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1 INTRODUCTION**1.1 Specifications**

| | |
|------------------------|--|
| System Chipset | Aladdin-V M1542 and M1543C |
| CPU | 75~550MHz, Intel Pentium P54C/P55C MMX, Cyrix 6x86/6x86L/6x86MX/MII, AMD K5/K6/K6-2,K6-3,IDT (C6) Host clock 60/66/75/83.3/95/100MHz |
| Voltage | Switch Power 2.0V ~ 3.52V |
| Memory | Two 168-pin DIMM sockets (support FP/EDO/SDRAM) up to 768MB |
| Cache | Onboard PBSRAM 512K (64K x 64) |
| I/O | -Two high speed 16550 compatible serial ports, one Multi-Mode Parallel Port fixed (SPP/EPP/ECP standard) -Two Universal Serial Bus ports (USB) -Keyboard, PS/2 Mouse -Two IDE Ports (Bus Master Mode/Ultra DMA 33MB) or LS-120/ZIP disk driver -Two 720KB/1.2MB/1.44MB/2.88MB floppy disk controller |
| BIOS | 2MB Award Green, Plug & Play BIOS |
| Expansion Slots | One AGP, three PCI, and two ISA slots |
| Dimension | Four-layer PCB, AT size (220mm x 230mm) |
| Other | -CPU FAN Control in Suspend On/Off, LAN Wake-Up, Modem Ring Wake-Up, and AT/ATX power -Auto Temperature Sensor Monitor & Music Alarm (optional). |

1.2 Unpacking the Mainboard

This mainboard comes in a sturdy cardboard shipping carton, which should contain the following items:

- This Mainboard
- This User
- Guide
- Utility Diskette
- Cable Set

Follow the precautions below while unpacking the mainboard and do remember to leave the mainboard in its original package until you are ready to install it.

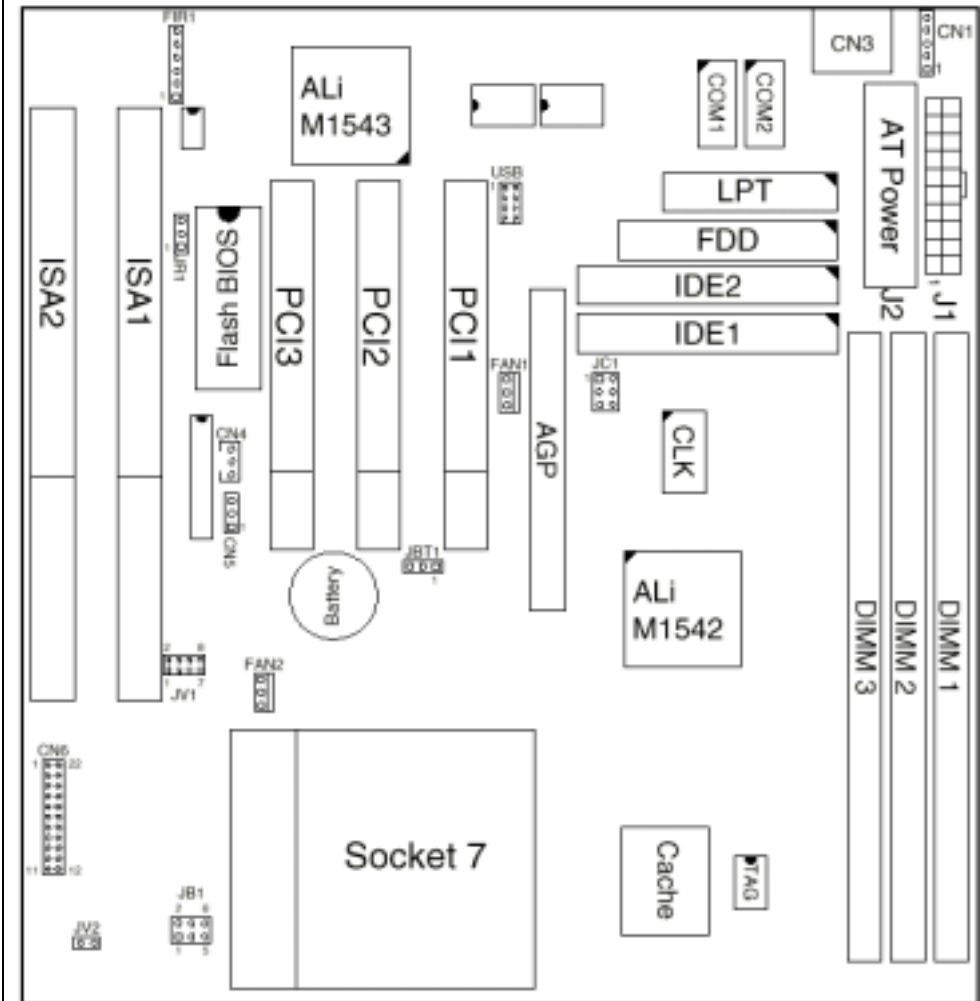
1. Before handling the mainboard, ground yourself by touching an unpainted portion of the system's metal chassis.
2. Remove the mainboard from its anti-static packaging and place it on a grounded surface, component side up.
3. Check the mainboard for damage. If any chip appears loose, press carefully to seat it firmly in its socket.
4. Remove the plastic cap on the top of battery before doing any installation.
5. Do not apply power if the mainboard appears damaged. In this case, contact your dealer immediately.

1.3 Electrostatic Discharge Precautions

Make sure you ground yourself before handling the mainboard or other system components. Electrostatic discharge can easily damage the components. Note that you must take special precautions when handling the mainboard in dry or air-conditioned environments. Take these precautions to protect your equipment from electrostatic discharge:

- Do not remove the anti-static packaging until you are ready to install the mainboard and other system components.
- Ground yourself before removing any system component from its protective anti-static packaging. To ground yourself, touch the expansion slot covers or other unpainted portions of the computer chassis.
- Frequently ground yourself while working, or use a grounding strap.
- Handle the mainboard by the edges and avoid touching its components.

1.4 Main Board Layout



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2 HARDWARE SETUP

This chapter shows you how to do the hardware setup of this mainboard .Besides the proper procedures listed below, this section also discusses how to set the jumper switch settings and connectors on the board. Go to Chapter 3 for BIOS setup after completing the above procedures.

2.1 Memory Configuration

This mainboard uses three 168-pin 3.3V unbuffered type DIMMs of 8MB/16MB/32MB/64MB/128/256MB to form a memory size between 8MB and 768MB, and also, this mainboard supports Fast Page Mode (FPM), Extended Data Output (EDO/3.3V), and Synchronous Dynamic Random Access Memory (SDRAM) DIMMs.

2.2 CPU Quick Installation Table

| | CPU CLK (JC1) | | | CPU Ratio (JB1) | | | CPU Core (JV1) | | | |
|----------------------------|------------------|-----|-----|--------------------|-----|-----|-------------------|-----|-----|-----|
| | 1-2 | 3-4 | 5-6 | 1-2 | 3-4 | 5-6 | 1-2 | 3-4 | 5-6 | 7-8 |
| Intel CPU | | | | | | | | | | |
| (MMX)266MHz(66.8*4.0 2.8V) | O | S | S | S | O | S | O | O | O | S |
| (MMX)233MHz(66.8*3.5 2.8V) | O | S | S | O | O | O | O | O | O | S |
| (MMX)200MHz(66.8*3.0 2.8V) | O | S | S | O | S | O | O | O | O | S |
| (MMX)166MHz(66.8*2.5 2.8V) | O | S | S | S | S | O | O | O | O | S |
| P-200MHz(66.8*3.0 3.3V) | O | S | S | O | S | O | O | S | S | S |
| P-166MHz(66.8*2.5 3.3V) | O | S | S | S | S | O | O | S | S | S |
| P-150MHz(60.0*2.5 3.3V) | S | S | S | S | S | O | O | S | S | S |
| P-133MHz(66.8*2.0 3.3V) | O | S | S | S | O | O | O | S | S | S |
| AMD CPU | | | | | | | | | | |
| K6-3/450MHz(100*4.5 2.4V) | O | O | O | S | S | S | O | O | S | O |
| K6-3/400MHz(100*4.0 2.4V) | O | O | O | S | O | S | O | O | S | O |
| K6-2/450MHz(100*4.5 2.4V) | O | O | O | S | S | S | O | O | S | O |
| K6-2/400MHz(100*4.0 2.2V) | O | O | O | S | O | S | O | S | O | O |
| K6-2/350MHz(100*3.5 2.2V) | O | O | O | O | O | O | O | S | O | O |
| K6-2/333MHz(95*3.5 2.2V) | S | O | O | O | O | O | O | S | O | O |
| K6-2/300MHz(100*3.0 2.2V) | O | O | O | O | S | O | O | S | O | O |
| K6-2/266MHz(66.8*4.0 2.2V) | O | S | S | S | O | S | O | S | O | O |
| K6-2/250MHz(100*2.5 2.2V) | O | O | O | S | S | O | O | S | O | O |

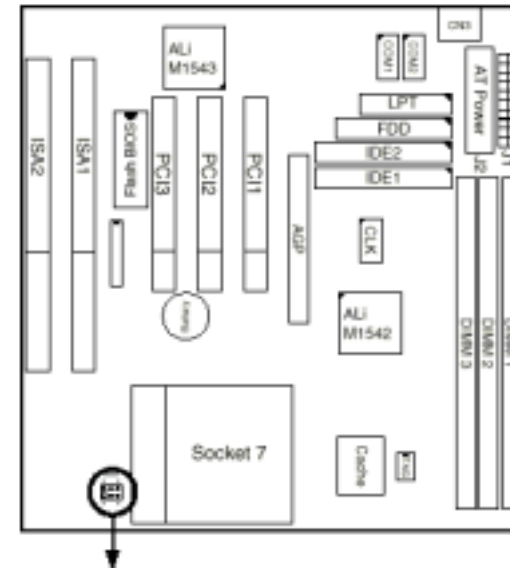
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| | CPU CLK (JC1) | | | CPU Ratio (JB1) | | | CPU Core (JV1) | | | |
|---------------------------|------------------|---|---|--------------------|---|---|-------------------|---|---|---|
| AMD CPU | | | | | | | | | | |
| K6-300MHz(66.8*4.5 2.2V) | O | S | S | S | S | S | O | S | O | O |
| K6-266MHz(66.8*4.0 2.2V) | O | S | S | S | O | S | O | S | O | O |
| K6-233MHz(66.8*3.5 2.2V) | O | S | S | O | O | O | O | S | O | O |
| K6-200MHz(66.8*3.0 2.9V) | O | S | S | O | S | O | S | O | O | S |
| K6-166MHz(66.8*2.5 2.9V) | O | S | S | S | S | O | S | O | O | S |
| Cyrix CPU | | | | | | | | | | |
| MII-PR333MHz(83*3.0 2.9V) | O | S | O | O | S | O | S | O | O | S |
| MII-PR333MHz(75*3.5 2.9V) | S | S | O | O | O | O | S | O | O | S |
| MII-PR300MHz(66*3.5 2.9V) | O | S | S | O | O | O | S | O | O | S |
| PR266MHz(83*2.5 2.9V) | O | S | O | S | S | O | S | O | O | S |
| PR266MHz(75*3.0 2.9V) | S | S | O | O | S | O | S | O | O | S |
| PR266MHz(66*3.5 2.9V) | O | S | S | O | O | O | S | O | O | S |
| PR233MHz(83*2.0 2.9V) | O | S | O | S | O | O | S | O | O | S |
| PR233MHz(75*2.5 2.9V) | S | S | O | S | S | O | S | O | O | S |
| PR233MHz(66*3.0 2.9V) | O | S | S | O | S | O | S | O | O | S |

Note: S stands for On and O is for Off, and for AMD K6-300MHz, JV2 is always Off.

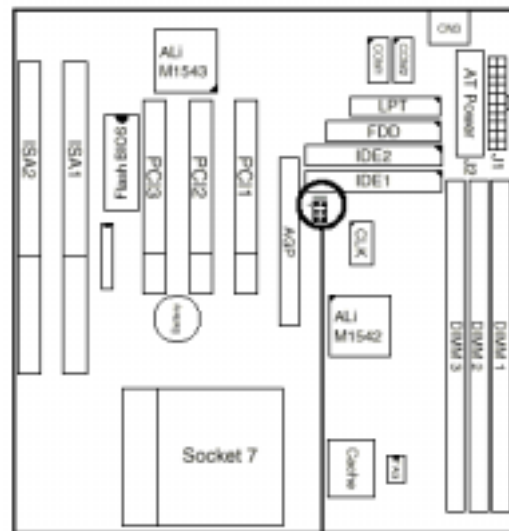
2.3 Jumper Settings

※JB1-CPU to Bus Frequency Ratio Setting



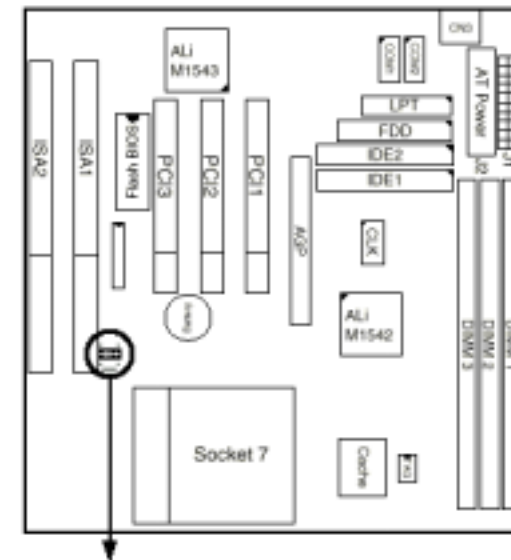
| Bus Ratio | JB1 | Bus Ratio | JB1 | Bus Ratio | JB1 | Bus Ratio | JB1 |
|-----------|-----|-----------|-----|-----------|-----|-----------|-----|
| X=1.5/3.5 | | X=2.0 | | X=2.5 | | X=3.0 | |
| Bus Ratio | JB1 | Bus Ratio | JB1 | Bus Ratio | JB1 | Bus Ratio | JB1 |
| X=4.0 | | X=4.5 | | X=5.0 | | X=5.5 | |

※JC1-CPU Clock Setting



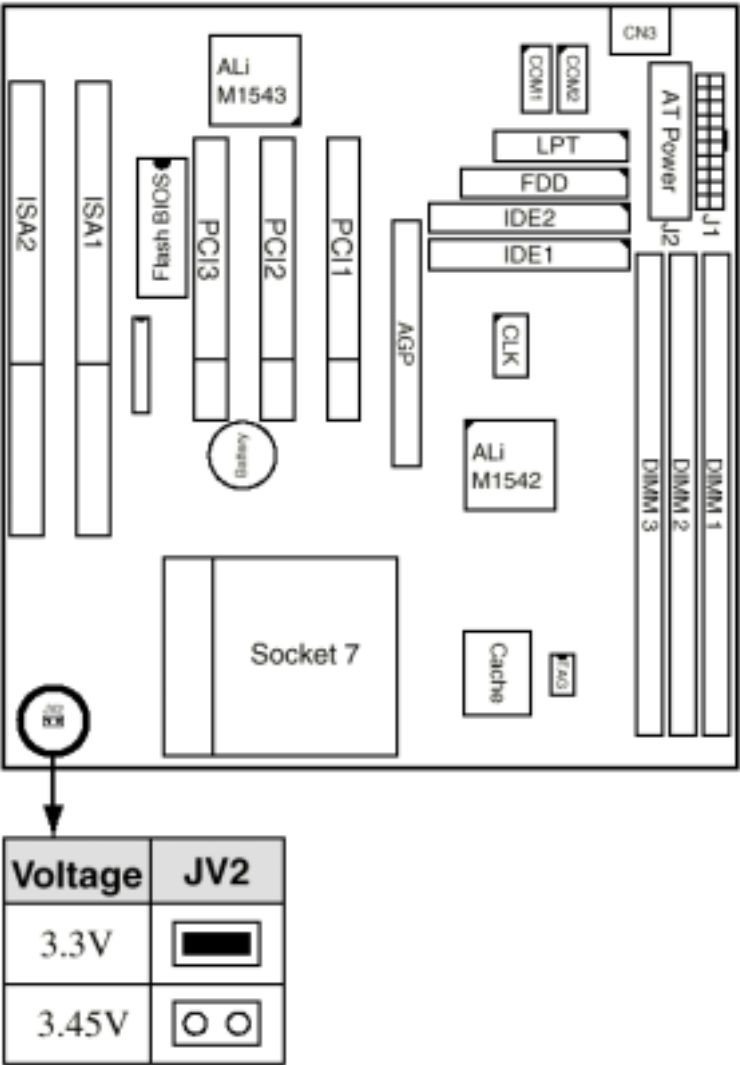
| CPU Clock | JC1 | CPU Clock | JC1 | CPU Clock | JC1 |
|-----------|-----|-----------|-----|-----------|-----|
| 60MHz | | 66MHz | | 75MHz | |
| 83MHz | | 95MHz | | 100MHz | |

※JV1-CPU Core Voltage Setting

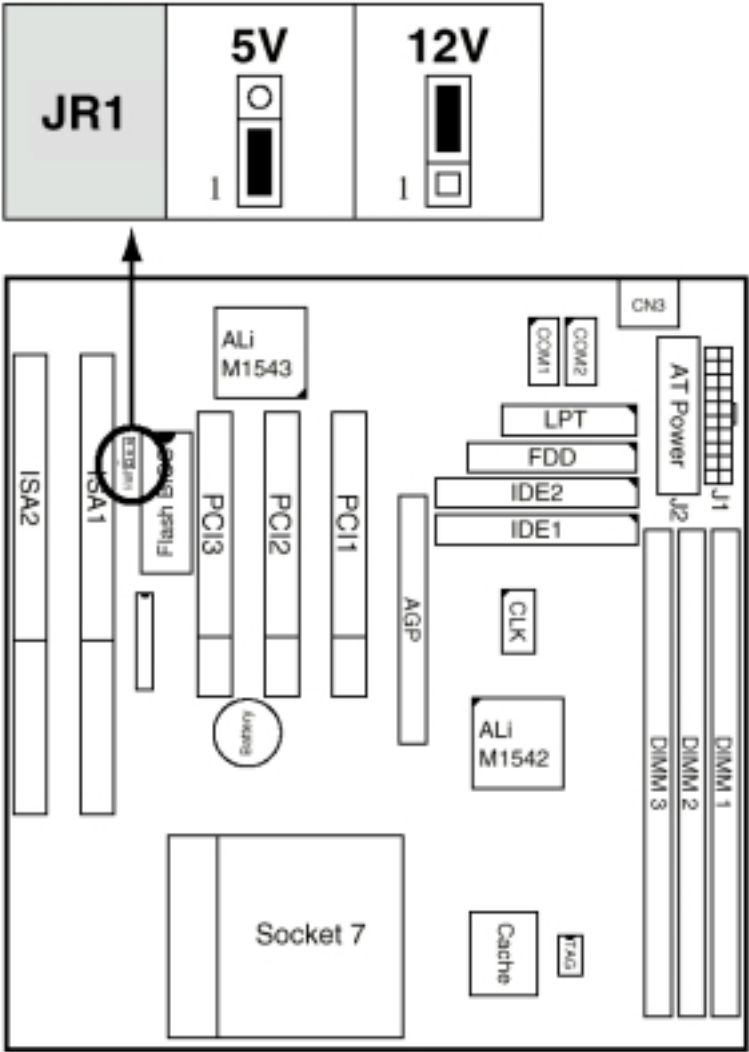


| Voltage | JV1 | Voltage | JV1 | Voltage | JV1 | Voltage | JV1 |
|---------|-----|---------|-----|---------|-----|---------|-----|
| 2.0V | | 2.1V | | 2.2V | | 2.3V | |
| 2.4V | | 2.5V | | 2.6V | | 2.7V | |
| 2.8V | | 2.9V | | 3.0V | | 3.1V | |
| 3.2V | | 3.3V | | 3.5V | | | |

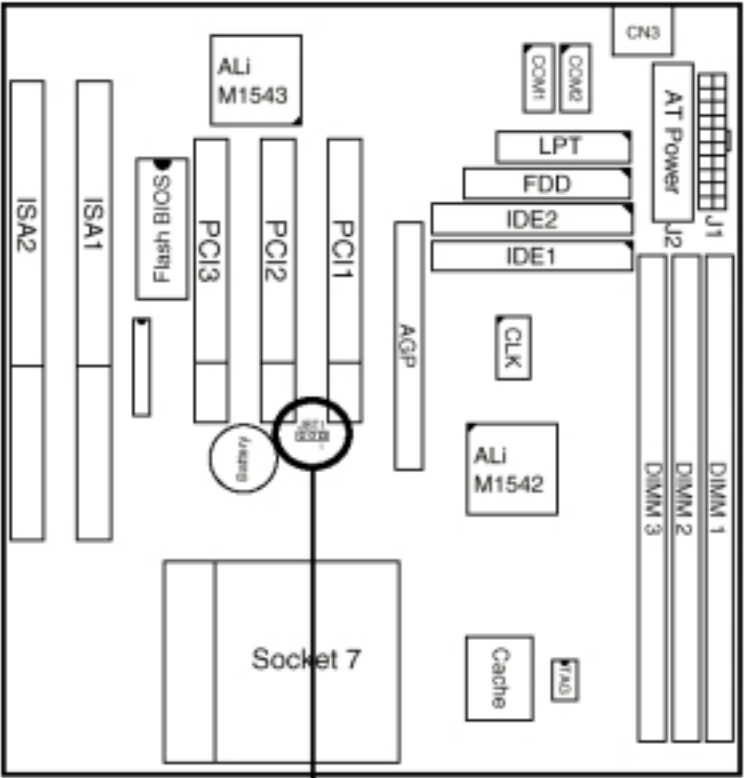
※JV2 – CPU I/O Voltage Setting



※JR1-ROM Voltage Setting



※JBT1-CMOS Clear



| CMOS Clear | JBT1 |
|------------------|---|
| Normal (default) | <input type="radio"/> <input checked="" type="checkbox"/> 1 |
| CMOS Clear | <input checked="" type="radio"/> <input type="checkbox"/> 1 |

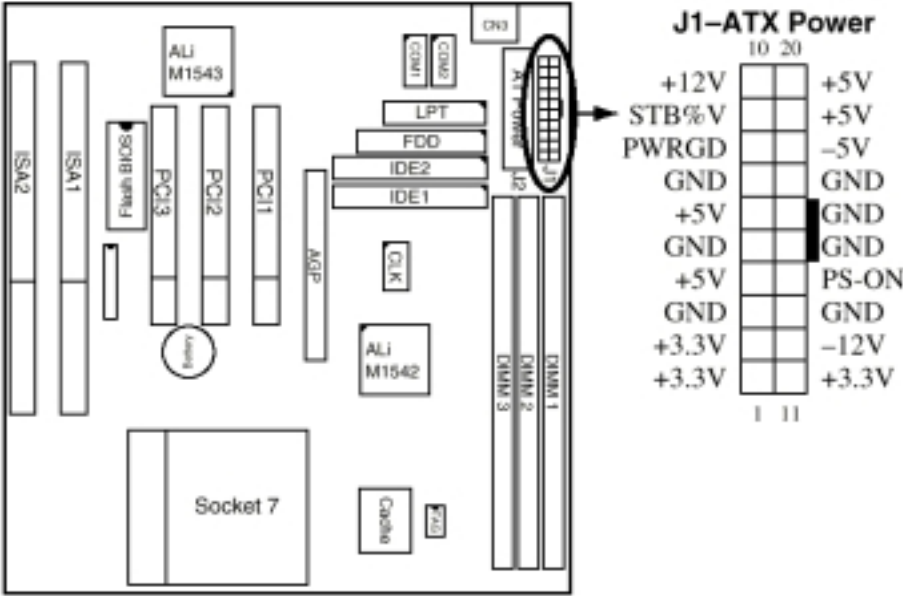
2.4 Connectors

This section describes some of the connectors on the mainboard.

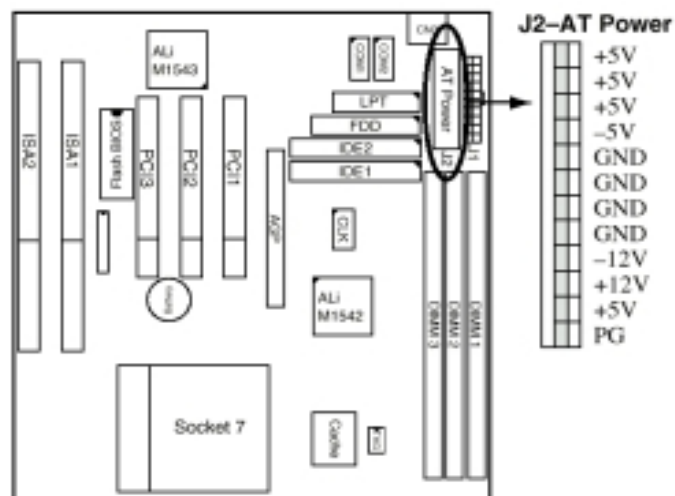
Note: Before making any connections to the board, make sure that the power to the system is turned off.

※J1-ATX Power Supply Connector

The motherboard provides an ATX power supply connector. It is a twenty-pin male header connector. Plug the connector from the power directly onto the board connector while making sure the pin1 is in its position.

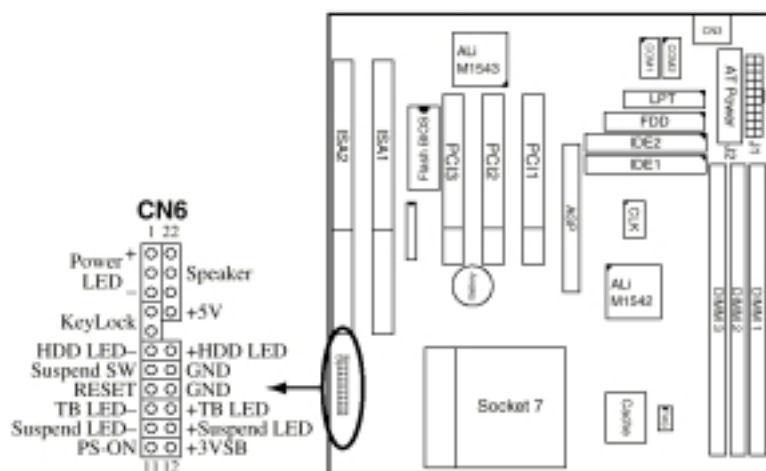


※J2-AT Power Supply



※CN6-System Pannel Connectors

This connector contains: Keylock & Power LED Connector, Hard Disk Activity LED, Reset Switch, and Speaker Connector.



※HDD-Hard Disk Activity LED

This connector connects to the hard disk activity indicator light on the case.

✖RST-Reset Switch

The system board has a 2-pin connector for rebooting the computer without having to turn off the power switch. Rebooting this way prolongs the life of the system power supply.

※KBLock-Keylock & Power LED Connector

This 2-pin connector enables or disables the keyboard and the Power LED on the case.

※SPK-Speaker Connector

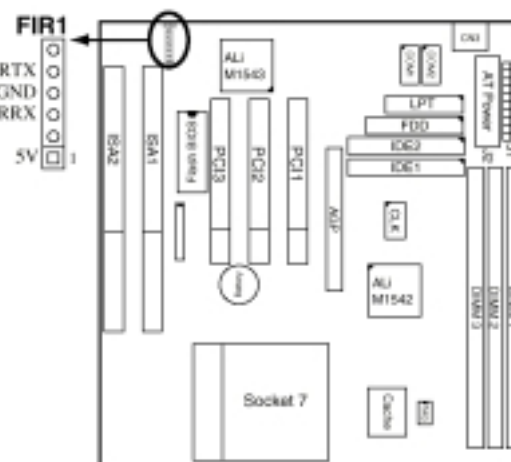
The speaker connector is a 4-pin connector for connecting the system and the speaker.

※Suspend SW, Suspend LED

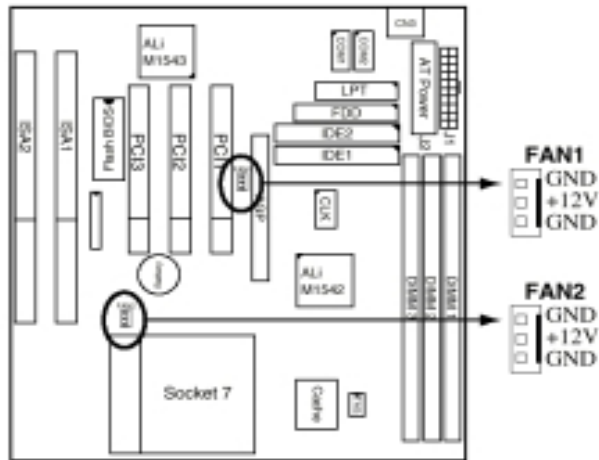
The system will be in a suspend mode if the Suspend SW is shorten, and also, the Suspend LED will be light up.

※FIR1-IR Connector

The system board provides a 6-pin infrared connector-FIR1 as an optional module for wireless transmitting and receiving.

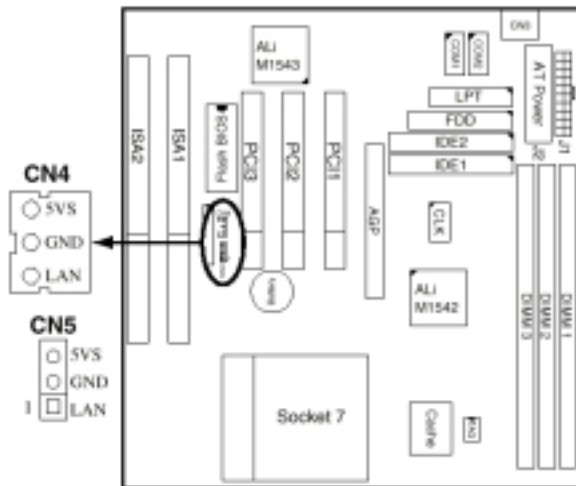


※FAN1, FAN2-Fan Connectors



※CN4, CN5-LAN Wake-Up Connectors

These two connectors has the same function and the difference is that they are designed for different cables



Note: LAN Wake-Up requires 5V stand-by voltage > 600mA for the ATX power.

※COM1/COM2-Serial Port Connectors

This mainboard provides two 9 pin D-sub serial port connectors, COM1 and COM2.

※FDD-Floppy Drive Connector

This mainboard has a 2 x 17-pin floppy drive connector.

※USB-USB Connector

Attach the USB cables to THIS 8-pin connector to provide a connection between USB devices and the system.

※IDE1/IDE2-Primary/Secondary IDE Connectors

This mainboard has a 32-bit Enhanced PCI IDE Controller that provides two connectors, IDE1 (primary) and IDE2 (secondary).

※LPT-Printer Connector

Connect this jumper to the printer.

※CN1-PS/2 Mouse Connector

※CN3-Keyboard Connector

A six-pin female PS/2 keyboard connector and a six-pin female PS/2 mouse connector are located at the rear of the board. Plug the keyboard/mouse jacks into these connectors.

2.5 Running the System

After completing all the settings before running the system, you need to push the ATX power button so that the system will work.

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3 AWARD BIOS SETUP

The ROM chips of your mainboard are configured with a customized Basic Input/Output System (BIOS) from Award Software Inc. The BIOS is a set of permanently recorded program routines that give the system its fundamental operational characteristics. It also tests the computer and determines how the computer reacts to specific instructions that are part of programs.

The BIOS is made up of codes and programs that provide the device level control for the major I/O devices in the system. It contains a set of routines (called POST, for Power-On Self Test) that check out the system when you turn it on. The BIOS also includes CMOS Setup programs, so no disk-based setup program is required. CMOS RAM stores information for:

- the date and time
- the memory capacity of the mainboard
- the type of display adapter installed
- the number and type of disk drives installed.

The CMOS memory is maintained by a battery installed on the mainboard. By using the battery, all memory in CMOS can be retained when the system power switch is turned off.

Use the CMOS Setup program to modify the system parameters to reflect the options installed in your system and to customize your system as desired. For example, you should run the Setup program after you:

- replace the battery
- install another disk drive
- receive an error code at startup
- use your system after not having used it for a long time

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- find the original setup missing.
- Run the CMOS Setup program after you turn on the system. On-screen instructions explain how to use the program.

3.1 Entering the CMOS Setup Program

1. Turn on or reboot the system. After a series of diagnostic checks, the following message will appear:
PRESS TO ENTER SETUP
2. Press the key and the main program screen appears as in figure 3-1.

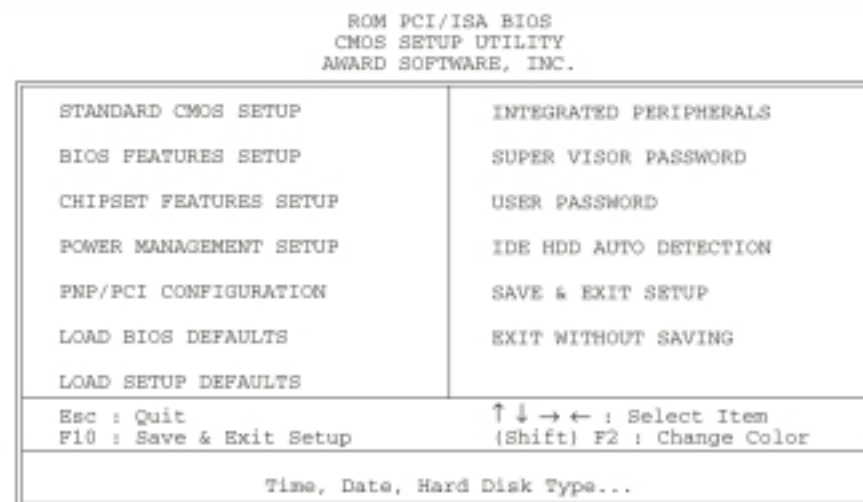


Figure 3-1. Main Program Screen

3. Use one of the arrows on the keyboard to select an option and press <Enter>. Modify the system parameters to reflect the options installed in the system.
4. Return to the Main Menu anytime by press <ESC>.
5. In the Main Menu, "SAVE AND EXIT SETUP" saves the changes and reboots the system, and "EXIT WITHOUT SAVING" ignores the changes and exits the program.

※Standard CMOS Setup

Standard CMOS Setup records some basic system hardware configuration and sets the system clock and error handling. Use this option to change configuration values when changing the system hardware setup or when the data stored in the CMOS memory gets lost or damaged.

Run the Standard CMOS Setup as follows:

1. Choose "STANDARD CMOS SETUP" from the Main Menu and a screen depicted in Figure 3-2 appears.

```

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

Date (mm:dd:yy) : WED, MAY 6, 1998
Time (hh:mm:ss) : 13:47:41

HARD DISKS      TYPE  SIZE  CYLS  HEAD  PRECOMP  LANDE  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 : 1.44M, 3.5in
Drive B : None

Video : EGA/VGA
Halt On : All Errors

Base Memory: 640K
Extended Memory: 261120K
Other Memory: 384K
Total Memory: 262144K

Esc : Quit      ↑↓→← : Select Item      PU/PD/+/- : Modify
F11 : Help     (Shift) F2 : Change Color

```

Figure 3-2. Standard CMOS Setup Screen

2. Use one of the arrow keys to move between options and modify the selected options by using PgUp/PgDn/+/- keys.

A short description of screen options (Figure 3-2) follows:

| | |
|---------------------------------------|---|
| Date (mm:dd:yy) | Set the current date. |
| Time (hh:mm:ss) | Set the current time. |
| Primary/Secondary Master/Slave | This field records the specifications for all non-SCSI hard disk drives installed in the system. Refer to the respective documentation on how to install the drivers. |

Drive A/B

Set this field to the types of floppy disk drives installed in the systems. The choices are: 360KB, 5.25 in.; 720KB, 3.5 in.; 1.44MB, 3.5 in.; (default) 2.88MB, 3.5 in.; or None.

Video

Set this field to the type of video display card installed in the system. The choices are: Monochrome; CGA 40; VGA/EGA (default); or CGA 80.

Halt On

Set this field to the type of errors that will cause the system to halt. The choices are: All Errors (default); No Errors; All, But Keyboard; All, But Diskette; or All, But Disk/Key.

3. Press <ESC> to return to the Main Menu when you finish setting up in the "STANDARD CMOS SETUP"

※BIOS Features Setup

BIOS Features Setup allows you to fine tune the system to improve performance or to record the system feature preferences.

Run the BIOS Features Setup as follows:

1. Choose "BIOS FEATURES SETUP" from the Main Menu, and a screen depicted in Figure 3-3 will appear.

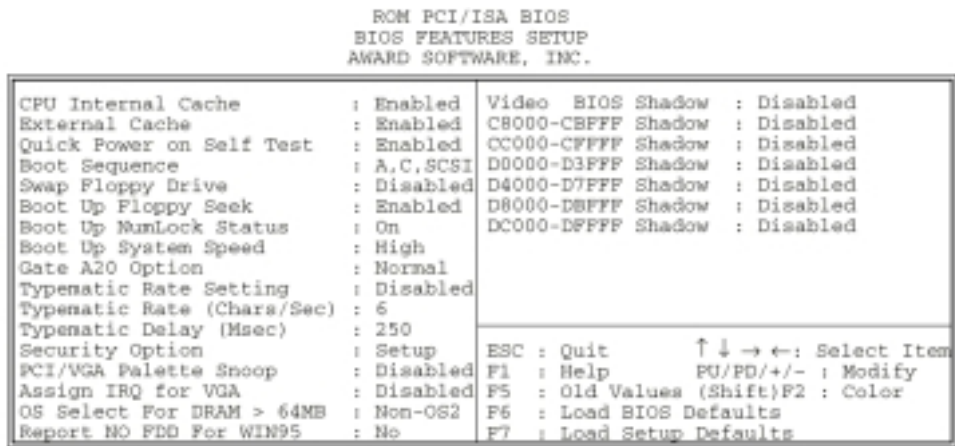


Figure 3-3. BIOS Features Setup Screen

2. Use one of the arrow keys to move between options and modify the selected options by using PgUp/PgDn/+/-keys. An explanation of the <F> keys follows:

| | |
|-------------|--|
| <F1>: | "Help" gives options available for each item. |
| Shift <F2>: | Changes color. |
| <F5>: | Resets the previous values. These values are the values with which the user started the current session. |
| <F6>: | Loads all options with the BIOS default values. |
| <F7>: | Loads all options with the Setup default values. |

A short description of screen options (Figure 3-3) follows:

| | |
|---------------------------------|--|
| CPU Internal Cache | Choose Enabled (default) or Disabled. This option allows the enabling or disabling of the CPU internal cache. |
| External Cache | Choose Enabled (default) or Disabled. This option allows the enabling or disabling of the external cache memory. |
| Quick Power On Self Test | Choose Enabled (default) or Disabled. This option speeds up the Power On Self Test routine. |
| Boot Sequence | Choose "A, C, SCSI" (default), or others. This option determines which drive to engage first for the operating system. |
| Swap Floppy Drive | Choose Enabled or Disabled (default). This option swaps floppy drive assignments when enabled. |
| Boot Up Floppy Seek | Choose Enabled (default) or Disabled. In the POST mode, BIOS will detect the track numbers of the installed floppy disk driver. 40 tracks is for 360K type driver and 80 is for 720K, 1.2M, and 1.44M. |
| Boot Up NumLock Status | Choose On (default) or Off. This option activates the NumLock function at boot-up time. |
| Boot Up System Speed | Choose High (default) or Low. |
| Gate A20 Option | Choose Fast or Normal (default). This option allows the RAM to access the memory above 1MB by using the fast gate A20 line. |
| Typematic Rate Setting | Choose Enabled or Disabled (default). Enable this option to adjust the keystroke repeat rate. |

| | |
|---------------------------------------|--|
| Typematic Rate (Chars/Sec) | Range between 6 (default) and 30 characters per second. This option controls the speed of repeating keystrokes. |
| Typematic Delay (Msec) | Choose 250 (default), 500, 750, or 1000. This option sets the time interval for displaying the first and the second characters. |
| Security Option | Choose System or Setup (default). This option is used to prevent unauthorized system boot-up or use of BIOS Setup. |
| PCI/VGP Palette Snoop | This item is used to determine whether the MPEG ISA/VESA VGA Cards can work with PCI/VGA or not. |
| Assign IRQ for VGA | Choose Enabled or Disabled (default). |
| OS Select for DRAM > 64MB | Enable this option when using the OS/2 system and the memory is over 64MB. |
| Report No FDD for Win95 | Use the default setting. |
| Video BIOS Shadow | Enabled (default): maps the VGA BIOS to system RAM for greater performance. Disabled: No mapping of the VGA BIOS to system RAM. |
| C8000-BFFF to DC000-FFF Shadow | These options are used to shadow other Expansion cards'ROM. This function will reduce the memory capacity from 640MB to 1024MB. |

3. Press <ESC> and follow the screen instructions to save or disregard the Changes.

※Chipset Features Setup

Chipset Features Setup changes the values of the chipset registers. These registers control the system options. Modification other than the default value should first have chipset knowledge.

Run the Chipset Features Setup as follows:

1. Choose "CHIPSET FEATURES SETUP" from the Main Menu and a screen depicted in Figure 3-4 appears.

| ROM PCI/ISA BIOS CHIPSET FEATURES SETUP AWARD SOFTWARE, INC. | | | |
|--|------------|-----------------------------------|-----------------------|
| Auto Configuration | : Enabled | Spread Spectrum | : Disabled |
| L2 TAG RAM Size | : 8 | CPU Warning Temperature | : Disabled |
| AT Bus Clock | : CLK 2/4 | Current CPU Temperature | : 46°C/114°F |
| DRAM Timing | : Normal | | |
| SDRAM CAS Latency | : 3 | | |
| Pipelined Function | : Enabled | | |
| Graphics Aperture Size | : 64MB | | |
| DRAM Data Integrity Mode | : Disabled | | |
| Memory Hole At 15-16M | : Disabled | | |
| Host Read DRAM Command Mode | : Syn | | |
| AGP Read Burst | : Enabled | | |
| ISA Line Buffer | : Enabled | | |
| Passive Release | : Enabled | | |
| Delay Transaction | : Disabled | | |
| Primary Frame Buffer | : All | ESC : Quit | ↑ ↓ → ← : Select Item |
| VGA Frame Buffer | : Enabled | F1 : Help | FU/PD/+/- : Modify |
| Data Merge | : Disabled | F5 : Old Values (Shift)F2 : Color | |
| IO Recovery Period | : 1 us | F6 : Load BIOS Defaults | |
| | | F7 : Load Setup Defaults | |

Note: CPU Warning Temperature and Current CPU Temperature both functions are optional.

Figure 3-4. Chipset Features Setup Screen

2. Use one of the arrow keys to move between options and modify the selected options by using PgUp/PgDn/+/-keys.

A short description of screen options (Figure 3-4) follows:

| | |
|---------------------------|--|
| Auto Configuration | This item allows you to select the pre-determined optimal values for DRAM, cache, and timing according to the CPU type and the system clock. |
|---------------------------|--|

| | |
|---------------------------------|---|
| L2 TAG RAM Size | Choose 8 (default) or 10. The system uses tag bits to determine the status of data in the L2 cache. Set this item to match the specifications (8 or 10 bits) of the installed TAG RAM chip. |
| AT Bus Clock | Choose 7.16MHz, CLK2/2, CLK2/3, CLK2/4 (default), CLK2/5, or CLK2/6. This item is used for setting up the speed of the AT bus in terms of a fraction of the CPU clock speed (PCLK2) or at the fixed speed of 7.16MHz. |
| DRAM Timing | Choose Normal (default) Fast, or Slow. Do not change this setting unless you know the DRAM access time spec. |
| SDRAM CAS Latency | Use the default setting. The number of clock cycles of CAS latency depends on the DRAM timing when synchronous DRAM is installed. Do not reset this item which is specified by the system designer. |
| Pipelined Function | Choose Enabled (default) or Disabled. When <i>Enabled</i> is chosen, the controller signals the CPU for a new memory address before transferring all the data for the current cycles are completed, and this action results a faster performance. |
| DRAM Data Integrity Mode | Choose Disabled (default), Parity, or ECC. Select Parity or ECC (Error Correcting Code) depending on the installed type of DRAM. |
| Memory Hole At 15M-16M | Choose Enabled or Disabled (default). Some interface cards will map their ROM address to this area. If this occurs, you should select Enabled, otherwise use Disabled. |

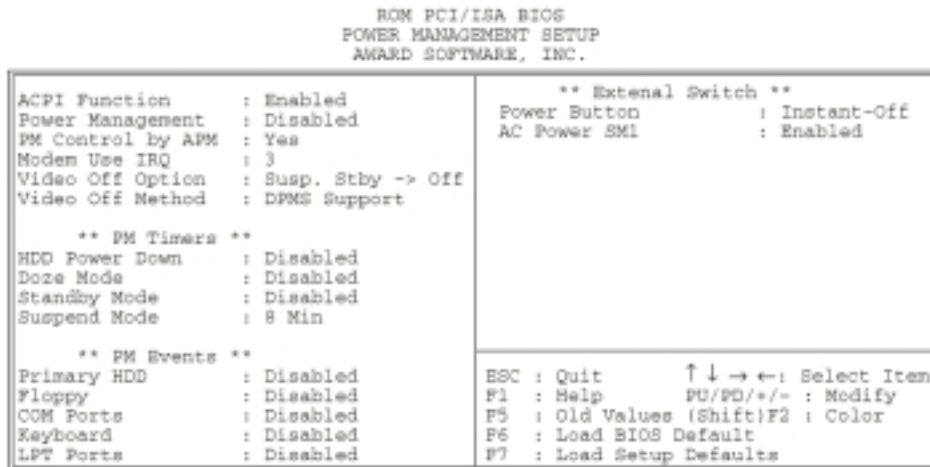
| | |
|------------------------------------|--|
| Host Read DRAM Command Mode | Choose Syn. (default) or Bypass. This item allows you to select the type of Host Read DRAM Command Mode. |
| ISA Line Buffer | Choose Enabled (default) or Disabled. The PCI to ISA Bridge has an 8-byte bi-directional line buffer for ISA or DMA which bus master memory reads from or writes to the PCI bus. When <i>Enabled</i> is chosen, an ISA or DMA bus master can prefetch 2 doublewords to the line buffer for a read cycle. |
| Passive Release | Choose Enabled (default) or Disabled. When <i>Enabled</i> is chosen, CPU to PCI bus accesses are allowed during the passive release. |
| Delay Transaction | Choose Enabled or Disabled (default). The chipset has an embedded 32-bit posted write buffer to support delay transactions cycles. Select <i>Enabled</i> to support compliance with PCI specification version 2.1. |
| Primary Frame Buffer | Choose Disabled, 2MB, 4MB, 8MB, or 16MB, or All (default). This item allows user to select a size for the PCI frame buffer. The size of the buffer should not impinge on local memory. |
| VGA Frame Buffer | Choose Enabled (default) or Disabled. When <i>Enabled</i> is chosen, a fixed VGA frame buffer from A000h to BFFFh and a CPU-to-PCI write buffer are implemented. |
| Data Merge | Choose Enabled or Disabled (default). This item controls the word-merge feature for frame buffer cycles. When <i>Enabled</i> is chosen, this controller checks the 8 CPU Byte Enable signals to determine if data words read from the PCI bus by the CPU can be merged. |

3. Press <ESC> and follow the screen instructions to save or disregard your settings.

※Power Management Setup

Power Management Setup sets the system instructions power saving functions.

1. Choose "POWER MANAGEMENT SETUP" from the Main Menu and a screen depicted in Figure 3-5 will appear.



Note: The item "ACPI Function" is optional.

Figure 3-5. Power Management Setup Screen

2. Use one of the arrow keys to move between options and modify the selected options by using PgUp/PgDn/+/-keys.

A short description of screen options (Figure 3-5) follows:

| | |
|----------------------|---|
| ACPI Function | Choose Enabled (default) or Disabled. ACPI (Advance Configuration Power Management Interface) function will be activated if choose <i>Enabled</i> . |
|----------------------|---|

| | |
|-------------------------|--|
| Power Management | This option allows user to select the type (or degree) of power saving and which is directly related to the following modes: 1. Doze Mode, 2. Suspend Mode 3. HDD Power Down There are 4 selections for this option which is described in the following table: |
|-------------------------|--|

| | |
|---------------------------|--|
| Disabled (default) | No power management. All modes are disabled. |
| Min. Power Saving | Doze Mode - 1hr. Standby Mode - 1 hr. Suspend Mode - 1 hr. HDD Power Down - 15min. |
| Max. Power Saving | It is only available for SL CPU. Doze Mode - 1min. Standby Mode - 1 min. Suspend Mode - 1 min. HDD Power Down - 1 min. |
| User Defined | Allows user to set each mode individually. The range for this option is from 1minute to hour, except the range for HDD Power Down which ranges from 1 min. to 15 min. plus Disabled. |

| | |
|--------------------------|--|
| PM Control by APM | Choose Yes (default) or No. Choose Yes if the Operating system has APM functions, choose No otherwise. |
| Modem Use IRQ | Choose NA, 3 (default), 4, 5, 7, 9, 10, or 11. |

| | |
|-------------------------|--|
| Video Off Option | Choose Always On, Suspend -> Off(default), Susp, Stby -> Off, or All Modes-> Off. Always On: Monitor will remain ON during the Power Saving Mode. Susp-> Off: Monitor blanked when the system enters the Suspend Mode. Susp, Stby-> Off: Monitor blanked when the system enters either Suspend or Standby mode. All Modes -> Off: Monitor blanked when the system enter any kind of Power Saving Mode. |
| Video Off Method | Choose Blank, DPMS (default), or V/H Sync+Blank. V/H SYNC+Blank: This option causes the system to turn off the vertical and horizontal synchronization ports, and, write blanks to the video buffer. Blank Screen: This option only writes blanks to the video buffer. DPMS: Select this option only if your monitor supports the Display Power Management Signaling (DPMS) standard. |
| HDD Power Down | When the set time has elapsed, the BIOS sends a command to the HDD to power down and this function has no effect on SCSI devices. |
| Doze Mode | This option sets the CPU speed down to 33 MHz to conserve power. |
| Standby Mode | Standby Mode turns off the VGA monitor, choose a mode for the different timers. |
| Suspend Mode | Suspend Mode turns off the CPU, thus saving the energy of the systems. |

| | |
|---------------------|---|
| Power Button | Choose Disabled, Instant-Off (default), or Delay 4sec-Off. Instant-Off: The system will be powered off instantly if uses the power off switch to turn off the computer. Delay 4sec-Off: The system will not be powered off after 4 seconds when turns off the system. |
| AC Power SM1 | Choose Enabled (default) or Disabled. Enabled: If the power is suddenly discontinued, the system will freeze and the system will be powered back up by the ATX power supply when the power is returned. |

3. Press <ESC> and follow the screen instructions to save or disregard your settings.

※PnP/PCI Configuration Setup

PnP/PCI Configuration Setup configures the PCI bus slots. Run the PnP/PCI Configuration Setup as follows:

1. Choose "PNP/PCI CONFIGURATION SETUP" from the Main Menu and a screen depicted in Figure 3-6 will appear.

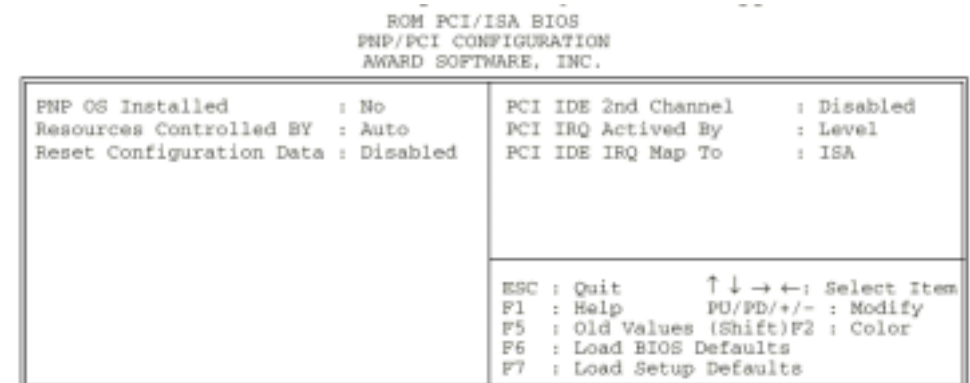


Figure 3-6. PnP/PCI Configuration Setup Screen

2. Use one of the arrow keys to move between options and modify the selected options by using PgUp/PgDn/+/-keys.

A short description of screen options (Figure 3-6) follows:

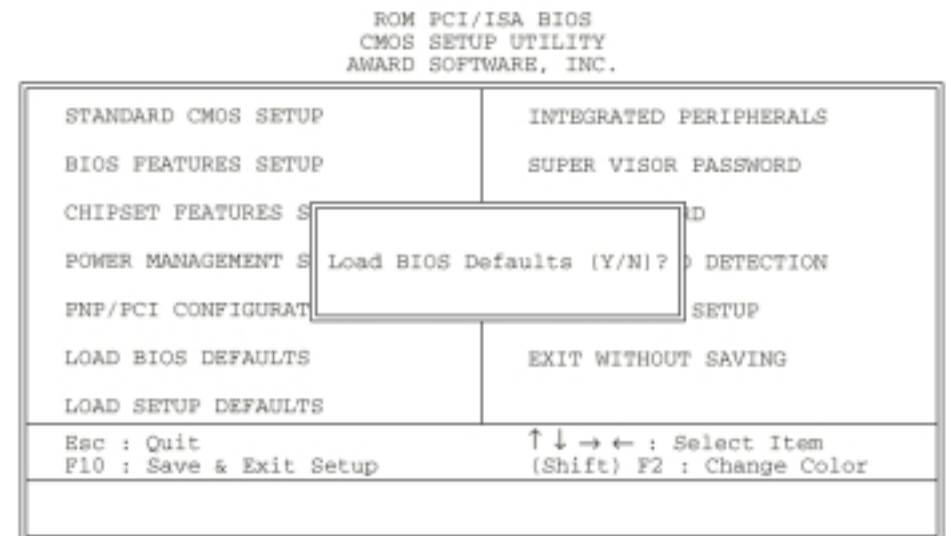
| | |
|---------------------------------|---|
| PnP OS Installed | Choose Yes (default) or No. Select Yes if the system operating environment is Plug-and-Play aware, i.e., Win95. |
| Resources Controlled By | Choose Auto (default) or Manual. The Award Plug & Play BIOS has the capacity to configure all of the boot, and, Plug-and-Play compatible devices automatically. However, this capability means absolutely nothing unless you are using a Plug & Play operating system such as Win95. |
| Reset Configuration Data | Choose Enabled or Disabled (default). Select <i>Enabled</i> to reset Extended System Configuration Data (ESCD) when there is a serious conflict whereby the system can not be rebooted which is caused by the system reconfiguration of the new add-on card. |
| PCI IRQ Activated By | Use the default setting. |
| PCI IDE IRQ Map To | Select PCI-AUTO, ISA (default), or assign a PCI SLOT number (depending on which slot the PCI IDE is inserted). If PCI-AUTO does not work, then assign an individual PCI SLOT number. |

3. Press <ESC> and follow the screen instructions to save or disregard your settings.

※Load BIOS Defaults

Load BIOS Defaults option allows you to load the troubleshooting default values permanently stored in the BIOS ROM. These default settings are non-optimal and disable all high performance features.

To load these default settings, highlight Load BIOS Defaults on the main screen and then press the <Enter> key. The system displays a confirmation message on the screen (see the figure below.) Press the <Y> key and then the <Enter> key to confirm. Press the <N> followed by the <Enter> key to abort. This features does not affect the fields on the Standard CMOS Setup screen.

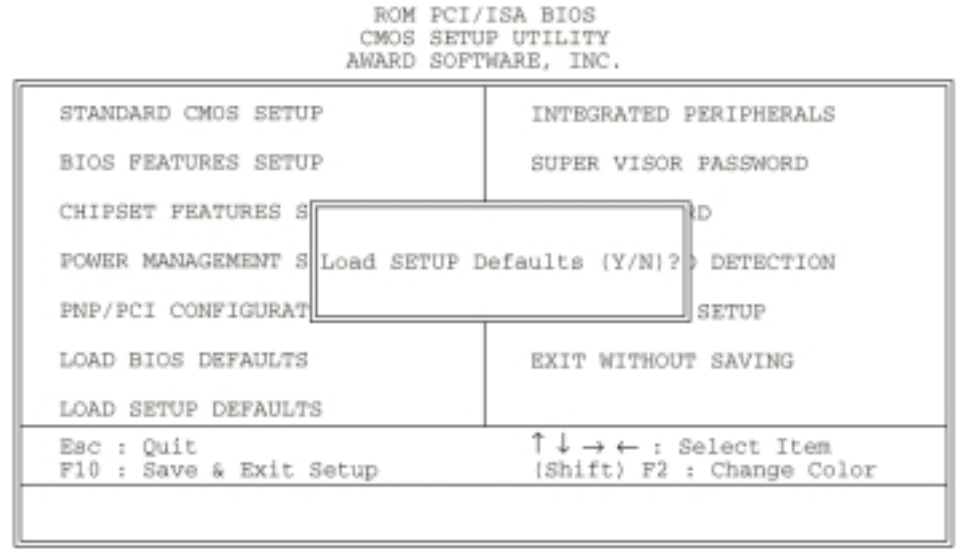


※Load Setup Defaults

Load Setup Defaults option loads the default system values to the system configuration fields. If the CMOS is corrupted, the defaults are loaded automatically. Choose this option, and the following message will appear:

Load Setup Defaults (Y/N)? N

To use the Setup defaults, change the prompt to “Y” and press <Enter>.



※Integrated Peripherals Setup

- 1. Choose “INTEGRATED PERIPHERALS SETUP”from the Main Menu, and a screen depicted in Figure 3-7 will appear.

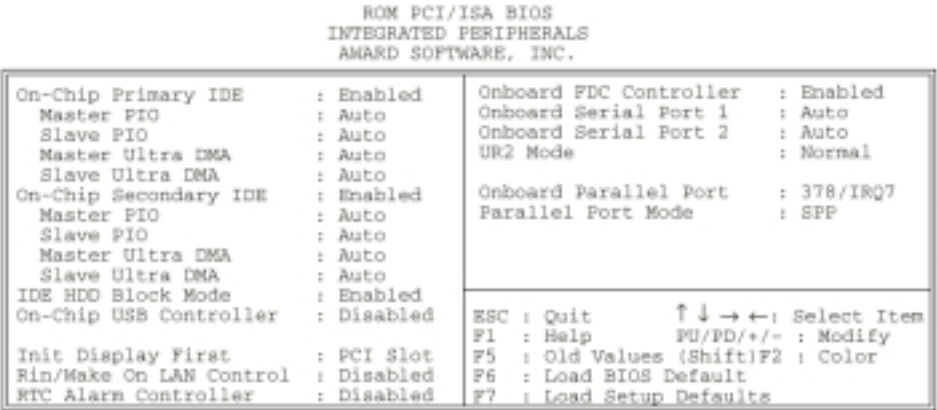


Figure 3-7. Integrated Peripherals Setup Screen

- 2. Use one of the arrow keys to move between options and modify the selected options by using PgUp/PgDn/+/-keys.

A short description of screen options (Figure 3-7) follows:

| | |
|------------------------------------|---|
| OnChip First/Second Channel | This chipset contains a PCI IDE interface which supports for 2 IDE channels. Select <i>Enabled</i> to activate the first and/or second IDE interface. Select <i>Disabled</i> to deactivate this interface, if you install a first and/or second add-in IDE interface IDE interface. |
| IDE HDD Block Mode | This item allows hard disk controller to use the fast block mode to transfer data to and from your hard disk drive (HDD). Select <i>Enabled</i> only if your hard drives support block mode. |

| | |
|---|--|
| IDE Primary/Secondary Master Slave PIO | Four IDE PIO (Programmed Input/Output) fields let you set the PIO mode (0-4) for each of the 4 IDE devices which the onboard IDE interface supports. All 4 modes (0-4) provide a successively increased performance. In Auto mode, the system determines the best mode for each device automatically. |
| IDE Primary/Secondary Master/Slave UDMA Ultra DMA/33 | Ultra DMA/33 implementation is available only if your IDE hard drive supports this function, and, the operating environment includes a DMA driver (Windows 95 OSR2 or a third-party IDE bus master driver). If both hard drive and the system software support Ultra DMA/33, then select <i>Auto</i> to enable BIOS support. |
| On-Chip USB Controller | Choose Enabled or Disabled (default). <i>Enabled</i> should be selected if the USB keyboard is used. |
| Init Display First | Choose PCI SLOt (default) or AGP. |
| Rin/Wake On LAN Control | Choose Enabled or Disabled (default). An input signal awakens the system from a soft off state. |
| RTC Alarm Control | Choose Enabled or Disabled (default). There will be a screen allows user to set the date, hour, and minutes when <i>Enabled</i> is chosen, then the system will turn on automatically when the set time is reached. |
| Onboard FDD Controller | Choose Enabled (default) or Disabled. Disable this function when adding a higher performance controller. |

| | |
|-----------------------------------|--|
| Onboard Serial Port1/Port2 | Choose Auto (default), 3F8/IRQ4, 2F8/IRQ3, 3E8/IRQ4, 2E8/IRQ3, or Disabled. This item allows user to determine access onboard serial port1/port2 controller with I/O address. Do not set port 1 & 2 to the same value except for Disabled. |
| UART 2 Mode | Choose Normal (default), ASK IR, or IrDA. This item allows user to determine which Infra Red (IR) function of onboard I/O chip uses. |
| Onboard Parallel Port | Choose 378/IRQ7 (default), 278/IRQ5, 3BC/IRQ7, or Disabled. This item allows user to determine access onboard parallel port controller with which I/O address. |
| Parallel Port Mode | Choose SPP (default), ECP/EPP, ECP, EPP/SPP. This item is used to select an operating mode for the onboard parallel (printer) port. Make sure that both hardware and software support EPP or ECP mode before selecting these 2 choices. |

3. Press <ESC> and follow the screen instructions to save or disregard your settings.

※Password Setting

This option allows the user to set the system password. To set the password:

1. Choose "Password Setting" in the Main Menu and press <Enter>.

The following message appears:

"Enter Password:"

3. When running this option for the first time, enter the password (up to 8 characters) and press <Enter>. For security, the screen will not display the entered characters.

4. After entering the password, the following message appears prompting for the confirmation of the password:

"Confirm Password:"

5. Enter the same password again to confirm the password and press <Enter>.

6. Move the cursor to Save & Exit to save the password.

7.To delete the password entered before, choose the "Password Setting" and press <Enter>. This will delete the old password.

8. Move the cursor to Save & Exit to save the option, otherwise the old password will still be stored when you turn on the machine the next time.

9. Press <ESC> to exit to the Main Menu.

Note: If you forget or lose the password, the only way to access the system is to clear the CMOS RAM by shorting J7 across pin2 and 3. All setup information will be lost and you will need to run the BIOS setup program again.

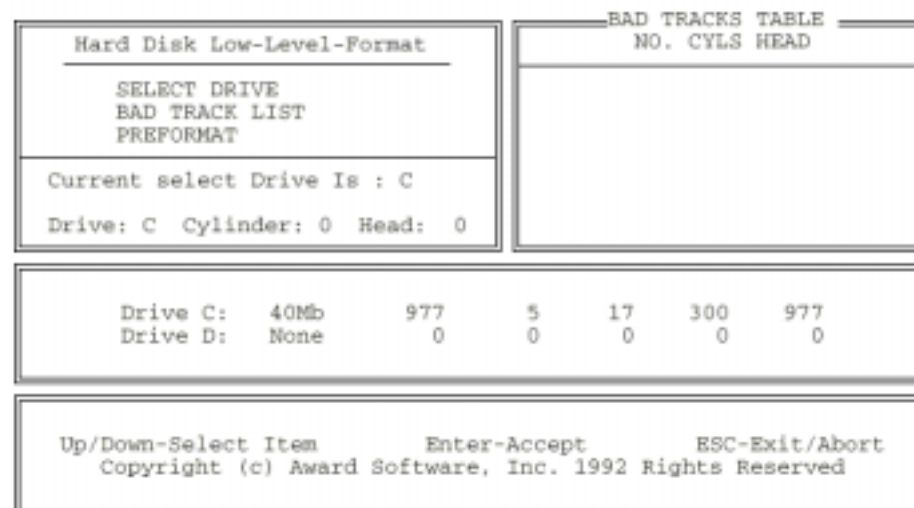
✖ IDE HDD Auto Detection

IDE HDD Auto Detection detects the parameters of an IDE hard disk drive and automatically enters them to the Standard CMOS Setup Screen.

After selecting this option, the screen prompts for a selection of a specific hard disk for Primary Master after you select this option. Enter “Y” to confirm the acceptance of the hard disk detected by the BIOS.

Press <Enter> to check next hard disk. This function checks up to four hard disks. User can press the <ESC> after the <Enter> to skip this function to return to the Main Menu.

※HDD Low Level Format



✖ Save & Exit Setup

Save & Exit Setup saves all modifications specified into the CMOS memory. Highlight this option on the Main Menu and the following message will appear:

SAVE to CMOS and EXIT (Y/N)? Y

Press <Enter> key to save the configuration changes.

✖Exit Without Saving

Exit Without Saving exits the Setup utility without saving the modifications specified. Highlight this option on the Main Menu and the following message will appear:

Quit Without Saving (Y/N)? N

To quit without saving, change the prompt to "Y" and press <Enter> key to exit.

4 SOFTWARE DRIVER INSTALLATION

The CD came with the package is free of charge, including all our products' drivers. Please run the "Setup.exe" to install software in the following roots:

Mainboard Driver for Intel Chips

- Award PIIX4 INF update for Windows 95
- Bus Master IDE drivers for OS2
- Bus Master IDE drivers for Windows 95
- Bus Master IDE drivers for Windows NT
- Intel PIIX4 INF update for Windows 95

Mainboard Driver for VIA Chips

- IDE drivers for Win95 & WinNT
- AGP driver
- USB and ACPI for Win95 & Win98
- INF (Power Management Setup)

Mainboard Drivers for ALI Chips

- AGP driver
- IDE drivers for Win95
- Award PIIX4 INF update for Windows 95

Sound Driver for Yamaha Chips

- OS2, Win95, WinNT, Win98, Ystation

Sound Drivers for ESS Chips

- Audio Rack
- ES19688SB (Maestro 2)
- ES1938 (Solo-1)
- ES1869F
- DOS, OS2, Win95, Win98, WinNT4.0, Win31

Others

- VGA Drivers for Intel 1740 chips
- BIOS Update Utility
- System Monitor
- SuperVB Antivirus Utility