amount of video memory and the monitor type selected. Please refer to README.VBE file in D:\UTILITY directory on the ATI CD-ROM (D being the drive letter of your CD-ROM).

A.6. Installation Notes for Windows 3.1

You need to install ATI's Rage Pro enhanced driver for Windows 3.1x to take advantage of your card's higher performance, resolutions, and special features not available using the standard VGA display driver.

If you have ATI drivers already installed from a previous installation, it is recommended that you uninstall them first.

To install the Rage Pro enhanced driver for Windows 3.1x:

- 1) Start Windows.
- 2) Insert the ATI CD-ROM into your CD-ROM drive.
- 3) Pull-down the File menu in the Program Manager.
- 4) Select Run.
- 5) Type the following:
D:\ATISSETUP (D being the letter of your CD-ROM drive.)
 - 5a) Click on Uninstall icon.
 - 5b) Click on Display Drivers to uninstall.
 - 5c) Follow the online screen instructions to complete the installation.
- 6) Click on Display Drivers.
- 7) Follow the online screen instructions to complete the installation.
 - 7a) Make sure you restart Windows for changes to take effect.

For correct resolution and refresh rate operation, you need to select a monitor. Please refer to the online help in the Screen Adjustment utility for more information.

The ATI Desktop Program Group will be installed automatically when you install the Rage Pro enhanced driver. Please refer to the online help for more information about how to use the ATI DeskTop.

Note: If you wish to change the Windows display driver to a different driver (i.e. VGA), do not use the Windows Setup icon within Windows. To change the display, exit Windows and change directory to the Windows subdirectory. When at the Windows prompt type SETUP and select the desired display driver.

Note: The Super VGA 256 color drivers supplied with Microsoft Windows for Work Groups 3.11 will not function correctly on a Rage Pro based card.

These SVGA drivers appear to check for specific Super VGA adapter chip sets and incorrectly identifies the Rage Pro card as a SVGA adapter.

If you wish to use other Windows for Work Groups supplied graphics drivers, you may select the VGA or Super VGA (800x600, 16 color) driver.

A.7. Installation Notes for Software MPEG for Windows 3.1x

The ATI VIDEO PLAYER is a software MPEG player designed for your MPEG, video and graphics accelerator card. The ATI VIDEO PLAYER provides full-motion, full-screen MPEG video playback with excellent color quality. For the best playback quality, the recommended requirement for the ATI VIDEO PLAYER is a Pentium system.

Microsoft's Video for Windows(r) is required to run the ATI VIDEO PLAYER.

If you do not have Video for Windows installed on your system, you can install it during the installation of the ATI VIDEO PLAYER.

If you have ATI VIDEO PLAYER already installed from a previous

installation,
it is recommended that you uninstall it first.

To open the ATI VIDEO PLAYER in Windows 3.1x:

- 1) Start Windows.
- 2) Insert the ATI CD-ROM into your CD-ROM drive.
- 3) Pull-down the File menu in the Program Manager.
- 4) Select Run.
- 5) Type the following:
D:\ATISSETUP (D being the letter of your CD-ROM drive.)
- 5a) Click on Uninstall icon.
- 5b) Click on ATI VIDEO PLAYER to uninstall.
- 5c) Follow the online screen instructions to complete the installation.
- 6) Click on ATI VIDEO PLAYER.
- 7) Follow the online screen instructions to complete the installation.
- 7a) Make sure you restart Windows for changes to take effect.

For information about using the controls of the ATI VIDEO PLAYER, see the online help.

A.8. Installation Notes for AutoDesk products

Note: The following applications are supported:
AutoCAD R10, R11, R12 and R13(Protected Mode only);
3D Studio R2,R3,R4 and AutoShade 386 with Renderman.

To install the Rage Pro enhanced driver, you use the INSTALL program.
Before installing the driver, run AutoCAD to ensure that it is properly installed on your system. The INSTALL program is a DOS application and cannot be run inside a Windows DOS box.

To run the INSTALL program:

- 1) Note the location of the AutoCAD, 3D Studio, or AutoShade program files before you start the INSTALL program. You will need this information later.
- 2) Insert the ATI CD-ROM into your CD-ROM drive.
- 3) Type D: (D being the letter of your CD-ROM drive.)
- 4) Type CD UTILITY.
- 5) Type INSTALL.
- 6) Select Utilities Installation from the Main Menu.
This copies the INSTALL program and utilities onto your hard drive.
- 7) Press ENTER to select the default destination directory.
Or Type a new destination directory.
- 8) When prompted, let the INSTALL program make changes to your Autoexec.bat file.
- 9) Select Quick Setup
You need to select QUICK SETUP to specify a monitor. Proper monitor selection is necessary for correct resolution and refresh rate operation.
- 10) Select your monitor from the list.
After you select a monitor, you are ready to install the Rage Pro enhanced driver for AutoCAD.

To install the Rage Pro enhanced driver:

- 1) Select Drivers Installation from the Main Menu.
- 2) From the list of applications, select one of the following:
 - AutoCAD
 - AutoDesk 3D Studio
 - AutoShade

When asked for the source drive and directory, type in the information and insert the requested diskettes.

(When the menu appears, select Read Installation Notes for help and

tips on the installation.)

- 3) Follow the on-screen instructions to install the enhanced driver.
- 4) When driver installation is completed, press ESC.
(Two documents called MANUAL.TXT and README.DLD are copied to your AutoCAD, 3D Studio, or AutoShade Drivers directory. You can read or print these files using any word processor.)
- 5) Start AutoCAD, 3D Studio, or AutoShade and reconfigure to use the new enhanced display list driver.
Please refer to the documentation provided by AutoDesk for information on how to select/change a video driver.

A.9. Installation Notes for OS/2

Notes:

- a) Before installing the ATI OS/2 display drivers, you must set your system to use the IBM supplied VGA driver. Type SETVGA from a full screen OS/2 session to accomplish this.
- b) Manually in the CONFIG.SYS file the device line must be changed as follows.

Device=c:\os2\mdos\svsuga.sys

Must be changed to

Device=c:\os2\mdos\lvga.sys

- c) Check the Window List (press CTRL-ESC) to see if you have any WIN-OS/2 or DOS sessions iconized. Close them as the OS2 device driver will not install successfully if these sessions are running.
- d) To successfully install, you will require the following information:
 - *The OS/2 boot drive on which the PM driver is located.
 - *The default ATI OS/2 driver directory is C:\MACH_OS2.

After you have set the operating system to use the IBM supplied VGA driver:

Starting OS/2 Driver Installation:

- 1) Start OS/2.
- 2) Check that OS/2 is using a standard VGA driver and that no other applications are running. For more information, see your OS/2 documentation.
- 3) Insert the ATI CD-ROM into your CD-ROM drive.
- 4) Open the OS/2 System folder.
- 5) Open the Command Prompts folder.
- 6) Open the OS/2 Full Screen command prompt session.
- 7) Type D: (D being the letter of your CD-ROM drive.)
- 8) Type CD UTILITY.
- 9) Type CD DCBS.
- 10) Type OS2INST.

To copy Rage Pro utilities to your hard disk:

- 1) Follow procedure "Starting OS/2 Driver Installation"
- 2) Select Utilities Installation from the Main Menu.
This copies the INSTALL program and utilities onto your hard drive.
- 3) Press ENTER to select the default destination directory.
- 4) When prompted, let the INSTALL program make changes to your Autoexec.bat file.
- 5) Select Quick Setup
You need to select QUICK SETUP to specify a monitor. Proper monitor selection is necessary for correct resolution and refresh rate operation.
- 6) Select your monitor from the list.

After you select a monitor, you are ready to copy the enhanced driver files.

To copy the Rage Pro enhanced driver files:

- 1) Follow procedure "Starting OS/2 Driver Installation"
- 2) Select Drivers Installation from the Main Menu.
- 3) Select IBM OS/2 from the list of applications.
Select Read Installation Notes for help and tips.
- 4) Select Install for the correct version of OS/2.
- 5) Press ENTER to select the default destination directory.
Or Specify a destination directory for the OS/2 driver files.
Generally, this is the OS/2 boot drive.
- 6) After the files have been copied, press any key.
- 7) Press ESC to exit.

You are now ready to install the enhanced driver for OS/2.

To install the Rage Pro enhanced driver for OS/2:

- 1) Open an OS/2 full-screen command prompt session and type
DSPINSTL.
- 2) When the Display Driver Install panel appears, select Primary Display.
Click OK to bring up the driver selection list.
- 3) Select ATI Rage Pro enhanced (VX.xx) driver version from the list, and
click OK.
- 4) In the Monitor Configuration Selection Utility, select Install Using
Defaults for Monitor Type, then click OK.
- 5) When the source directory panel appears, choose Change and specify
the location of the Rage Pro driver. (The default location is
C:\MACH_OS2.)
- 6) Click SET.

- 7) Click INSTALL.
- 8) Type EXIT to close the OS/2 full screen command prompt.
- 9) Shut down OS/2.
- 10) Re-start OS/2. It will default to 640x480 in 256 colors. To change screen resolution and/or color depth, see your OS/2 User's Guide.
- 11) Refer to the README64.INF file in the C:\MACH_OS2 directory for Rage Pro configuration details.

A.10. Installation Notes for Windows NT 3.51 and 4.0

- 1) Boot Windows NT.
- 2) Double-click the Main icon.
- 3) Double-click the Control Panel icon.
- 4) Double-click the Display icon.
- 5) Click Change Display Type.
- 6) Click Change.
- 7) Click Other.
- 8) Insert the ATi CD-ROM into your CD-ROM drive

For Windows NT 3.51, type the following:
D:\NT351 (D being the letter of your CD ROM drive)

For Windows NT 4.0, type the following:
D:\NT40 (D being the letter of your CD ROM drive)
- 9) Click OK.
- 10) Select ATI Graphics Accelerators.
- 11) Click Install.

- 12) Click Yes to change your system configuration.
- 13) Click Continue to confirm the full path name.
- 14) After the files have been copied to your computer, click OK.
- 15) Reboot Windows NT.
After reboot, the Invalid Display Settings window appears.
- 16) Click OK.
The Display Settings dialogue box appears.
- 17) Select a desired display mode. For more detailed information about changing your display mode, click Help.

A.11. DMI support

To install the ATI DMI Component Instrumentation:

- 1) Ensure that DOS and Windows versions of DMTF are already installed.
If not, please follow the instructions provided with the DMTF package.
- 2) Run INSTALL and select "Utilities Installation" from the Main Menu.
- 3) Follow the screen instructions to completion.
- 4) When INSTALL is finished copying all necessary files, press <escape> to exit INSTALL.
- 5) Change directory to the Rage Pro (default) directory and type "INSTDMI".
- 6) You may now use the DOS or Windows browsers to examine the current status of your video card.

A.12. Reporting Problems

If you experience difficulties, open the file REPORT.TXT and complete the Problem Report form.

<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: 18365 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-6BNZ</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>SEP 23, 1998</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 Trading GmbH
Ausschlag Weg 41, 1F, 20537 Hamburg, Germany

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

Mother Board
GA-6BNZ

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*
<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"/> DIN VDE 0855
<input type="checkbox"/> part 10
<input type="checkbox"/> part 12 | Cabled distribution systems; Equipment for receiving and/or distribution 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

(Stamp)

Date : Sep. 23, 1998

Name : Rex Lin