Introduction

System Overview

The board incorporates system board, ISA I/O and PCI IDE in one board that provides all the PC solutions. The mainboard is a Pentium™ micro processor based PC/ATX system, supports 512KB to 1024KB cache with ISA Bus and PCI Local Bus and AGP Bus to upgrade your system performance. It is ideal for multi-tasking and fully supports MS-DOS, Windows, Windows NT, Novell, OS/2, Windows95 / 98, UNIX, SCO UNIX etc. This manual also explains how to install the mainboard for operation, and how to setup your CMOS configuration with BIOS setup program.

Features

- **Hardware**

CPU

- Supported CPUs Pentium™ microprocessor P54C/CT/CS/CQS, MMX™; Cyrix6x86™ /6x86L™/6x86MX™ microprocessor; idt–C6 microprocessor, AMD-K5™ /AMD-K6™ microprocessor.
- Provides 321-pin ZIF socket (socket 7).

Green Function

- Supports power management operation via BIOS.
- Power down timer from 2 Mins to 30 Mins.
- Wakes up by any keypress or mouse activity.
- Wake on LAN supported.
- Ringing resume on internal / external modem supported.
- Power-on by keyboard or PS/2 mouse (optional)
- ACPI supported

Speed

- Supports CPU bus clock 55/60/66 MHz.
- Supports 27.5/30/33 MHz PCI Bus speed.
- Supports 133MHz 2x mode AGP.
- I/O clock 8 MHz for ISA Bus.

Shadow RAM

- A memory controller that provides shadow RAM and supports 8-bit ROM BIOS.

Platform

- ATX Form Factor.

DRAM Memory

- Supports total DRAM 2 banks; 72-pin SIMM or 168-pin DIMM module sockets.
- Supports DRAM memory 8MB to 256MB on board.
- Supports EDO & FP mode DRAM.
- Supports Symmetrical and Asymmetrical DRAM.
- Supports 2 banks DIMM, 3.3V Unbuffered Synchronous DRAM.
- Supports optional E.C. (error checking / reporting) or E.C.C. (error correction)

Cache Memory

- Supports Pipelined Burst SRAM up to 1024KB.

BUS Slots

- Provides two 16-bit ISA Bus slots.
- Four 32-bit PCI Bus master slots, one A.G.P. slot.
- AGP V1.0 compliant.
- PCI V2.1 compliant.

Flash Memory

- Supports PnP function for better system compatibility.
- Allows you to easily upgrade system BIOS .

PCI Enhanced IDE Built-in On Board

- Supports 4 IDE hard disk drives.
- Supports mode 4, Bus Master Mode, high performance hard disk drives.
- Supports Ultra DMA/33, Bus Master Mode.
- Supports IDE interface with CD-ROM.
- Supports high capacity hard disk drives.
- Supports LBA mode.
- Supports booting from LS-120 “SuperDisk” or Iomega ZIP 100MB disk.

ISA I/O Built-in On Board

- Supports one multi-mode Parallel Port:

(1) Standard & Bidirection Parallel Port (SPP).

(2) Enhanced Parallel Port (EPP).

(3) Extended Capabilities Port (ECP).

- Supports two serial ports, 16550 UART with 16 byte FIFO.
- Supports one Infrared transmission (IR) port.
- Supports PS/2 Mouse.
- Supports 360KB, 720KB, 1.2MB, 1.44MB and 2.88MB floppy disk drives.

Universal Serial Bus

- Supports two Universal Serial Bus (U.S.B.) ports.
- Supports 48MHz USB.

Dimension

- 30.5 cm X 21.5 cm (W x L)

• Software

BIOS

- AWARD legal friendly BIOS.
- Supports PnP functions.

O.S.

- Offers the highest performance for MS-DOS, OS/2, Windows, Windows NT, Windows 95 / 98, Novell, UNIX, SCO UNIX etc.

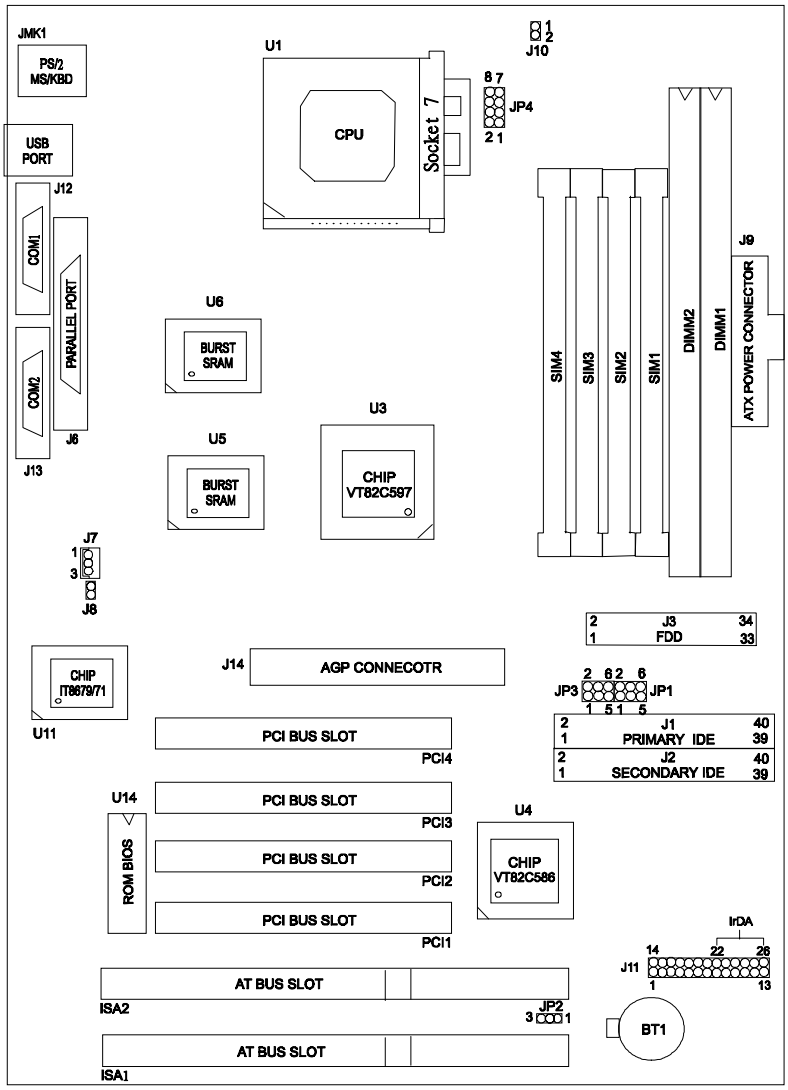
• Attachments

- HDD Cable
- FDD Cable
- Rear I/O Panel for ATX case
- CD

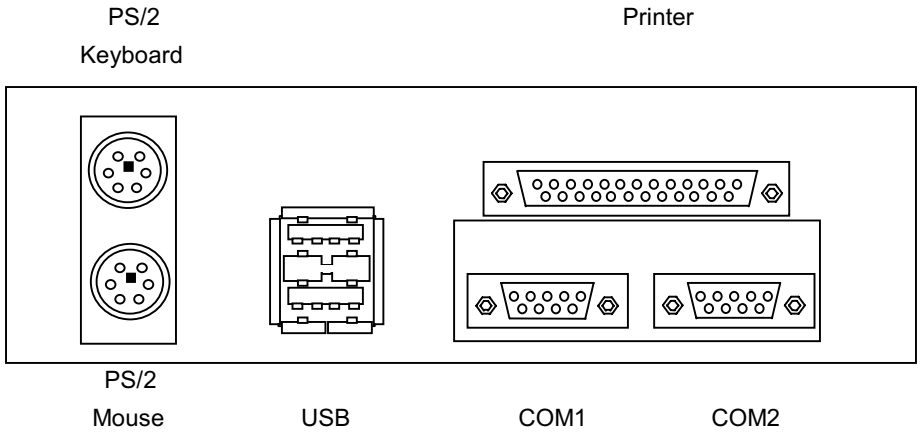
Mainboard Installation

Layout of Mainboard

Model No. M5VIA



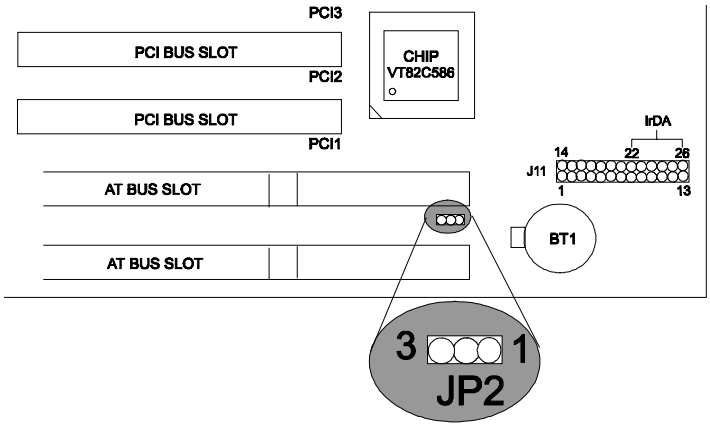
Back I/O panel



Jumpers Setting

A jumper is two or more pins which may or may not be covered by a plastic jumper cap allowing you to select different system options.

(A) JP2 CMOS Function Selection



JP2	Assignment
3 1 1-2 Closed	Normal Operation
3 1 2-3 Closed	Clear CMOS Data
3 1 Open	Onboard Battery Disabled

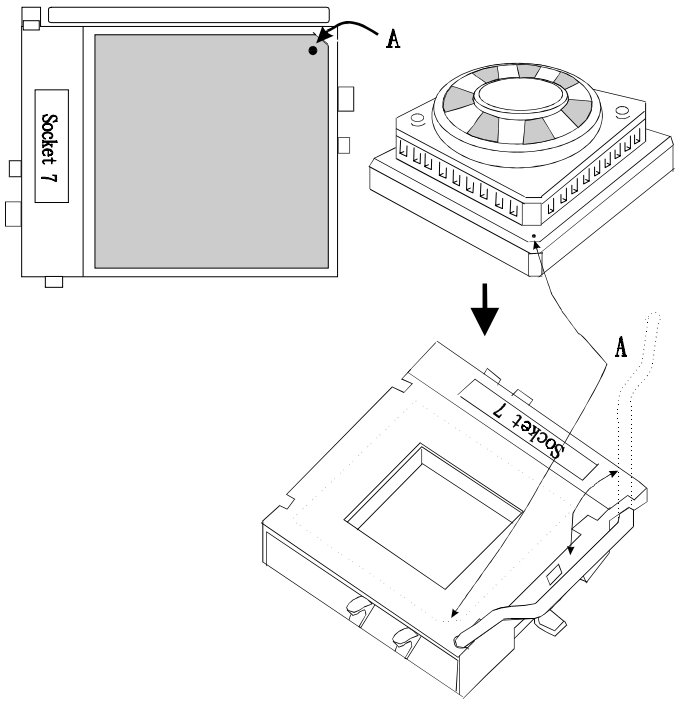
Note : Please follow the procedure below to clear BIOS Password if your password is lost or forgotten.

Power off → JP2(2-3) closed → JP2(1-2) closed →

→ Power on → Reset your desired password

CPU Installation/Jumper Setting

CPU Installation Procedure

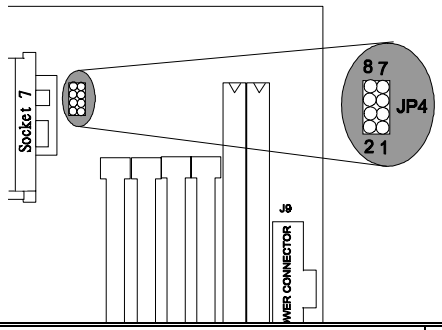


1. Pull the lever sideways away from the socket then raise the lever up to a 90-degree angle.

2. Locate Pin A in the socket and look for the white dot or cut edge in the CPU. Match Pin A with the white dot/cut edge then insert the CPU. It should insert easily.

3.Press the lever down to complete the installation.

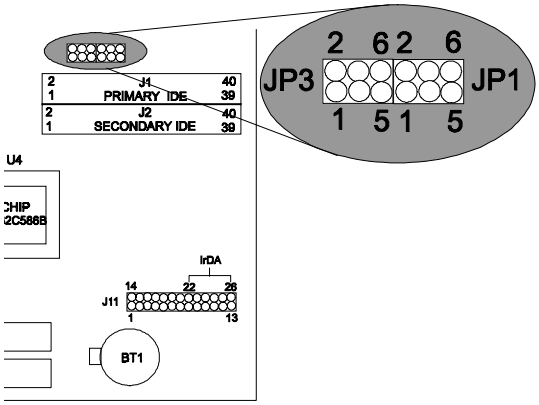
(A) JP4 CPU Voltage Selection



CPU TYPE	CPU Voltage		JP4
	CORE	I / O	
Single Voltage **INTEL ™** P54C/CQS/CT **Cyrix ™** 6x86 **AMD ™** K5 **idt Win™** Chip	3.5V	3.5V	1-2 closed 3-4 closed 5-6 closed 7-8 closed
Dual Voltage **INTEL ™** P55C/MMX™ **Cyrix ™** 6x86L / 6x86MX **AMD ™** K6	2.1V	3.3V	1-2 closed 3-4 open 5-6 open 7-8 open
	2.2V	3.3V	1-2 open 3-4 closed 5-6 open 7-8 open
	2.8V	3.3V	1-2 open 3-4 open 5-6 open 7-8 closed
	2.9V	3.3V	1-2 closed 3-4 open 5-6 open 7-8 closed
	3.2V	3.3V	1-2 open 3-4 open 5-6 closed 7-8 closed
	3.3V	3.3V	1-2 closed 3-4 open 5-6 closed 7-8 closed

(B) JP3, JP1 CPU Clock Selection

(a) INTEL CPU



CPU Speed	Bus Clock & Multiplier	JP3 (1-2)	JP3 (3-4)	JP3 (5-6)	JP1 (1-2)	JP1 (3-4)	JP1 (5-6)
90MHz	60MHz x 1.5	closed	open	open	open	open	open
100MHz	66MHz x 1.5	open	open	open	open	open	open
120MHz	60MHz x 2	closed	open	open	closed	open	open
133MHz	66MHz x 2	open	open	open	closed	open	open
150MHz	60MHz x 2.5	closed	open	open	closed	closed	open
166MHz	66MHz x 2.5	open	open	open	closed	closed	open
200MHz	66MHz x 3	open	open	open	open	closed	open
233MHz	66MHz x 3.5	open	open	open	open	open	open

** JP3(1-2)closed & JP3(3-4)open & JP3(5-6)open :Bus Clock = 60MHz*
** JP3(1-2)open & JP3(3-4)open & JP3(5-6)open :Bus Clock = 66MHz*
** JP1(1-2) open & JP1(3-4) open & JP1(5-6) open : Multiplier = 1.5*
** JP1(1-2) closed & JP1(3-4) open & JP1(5-6)open : Multiplier = 2*
** JP1(1-2) closed & JP1(3-4) closed & JP1(5-6)open : Multiplier = 2.5*
** JP1(1-2) open & JP1(3-4) closed & JP1(5-6)open : Multiplier = 3*
** JP1(1-2) open & JP1(3-4) open & JP1(5-6)open : Multiplier = 3.5*

(b) Cyrix 6x86™ / 6x86L™ CPU

CPU Speed	Bus Clock & Multiplier	JP3 (1-2)	JP3 (3-4)	JP3 (5-6)	JP1 (1-2)	JP1 (3-4)	JP1 (5-6)
PR-150+ 120MHz	60MHz x 2	closed	open	open	closed	open	open
PR-166+ 133MHz	66MHz x 2	open	open	open	closed	open	open
PR-200+ 150MHz	* 75MHz x 2	open	closed	open	closed	open	open

(c) Cyrix 6x86MX™ CPU

CPU Speed	Bus Clock & Multiplier	JP3 (1-2)	JP3 (3-4)	JP3 (5-6)	JP1 (1-2)	JP1 (3-4)	JP1 (5-6)
PR-150+ 120MHz	60MHz x 2	closed	open	open	closed	open	open
PR-166+ 133MHz	66MHz x 2	open	open	open	closed	open	open
PR-166+ 150MHz	60MHz x 2.5	closed	open	open	closed	closed	open
PR-200+ 150MHz	* 75MHz x 2	open	closed	open	closed	open	open
PR-200+ 166MHz	66MHz x 2.5	open	open	open	closed	closed	open
PR-200+ 180MHz	60MHz x 3	closed	open	open	open	closed	open
PR-233+ 188MHz	* 75MHz x 2.5	open	closed	open	closed	closed	open
PR-233+ 200MHz	66MHz x 3	open	open	open	open	closed	open
PR-266+ 233MHz	66MHz x 3.5	open	open	open	open	open	open
PR-266+ 225MHz	* 75MHz x 3	open	closed	open	open	closed	open

*** M5VIA may run 75Mhz clock speed but does not be recommended due to AGP Slot can run 66MHz only, user will use 75Mhz clock base CPUs at your own risk.**

(d) AMD-K5™ CPU

CPU Speed	JP3(1-2)	JP3(3-4)	JP3(5-6)	JP1(1-2)	JP1(3-4)	JP1(5-6)
PR-90	closed	open	open	open	open	open
PR-100	open	open	open	open	open	open
PR-120	closed	open	open	closed	open	open
PR-133	open	open	open	closed	open	open
PR-166	open	open	open	closed	closed	open
PR-200	open	open	open	open	closed	open

(e) AMD-K6™ CPU

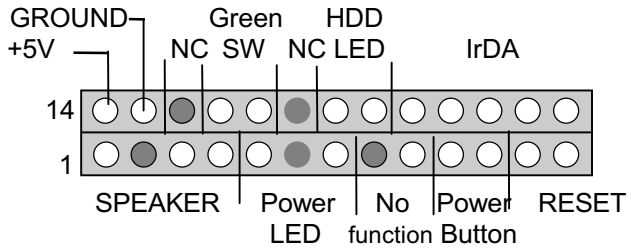
CPU Speed	JP3(1-2)	JP3(3-4)	JP3(5-6)	JP1(1-2)	JP1(3-4)	JP1(5-6)
166MHz	open	open	open	closed	closed	open
200MHz	open	open	open	open	closed	open
233MHz	open	open	open	open	open	open
266MHz	open	open	open	closed	open	closed
300MHz	open	open	open	closed	closed	closed

(f) idt-Win™ Chip CPU

CPU Speed	JP3(1-2)	JP3(3-4)	JP3(5-6)	JP1(1-2)	JP1(3-4)	JP1(5-6)
180MHz	closed	open	open	open	closed	open
200MHz	open	open	open	open	closed	open

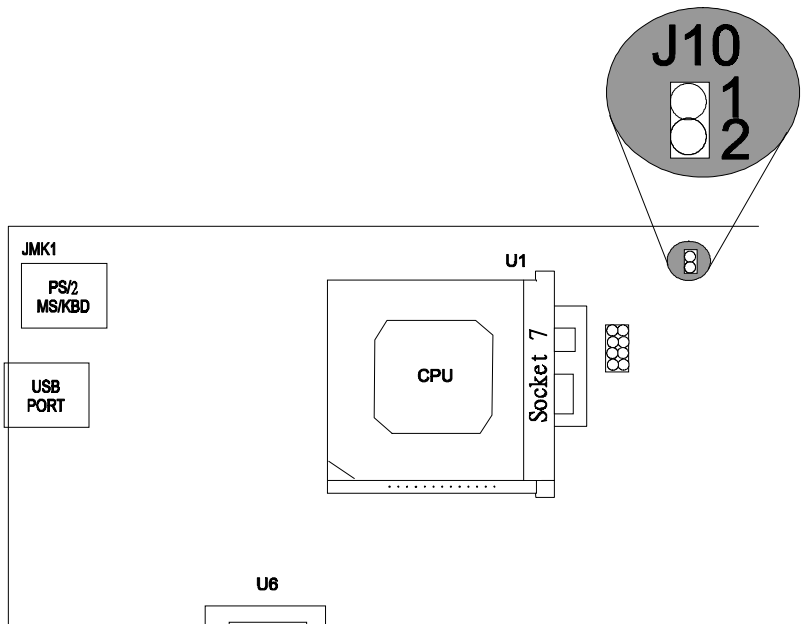
Connectors

(A) J11



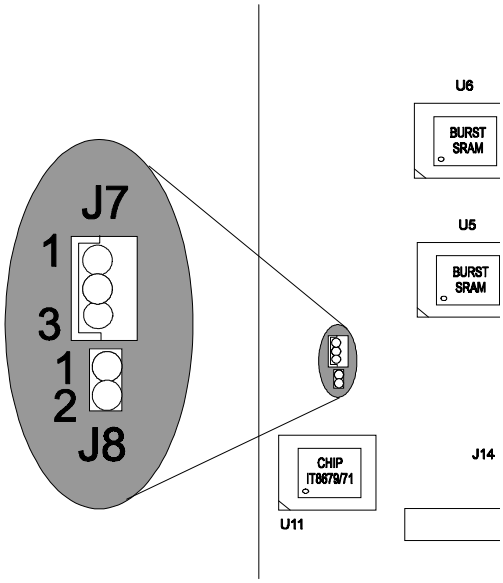
Pin No.	Assignment	Function	Pin No.	Assignment	Function
1	Speaker	Speaker Connector	**14**	+5V	VCC
2	No Connection		**15**	Ground	Ground
3	Ground		**16**	No Connection	NC
4	+5V		**17**	Green Control	Green Switch
5	Power LED(+)	Power LED	**18**	Ground	
6	NC		**19**	No Connection	NC
7	Power LED(-)		**20**	HDD LED(-)	HDD LED
8	No Connection	No Function	**21**	HDD LED(+)	
9	Ground		**22**	+5V	IrDA Connector
10	Ground	Power Button	**23**	No Connection	
11	Power Bottom		**24**	Ir IN	
12	Reset Control	Reset Button	**25**	Ground	
13	Ground		**26**	Ir OUT	

(B) J10 CPU Cooling Fan Power Connector



Pin No.	Assignment
1	Ground
2	+12 V

(C)



* J7 Wake-On-LAN Header

Pin No.	Assignment
1	Standby Voltage + 5V
2	Ground
3	Wakeup Signal Input

* J8 Modem Card Ring-in Header

Pin No.	Assignment
1	Ring-in signal Input
2	Ground

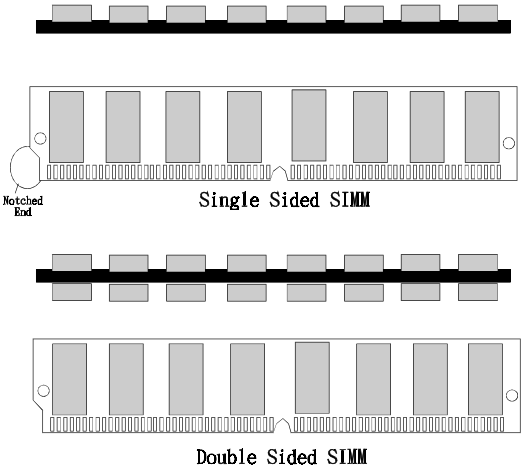
DRAM Installation

(a) SIMM

DRAM Access Time : fast page mode 70ns, EDO mode 60ns.
DRAM Type : 4MB/8MB/16MB/32MB SIMM Module (72Pin)

Total Memory Size (MB)	Bank 1 SIM1-SIM2	Bank 2 SIM3-SIM4
8M	4M x 2 pcs	----
16M	8M x 2 pcs	----
32M	16M x 2pcs	----
64M	32M x 2pcs	----
16M	4M x 2pcs	4M x 2 pcs
24M	8M x 2pcs	4M x 2 pcs
40M	16M x 2 pcs	4M x 2 pcs
72M	32M x 2 pcs	4M x 2 pcs
24M	4M x 2 pcs	8M x 2 pcs
32M	8M x 2 pcs	8M x 2 pcs
48M	16M x 2 pcs	8M x 2 pcs
80M	32M x 2 pcs	8M x 2 pcs
40M	4M x 2 pcs	16M x 2 pcs
48M	8M x 2 pcs	16M x 2 pcs
64M	16M x 2 pcs	16M x 2 pcs
96M	32M x 2 pcs	16M x 2 pcs
72M	4M x 2 pcs	32M x 2 pcs
80M	8M x 2 pcs	32M x 2 pcs
96M	16M x 2 pcs	32M x 2 pcs
128M	32M x 2 pcs	32M x 2 pcs

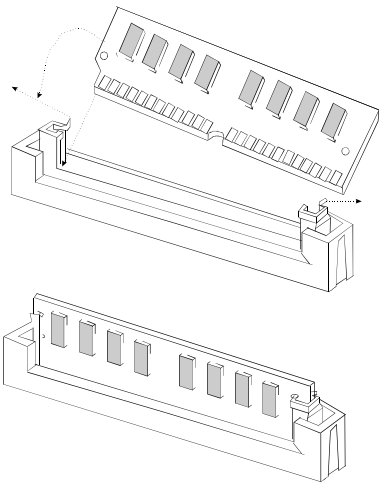
How to install a SIMM Module



1. The SIMM socket has an " *Iron Safety Tab"* and the SIMM memory module has a "Notched End", so the SIMM memory module can only fit in one direction.

2. Insert the SIMM memory modules into the socket at 45-degree angle, then push into a vertical position so that it snaps into place.

3. The Mounting Holes and Metal Clips should fit over the edges and hold the SIMM memory modules in place.



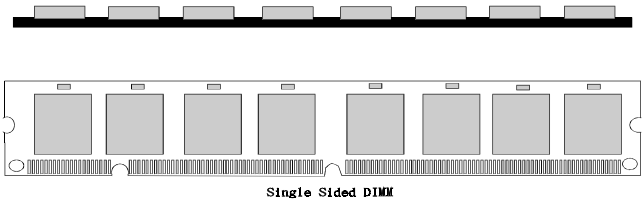
(b) DIMM

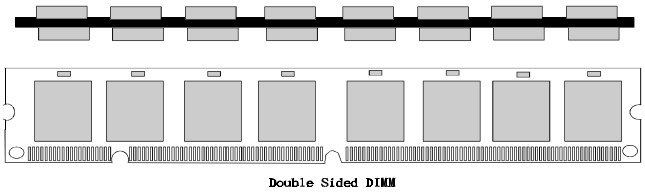
DRAM Access Time : 3.3V Unbuffered SDRAM 15ns required.
DRAM Type : 8MB/16MB/32MB/64MB DIMM Module (168pin)

Total Memory Size (MB)	Bank 0 DIMM 1	Bank 1 DIMM 2
8M	8M x 1 pc	----
16M	16M x 1 pc	----
32M	32M x 1 pc	----
64M	64M x 1 pc	----
128M	128M x 1 pc	----
16M	8M x 1 pc	8M x 1 pc
24M	16M x 1 pc	8M x 1 pc
40M	32M x 1 pc	8M x 1 pc
72M	64M x 1 pc	8M x 1 pc
24M	8M x 1 pc	16M x 1 pc
32M	16M x 1 pc	16M x 1 pc
48M	32M x 1 pc	16M x 1 pc
80M	64M x 1 pc	16M x 1 pc
40M	8M x 1 pc	32M x 1 pc
48M	16M x 1 pc	32M x 1 pc
64M	32M x 1 pc	32M x 1 pc
96M	64M x 1 pc	32M x 1 pc
72M	8M x 1 pc	64M x 1 pc
80M	16M x 1 pc	64M x 1 pc
96M	32M x 1 pc	64M x 1 pc
128M	64M x 1 pc	64M x 1 pc
256M	128M x 1 pc	128M x 1 pc

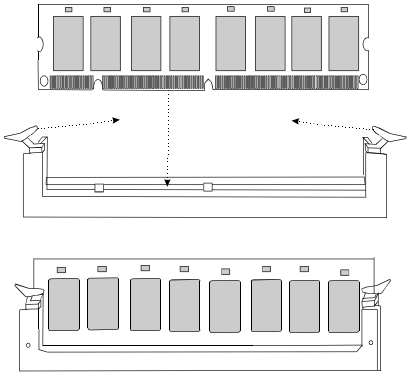
**Each Bank can be installed and used individually. The mainboard provides optimal performance and free choices depending on your needs.*
**The list show above for DRAM configuration is just for reference.*
**Dual In-line Memory Module DIMM2 DRAM size configuration is the same as SIMM Bank1.*
**SDRAM mixed with FP or EDO is not recommended.*

How to install a DIMM Module





1. The DIMM socket has a " *Plastic Safety Tab"* and the DIMM memory module has a "an asymmetrical notch", so the DIMM memory module can only fit in one direction.



2. Push the tabs out. Insert the DIMM memory modules into the socket at 90-degree angle, then push down a vertical position so that it will snap into place.

3. The Mounting Holes and plastic tabs should fit over the edge and hold the DIMM memory modules in place.

AWARD BIOS Setup

Entering Setup

Power on the computer and press <**Del**> immediately will allow you to enter Setup. The other way to enter Setup is to power on the Computer, and when the message below appears briefly at the bottom of the screen during the POST (Power On Self Test), press <**Del**> key or simultaneously press <**CTRL**>, <**Alt**>, and <**Esc**> keys.

TO ENTER SETUP BEFORE BOOT PRESS CTRL-ALT-ESC OR DEL KEY

If the message disappears before you respond and you still wish to enter Setup, restart the system to try again by turning it OFF then ON or pressing the "RESET" button on the system case. You may also restart by simultaneously pressing < **CTRL**>, <**Alt**>, and <**Delete**> key. If you do not press the keys at the correct time and the system does not boot, an error message will be displayed and you will again be asked to,

PRESS F1 TO CONTINUE, CTRL-ALT-ESC OR DEL TO ENTER SETUP

Main Menu

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

Status Page Setup Menu/Option Page Setup Menu

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

Control Keys

Up arrow	Move to previous item
Down arrow	Move to next item
Left arrow	Move to the item in at left
Right arrow	Move to the item in at right
Esc key	Main Menu:Quit and do not save changes into COMS 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
+ key	Increase the numeric value or make changes
- key	Decrease the numeric value or make changes
F1 key	General help, only for Status Page Setup Menu and Option Page Setup Menu
(Shift) F2 key	Change color to one of 16 colors. F2 to select color forward, (Shift) F2 to select color backward
F3 key	Reserved
F4 key	Reserved
F5 key	Restore the previous CMOS value, 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

Main Menu

Once you enter AWARD BIOS CMOS Setup Utility, the Main Menu(**Figure 1**) will appear on the screen. The Main Menu allows you to select an item and press <**Enter**> to accept or enter its sub-menu.

■ **Figure 1. Main Menu**

ROM PCI/ISA BIOS (xxxxxxxx)
CMOS SETUP UTILITY
AWARD SOFTWARE, INC.

STANDARD CMOS SETUP	INTEGRATED PERIPHERALS
BIOS FEATURES SETUP	SUPERVISOR PASSWORD
CHIPSET FEATURES SETUP	USER PASSWORD
POWER MANAGEMENT SETUP	IDE HDD AUTO DETECTION
PNP / PCI CONFIGURATION	SAVE & EXIT SETUP
LOAD SETUP DEFAULTS	EXIT WITHOUT SAVING
Esc : Quit F10 : Save & Exit Setup	↑ ↓ → ← : Select Item (Shift) F2 : Change Color
Time, Date, Hard Disk Type...	

Standard CMOS Setup

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

BIOS Features Setup

This setup page includes all the items for the BIOS special enhanced features.

Chipset Features Setup

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

Power Management Setup

This setup page includes all the items for power management features.

PnP / PCI Configuration

This category specifies the value (in units of PCI bus clocks) of the latency timer for this PCI bus master and the IRQ level for PCI device.

Load Setup Defaults

Chipset defaults indicates the values required by the system for maximum performance.

Integrated Peripherals

This setup page includes all the items for Integrated Peripherals features.

Supervisor Password / User Password Setting

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

IDE HDD Auto Detection

Automatically configure hard disk parameters.

Save & Exit Setup

Save CMOS value changes to CMOS and exit setup.

Exit Without Saving

Abandon all CMOS value changes and exit setup.

Standard CMOS Setup Menu

The items in the Standard CMOS Setup Menu are divided into

categories. Each category includes no, one, or more than one setup item. Use the arrow keys to highlight the item and then use the **<PgUp>** or **<PgDn>** keys to select the value you want in each item.

■ **Figure 2. Standard CMOS Setup Menu**

ROM PCI/ISA BIOS (xxxxxxxx)
STANDARD CMOS SETUP
AWARD SOFTWARE, INC.

Date (mm:dd:yy) : Mon, Mar 3 1997
Time (hh:mm:ss) : 11 : 37 : 30

HARD DISKS	TYPE	SIZE	CYLS	HEAD	PRECOMP	LANDS	SECTOR	MODE
Primary Master :	Auto	0	0	0	0	0	0	Auto
Primary Slave :	Auto	0	0	0	0	0	0	Auto
Secondary Master :	Auto	0	0	0	0	0	0	Auto
Secondary Slave :	Auto	0	0	0	0	0	0	Auto

Drive A :1.44MB, 3.5 in.
Drive B :None

Video :EGA/VGA
Halt On :All, But Keyboard

Base Memory	:	0K
Extended Memory	:	0K
Other Memory	:	512K
Total Memory	:	512K

Esc : Quit ↑ ↓ → ← : Select Item PU/PD/+/-:Modify
F1 : Help (Shift) F2 : Change Color

Date

The Date format is **<day><month><date><year>**.

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

Time

The time format is **<hour><minute><second>**. The time is calculated based on the 24-hour military-time clock. For example, 2 p.m. is 14:00:00.

Hard Disks Type

The categories identify the types of hard disk that have been installed in the computer. There are 46 predefined types and a user definable type. Type 1 to Type 45 are predefined. Type "User" is user-definable. Type "Auto" is automatically define by BIOS.

Press **<PgUp>** or **<PgDn>** to select a numbered hard disk type or type the number and press **<Enter>**. 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 your hard disk drive type is not listed, you can use Type "User" to define your own drive type manually.

If you select type "User", related information is asked to be entered to the following items. Enter the information directly from the keyboard and press **<Enter>**. This information should be provided in the documentation from your hard disk vendor or the system manufacturer. Most new drives will also have the parameters given on the label on top of the drive.

CYLN	number of cylinders

HEAD	number of heads
WPCOM	write precom pensation
SEC	number of sectors
LBA MODE	type of LBA mode
BLK MODE	type of Block mode
PIO MODE	type of PIO
32BIT MODE	type of 32-Bit transfer mode

If a hard disk has not been installed select NOT Installed and press **<Enter>**.

Driver A Type/Drive B Type

The category identifies the types of floppy disk drive A or drive B that have been installed in the computer.

None	No floppy drive installed
360K, 5 1/4	5-1/4 inch PC-type standard drive; 360 kilobyte capacity
1.2M, 5 1/4	5-1/4 inch AT-type high-density drive; 1.2 megabyte capacity
720K, 3 1/2	3-1/2 inch double-sided drive; 720 kilobyte capacity
1.44M, 3 1/2	3-1/2 inch double-sided drive; 1.44 megabyte capacity
2.88M, 3 1/2	3-1/2 inch double-sided drive; 2.88 megabyte capacity

Video

The category selects the type of adapter used for the primary system monitor, and 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, SEGA, 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	Whenever the BIOS detects a non-fatal error the system will be stopped and you will be prompted.
All errors	The system boot will not be stopped for any error that may be detected.
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 512K for system with 512K memory installed on the motherboard, or 640K for system with 640K or more memory installed on the motherboard.

Extended Memory

The BIOS determines how much extended memory is present during the POST. This is the amount of memory located above 1MB in the CPU's memory address map.

Other Memory

This refers to the memory located in the 640K address space. This is the memory that can be used for different applications. DOS uses this area to load device drivers to keep as much base memory free application programs. Most use for this area is Shadow RAM.

BIOS Features Setup

!! WARNING !! *The information about BIOS defaults on manual* ***(Figure***

3.4.5.6.8) *is just for reference, please refer to the BIOS installed on board, for update information.*

■ **Figure 3. BIOS Features Setup Menu**

ROM PCI/ISA BIOS (xxxxxxxx)
BIOS FEATURES SETUP
AWARD SOFTWARE, INC.

Virus Warning	: Disabled	Video BIOS Shadow	: Enabled
CPU Intermal Cache	: Enabled	C8000-CBFFF Shadow	: Disabled
External Cache	: Enabled	CC000-CFFFF Shadow	: Disabled
Quick Power On Self Test	: Enabled	D0000-D3FFF Shadow	: Disabled
Boot Sequence	: A,C,SCSI	D4000-D7FFF Shadow	: Disabled
Swap Floppy Drive	: Disabled	D8000-DBFFF Shadow	: Disabled
Boot Up Floppy Seek	: Enabled	DC000-DFFFF Shadow	: Disabled
Boot Up NumLock Status	: On		
Gate A20 Option	: Fast		
Memory Parity/ECC Check	: Disabled		
Typematic Rate Setting	: Disabled		
Typematic Rate (Chars/Sec)	: 6		
Typematic Delay (Msec)	: 250		
Security Option	: Setup		
IDE Second Channel Control	: Enabled	ESC : Quit ↑↓ → ←: Select Item	
OS Select For DRAM > 64MB	: Non-OS2	F1 : Help PU/PD/+/- : Modify	
		F5 : Old Values <Shift> F2 : Color	
		F7 : Load Setup Defaults	

Virus Warning

This category flashes on the screen. During and after the system boot up, any attempt to write to the boot sector or partition table of the hard disk drive will halt the system and the following error

message will appear. In the mean time, you can run an anti-virus program to locate the problem.

Disabled (default)
No warning message to appear when anything attempts to access the boot sector or hard disk partition table.
Enabled
Activates automatically when the system boots up causing a warning message to appear when anything attempts to access the boot sector of hard disk partition table.

CPU Internal Cache

Enabled (default)	Enable cache
Disabled	Disable cache

External Cache

These fields allow you to Enable or Disable the CPU's "Level 2" secondary cache. Caching allows better performance.

Enabled (default)	Enable cache
Disabled	Disable cache

Quick Power On Self Test

This option enables the level 2 external cache memory.

Enabled	Enable quick POST
Disabled (default)	Normal POST

Boot Sequence

This option determines which drive the computer searches the OS for boot-up. The settings are "A, C, SCSI", "C, A, SCSI", "C, CDROM, A", "CDROM, C, A", "D, A, SCSI", "E, A, SCSI", "F, A,

SCSI", "SCSI, A, C", "SCSI, C, A" or "C only","LS/ZIP,C",etc. **The default is "A, C, SCSI".**

Swap Floppy Drive

Switches the floppy disk drive between being designated as A and B. **Default is Disabled.**

Boot Up Floppy Seek

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

Enabled (default)	BIOS searches for floppy disk drive to determine if it is 40 or 80 tracks. Note that BIOS cannot tell from 720K, 1.2M or 1.44M 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 360K.

Boot Up NumLock Status

On (default)	Keypad is number keys.
Off	Keypad is arrow keys.

Gate A20 Option

Fast (default)	The system chipset provide support for gate A20.
Normal	Keyboards provide support for gate A20.

Memory Parity/ECC Check

This item allows you to select between three methods of memory error checking.

Enabled

Disabled (default)

Typematic Rate Setting

This determines the typematic rate.

Enabled	Enable typematic rate and typematic delay programming.
Disabled (default)	Disable typematic rate and typematic delay programming. The system BIOS will use default value of this 2 items and the default is controlled by keyboard.

Typematic Rate (Chars/Sec)

6	6 characters per second
8	8 characters per second
10	10 characters per second
12	12 characters per second
15	15 characters per second
20	20 characters per second
24	24 characters per second
30	30 characters per second

Typematic Delay (Msec)

Choose the length of delay from the time you press a key and the character repeating. (units are mil-sec)

IDE Second Channel Control

This item allows you designate an IDE controller board inserted into one of the physical PCI slots as your second IDE control.

Enabled (default)	External IDE controller designated as the second control.
Disabled	No IDE control occupying a PCI slot.

Security Option

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

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

OS Selection for DRAM > 64MB

Allows OS/2 to be used with > 64MB of DRAM. Settings are Non-OS/2 (default) and OS/2. Set to OS/2 if using more than 64MB and running OS/2.
DEFAULT is Non-OS2.

Video BIOS Shadow

Determines whether video BIOS will be copied to RAM for faster execution.

Enabled	Optional ROM is enabled.
Disabled (default)	Optional ROM is disabled.

C8000 - CBFFF Shadow / DC000 - DFFFF Shadow

Determines whether the optional ROM will be copied to RAM for faster execution.

Enabled	Optional ROM is shadowed.
Disabled (default)	Optional ROM is not shadowed.

Note : For C8000 - DFFFF option - ROM on PCI BIOS, BIOS will automatically enable the shadow RAM. User does not have to select the item.

Chipset Features Setup

The Chipset Features Setup option is used to change the values of the chipset registers. These registers control most of the system options in the computer.

■ **Figure 4. Chipset Feature Setup Menu**

ROM PCI/ISA BIOS (xxxxxxxx)
CHIPSET FEATURES SETUP
AWARD SOFTWARE, INC.

SDRAM Cycle Length	: 2	
SDRAM Bank Interleave	: Disabled	
Sustained 3T Write	: Enabled	
Video BIOS Cacheabled	: Enabled	
System BIOS Cacheable	: Enabled	
Memory Hole At 15Mb Addr.	: Disabled	
AGP Aperture Size	: 256M	
		ESC : Quit ↑↓ → ←: Select Item F1 : Help PU/PD/+/- : Modify F5 : Old Values <Shift> F2 : Color F7 : Load Setup Defaults

SDRAM Cycle Length

This item allows you to set the SDRAM latency Timer.
2 (default)
3

SDRAM Bank Interleave

This item allows you to set how many banks of SDRAM support in your mainboard.
Enabled
Disabled (default)

Sustained 3T Write

This item allows you to enable or disable direct map write back / write through secondary cache.
Enabled (default)
Disabled

Video BIOS Cacheable

When enabled. The Video BIOS cache will cause access to video BIOS addressed at C0000H to C7FFFH to be cached, if the cache controller is also enabled.
Enabled (default)
Disabled

System BIOS Cacheable

As with caching the Video BIOS above, enabling this selection allows accesses to the system BIOS ROM addressed at F0000H-FFFFFH to be cached, provided that the cache controller is enabled.
Enabled (default)
Disabled

Memory Hole At 15Mb Addr.

In order to improve performance, certain space in memory is reserved for ISA cards. This memory must be mapped into the memory space below 16MB.
15M – 16M

Disabled (default)

AGP Aperture Size

Select the size of Accelerated Graphics Port (AGP) aperture. The aperture is a portion of the PCI memory address range dedicated for graphics memory address space. Host cycles that hit the aperture range are forwarded to the AGP without any translation.
256M (default)
4M / 8M / 16M / 32M / 64M / 128M

Power Management Setup

- **Figure 5. Power Management Setup Menu**

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

ACPI function	: Enabled	Primary INTR	: ON
Power Management	: Disabled	IRQ3 Monitor	: Enabled
PM Control by APM	: Yes	IRQ4 Monitor	: Enabled
Video Off Option	: Suspend -> Off	IRQ5 Monitor	: Enabled
Video Off Method	: DPMS Support	IRQ6 Monitor	: Enabled
MODEM Use IRQ	: 3	IRQ7 Monitor	: Enabled
Soft-Off by PWRBTN	: Instant-Off	IRQ8 Monitor	: Disabled
** PM Timers **		IRQ9 Monitor	: Enabled
HDD Power Down	: Disabled	IRQ10 Monitor	: Enabled
Doze Mode	: Disabled	IRQ11 Monitor	: Enabled
Suspend Mode	: Disabled	IRQ12 Monitor	: Enabled
** PM Events **		IRQ13 Monitor	: Enabled
VGA Access	: OFF	IRQ14 Monitor	: Enabled
LPT & COM Access	: LPT/COM	IRQ15 Monitor	: Disabled
HDD & FDD Access	: ON		
DMA/master Access	: OFF		
Modem Ring Resume	: Disabled		
Alarm Resume	: Disabled	ESC : Quit ↑↓→← : Select Item	
		F1 : Help PU/PD/+/- : Modify	
		F5 : Old Values <Shift> F2 : Color	
		F7 : Load Setup Defaults	

ACPI function

Enabled (default)	System BIOS will provide the ACPI – compatible OS with knowledge it needs to control hardware directly.
Disabled	ACPI power management will be disabled.

Power Management

Disable (Min. Saving)	Global Power Management will be disabled..
User Define (Max. Saving)	Users can configure their own power management.
Min Saving	Pre-defined timer values are used such that

	all timers are at their MAX value.
Max Saving	Pre-defined timer values are used such that all timers are at their MIN value.

PM Control by APM

No	System BIOS will ignore APM when power managing the system.
Yes	System BIOS will wait for APM's prompt before it enters any PM mode.

Video Off Option

This field determines when to activate the video off feature for monitor power management. The settings are All Modes->Off; Always On; Suspend-> Off; and Susp, Stby-> Off.

Video Off Method

Blank Screen	The system BIOS will only blank the screen when disabling video.
V/H SYNC+Blank	In addition to the above, BIOS will also turn off the V-SYNC & H-SYNC signals from VGA card to monitor.
DPMS	This function is enabled only for VGA card supporting DPMS.

MODEM Use IRQ

This determines the IRQ in which the MODEM can use.
3 (default)
4 / 5 / 7 / 9 / 10 / 11 / NA

Soft-Off by PWRBTN

This item allows you to set the off function of power button by software control.
Instant-Off (default)
Delay 4 Sec

HDD Power Down

When enabled and after the set time of system inactivity, the hard disk drive will be powered down while all other devices remain active.
Disabled (default)
1 Min ~ 15 Min

Doze Mode

This options specifies how long the CPU is continuously idle before entering the doze mode. When the system is in Doze mode, the screen will be blank.

Suspend Mode

This options allows the user to indicate how long the system will be idle before entering the suspend mode, which turns off the CPU and saves the energy of the system.

VGA Access

ON / OFF
The video port is accessed via I/O ports 3B0-3DFh or memory space A0000-BFFFFh.

LPT & COM Access

LPT/COM, COM, LPT, None
The serial port is accessed via I/O ports 3F8-3FFh, 2F8-2FFh,3E8-3Efh, or 2E8-2Efh (COM 1-4, respectively).
The parallel port is accessed via I/O ports 278-27Fh or 378-37Fh (LPT2 or LPT1).

HDD & FDD Access

ON / OFF
The IDE or floppy devices are accessed via I/O ports 1F0-1F7h, 170-177h or 3F5h.

DMA/master Access

ON / OFF
Set on the occurrence of ISA master or DMA activity.

Modem Ring Resume

Enabled	External Modem ring function be enabled to resume the system.
Disabled	External Modem ring function be disabled resume the system.

Alarm Resume

Enabled	Real time clock alarm function be enabled to resume the system.
Disabled	Real time clock alarm function be disabled resume the system.

Primary INTR

When set to On (default), any event occurring at will awaken a system which has been powered down.

The following is a list of IRQ's, Interrupt ReQuests, which can be exempted must as the COM ports and LPT ports above can. When an I/O device wants to gain the attention of the operating system, it signals this by causing an IRQ to occur. When the operating system is ready to respond to the request, it interrupts itself and performs the service.
As above, the choices are On and Off. Off is the default.
When set On, activity will neither prevent the system from going into a power management mode nor awaken it.
ON (default)
OFF

PNP / PCI Configuration Setup

■ **Figure 6. PNP / PCI Configuration Setup Menu**

ROM PCI/ISA BIOS (xxxxxxxx)
PNP / PCI CONFIGURATION
AWARD SOFTWARE, INC.

PNP OS Installed	: No	CPU to PCI Write Buffer	: Enabled
Resources Controlled By	: Manual	PCI Dynamic Bursting	: Enabled
Reset Configuration Data	: Disabled	PCI Master 0 WS Write	: Enabled
ACPI I/O Device Node	: Enabled	PCI Delay Transaction	: Enabled
IRQ-3 assigned to	: PCI / ISA PnP	PCI Master Read Prefetch	: Enabled
IRQ-4 assigned to	: PCI / ISA PnP	PCI#2 Access #1 Retry	: Disabled
IRQ-5 assigned to	: PCI / ISA PnP	AGP Master 1 WS Write	: Enabled
IRQ-7 assigned to	: PCI / ISA PnP	AGP Master 1 WS Read	: Disabled
IRQ-9 assigned to	: PCI / ISA PnP		
IRQ-10 assigned to	: PCI / ISA PnP	PCI IRQ Actived By	: Level
IRQ-11 assigned to	: PCI / ISA PnP		
IRQ-12 assigned to	: PCI / ISA PnP		
IRQ-14 assigned to	: PCI / ISA PnP		
IRQ-15 assigned to	: PCI / ISA PnP		
DMA-0 assigned to	: PCI / ISA PnP		
DMA-1 assigned to	: PCI / ISA PnP	ESC : Quit	↑↓ → ←:Select Item
DMA-3 assigned to	: PCI / ISA PnP	F1 : Help	PU/PD/+/- : Modify
DMA-5 assigned to	: PCI / ISA PnP	F5 : Old Values	<Shift> F2 : Color
DMA-6 assigned to	: PCI / ISA PnP	F7 : Load Setup Defaults	
DMA-7 assigned to	: PCI / ISA PnP		

PnP OS Installed

When set to YES, BIOS will only initialize the PnP cards used for booting (VGA, IDE, SCSI). The rest of the cards will be initialized by the PnP operating system like Windows™95. When set to NO, BIOS will initialize all the PnP cards. Therefore for non-PnP operating system (DOS, Netware™), this option must set to NO.

Resources Controlled By "Auto" or "Manual"

By Choosing "Auto" the system BIOS will detect the system resource and automatically assign the relative IRQ and DMA channel for each peripheral.
By Choosing "Manual"(default), the user will need to assign IRQ & DMA for add-on cards. Be sure that there are no IRQ/DMA and I/O ports conflict.

Resources Configuration Data

The system BIOS supports the PnP feature so the system needs to record which resource is assigned and protect resources from conflict. Every peripheral device has a node which is called ESCD. This node records which resources are assigned to it. The system needs to record and update ESCD to the memory locations. These locations (4K) are reserved at the system BIOS.
If Disabled (default) is chosen the system's ESCD will update only when the new configuration varies from the last one.
If Enabled is chosen the system will be forced to update ESCDs if the system configuration has changed and then auto set this option to the "Disabled" mode.

IRQ-3	assigned to : PCI / ISA PnP
IRQ-4	assigned to : PCI / ISA PnP
IRQ-5	assigned to : PCI / ISA PnP
IRQ-7	assigned to : PCI / ISA PnP
IRQ-9	assigned to : PCI / ISA PnP
IRQ-10	assigned to : PCI / ISA PnP
IRQ-11	assigned to : PCI / ISA PnP
IRQ-12	assigned to : PCI / ISA PnP
IRQ-14	assigned to : PCI / ISA PnP
IRQ-15	assigned to : PCI / ISA PnP
DMA-0	assigned to : PCI / ISA PnP
DMA-1	assigned to : PCI / ISA PnP
DMA-3	assigned to : PCI / ISA PnP
DMA-5	assigned to : PCI / ISA PnP
DMA-6	assigned to : PCI / ISA PnP
DMA-7	assigned to : PCI / ISA PnP

The above settings will be shown on the screen only if "Manual" is chosen for the Resources Controlled By function.
Legacy is the term which signifies that a resource is assigned to the ISA Bus and provides for non PnP ISA add-on cards. PCI / ISA PnP signifies that a resource is assigned to the PCI Bus or provides for ISA PnP add-on cards and peripherals.

ACPI I/O Device Node

Enabled (default)
Disabled

CPU to PCI Write Buffer

When enabled, up to four D words of data can be written to the PCI bus without interrupting the CPU. When disabled, a write buffer is not used and the CPU read cycle will not be completed until the PCI bus signals that it is ready to receive the data.
Enabled (default)
Disabled

PCI Dynamic Bursting

When Enabled, data transfers on the PCI bus, where possible, make use of the high-performance PCI bus protocol, in which greater amounts of data are transferred at a single command.
Enabled (default)
Disabled

PCI Master 0 WS Write

When Enabled, writes to the PCI bus are command with zero wait states.
Enabled (default)
Disabled

PCI Delay Transaction

The chipset has an embedded 32-bit posted write buffer to support delay transactions cycles.
Enabled (default)
Disabled

PCI Master Read Prefectch

This item allows you enable/disable the PCI Master Read Prefetch.
Enabled (default)
Disabled

PCI#2 Access #1 Retry

This item allows you enable/disable the PCI #2 Access #1 Retry.
Enabled
Disabled (default)

AGP Master 1 WS Write

This implements a single delay when writing to the AGP Bus. By default, two-wait states are used by the system, allowing for greater stability.
Enabled (default)
Disabled

AGP Master 1 WS Read

This implements a single delay when reading to the AGP Bus. By default, two-wait states are used by the system, allowing for greater stability.
Enabled
Disabled (default)

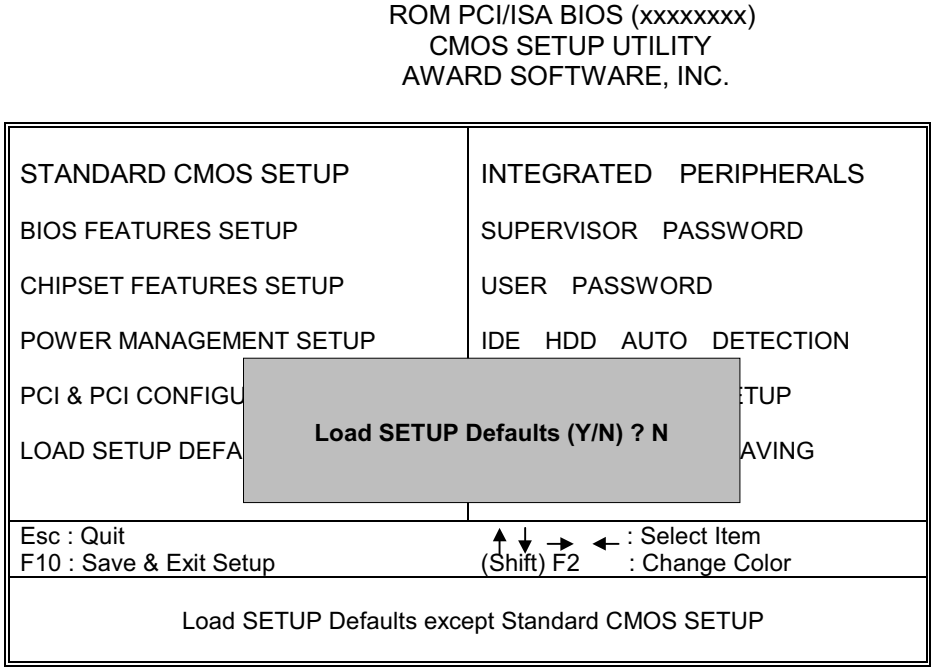
PCI IRQ Actived By

This sets the method by which the PCI bus recognizes that an IRQ service is being requested by a device. Under all circumstances, you should retain the default configuration unless advised otherwise by your system's manufacturer.
Level (default)
Edge

Load Setup Defaults

Chipset defaults indicate the values required by the system for maximum performance.

■ **Figure 7. Load Setup Defaults Screen**



If you wish to load the SETUP Defaults, change the prompt to <**Y**> and press <**ENTER**>.

Integrated Peripherals Setup

■ **Figure 8. Integrated Peripherals Setup Menu**

ROM PCI/ISA BIOS (xxxxxxxx)

INTEGRATED PERIPHERALS
AWARD SOFTWARE, INC.

OnChip IDE First Channel	: Enabled	OnChip USB	: Disabled
OnChip IDE Second Channel	: Enabled		
IDE Prefetch Mode	: Enabled		
IDE HDD Block Mode	: Enabled		
IDE Primary Master PIO	: Auto		
IDE Primary Slave PIO	: Auto		
IDE Secondary Master PIO	: Auto		
IDE Secondary Slave PIO	: Auto		
IDE Primary Master UDMA	: Auto		
IDE Primary Slave UDMA	: Auto		
IDE Secondary Master UDMA	: Auto		
IDE Secondary Slave UDMA	: Auto		
Onboard FDC Controller	: Enabled		
Onboard Serial Port 1	: 3F8/IRQ4		
Onboard Serial Port 2	: 2F8/IRQ3		
UR2 Mode	: Standard	ESC : Quit ↑↓ → ← : Select Item	
Onboard Parallel Port	: 378/IRQ7	F1 : Help PU/PD/+/- : Modify	
Parallel Port Mode	: SPP	F5 : Old Values <Shift> F2 : Color	
		F7 : Load Setup Defaults	

OnChip IDE First Channel

This chipset contains a PCI IDE interface with support for two IDE channels. Select Enabled to activate the first and / or second IDE interface. Select Disabled to deactivate this interface, if you install a first and / or second add-in IDE interface IDE interface.

Enabled (default)

Disabled

OnChip IDE Second Channel

This chipset contains a PCI IDE interface with support for two IDE channels. Select Enabled to activate the first and / or second IDE interface. Select Disabled to deactivate this interface, if you install a first and / or second add-in IDE interface IDE interface.

Enabled (default)

Disabled

IDE Prefetch Mode

Enabled prefetching for IDE drive interfaces that support its faster drive accesses. If you are getting disk drive errors, change the setting to omit the drive interface where the errors occur. Depending on the configuration of your IDE subsystem, this field may not appear, and it does not appear when the Internal PCI / IDE field, above, is Disabled.
Enabled (default)
Disabled

IDE HDD Block Mode

This item allows your hard disk controller to use the fast block mode to transfer data to and from your hard disk drive (HDD). Select Enabled only if your hard drives support block mode.
Enabled (default)
Disabled

IDE Primary Master PIO

Auto / Mode0 / Mode1-4

IDE Primary Slave PIO

Auto / Mode0 / Mode1-4

IDE Secondary Master PIO

Auto / Mode0 / Mode1-4

IDE Secondary Slave PIO

Auto / Mode0 / Mode1-4

For these 4 IDE options choose “Auto” to have the system BIOS auto detect the IDE HDD operation mode for PIO access.

Choosing Mode 1-4 will have the system ignore the HDD‘s reported operation mode and use the selected mode instead.

IDE Primary / Secondary Master / Slave UDMA

Ultra DMA / 33 implementation is possible only if your IDE hard drive supports it and the operating environment includes a DMA driver (Windows 95 OSR2 or a thirdparty IDE bus master driver). If your hard drive and your system software both support Ultra DMA / 33, select Auto to enable BIOS support.
AUTO (default)
Disabled

Onboard FDC Controller

Enabled / Disabled The system has an on-board Super I/O chip with a FDD controller that supports 2 FDDs for 360K / 720K / 1.2M / 1.44M / 2.8M. Choose “Enabled” to use the on-board FDD controller for accessing the FDD. Otherwise choose “Disabled” to use the off-board FDD controller.

Onboard Serial Port 1

Disabled / (3F8 / IRQ4) / (2F8 / IRQ3) / (3E8 / IRQ4) / (2E8 / IRQ3)

Onboard Serial Port 2

Disabled / (3F8 / IRQ4) / (2F8 / IRQ3) / (3E8 / IRQ4) / (2E8 / IRQ3)

The system has an On-board Super I/O chipset with 2 serial ports. The On-board serial ports can be selected as:

Disabled	
3F8 / IRQ4	COM1 uses IRQ4
2F8 / IRQ3	COM2 uses IRQ3
3F8 / IRQ4	COM3 uses IRQ4
2F8 / IRQ3	COM4 uses IRQ3

UR2 Mode

This item allows you to determine which Infra Red (IR) function of onboard I/O chip.
Standard (default)
IrDA 1.0 / ASK IR / MIR 0.57M / MIR 1.15M / FIR

Onboard Parallel Port

Disabled/ (3BC/IRQ7)/ (278 /IRQ5)/ (378 /IRQ7) There is a built-in parallel port on the on-board Super I/O chipset that provides standard, ECP, and EPP features. It has the following options:

Disable
(3BC/IRQ7)Line Printer port 0
(278 / IRQ5)Line Printer port 2
(378 / IRQ7)Line Printer port 1

Parallel Port Mode

SPP : Standard Parallel Port
EPP : Enhanced Parallel Port
ECP : Extended Capability Port

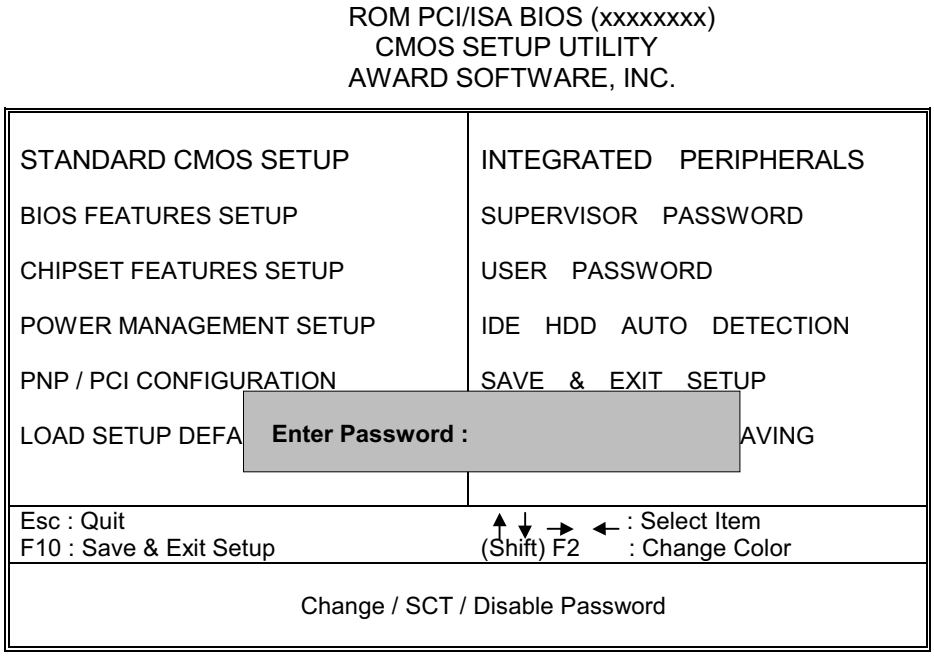
To operate the onboard parallel port as Standard Parallel Port only, choose “SPP.” To operate the onboard parallel port in the ECP and SPP modes simultaneously, choose “ECP/SPP.” By choosing “ECP” the onboard parallel port will operate in ECP mode only. Choosing “ECP+EPP” will allow the onboard parallel port to support both the ECP and EPP modes simultaneously. The ECP mode has to use a DMA channel so choose the onboard parallel port with the ECP feature. After selecting it the following message will appear: “ECP Mode Use DMA”. At this time the user can choose between DMA channels 3 or 1. The onboard parallel port is EPP Spec. compliant so after the user chooses the onboard parallel port with the EPP function, the following message will be displayed on the screen: “Parallel port EPP Type.” At this time either EPP 1.7 spec. or EPP 1.9 spec. can
be chosen.

OnChip USB

Enabled
Disabled (default)

Supervisor / User Password Setting

- **Figure 9. Supervisor Password Setting**



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

ENTER PASSWORD

Type the password, up to eight characters, and press <**Enter**>. The password typed now will clear any 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 will confirm that you wish to disable the password. Once the password is disabled, the system will boot and you can enter setup freely.

PASSWORD DISABLED

If you select System at Security Option of 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. If you select Setup at Security Option of BIOS Feature Setup Menu, you will be prompted

only when you try to enter Setup.

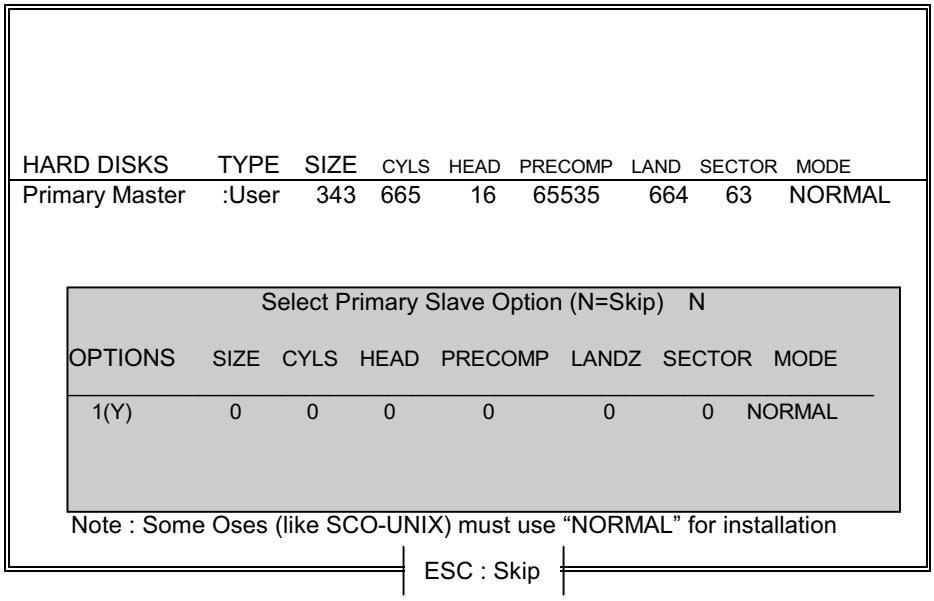
IDE HDD Auto Detection

Automatically configure hard disk parameters. The parameters shown below are only an example.

- **Figure 10. Auto Configuration with Optimal Settings Screen**

ROM PCI/ISA BIOS (xxxxxxxx)

CMOS SETUP UTILITY
AWARD SOFTWARE, INC.



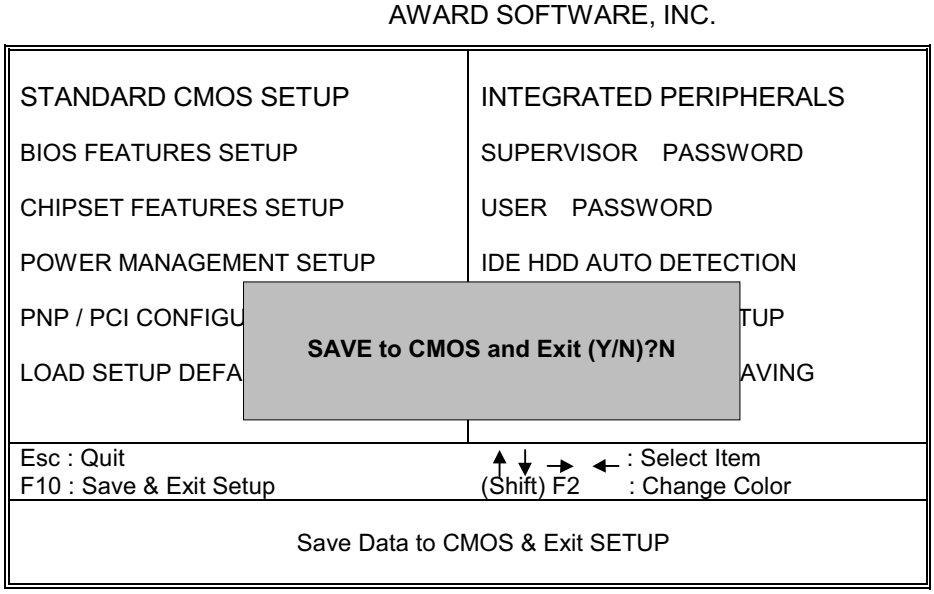
When you enter this utility, the screen asks you to select a specific hard disk for Primary Master. If you accept a hard disk detected by the BIOS, you can enter **"Y"** to confirm and then press <**Enter**> to check next hard disk. This function allows you to check four hard disks and you may press the <**Esc**> after the <**Enter**> to skip this function and go back to the Main Menu.

Save & Exit Setup

Save CMOS value changes to CMOS and exit setup.

- **Figure 11. Save & Exit Setup Screen**

ROM PCI/ISA BIOS (xxxxxxxx)
CMOS SETUP UTILITY



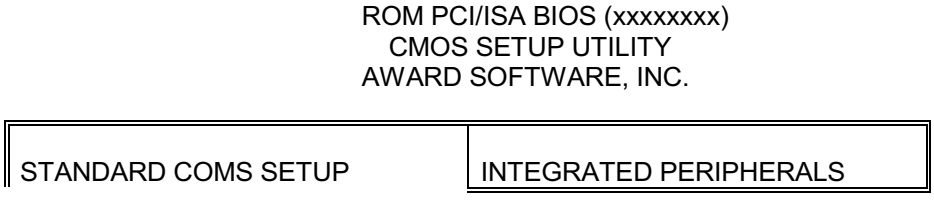
Pressing **<N>** and **<ENTER>** will return you to the Main Menu.

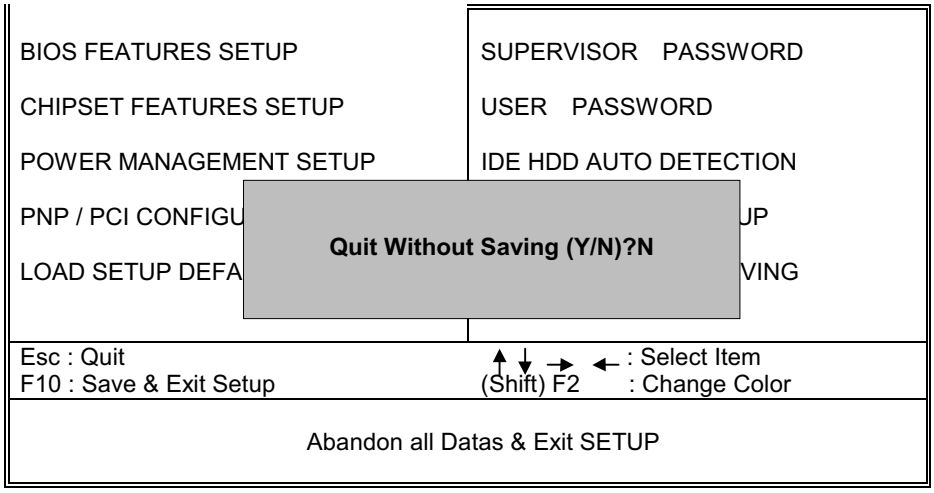
Pressing **<Y>** and **<ENTER>** will save the system parameters and continue with the booting process.

Exit Without Saving

Abandon all CMOS value changes and exit setup.

■ **Figure 12. Save Settings and Exit Screen**





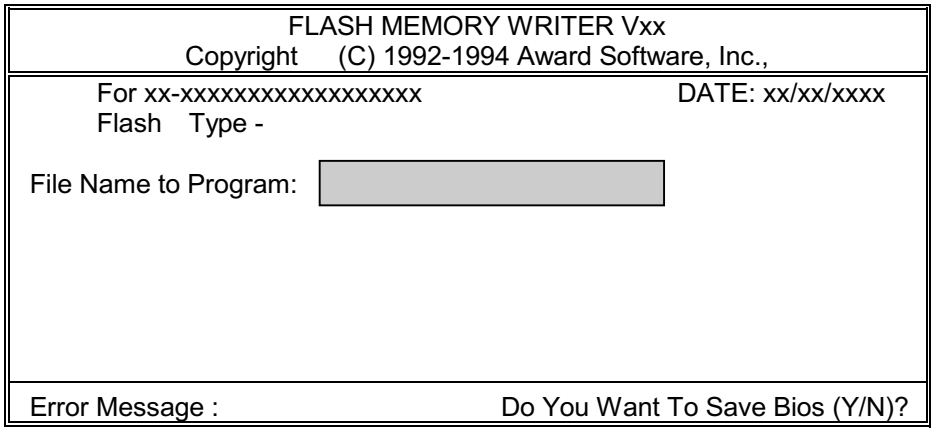
Pressing **<N>** and **<ENTER>** will return you to the Main Menu.

Pressing **<Y>** and **<ENTER>** will continue with booting process without saving any system parameters.

Application Software

- Please use the “BIOS Utility” diskette to setup Flash Memory.
- The diskette contains the intelligent installation utility **AWDFLASH.EXE**, displayed below.

■ **Figure 13. Flash Memory Writer**



M5VIA Software Installation

Provide you an installation wizard, M5VIA CD Installation Utility (START.EXE), located in the root of M5VIA CD to let users can install some usually used drivers conveniently. The utility can autodetect current OS type and then show the proper page for the OS, so you don't need to worry about installing wrong driver.

NOTE: This installation wizard only supports the Microsoft Windows (including Windows 3.1, Windows 95 and Windows NT...). If you want to install drivers for other OS, please refer to the following section "The drivers CAN NOT be installed from M5VIA CD Installation Utility" to install the driver.

There are two kinds of driver installation:

1. The drivers can be installed from M5VIA CD Installation Utility:

   You can simply put M5VIA CD into CD-ROM drive and the Installation Utility will autorun or you can run the M5VIA CD Installation Utility directly, then use mouse cursor to click the proper option on the page. Utility will invoke other applications to complete the rest of installation.

Driver List:

a. M5VIA IDE BUS Master Driver (for Windows 3.1)

b. M5VIA IDE BUS Master Driver (for Windows 95)

c. M5VIA IDE BUS Master Driver (for Windows NT)

d. M5VIA AGP VXD Driver (for Windows 95)

e. M5VIA ACPI Patch Program (for Windows 95)

2. The drivers CAN NOT be installed from M5VIA CD Installation Utility:

   Please refer to the README.TXT files located in each driver directory on the M5VIA CD to install drivers.

……..Driver List: Other drivers