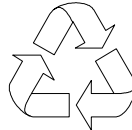# V60N System

User's Guide

100% Recycled Paper

System Board

The V60N is a high-performance system board with a 64-bit architecture. It supports the new Intel Pentium Pro CPU running at 150/166/180/200 MHz and utilizes the Peripheral Component Interconnect (PCI) local bus architecture. The PCI local bus maximizes the system performance by enabling high-speed peripherals to match the speed of the microprocessor with its 120 MB or 132 MB per second transfer rate in burst mode.

The board comes with four ISA and four PCI slots for future expansion. The six 72-pin SIMM sockets allow you to upgrade system memory to a maximum of 384 MB.

Onboard I/O interfaces comprise of two UART 16C550 serial ports, a parallel port with ECP/EPP feature, and PS/2 keyboard and mouse ports. These allow the system to support various I/O devices.

BIOS Utility

Most systems are already configured by the manufacturer or the dealer. There is no need to run Setup when starting the computer unless you get a Run Setup message.

The Setup program loads configuration values into the battery-backed nonvolatile memory called CMOS RAM. This memory area is not part of the system RAM.

> *If you repeatedly receive Run Setup messages, the battery may be bad. In this case, the system cannot retain configuration values in CMOS. Ask a qualified technician for assistance.*

Before you run Setup, make sure that you have saved all open files. The system reboots immediately after you exit Setup.

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1.1   Major Features

The system board has the following major features and components:

- A zero-insertion force (ZIF) socket for Intel Pentium Pro CPU series
- Six 72-pin SIMM sockets that support 4-/8-/16-/32-/64-MB, 60-ns SIMMs, with Extended Data Out (EDO) or Fast Page Mode (FPM) feature
- 128-KB Flash ROM
- APM-compliant BIOS
- Onboard PCI local IDE controller
- Two PCI-enhanced IDE interfaces that support up to four IDE devices
- SCSI and Ethernet function interface (optional)
- External ports:
    - PS/2 keyboard and mouse ports
    - Two buffered high-speed serial ports
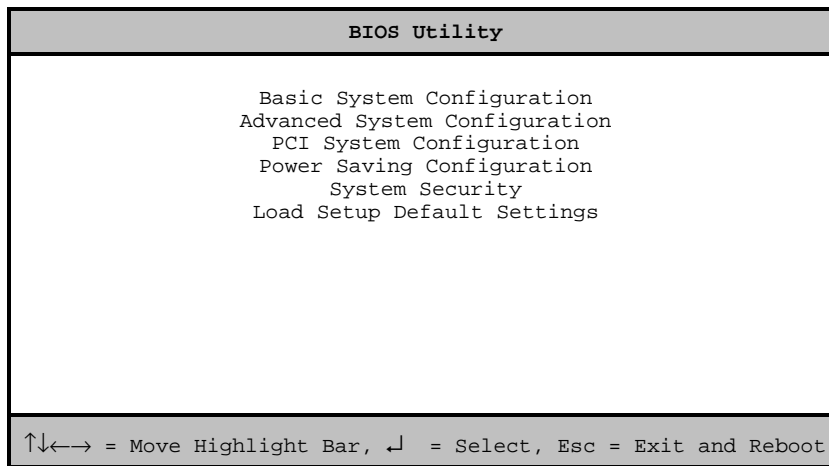   - One ECP/EPP high-speed parallel port

2.1   Entering Setup

To enter Setup, press the key combination [CTRL]+[ALT]+[ESC].

> You must press [CTRL]+[ALT]+[ESC] while the
> system is booting. This key combination
> does not work during any other time.

The BIOS Utility main menu then appears:

```
                        BIOS Utility

             Basic System Configuration
           Advanced System Configuration
              PCI System Configuration
             Power Saving Configuration
                   System Security
             Load Setup Default Settings




↑↓←→ = Move Highlight Bar, ↵  = Select, Esc = Exit and Reboot
```

> The parameters on the screens show default
> values. These values may not be the same
> as those in your system.
>
> The grayed items on the screens have fixed
> settings and are not user-configurable.

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions carefully. Save these instructions for future reference.

2. Follow all warnings and instructions marked on the product.

3. Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

4. Do not use this product near water.

5. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.

6. Slots and openings in the cabinet and the back or bottom are provided for ventilation; to ensure reliable operation of the product and to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register, or in a built-in installation unless proper ventilation is provided.

7. This product should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.

8. This product is equipped with a 3-wire grounding-type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the purpose of the grounding-type plug.

1.2 Board Layout

Figure 1-1 shows the locations of the system board major components.
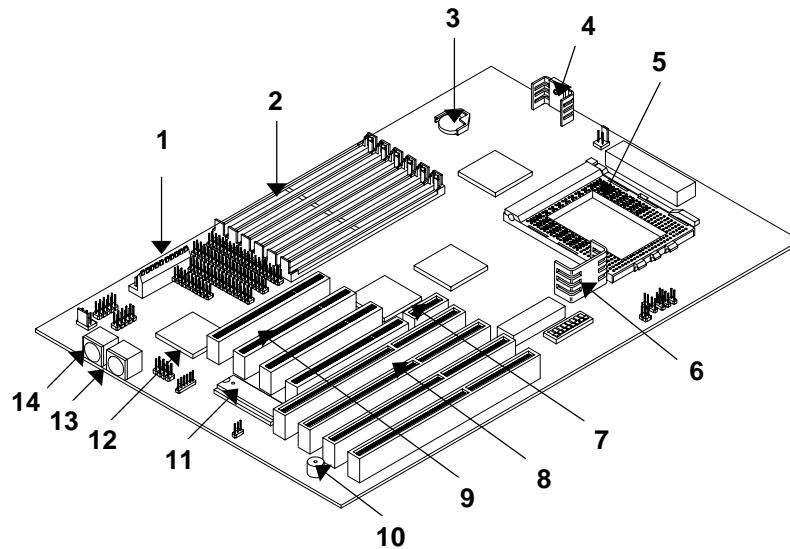
1 Power connector
2 SIMM sockets
3 Battery
4 *1.5V* voltage regulator with heatsink
5 CPU socket
6 *3.3V voltage* regulator with heatsink
7 SCSI/LAN card slot
8 ISA slots
9 PCI slots

10 Buzzer
11 BIOS chip socket
12 Ultra I/O controller
13 PS/2 mouse connector
14 PS/2 keyboard connector

Figure 1-1   System Board Layout

2.2   Basic System Configuration

Select Basic System Configuration to input configuration values such as date, time, and disk types.

The following screen shows the Basic System Configuration menu.

```
                Basic System Configuration        Page 1/2

    Date  .................... [MM/DD/YY]
    Time  .................... [HH:MM:SS]
    Diskette Drive A ......... [xx-MB    xx-inch]
    Diskette Drive B ......... [xx-MB    xx-inch]

                                   Cylinder   Head    Sector

    IDE Drive 0  (xxx MB)..... [Auto]    xx      xx      xx
    IDE Drive 1  (xxx MB)..... [Auto]    xx      xx      xx
    IDE Drive 2  (xxx MB)..... [Auto]    xx      xx      xx
    IDE Drive 3  (xxx MB)..... [Auto]    xx      xx      xx

    Total Memory ............. [ x ]MB

    ↑↓ = Move Highlight Bar,   → ← = Change Setting
    PgDn/PgUp = Move Screen,   F1 = Help,   Esc  =  Exit
```

The command line at the bottom of the menu tells you how to highlight items, change settings, and move from one screen to another.

Press ⬆ or ⬇ on the cursor-edit keypad to highlight the desired parameter.

Press ➡ or ⬅ to select the desired option for a parameter.

Press PGDN to move to the next page or PGUP to return to the previous page.

Press ESC to exit the configuration menu.

9. Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.

10. If an extension cord is used with this product, make sure that the total ampere rating of the equipment plugged into the extension cord does not exceed the extension cord ampere rating. Also, make sure that the total rating of all products plugged into the wall outlet does not exceed 15 amperes.

11. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

12. Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage points or other risks. Refer all servicing to qualified service personnel.

13. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

    a. When the power cord or plug is damaged or frayed

    b. If liquid has been spilled into the product

    c. If the product has been exposed to rain or water

    d. If the product does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions since improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal condition.

    e. If the product has been dropped or the cabinet has been damaged

    f. If the product exhibits a distinct change in performance, indicating a need for service

1.3   Jumpers and Connectors

1.3.1   Jumper and Connector Locations

Figure 1-2 shows the jumper and connector locations on the system board.
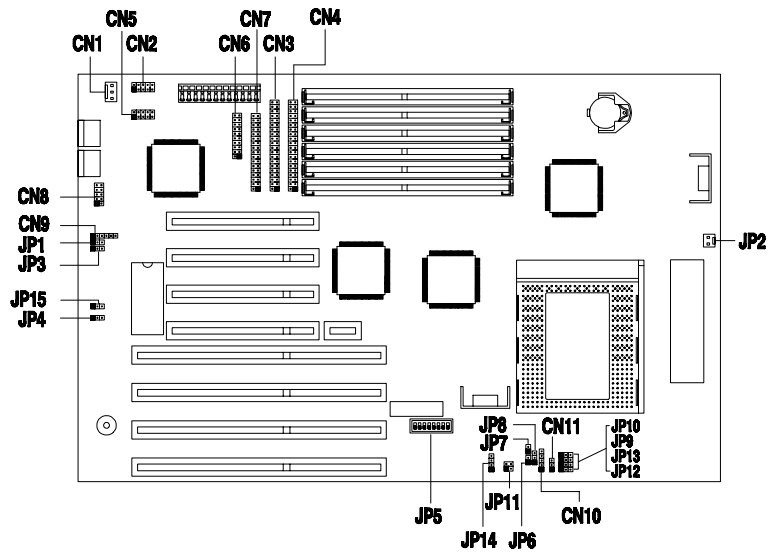

Figure 1-2   System Board Jumper and Connector Locations

The blackened pin of a jumper or a connector represents pin 1.

The following screen shows page 2 of the Basic System Configuration menu.

```
            Basic System Configuration        Page 2/2

   Enhanced IDE Features
      Hard Disk Block Mode  .......... [Enabled ]
      Advanced PIO Mode  ............ [Enabled ]
      Hard Disk Size > 504MB  ........ [Enabled ]
      Hard Disk 32-Bit Access  ....... [Enabled ]


   Num Lock After Boot  ............. [Enabled ]
   Memory Test  ..................... [Disabled]
   Quiet Boot  ...................... [Enabled ]
   Configuration Table  ............. [Enabled ]

   ↑↓ = Move Highlight Bar,   → ← = Change Setting
   PgDn/PgUp = Move Screen,   F1 = Help,   Esc  =  Exit
```

The following sections explain the different parameters and their settings.

2.2.1   Date and Time

The real-time clock keeps the system date and time. After setting the date and time, you do not need to enter them every time you turn on the system.   As long as the internal battery remains good (approximately seven years) and connected, the clock continues to keep the date and time accurately even when the power is off.

14. Replace battery with the same type as the product's battery we recommend. Use of another battery may present a risk of fire or explosion. Refer battery replacement to a qualified serviceman.

15. Warning! Battery may explode if not handled properly. Do not recharge, disassemble or dispose of in fire. Keep away from children and dispose of used battery promptly.

16. Use only the proper type of power supply cord set (provided in your keyboard/manual accessories box) for this unit. It should be a detachable type: UL listed/CSA certified, type SVT/SJT, rated 6A 125V minimum, VDE approved or its equivalent. Maximum length is 15 feet (4.6 meters).

1.3.2 Jumper Settings

Table 1-1 lists the system board jumpers with their corresponding settings and functions.

Table 1-1   Jumper Settings

Jumper	Setting	Function
Password Check JP1	1-2 2-3 *	Check password Bypass password
Flash ROM Type JP4	1-2 * 2-3	128-KB Flash ROM 256-KB Flash ROM
Frequency Select JP5	**Switch No.** **1 2 3 4 Frequency** On Off Off Off 60MHz Off On Off Off 66MHz	
Core/Bus Clk. Ratio	**5 6 7 8 Ratio** On On On On 2 On On Off On 3 On On On Off 4 On On Off Off 5 On Off On On 5/2 On Off Off On 7/2 On Off On Off 9/2 On Off Off Off 11/2	

---

* Default

System Board   *1-5*

Date

Highlight the items on the Date parameter and press ⟶ or ⟵ to set the date following the month-day-year format.

Valid values for month, day, and year are:

- Month   1 to 12
- Day   1 to 31
- Year   00 to 99

Time

Highlight the items on the Time parameter and press ⟶ or ⟵ to set the time following the hour-minute-second format.

Valid values for hour, minute, and second are:

- Hour   00 to 23
- Minute   00 to 59
- Second   00 to 59

2.2.2   Diskette Drives

To enter the configuration value for the first diskette drive (drive A), highlight the Diskette Drive A parameter. Press ⟶ or ⟵ key to view the options and select the appropriate value.

Possible settings for the Diskette Drive parameters:

- [None   ]
- [360 KB,   5.25-inch]
- [1.2 MB,   5.25-inch]
- [720 KB,   3.5-inch]
- [1.44 MB,   3.5-inch]
- [2.88 MB,   3.5-inch]

FCC Class B Radio Frequency Interference Statement

Note:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.

2. Increase the separation between the equipment and receiver.

3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

4. Consult the dealer or an experienced radio/television technician for help.

Notice 1:

The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Notice 2:

Shielded interface cables, if any, must be used in order to comply with the emission limits.

Table 1-1   Jumper Settings (continued)

Jumper	Setting		Function			
Voltage Setting	**JP9**	**JP10**	**JP12**	**JP13**	**Voltage**	
JP9, JP10,	2-3	2-3	2-3	2-3	3.5V	
JP12, JP13	2-3	2-3	1-2	2-3	3.4V	
	2-3	2-3	2-3	1-2	3.3V	
	1-2	1-2	2-3	2-3	3.2V	
	2-3	2-3	1-2	1-2	3.1V	
	1-2	2-3	2-3	2-3	3.0V	
	1-2	2-3	1-2	2-3	2.9V	
	1-2	2-3	2-3	1-2	2.8V	
	2-3	1-2	2-3	2-3	2.7V	
	1-2	2-3	1-2	1-2	2.6V	
	2-3	1-2	1-2	1-2	2.5V	
Switch Function JP11	1-3 2-4		External SMI Reset			
S/W Shutdown/ Power Function JP14	1-2 2-3		Software Shutdown Power Normal			
BIOS Voltage JP15	1-2 2-3		12V 5V			

Follow the same procedure for Diskette Drive B. Choose None if you do not have a second diskette drive.

2.2.3   IDE Drives

Move the highlight bar to the IDE Drive 0 parameter to configure the first IDE drive (drive C). Press ➡ or ⬅ to display the IDE drive types with their respective values. Select the type that corresponds to your IDE hard disk drive. Follow the same procedure for the other IDE hard disk drives, if any. Choose None for IDE drives other than hard disk and CD-ROM.

Selecting the "Auto" Option

If you do not know the exact type of your IDE hard disk drive, select the option Auto. During the power-on self-test (POST), when the system performs self-testing and self-initialization before loading the operating system and applications, the BIOS utility automatically determines your IDE drive type. You can see the drive type and its values when you enter the BIOS Utility.

```
                                Cylinder  Head  Sector
IDE Drive 0 (xx MB)....[Auto]     xx      xx    xx
```

If desired, you can save the values under the option User.

```
                                Cylinder  Head  Sector
IDE Drive 0 (xx MB)....[User]     xx      xx    xx
```

The next time you boot the system, the BIOS utility does not have to auto-configure your IDE drive as it detects the saved disk information during POST.

About this Manual

Purpose

This user's guide aims to give you all the necessary information to enable you to operate the system properly.

Manual Structure

This user's guide consists of two chapters.

Chapter 1   System Board

This chapter describes the system board and all its major components. It contains the system board layout, jumper settings, cache and memory configurations, and information on other internal devices.

Chapter 2   BIOS Utility

This chapter gives information about the system BIOS and tells how to configure the system by changing the settings of the BIOS parameters.

1.3.3 Connector Functions

Table 1-2 lists the different connectors on the system board and their respective functions.

Table 1-2   Onboard Connectors

Connector	Function
CN1	Software shutdown power connector
CN2	COM1 connector
CN3	IDE1 connector
CN4	IDE2 connector
CN5	COM2 connector
CN6	Parallel connector
CN7	Diskette drive connector
CN9	Infrared (IrDA) connector
CN10	HDD LED connector
CN11	Reset key
CO1	Power connector
CNY1	USB connector
JP2	Two-pin fan connector
JP6	Software power key
JP7	Speed LED
JP8	Power LED

We recommend that you copy the IDE disk drive values and keep them in a safe place in case you have to reconfigure the disk in the future.

Follow the same procedure to auto-configure other IDE drives.

Selecting the "User" Option

There are cases when you cannot use the option Auto, instead you have to select User. Choose the User option when you have installed an IDE hard disk that was previously formatted but does not use the disk native parameters or structure, that is, the disk type may be in the IDE hard disk types list but the number of cylinders, heads, and sectors differ.

Follow these steps to configure an IDE hard disk with the User option:

1. Highlight an IDE drive parameter.

2. Select the option User and press ENTER.

3. Type in the number of cylinders, heads, and sectors of the drive under the appropriate columns.

    Be sure to have the correct IDE hard disk drive information beforehand.

4. Choose Yes when asked if you want to save CMOS data.

Conventions

The following are the conventions used in this manual:

Text entered by user   Represents text input by the user.

Screen messages   Denotes actual messages that appear on the screen.

ALT , ENTER , F8 , etc.   Represent the actual keys that you have to press on the keyboard.

NOTE
Gives bits and pieces of additional information related to the current topic.

WARNING
Alerts you to any damage that might result from doing or not doing specific actions.

CAUTION
Gives precautionary measures to avoid possible hardware or software problems.

IMPORTANT
Reminds you to do specific actions relevant to the accomplishment of procedures.

TIP
Tells how to accomplish a procedure with minimum steps through little shortcuts.

1.4　ESD Precautions

Always observe the following electrostatic discharge (ESD) precautions before installing a system component:

1. Do not remove a component from its anti-static packaging until you are ready to install it.

2. Wear a wrist grounding strap before handling electronic components. Wrist grounding straps are available at most electronic component stores.

> *Do not attempt the procedures described in the following sections unless you are a qualified technician.*

1.5　Pre-installation Instructions

Always observe the following before you install a system component:

1. Turn off the system power and all the peripherals connected to the unit before opening it.

2. Open the system according to the instructions in the housing installation manual.

3. Follow the ESD precautions in section 1.4 before handling a system component.

4. Remove any expansion boards or peripherals that block access to the SIMM sockets or CPU socket.

5. See the following sections for specific instructions on the component you wish to install.

2.2.4   Total Memory

The system automatically detects the total amount of onboard memory during the POST and sets this parameter accordingly. If you install additional memory, the system automatically adjusts this parameter to display the new memory size.

2.2.5   Enhanced IDE Features

Hard Disk Block Mode

This function enhances disk performance depending on the hard disk in use. If you set this parameter to `Enabled`, it allows data transfer in block (multiple sectors) by increasing the data transfer rate to 256 bytes per cycle. If your system does not boot after enabling this parameter, change the setting to `Disabled`. This parameter is normally set to `Enabled`.

Advanced PIO Mode

Enabling this parameter allows for faster data recovery and read/write timing that reduces hard disk activity time. This results to better hard disk performance.

To utilize this feature, your hard disk must support the advanced PIO mode. If not, set this parameter to `Disabled`. Refer to your hard disk documentation for information about the advanced PIO mode.

Hard Disk Size > 504 MB

This enhanced IDE feature works only under DOS and Windows 3.x environments. If enabled, it allows you to use a hard disk with a capacity of more than 504 MB. This is made possible through the Logical Block Address (LBA) mode translation. Other operating systems require this parameter to be set to `Disabled`.

Table of Contents

> *Do not attempt the procedures described in the following sections unless you are a qualified service technician.*

1.6   CPU Installation

The system board comes with a zero-insertion force (ZIF) CPU socket for easy installation.

Follow these steps to install an Intel Pentium Pro CPU:

1. Locate the CPU socket on the system board and pull up the socket lever.

2. Align pin 1 of the CPU with hole 1 of the socket. The dot on the CPU indicates pin 1. The topmost label indicates the CPU frequency and the cache size.
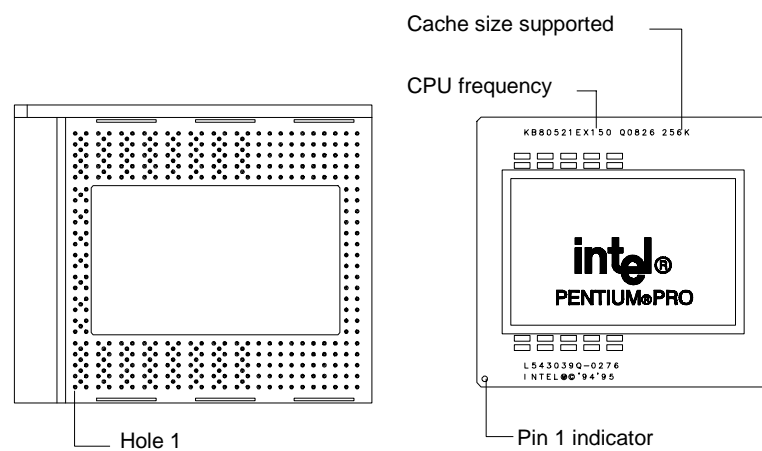
Figure 1-3   Locating Pin 1 of the CPU and Hole 1 of the Socket

Hard Disk 32-bit Access

Enabling this parameter improves system performance by allowing the use of the 32-bit hard disk access. This enhanced IDE feature works only under DOS, Windows 3.x and Novell NetWare. If your software or hard disk does not support this function, set this parameter to Disabled.

2.2.6   Num Lock After Boot

This parameter allows you to activate the Num Lock function upon booting. The default setting is Enabled.

2.2.7   Memory Test

When set to Enabled, this parameter allows the system to perform a RAM test during the POST routine. When set to Disabled, the system detects only the memory size and bypasses the test routine. The default setting is Disabled.

2.2.8   Quiet Boot

This parameter enables or disables the quiet boot function. When set to Enabled, BIOS is in graphical mode and displays only an identification logo during POST and while booting. After which the screen displays the operating system prompt (such as DOS) or logo (such as Windows 95). If any error occurred while booting, the system automatically switches to the text mode.

Even if your setting is Enabled, you may also switch to the text mode while booting by pressing F9 after you hear a beep that indicates the activation of the keyboard.

When set to Disabled, BIOS is in the conventional text mode where you see the system initialization details on the screen.

x

3. Gently insert the CPU into the socket.

4. Pull down the socket lever to lock the CPU into the socket.

Step 1   Step 3

Step 4
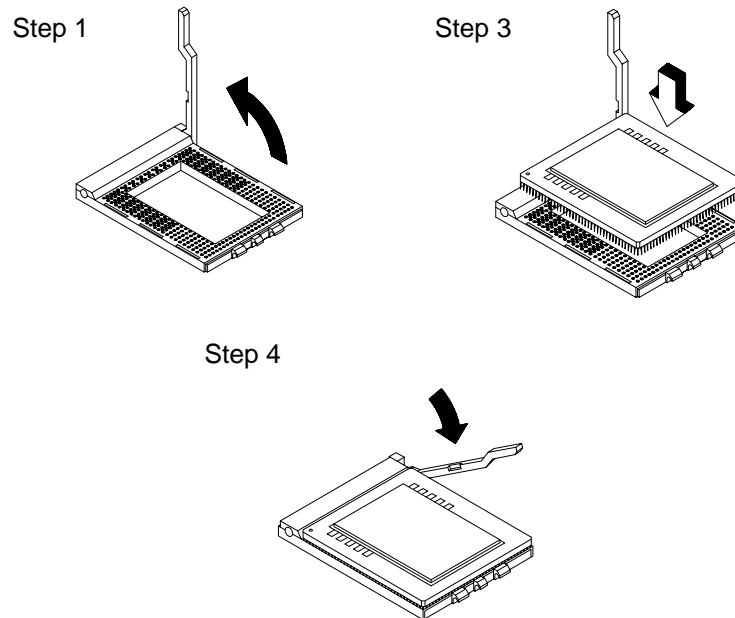
Figure 1-4   Installing a CPU

5. Attach the heatsink and fan to the CPU.
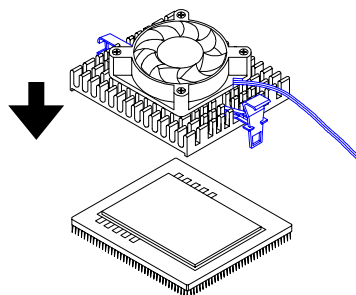
Figure 1-5   Attaching the Heatsink and Fan to the CPU

2.2.9 Configuration Table

This parameter allows you to display the configuration table after POST but before booting. The configuration table gives a summary of the hardware devices and settings that BIOS detected during POST. A sample configuration table appears below.

```
CPU/CLK      :   Pentium/xxx MHz    Base Memory:    :    xxx KB
Math Coprocessor:Installed          Extended Memory:  xxxx KB
IDE Drive 0 :   xxx MB              Shadow RAM    :     xxx KB
IDE Drive 1 :   xxx MB              Internal Cache :  xxx KB, Enabled
IDE Drive 2 :   xxx MB              External Cache :  xxx KB, Enabled
IDE Drive 3 :   xxx MB              Pointing Device:  None
Diskette Drive A: xx-MB, xx-inch    DRAM Bank 0   :    xxxx
Diskette Drive B: None              DRAM Bank 1   :    xxxx
Serial Port(s): 3F8h, 2F8h          Parallel Port(s): 378h
ECC/Parity Mode: Disabled
```

List of Figures

6. Plug in the fan cable to the two-pin fan connector marked **JP2** on the system board.

1.7 Memory Configurations

The system board comes with six 72-pin SIMM sockets that support 4-MB and 16-MB single-density SIMMs and 8-MB and 32-MB double-density SIMMs, with or without the Extended Data Out (EDO) function. Table 1-3 lists the possible memory configurations.

1.7.1 Rules for Adding Memory

●   Use only one type of SIMM in a given bank.

●   You may combine different types of SIMMs for a memory configuration as long as the SIMMs in each bank are of the same type.

●   Always install SIMMs in pairs. For example, for a total memory of 8 MB, install two 4-MB SIMMs into the sockets marked S1 and S2 or S3 and S4. You can not use an 8-MB SIMM alone for an 8-MB memory.

●   Always install SIMMs from the outermost socket first. For example, socket S1 before socket S2, or socket S3 before socket S4.

●   Always remove SIMMs from the innermost socket first. For example, socket S4 before socket S3, or socket S2 before socket S1.

2.3   Advanced System Configuration

The Advanced System Configuration option allows you to configure the advanced system memory functions.

> *Do not change any settings in the Advanced Configuration if you are not a qualified technician to avoid damaging the system.*

The following screen shows the Advanced System Configuration parameters.

```
┌──────────────────────────────────────────────────────────┐
│        Advanced System Configuration        Page 1/2      │
├──────────────────────────────────────────────────────────┤
│                                                            │
│   L1 & L2 Cche (CPU Cache) ...........  [Enabled ]         │
│   Cache Scheme   .....................  [Write Back ]      │
│                                                            │
│   ECC/Parity Mode Selection  ........  [Disabled]          │
│                                                            │
│   Memory at 15MB-16MB Reserved for ...  [System] Use       │
│                                                            │
│                                                            │
│                                                            │
│                                                            │
│                                                            │
├──────────────────────────────────────────────────────────┤
│   ↑↓ = Move Highlight Bar,   → ← = Change Setting          │
│   PgDn/PgUp = Move Screen,   F1 = Help,   Esc  =  Exit     │
└──────────────────────────────────────────────────────────┘
```

2.3.1   L1 & L2 Cache (CPU Cache)

This parameter enables or disables the first-level and the second-level memory that are both incorporated into the CPU. The default setting is Enabled.

List of Tables

Table 1-3   Memory Configurations

Bank 1		Bank 2		Bank 3		Total
S1	S2	S3	S4	S5	S6	Memory
4 MB	4 MB					8 MB
4 MB	4 MB	4 MB	4 MB			16 MB
4 MB	4 MB	4 MB	4 MB	4 MB	4 MB	24 MB
8 MB	8 MB					16 MB
8 MB	8 MB	4 MB	4 MB			24 MB
8 MB	8 MB	4 MB	4 MB	4 MB	4 MB	32 MB
8 MB	8 MB	8 MB	8 MB			32 MB
8 MB	8 MB	8 MB	8 MB	4 MB	4 MB	40 MB
8 MB	8 MB	8 MB	8 MB	8 MB	8 MB	48 MB
16 MB	16 MB					32 MB
16 MB	16 MB	4 MB	4 MB			40 MB
16 MB	16 MB	4 MB	4 MB	4 MB	4 MB	48 MB
16 MB	16 MB	8 MB	8 MB			48 MB
16 MB	16 MB	8 MB	8 MB	4 MB	4 MB	56 MB
16 MB	16 MB	8 MB	8 MB	8 MB	8 MB	64 MB
16 MB	16 MB	16 MB	16 MB			64 MB
16 MB	16 MB	16 MB	16 MB	4 MB	4 MB	72 MB
16 MB	16 MB	16 MB	16 MB	8 MB	8 MB	80 MB
16 MB	16 MB	16 MB	16 MB	16 MB	16 MB	96 MB
32 MB	32 MB					64 MB
32 MB	32 MB	4 MB	4 MB			72 MB
32 MB	32 MB	4 MB	4 MB	4 MB	4 MB	80 MB
32 MB	32 MB	8 MB	8 MB			80 MB
32 MB	32 MB	8 MB	8 MB	4 MB	4 MB	88 MB
32 MB	32 MB	8 MB	8 MB	8 MB	8 MB	96 MB
32 MB	32 MB	16 MB	16 MB			96 MB
32 MB	32 MB	16 MB	16 MB	4 MB	4 MB	104 MB
32 MB	32 MB	16 MB	16 MB	8 MB	8 MB	112 MB

2.3.2   Cache Scheme

This parameter sets the cache to `Write-through` or `Write-back` modes. `Write-back` updates the cache but not the memory when there is a write instruction. It updates the memory only when there is an inconsistency between the cache and the memory. `Write-through` updates both the cache and the memory whenever there is a write instruction.

2.3.3   ECC/Parity Mode Selection

This parameter allows you to enable or disable the ECC and parity check features. Select `Parity` to enable the parity check feature. Select `ECC` to enable the ECC feature. The ECC feature enables BIOS to detect and correct data errors.

Disable this parameter if you installed SIMMs without parity or if you want to disregard the function.

2.3.4   Memory at 15MB-16MB Reserved For

To prevent memory address conflicts between the system and expansion boards, reserve this memory range for the use of either the system or an expansion board.

Table 1-3   Memory Configurations (continued)

Bank 1		Bank 2		Bank 3		Total
S1	S2	S3	S4	S5	S6	Memory
32 MB	32 MB	16 MB	16 MB	16 MB	16 MB	128 MB
32 MB	32 MB	32 MB	32 MB			128 MB
32 MB	32 MB	32 MB	32 MB	4 MB	4 MB	136 MB
32 MB	32 MB	32 MB	32 MB	8 MB	8 MB	144 MB
32 MB	32 MB	32 MB	32 MB	16 MB	16 MB	160 MB
32 MB	32 MB	32 MB	32 MB	32 MB	32 MB	192 MB
64 MB	64 MB					128 MB
64 MB	64 MB	4 MB	4 MB			136 MB
64 MB	64 MB	4 MB	4 MB	4 MB	4 MB	144 MB
64 MB	64 MB	8 MB	8 MB			144 MB
64 MB	64 MB	8 MB	8 MB	4 MB	4 MB	152 MB
64 MB	64 MB	8 MB	8 MB	8 MB	8 MB	160 MB
64 MB	64 MB	16 MB	16 MB			160 MB
64 MB	64 MB	16 MB	16 MB	4 MB	4 MB	168 MB
64 MB	64 MB	16 MB	16 MB	8 MB	8 MB	176 MB
64 MB	64 MB	16 MB	16 MB	16 MB	16 MB	192 MB
64 MB	64 MB	32 MB	32 MB			192 MB
64 MB	64 MB	32 MB	32 MB	4 MB	4 MB	200 MB
64 MB	64 MB	32 MB	32 MB	8 MB	8 MB	208 MB
64 MB	64 MB	32 MB	32 MB	16 MB	16 MB	224 MB
64 MB	64 MB	32 MB	32 MB	32 MB	32 MB	256 MB
64 MB	64 MB	64 MB	64 MB			256 MB
64 MB	64 MB	64 MB	64 MB	4 MB	4 MB	264 MB
64 MB	64 MB	64 MB	64 MB	8 MB	8 MB	272 MB
64 MB	64 MB	64 MB	64 MB	16 MB	16 MB	288 MB
64 MB	64 MB	64 MB	64 MB	32 MB	32 MB	320 MB
64 MB	64 MB	64 MB	64 MB	64 MB	64 MB	384 MB

2.4   PCI System Configuration

The PCI System Configuration allows you to specify the settings for your PCI devices.

```
┌─────────────────────────────────────────────────────────────┐
│          PCI System Configuration          Page 1/1          │
├─────────────────────────────────────────────────────────────┤
│                                                               │
│    PCI IRQ Setting  ...........[  Auto  ]                     │
│                                 INTA    INTB    INTC    INTD  │
│      PCI Slot 1.............  [--]    [--]    [--]    [--]     │
│      PCI Slot 2.............  [--]    [--]    [--]    [--]     │
│      PCI Slot 3.............  [--]    [--]    [--]    [--]     │
│      Onboard VGA...........  [--]                             │
│                                                               │
│    PCI IRQ Sharing ............[No ]                          │
│    VGA Palette Snoop  .........[Disabled]                     │
│    Plug & Play OS .............[No ]                          │
│    Reset Resources Assignment .[No.]                         │
│                                                               │
│                                                               │
├─────────────────────────────────────────────────────────────┤
│  ↑↓ = Move Highlight Bar,   → ← = Change Setting             │
│  PgDn/PgUp = Move Screen,   F1 = Help,   Esc  =  Exit         │
└─────────────────────────────────────────────────────────────┘
```

2.4.1   PCI IRQ Setting

This parameter allows for Auto or Manual configuration of PCI devices. If you use plug-and-play (PnP) devices, you can keep the default setting Auto. The system then automatically configures the PnP devices. If your PCI device is not a PnP, you can manually assign the interrupt for each of the device.

> *Refer to your manual for technical information about the PCI card.*

1.7.2   Installing a SIMM

Follow these steps to install a SIMM:

1. Carefully slip a SIMM at a 45° angle into a socket making sure that the curved edge indicating the pin 1 of the SIMM matches pin 1 of the socket.

> *A SIMM fits only in one direction. If you slip in a SIMM but would not completely fit, you may have inserted it the wrong way. Reverse the orientation of the SIMM.*

2. Gently push the SIMM to a vertical position until the pegs of the socket slip into the holes on the SIMM, and the holding clips lock the SIMM into position. The SIMM should be at a 90° angle when installed.
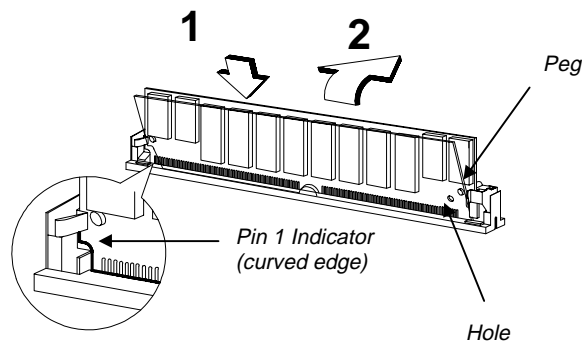
Figure 1-6   Installing a SIMM

PCI Slots

These parameters allow you to specify the appropriate interrupt for each of the PCI devices. You can assign IRQ5, IRQ9, IRQ10, IRQ11, or IRQ15 to the slots.

Press ⬆ or ⬇ to move between fields. Press ➡ or ⬅ to select options.

Onboard VGA

This option allows you to specify an interrupt for the onboard VGA. You can assign IRQ5, IRQ9, IRQ10, IRQ11, or IRQ15 to the slots.

> *Make sure that you assign a different interrupt for each device to avoid conflict. However, if there are no more IRQs available for the remaining functions, you may assign the same IRQ to two different functions. Refer to section 2.4.2 for more details.*

2.4.2   PCI IRQ Sharing

Setting this parameter to Yes allows you to assign the same IRQ to two different devices. To disable the feature, select No.

> *Enable this parameter only if there are no IRQs available to assign for the remaining device function.*

1.7.3 Removing a SIMM

Follow these steps to remove a SIMM:

1. Press the holding clips on both sides of the SIMM outward to release it.

2. Move the SIMM to a 45° angle.

3. Pull the SIMM out of the socket.
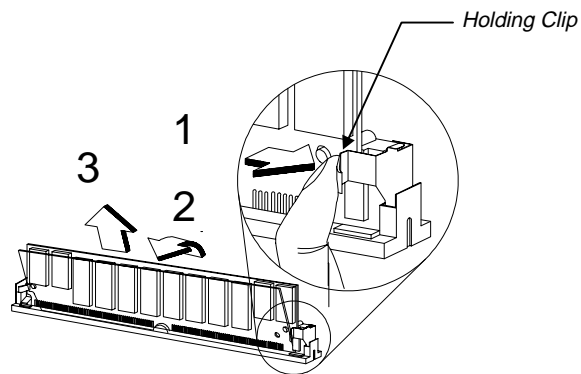
Figure 1-7   Removing a SIMM

2.4.3   VGA Palette Snoop

This parameter permits you to use the palette snooping feature if you installed more than one VGA card in the system.

The VGA palette snoop function allows the control palette register (CPR) to manage and update the VGA RAM DAC (Digital Analog Converter, a color data storage) of each VGA card installed in the system. The snooping process lets the CPR send a signal to all the VGA cards so that they can update their individual RAM DACs. The signal goes through the cards continuously until all RAM DAC data have been updated. This allows display of multiple images on the screen.

Some VGA cards have required settings for this feature. Check your VGA card manual before setting this parameter.

2.4.4   Plug & Play OS

When this parameter is set to Yes, BIOS initializes only PnP boot devices such as SCSI cards. When set to No, BIOS initializes all PnP boot and non-boot devices such as sound cards.

Set this parameter to Yes only if your operating system is Windows 95.

2.4.5   Reset Resources Assignment

Set this parameter to Yes to avoid IRQ conflict when installing non-PnP or PnP ISA cards. This clears all resource assignments and allows BIOS to reassign resources to all installed PnP devices the next time the system boots.   After clearing the resource data, the parameter resets to No.

Refer to section 1.9 for instructions on installing and configuring ISA cards.

1.7.4   Reconfiguring the System

You must enter Setup after installing or removing SIMMs to reconfigure the system.

Follow these steps to reconfigure the system:

1. Turn on the system. A memory error message appears, indicating that the total memory does not match the value stored in CMOS.

2. Press CTRL + ALT + ESC to enter Setup. A warning message appears indicating a wrong memory configuration.

3. Press ESC twice to exit and reboot the system.

The system boots with the new memory configuration.

1.8   IDE Hard Disk Support

The system board supports four IDE hard disks, or any other IDE devices, through the two onboard PCI IDE interfaces. See Figure 1-2 for the location of the IDE interfaces.

Follow the instructions in the housing installation manual on how to install a hard disk in the system. Connect the cables according to the IDE hard disk configuration in Table 1-4.

Table 1-4   IDE Hard Disk Configuration

IDE Connector	Master	Slave
Channel 1	Hard disk 0	Hard disk 1
Channel 2	Hard disk 2	Hard disk 3/ IDE CD-ROM drive

2.5 Power Saving Configuration

The Power Saving Configuration parameters are configurable only if your system supports the power management feature.

The following screen shows the Power Saving Configuration parameters and their default settings:

```
                Power Saving Configuration          Page 1/1


Power Management Mode ................[Enabled ]
  IDE Hard Disk Standby Timer .......[15] Minute(s)
  System Standby Timer ..............[ 5] Minute(s)
  System Suspend Timer ..............[15] Minute(s)

Monitored Activities
  IRQ 0 .........[Disabled]       IRQ 8 .........[Enabled ]
  IRQ 1 .........[Enabled ]       IRQ 9 .........[Disabled]
  IRQ 3 .........[Disabled]       IRQ 10 ........[Disabled]
  IRQ 4 .........[Disabled]       IRQ 11 ........[Disabled]
  IRQ 5 .........[Disabled]       IRQ 12 ........[Enabled ]
  IRQ 6 .........[Enabled ]       IRQ 13 ........[Enabled ]
  IRQ 7 .........[Disabled]       IRQ 14 ........[Enabled ]
                                  IRQ 15 ........[Disabled]



  ↑↓ = Move Highlight Bar,   → ← = Change Setting
  PgDn/PgUp = Move Screen,   F1 = Help,   Esc  =  Exit
```

2.5.1 Power Management Mode

This parameter allows you to reduce power consumption. When this parameter is set to Enabled, you can configure the IDE hard disk and system timers. Setting to Disabled deactivates the power management feature and all the timers.

1.9   Installing ISA Cards

Both PnP and non-PnP ISA cards require specific IRQs. When installing ISA cards, make sure that the IRQs required by these cards are not previously assigned to PCI devices to avoid resource conflicts.

Follow these steps when installing ISA cards:

1. Turn off the system and remove all PnP cards installed, if any.

2. Turn on the system ,enter BIOS utility and set the Reset Resource Assignment parameter to Yes to clear the resource data assigned to the PnP devices. Refer to section 2.4.5.

3. Turn off the system and install non-PnP ISA cards.

4. Turn on the system.

5. Use Windows 95 or ICU to manually assign the appropriate IRQs to the cards. This ensures that BIOS will not use the resources assigned to the non-PnP ISA cards.

BIOS detects and configures only PnP cards.

6. Turn off the system.

7. Install PnP ISA and PCI cards.

8. Turn on the system. This time PnP BIOS automatically configures the PnP ISA and PCI cards with the remaining free IRQs.

IDE Hard Disk Standby Timer

This parameter allows the hard disk to enter standby mode after inactivity of 1 to 15 minutes, depending on your setting. When you access the hard disk again, allow 3 to 5 seconds (depending on the hard disk) for the disk to return to normal speed. Set this parameter to Off if your hard disk does not support this function.

System Standby Timer

This parameter sets the system to a "fast-on" power saving mode. It automatically enters into the standby mode after a specified period of inactivity. Any keyboard or mouse action, or any enabled monitored activities occurring through the IRQ channels resume system operation. See section 2.5.2.

System Suspend Timer

This parameter sets the system to the lowest power saving mode. It automatically enters into the suspend mode after a specified period of inactivity.

In suspend mode, the CPU clock stops. Any keyboard or mouse action, or any enabled monitored activities occurring through the IRQ channels resume system operation. See section 2.5.2.

2.5.2   Monitored Activities

The IRQ items under this parameter allow you to monitor system activities occurring through the IRQ channels to determine whether or not to enter power saving mode.

For example, if you assign IRQ 3 to a fax/modem and you set this item to Enabled, any fax/modem activity wakes up the system from standby mode.

1.10   Post-installation Instructions

Observe the following after installing a system component:

1.   See to it that the components are installed according to the step-by-step instructions in their respective sections.

2.   Make sure you have set all the required jumpers. See section 1.3.2 for the correct jumper settings.

3.   Replace any expansion boards or peripherals that you removed earlier.

4.   Replace the system cover.

5.   Connect the necessary cables and turn on the system.

1.11   Error Messages

Do not continue using the computer if you receive an error message of any type. Note the message and take corrective action. This section explains the different types of error messages and corresponding corrective measures.

There are two general types of error messages:

- Software
- System

1.11.1   Software Error Messages

Software error messages are returned by your operating system or application. These messages typically occur after you boot the operating system or when you run your applications. If you receive this type of message, consult your application or operating system manual for help.

2.6   System Security Setup

The Setup program has a number of security features to prevent
unauthorized access to the system and its data.

The following screen appears if you enter the Setup program and
select System Security.

```
┌─────────────────────────────────────────────────────────────────┐
│                    System Security              Page 1/1          │
├───────────────────────────────────────────────────────────────────┤
│                                                                   │
│ Disk Drive Control                                                │
│   Diskette Drive ............... [         Normal       ]         │
│   Hard Disk Drive .............. [         Normal       ]         │
│   System Boot Drive ............ [Drive A then C]                 │
│   Boot from CD-ROM ............. [Disabled]                       │
│ Onboard Communication Ports                                       │
│   Serial Port 1 Base Address .... [   3F8h    ]                   │
│   Serial Port 2 Base Address .... [   2F8h    ]                   │
│   Parallel Port Base Address .... [378h (IRQ 7)]                  │
│     Operation Mode............. [Standard Parallel Port (SPP)] Mode│
│       ECP DMA Channel ......... [-]                               │
│ Onboard PS/2 Mouse (IRQ 12)...... [Enabled ]                      │
│                                                                   │
│ Setup Password .................. [  None  ]                      │
│ Power On Password ............... [  None  ]                      │
├───────────────────────────────────────────────────────────────────┤
│   ↑↓ = Move Highlight Bar,   → ← = Change Setting                 │
│   PgDn/PgUp = Move Screen,   F1 = Help,   Esc = Exit              │
└───────────────────────────────────────────────────────────────────┘
```

2.6.1   Disk Drive Control

The disk drive control features allow you to enable or disable the
read/write functions of a disk drive. These features can also control
the diskette drive or the hard disk drive boot function to prevent
loading operating systems or other programs from a certain drive while
the other drives are operational.

Table 2-1 lists the drive control settings and their corresponding
functions.

1.11.2 System Error Messages

A system error message indicates a problem with the computer itself. A message of this type normally appears during the power-on self-test, before the operating system prompt appears.

Table 1-5 lists the system error messages.

Table 1-5   System Error Messages

Message	Action
CMOS Battery Error	Replace the RTC chip or contact your dealer.
CMOS Checksum Error	Check the RTC chip and the necessary jumper. If the battery is still good, run Setup.
Display Card Mismatch	Run Setup
Diskette Drive Controller Error or Not Installed	Check and connect the control cable to the diskette controller.
Diskette Drive Error	Diskette may be defective. If not, replace the diskette drive.
Diskette Drive A Type Mismatch	Run Setup and select the proper drive type.
Diskette Drive B Type Mismatch	Run Setup and select the proper drive type.
Equipment Configuration Error	Modify the memory configuration to agree with one of the options in Table 1-3.
Hard disk Controller Error	Run Setup.
Hard disk 0 Error	Check all cable connections. Replace hard disk.
Hard disk 1 Error	Check all cable connections. Replace hard disk.
Keyboard Error or No Keyboard Connected	Check and connect the keyboard to the system unit.

Table 2-1   Drive Control Settings

Diskette Drive	
Setting	**Description**
Normal	Diskette drive functions normally
Write Protect All Sectors	Disables the write function on all sectors
Write Protect Boot Sector	Disables the write function only on the boot sector
Disabled	Disables all diskette functions
Hard Disk Drive	
Setting	**Description**
Normal	Hard disk drive functions normally
Write Protect All Sectors	Disables the write function on all sectors
Write Protect Boot Sector	Disables the write function only on the boot sector
Disabled	Disables all hard disk functions
System Boot Drive	
Setting	**Description**
Drive A then C	The system checks drive A first. If there is a diskette in the drive, the system boots from drive A. Otherwise, it boots from drive C.
Drive C then A	The system checks drive C first. If there is a hard disk (drive C) installed, the system boots from drive C. Otherwise, it boots from drive A.
C:	The system always boots from drive C.
A:	The system always boots from drive A.

Table 1-5   *System Error Messages (continued)*

Message	Action
Keyboard Interface Error	Replace the keyboard or contact your dealer.
Memory Error at: MMMM:SSSS:OOO (W:XXXX, R:YYYY) where: M: MB, S: Segment, O: Offset, X/Y: write/read pattern	Check SIMMs on the system board. Contact your dealer.
CPU Clock Mismatch	Run Setup. Check if the CPU clock is correct. If correct, exit Setup and reboot the system. If the error message reappears, ask for technical assistance.
Onboard Serial Port 1 Conflict	Run Setup and disable the port.
Onboard Serial Port 2 Conflict	Run Setup and disable the port.
Onboard Parallel Port Conflict	Run Setup and disable the port.
Pointing Device Error	Check and connect pointing device.
Pointing Device Interface Error	Replace the pointing device or contact your dealer.
Press F1 key to continue or Ctrl-Alt-Esc for Setup	Press F1 or CTRL + ALT + ESC to enter Setup.
Real Time Clock Error	Check the RTC chip. If it is still good, run Setup. If not, replace the RTC chip.

Table 2-1   Drive Control Settings (continued)

Boot from CD-ROM	
Setting	**Description**
Enabled	The system checks for a bootable CD in the CD-ROM. If a CD is present, the system boots from the CD-ROM. Otherwise, it boots from the drive specified in the System Boot drive parameter.
Disabled	System boots from the drive specified in the System Boot Drive parameter.

2.6.2   Onboard Communication Ports

Serial Port 1 Base Address

This parameter allows you to set the serial port 1 logical base address.

Table 2-2   Serial Port 1 Settings

Setting	Description
3F8h	Serial port 1 with address 3F8h using IRQ4
2F8h	Serial port 1 with address 2F8h using IRQ3
3E8h	Serial port 1 with address 3E8h using IRQ4
2E8h	Serial port 1 with address 2E8h using IRQ3
Disabled	Disables serial port 1

1.11.3 Correcting Error Conditions

As a general rule, if an error message says "Press F1 to continue," it is caused by a configuration problem, which can be easily corrected. An equipment malfunction is more likely to cause a fatal error, i.e., an error that causes complete system failure.

Here are some corrective measures for error conditions:

1. Run Setup. You must know the correct configuration values for your system before you enter Setup, which is why you should write them down when the system is correctly configured. An incorrect configuration is a major cause of power-on error messages, especially for a new system.

2. Remove the system unit cover. Check that the jumpers on the system board and any expansion boards are set correctly.

3. If you cannot access a new disk, it may be because your disk is not properly formatted. Format the disk first using the FDISK and FORMAT commands.

4. Check that all connectors and boards are securely plugged in.

If you go through the corrective steps above and still receive an error message, the cause may be an equipment malfunction.

If you are sure that your configuration values are correct and your battery is in good condition, the problem may lie in a damaged or defective chip.

In both cases, contact an authorized service center for assistance.

Serial Port 2 Base Address

This parameter allows you to set the serial port 2 logical base address.

Table 2-3   Serial Port 2 Settings

Setting	Description
3F8h	Serial port 2 with address 3F8h using IRQ4
2F8h	Serial port 2 with address 2F8h using IRQ3
3E8h	Serial port 2 with address 3E8h using IRQ4
2E8h	Serial port 2 with address 2E8h using IRQ3
Disabled	Disables serial port 2

If you assign 3F8h to serial port 1, you may only assign 2F8h or 2E8h to serial port 2.

If you assign 2F8h to serial port 1, you may only assign 3F8h or 3E8h to serial port 2.

Parallel Port Base Address

The system has one parallel port. Table 2-4 lists the options for selecting the parallel port address. You also have the option to disable the parallel port.

Table 2-4   Parallel Port Settings

Setting	Function
3BCh (IRQ 7)	Corresponds to the parallel port with address 3BCh
378h (IRQ 7)	Corresponds to the parallel port with address 378h
278h (IRQ 5)	Corresponds to the parallel port with address 278h
Disabled	Disables the parallel port

To deactivate the parallel port, select the Disabled option. If you install an add-on card that has a parallel port whose address conflicts with the parallel port onboard, the system automatically disables the onboard functions.

Check the parallel port address on the add-on card and change the address to one that does not conflict.

OPERATION MODE

This item allows you to set the operation mode of the parallel port. Table 2-5 lists the different operation modes.

Table 2-5   Parallel Port Operation Mode Settings

Setting	Function
Standard Parallel Port (SPP)	Allows normal speed one-way operation
Standard and Bidirectional	Allows normal speed operation in a two-way mode
Enhanced Parallel Port (EPP)	Allows bidirectional parallel port operation at maximum speed
Extended Capabilities Port (ECP)	Allows parallel port to operate in bidirectional mode and at a speed higher than the maximum data transfer rate

ECP DMA CHANNEL

This item becomes active only if you select Extended Capabilities Port (ECP) as the operation mode. It allows you to assign DMA channel 1 or DMA channel 3 for the ECP parallel port function (as required in Windows95).

2.6.3   Onboard PS/2 Mouse (IRQ 12)

This parameter enables or disables the onboard PS/2 mouse. When set to `Enabled`, it allows you to use the onboard PS/2 mouse assigned with IRQ12. When set to `Disabled`, it deactivates the mouse and makes IRQ12 available for use of other devices.

2.6.4   Setup Password

The Setup Password prevents unauthorized access to the BIOS utility.
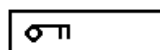
Setting a Password

1.   Make sure that JP1 is set to 2-3 (bypass password).

> *You cannot enter the BIOS utility if a Setup password does not exist and JP1 is set to 1-2 (password check enabled).*
>
> *By default, JP1 is set to 2-3 (bypass password).*

2.   Enter BIOS utility and select System Security.

3.   Highlight the Setup Password parameter and press the [↑] or [↓] key. The password prompt appears:
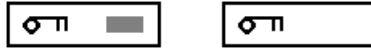
4.   Type a password. The password may consist of up to seven characters.

> *Be very careful when typing your password because the characters do not appear on the screen.*

5. Press ENTER. A prompt asks you to retype the password to verify your first entry.

6. Retype the password then press ENTER.

    After setting the password, the system automatically sets the Setup Password parameter to Present.

7. Press ESC to exit the System Security screen and return to the main menu.

8. Press ESC to exit the BIOS utility. A dialog box appears asking if you want to save the CMOS data.

9. Select Yes to save the changes and reboot the system.

10. While rebooting, turn off the system then open the housing.

11. Set JP1 to 1-2 to enable the password function.

The next time you want to enter the BIOS utility, you must key-in your Setup password.

Changing or Removing the Setup Password

Should you want to change your setup password, do the following:

1. Enter the BIOS utility and select System Security.

2. Highlight the Setup Password parameter.

3. Press ← or → to display the password prompt and key-in a new password.

    or

    Press ← or → and select None to remove the existing password.

4. Press ⌈ESC⌉ to exit the System Security screen and return to the main menu.

5. Press ⌈ESC⌉ to exit the BIOS utility. A dialog box appears asking if you want to save the CMOS data.

6. Select Yes to save the changes.

Bypassing the Setup Password

If you forget your setup password, you can bypass the password security feature by hardware. Follow these steps to bypass the password:

1. Turn off and unplug the system.

2. Open the system housing and set JP1 to 2-3 to bypass the password function.

3. Turn on the system and enter the BIOS utility. This time, the system does not require you to type in a password.

> *You can either change the existing Setup password or remove it by selecting* None*.*
> *Refer to the previous section for the procedure.*

2.6.5   Power On Password

The Power On Password secures your system against unauthorized use. Once you set this password, you have to type it whenever you boot the system. To set this password, enter the BIOS utility, select System Security, then highlight the Power On Password parameter. Follow the same procedure as in setting the Setup password.

> *Make sure to set JP1 to 1-2 to enable the Power On password.*

2.7   Load Setup Default Settings

Use this option to load the default settings for the optimized system configuration. When you load the default settings, some of the parameters are grayed-out with their fixed settings. These grayed parameters are not user-configurable.

The following dialog box appears when you select Load Setup Default Settings from the main menu.

```
Load Setup Default Settings
Are you sure

        [Yes]        [No]
```
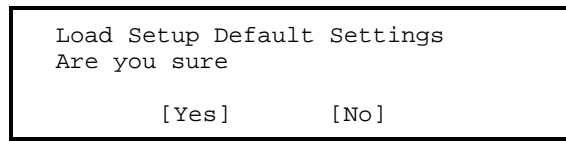
Select Yes to load the default settings.

2.8   Leaving Setup

Examine the system configuration values. When you are satisfied that all the values are correct, write them down. Store the recorded values in a safe place. In the future, if the battery loses power or the CMOS chip is damaged, you will know what values to enter when you rerun Setup.

Press ESC to leave the system configuration setup. If there is any change in the BIOS utility functions, the following screen appears:

```
Do you want to save CMOS data?

        [Yes]           [No]
```

Use the arrow keys to select your response. Select Yes to store the new data in CMOS. Select No to retain the old configuration values. Press ENTER .