Introduction 1

The MS-6380 LE ATX mainboard is a high-performance computer mainboard based on VIA® **Apollo KT266** chipset and designed for the AMD® Athlon™ or Duron™ (PGA) processor for inexpensive business/ personal desktop markets.

The **Apollo KT266** chipset consists of the VT8366 Super Northbridge and the VT8233 Southbridge. VT8366 provides a PC1600/2100 DDR (Double Data Rate) solution with support for 200/266MHz Front Side Bus. By using PC2100 DDR technology, the VT8366 enables 2.1GB/second peak bandwidth between system memory and Northbridge. The chipset doubles the communication bandwidth between the North and South Bridge to 266MB/sec through a high-speed V-Link bus. With AGP 4X interface, VT8366 boosts system performance for 3D graphics and video program.

The VT8233 Southbridge integrates many peripheral controllers including dual channel UltraDMA-33/66/100 master mode EIDE controller, AC-link interface, LPC interface, USB controller etc. The VT8233 is compatible with PCI-2.2 specification and supports advanced power management.

The **Apollo KT266** chipset provides the optimized performance for the PC systems based on the latest AMD® processors.

This chapter includes the following topics:

Mainboard Specification

CPU

- Support Socket A (Socket-462) for AMD® Athlon™ /Duron™ processor
- Support 600MHz up to 1.3GHz processor or higher

Chipset

- VIA® VT8366 chipset (552 BGA)
  - FSB @200/266MHz
  - AGP 4X and PCI Advanced high performance memory controller
- VIA® VT8233 chipset (376 BGA)
  - High Bandwidth V-link Client controller
  - Integrated Faster Ethernet LPC
  - Integrated Hardware Sound Blaster/Direct Sound AC97 audio
  - Ultra DMA 33/66/100 master mode PCI EIDE controller
  - ACPI

Clock Generator

- 100/133MHz clocks are supported

Main Memory

- Support six memory banks using three 184-pin DDR DIMMs
- Support a maximum memory size up to 3GB
- Support 2.5v DDR SDRAM DIMM

Slots

- One AGP (Accelerated Graphics Port) slot
  - AGP specification compliant
  - Support AGP 2.0 1x/2x/4x
- One CNR (Communication Network Riser) slot
- Five 32-bit Master PCI Bus slots
- Supports 3.3V/5V PCI bus Interface

On-Board IDE

- An IDE controller on the VIA® VT8233 chipset provides IDE HDD/CD-ROM with PIO, Bus Master and Ultra DMA 33/66/100 operation modes
- Can connect up to 4 IDE devices

Audio

- Chip integrated (2 channel S/W audio)
  - Direct Sound AC97 Audio

On-Board Peripherals

- On-Board Peripherals include:
  - 1 floppy port supports 2 FDD with 360K, 720K, 1.2M, 1.44M and 2.88Mbytes
  - 2 serial ports (COMA + COMB)
  - 6 USB ports (Rear x 2 / Front x 4)
  - 1 parallel port supporting SPP/EPP/ECP mode
  - 1 IrDA connector for SIR/ASKIR/HPSIR
  - 1 Audio/Game port

BIOS

- The mainboard BIOS provides “Plug & Play” BIOS which detects the peripheral devices and expansion cards of the board automatically
- The mainboard provides a Desktop Management Interface (DMI) function which records your mainboard specifications

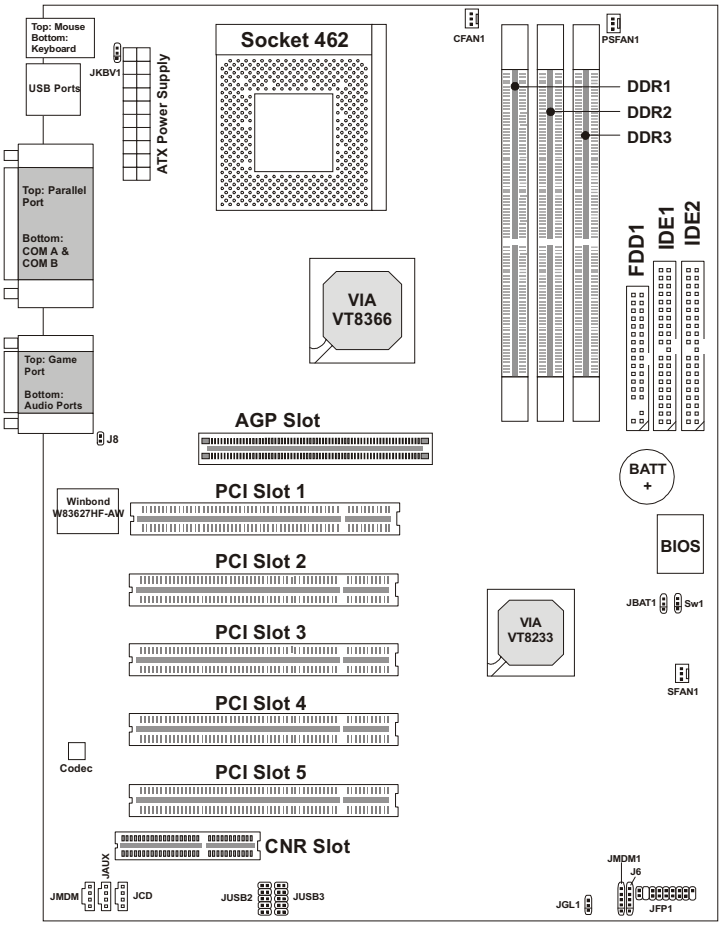
Dimension

- ATX Form Factor (30.4 cm X 23.5 cm)

Mounting

- 6 mounting holes

Mainboard Layout



MS-6380 LE ATX VA Mainboard

Jumpers & Connectors

SW1

This is used to set the CPU FSB frequency.

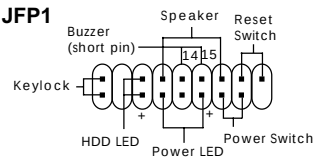
JBAT1

A battery must be used to retain the mainboard configuration in CMOS RAM. Short 1-2 pins of JBAT1 to store the CMOS data.

JKBV1

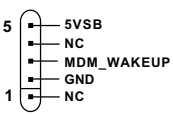
This is used to set the PS/2 Keyboard/Mouse wake-up (power on) function.

JFP1



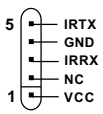
The Keylock, Power Switch, Reset Switch, Power LED, Speaker, and HDD LED are all connected to the JFP1 connector block.
If Onboard Buzzer is available, then:
Always short pin 14-15 to enable Onboard Buzzer

JMDM1



The JMDM1 connector is for use with Modem add-on card that supports the Modem Wake Up function.

J6



This connector is for optional wireless transmitting and receiving infrared module.

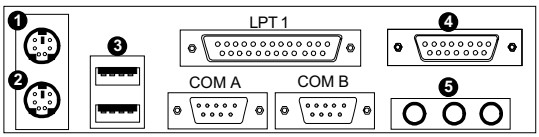
JGL1

Attach a power saving LED to JGL1.

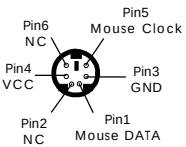
J8

Connect a 2-pin chassis intrusion switch to the connector.

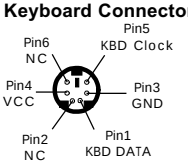
Back Panel



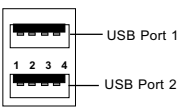
1 Mouse Connector



2 Keyboard Connector

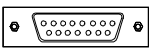


3 USB Ports

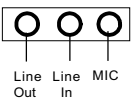


PIN	SIGNAL
1	VCC
2	-Data
3	+Data
4	GND

4 Joystick/MIDI



5 Audio Ports



AMI® BIOS Setup 2

The mainboard uses AMI® BIOS ROM that provides a Setup utility for users to modify the basic system configuration. The information is stored in a battery-backed CMOS RAM so it retains the Setup information when the power is turned off.

This chapter provides you with the overview of the BIOS Setup program. It contains the following topics:

Note: *For detailed description of BIOS settings, refer to K7T266 Pro (MS-6380) Manual in the provided CD.*

Entering Setup

Power on the computer and the system will start POST (Power On Self Test) process. When the message below appears on the screen, press <DEL> key to enter Setup.

```
Hit DEL if you want to run SETUP
```

If the message disappears before you respond and you still wish to enter Setup, restart the system by turning it OFF and On or pressing the RESET button. You may also restart the system by simultaneously pressing <Ctrl>, <Alt>, and <Delete> keys.

Control Keys

<↑>	Move to the previous item
<↓>	Move to the next item
<←>	Move to the item in the left hand
<→>	Move to the item in the right hand
<Enter>	Select the item
<Esc>	Jumps to the Exit menu or returns to the main menu from a submenu
<+/PU>	Increase the numeric value or make changes
<-/PD>	Decrease the numeric value or make changes
<F5>	Restore the previous CMOS value from CMOS, only for Option Page Setup Menu
<F6>	Load the default CMOS value from Fail-Safe default table, only for Option Page Setup Menu
<F7>	Load Optimized defaults
<F10>	Save all the CMOS changes and exit

Getting Help

After entering the Setup utility, the first screen you see is the Main Menu.

Main Menu

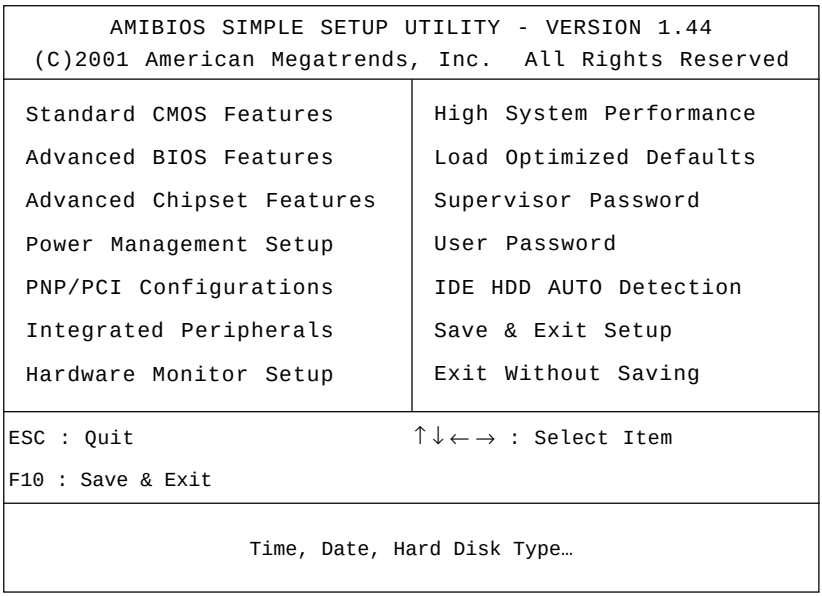
The main menu displays the setup categories the BIOS supplies. You can use the arrow keys (↑↓) to select the item. The on-line description for the selected setup category is displayed on the bottom of the screen.

Default Settings

The BIOS setup program contains two kinds of default settings: the Optimized and Performance defaults (High System Performance). Optimized defaults provide optimum and stable performance settings for all devices and the system. (The "default" value described in the chapter usually refers to the Optimized defaults unless otherwise specified.) Performance defaults provide the best system performance but may affect the system stability.

The Main Menu

Once you enter AMIBIOS SIMPLE SETUP UTILITY, the Main Menu will appear on the screen. The Main Menu displays twelve configurable functions and two exit choices. Use arrow keys to move among the items and press <Enter> to enter the sub-menu.



Standard CMOS Features

The items inside STANDARD CMOS SETUP menu are divided into 9 categories. Each category includes none, one or more setup items. Use the arrow keys to highlight the item you want to modify and use the <PgUp> or <PgDn> keys to switch to the value you prefer.

AMIBIOS SETUP - STANDARD CMOS SETUP
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Date (mm/dd/yyyy) : Tue Apr 17, 2001
Time (hh/mm/ss) : 00:00:00

	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 3½
Floppy Drive B : Not Installed

Boot Sector Virus Protection Disabled

Base Memory : 640 Kb
Other Memory : 384 Kb
Extended Memory : 127 Mb
Total Memory : 128 Mb

Month: Jan - Dec
Day: 01 - 31
Year: 1901 - 2099

ESC : Exit
↑ ↓ : Select Item
PU/PD/+/- : Modify
(Shift) F2 : Color

Advanced BIOS Features

AMIBIOS SETUP - BIOS FEATURES SETUP (C)2001 American Megatrends, Inc. All Rights Reserved		
Quick Boot	:Enabled	
1st Boot Device	:Floppy	
2nd Boot Device	:IDE-0	
3rd Boot Device	:CDROM	
Try Other Boot Devices	:Yes	
Initial Display Mode	:BIOS	
S.M.A.R.T. for Hard Disks	:Disabled	
BootUp Num-Lock	:On	
Floppy Drive Swap	:Disabled	
Floppy Drive Seek	:Disabled	
Primary Display	:VGA/EGA	
Password Check	:Setup	
Boot To OS/2	:No	
L1 Cache	:Enabled	
L2 Cache	:Enabled	
System BIOS Cacheable	:Enabled	ESC : Quit ↑↓←→ : Select Item
C000, 32k Shadow	:Cached	F1 : Help PU/PD/+/- : Modify F5 : Load Previous Values F6 : Load Fail-Safe Defaults F7 : Load Optimized Defaults

Advanced Chipset Features

AMIBIOS SETUP - CHIPSET FEATURES SETUP
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Configure SDRAM Timing by	:SPD
SDRAM Frequency	:HCLK
SDRAM CAS# Latency	:2.5
SDRAM Bank Interleave	:Disabled
SDRAM 1T Command	:Disabled
AGP Mode	:Auto
AGP Comp. Driving	:Auto
Manual AGP Comp. Driving	:CB
AGP Fast Write	:Disabled
AGP Read Synchronization	:Disabled
AGP Aperture Size	:64MB
AGP Master 1 W/S Write	:Disabled
AGP Master 1 W/S Read	:Disabled
PCI Master Read Caching	:Disabled
Search for MDA Resources	:Yes
PCI Delay Transaction	:Disabled
BIOS Protection	:Enabled

ESC : Quit ↑↓←→ : Select Item
F1 : Help PU/PD/+/- : Modify
F5 : Load Previous Values
F6 : Load Fail-Safe Defaults
F7 : Load Optimized Defaults

Note: *Change these settings only if you are familiar with the chipset.*

Power Management Setup

AMIBIOS SETUP - POWER MANAGEMENT SETUP
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IPCA Function	:Yes	Wake Up On Ring/LAN	:Enabled
ACPI Standby State	:S1/POS	Wake Up On PME#	:Enabled
USB Wakeup From S3	:Disabled	Resume By Alarm	:Disabled
Power Management/APM	:Enabled	Alarm Date	:15
Green PC LED Status	:Dual Color	Alarm Hour	:12
Suspend Time Out (Minute)	:Disabled	Alarm Minute	:30
Display Activity	:Ignore	Alarm Second	:30
IRQ3	:Monitor		
IRQ4	:Monitor		
IRQ5	:Ignore		
IRQ7	:Monitor		
IRQ9	:Ignore		
IRQ10	:Ignore		
IRQ11	:Ignore		
IRQ13	:Ignore		
IRQ14	:Monitor		
IRQ15	:Ignore		
CPU Critical Temperature	:Disabled		
Power Button Function	:Suspend		
Restore on AC/Power Loss	:Last State		

ESC : Quit ↑↓←→ : Select Item
F1 : Help PU/PD/+/- : Modify
F5 : Load Previous Values
F6 : Load Fail-Safe Defaults
F7 : Load Optimized Defaults

PNP/PCI Configurations

This section describes configuring the PCI bus system and PnP (Plug & Play) feature. PCI, or Personal Computer Interconnect, is a system which allows I/O devices to operate at speeds nearing the speed the CPU itself uses when communicating with its special components. This section covers some very technical items and it is strongly recommended that only experienced users should make any changes to the default settings.

AMIBIOS SETUP - PNP/PCI CONFIGURATION
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Plug and Play Aware O/S	:No
Clear NVRAM	:No
Primary Graphics Adapter	:PCI
DMA Channel 0	:PnP
DMA Channel 1	:PnP
DMA Channel 3	:PnP
DMA Channel 5	:PnP
DMA Channel 6	:PnP
DMA Channel 7	:PnP
IRQ3	:PCI/PnP
IRQ4	:PCI/PnP
IRQ5	:PCI/PnP
IRQ7	:PCI/PnP
IRQ9	:PCI/PnP
IRQ10	:PCI/PnP
IRQ11	:PCI/PnP
IRQ14	:PCI/PnP
IRQ15	:PCI/PnP

ESC : Quit ↑↓←→ : Select Item
F1 : Help PU/PD/+/- : Modify
F5 : Load Previous Values
F6 : Load Fail-Safe Defaults
F7 : Load Optimized Defaults

Integrated Peripherals

AMIBIOS SETUP - INTEGRATED PERIPHERALS
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FDC Function	:Auto
Serial Port1	:Auto
Serial Port2	:Auto
Serial Port2 Mode	:Normal
IR Duplex Mode	:Half Duplex
IR Pin Select	:IRRX/IRTX
Parallel Port	:Auto
Parallel Port Mode	:ECP
EPP Version	:N/A
Parallel Port IRQ	:Auto
Parallel Port DMA	:Auto
OnBoard Midi Port	:Disabled
Midi IRQ Select	:5
OnBoard Game Port	:200
Keyboard PowerOn Function	:Disabled
Specific Key for PowerOn	:N/A
Mouse PowerOn Function	:Disabled
IDE Function	:Both
OnChip AC'97 Audio	:Enabled
OnChip MC'97 Modem	:Auto

USB Controller	:All USB Port
USB Legacy Support	:Disabled
USB Port 64/60 Emulation	:Disabled

ESC : Quit ↑↓←→ : Select Item
F1 : Help PU/PD/+/- : Modify
F5 : Load Previous Values
F6 : Load Fail-Safe Defaults
F7 : Load Optimized Defaults

Hardware Monitor Setup

This section describes how to set the Chassis Intrusion feature, CPU FSB frequency, monitor the current hardware status including CPU/system temperatures, CPU/System Fan speeds, Vcore etc. Monitor function is available only if there is hardware monitoring mechanism onboard.

AMIBIOS SETUP - Hardware Monitor Setup
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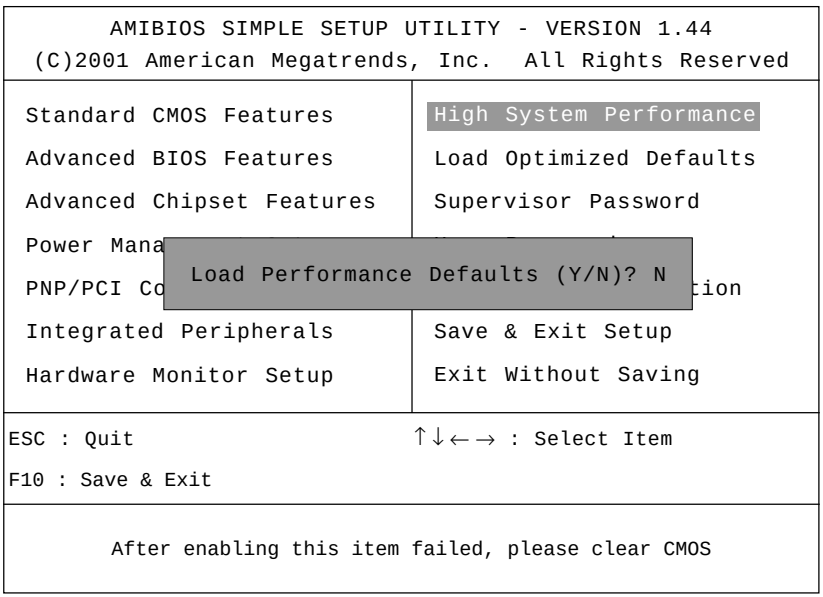
Spread Spectrum	±0.25%	Battery
CPU FSB Clock	100MHz	+5V SB
CPU FSB/PCI Overclocking	H/W	
Chassis Intrusion	Disabled	
CPU Temperature		
System Temperature		
CPU Fan Speed		
System Fan Speed		
Power Fan Speed		
Vcore		
VTT		
VIO		
+ 5.0V		
+12.0V		
-12.0V		
- 5.0V		

ESC : Quit ↑↓←→ : Select Item
F1 : Help PU/PD/+/- : Modify
F5 : Load Previous Values
F6 : Load Fail-Safe Defaults
F7 : Load Optimized Defaults

Load Performance/Optimized Defaults

The two options on the main menu allow users to restore all of the BIOS settings to the default Performance or Optimized defaults. The Performance Defaults are the default values set by the mainboard manufacturer for the best system performance but probably will cause a stability issue. The Optimized Defaults are the default values also set by the mainboard manufacturer for both optimized and stable performance of the mainboard.

When you select High System Performance, a message as below appears:

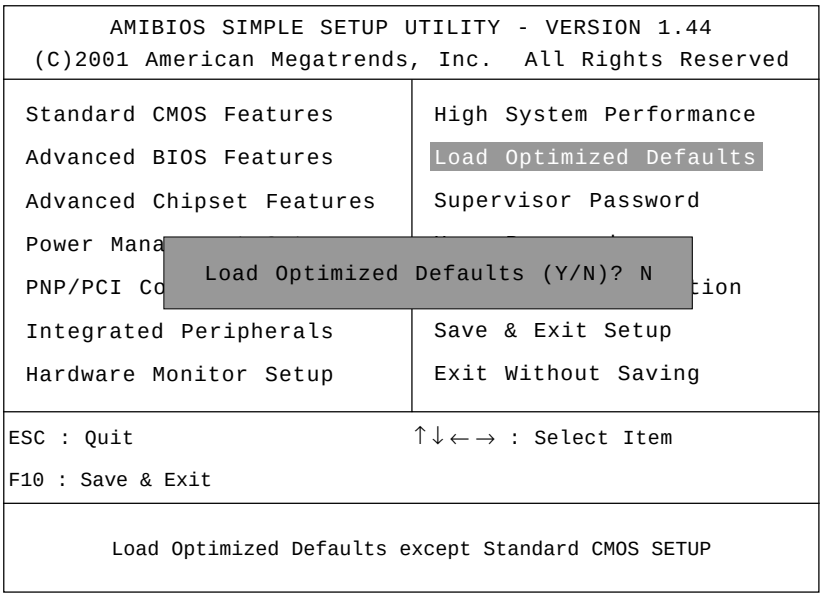


Pressing 'Y' loads the default BIOS values that enable the best system performance (better than the Optimized Defaults) but may result in the instability of system.

WARNING!

The option is for powerful or overclocking users only. If the system crashes or hangs after enabling the feature, please CLEAR CMOS DATA to resolve the problem. For more information, refer to Clear CMOS Jumper:JBAT1 on page 1-5.

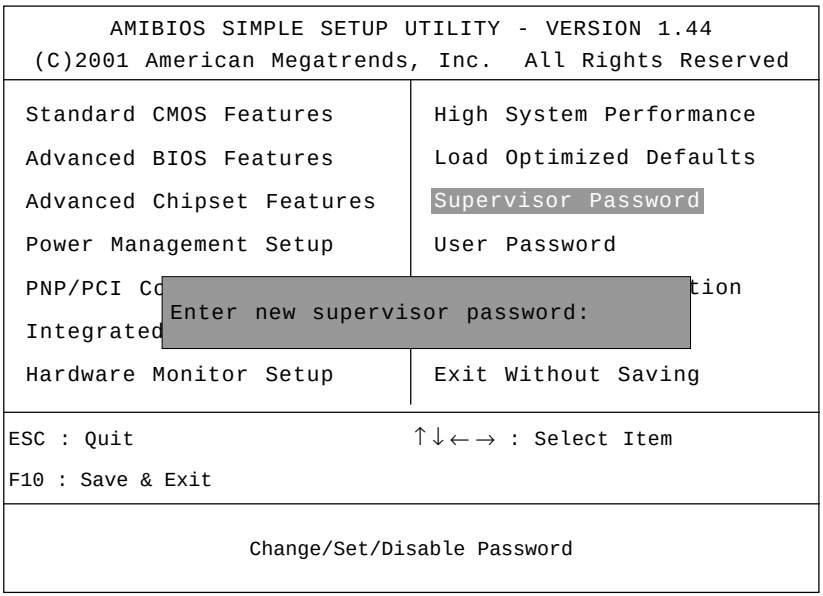
When you select Load Optimized Defaults, a message as below appears:



Pressing 'Y' loads the default values that are factory settings for optimal and stable system performance.

Supervisor/User Password

When you select this function, a message as below will appear on the screen:



Type the password, up to six characters in length, and press <Enter>. The password typed now will clear any previously set password from CMOS memory. You will be prompted to confirm the password. Retype the password and press <Enter>. You may also press <Esc> to abort the selection and not enter a password.

To clear a set password, just press <Enter> when you are prompted to enter the password. A message will show up confirming the password will be disabled. Once the password is disabled, the system will boot and you can enter Setup without entering any password.

When a password has been set, you will be prompted to enter it every time you try to enter Setup. This prevents an unauthorized person from changing any part of your system configuration.

Additionally, when a password is enabled, you can also have AMIBIOS to request a password each time the system is booted. This would prevent unauthorized use of your computer. The setting to determine when the password prompt is required is the PASSWORD CHECK option of the BIOS FEATURES SETUP menu. If the PASSWORD CHECK option is set to *Always*, the password is required both at boot and at entry to Setup. If set to *Setup*, password prompt only occurs when you try to enter Setup.

About Supervisor Password & User Password:	
Supervisor password :	*Can enter and change the settings of the setup menu.*
User password:	*Can only enter but do not have the right to change the settings of the setup menu.*

IDE HDD AUTO Detection

You can use this utility to AUTOMATICALLY detect the characteristics of most hard drives.

AMIBIOS SETUP - STANDARD CMOS SETUP
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Date (mm/dd/yyyy) : Tue Apr 17, 2001
Time (hh/mm/ss) : 00:00:00

	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 3½
Floppy Drive B : Not Installed

Boot Sector Virus Protection Disabled

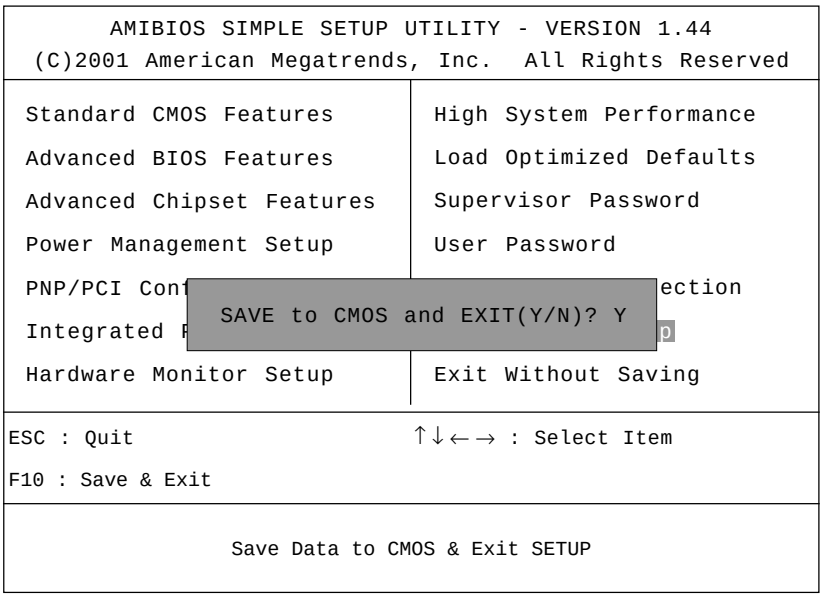
Base Memory : 640 Kb
Other Memory : 384 Kb
Extended Memory : 127 Mb
Total Memory : 128 Mb

Detecting drive parameters:
Press ESC to abort

ESC : Exit
↑ ↓ : Select Item
PU/PD/+/- : Modify
(Shift) F2 : Color

Save & Exit Setup

When you want to quit the Setup menu, you can select this option to save the changes and quit. A message as below will appear on the screen.

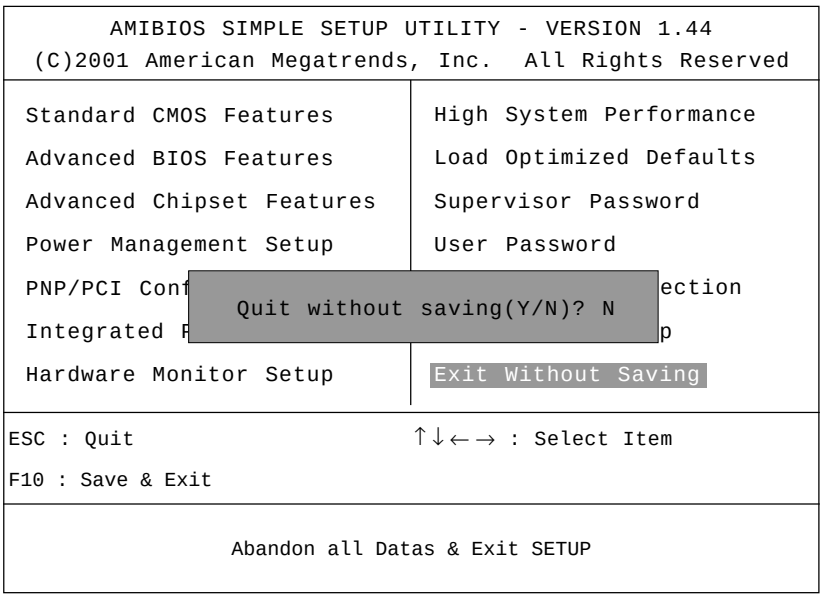


Typing *Y* will allow you to quit the Setup Utility and save the user setup changes to RTC CMOS.

Typing *N* will return to the Setup Utility.

Exit Without Saving

When you want to quit the Setup menu, you can select this option to abandon the changes. A message as below will appear on the screen.



Typing *Y* will allow you to quit the Setup Utility without saving any changes to RTC CMOS.

Typing *N* will return to the Setup Utility.