

AcerPower 6100

User's Guide

(V66M/H61)
System Manual

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For more details, check the Acer Year 2000 Resource Center at <http://www.acer.com/year2000>

DMI 2.0 Compliance Statement

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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.

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions carefully. Save them 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 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. 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 the outlet. Do not defeat the purpose of the grounding-type plug.
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:
 14. When the power cord or plug is damaged or frayed
 15. If liquid has been spilled into the product
 16. If the product has been exposed to rain or water
 17. 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.
 18. If the product has been dropped or the cabinet has been damaged
 19. If the product exhibits a distinct change in performance, indicating a need for service

20. Use only the proper type of power supply cord (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. Maximum length is 15 feet (4.6 meters).
21. 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 technician.



The 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.

CD-ROM Safety Warning

DANGER
INVISIBLE RADIATION WHEN OPEN.
AVOID EXPOSURE TO BEAM.

Caution on Lithium Batteries

CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

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Introduction

Acer is on the leading edge of microcomputer systems development for both corporate and home computing needs, as the OEM of choice for many of the world's leading computer companies. Acer is committed to meeting the world's demand for state-of-the-art computers — at the best prices.

Your AcerPower desktop configuration provides high-speed performance in a small footprint — making it perfect for small offices or general business use.

The system board has a power-management function that conforms to the power-saving standards of the U.S. Environmental Protection Agency (EPA) Energy Star program. It also supports Plug-and-Play features.

Overview

The AcerPower 6100 system is an all-in-one high-performance Pentium II- or Celeron-based system. It supports the PCI (Peripheral Component Interface) and the AGP (Accelerated Graphics Port) bus designs. Both designs improve system performance, enabling the system to support various multimedia functions and applications.

Aside from the standard I/O (input/output) interfaces such as two serial ports, one parallel port, and PS/2 keyboard and mouse ports, the system also offers two USB (Universal Serial Bus) ports, one Feature connector, one mono Microphone-in port, one stereo Line-in port, one Line-out port, and one Game/MIDI (Musical Instrument Digital Interface) port. These additional ports are included to enable the system to accommodate additional peripherals.

The system may also come with a fax/modem card or a network card. These add-on cards offer additional functions that will enable you to take full advantage of the system's supported features.

The system is fully compatible with Windows NT and Windows 9x operating systems.

About This Manual

This manual is divided into five chapters and an appendix. A brief description of these chapters and the appendix is provided below.

Chapter 1 Getting Started

Describes the different parts of the system unit. It tells you how to select a site and set up the basic system. It includes a simple troubleshooting section and a list of system error messages with the corresponding corrective actions.

Chapter 2 System Board

Describes the system board and all its major components. It contains information about the system board layout, jumper settings, jumper and connector locations and functions.

Chapter 3 BIOS Utility

Explains the BIOS and tells how to configure the system by setting BIOS parameters.

Chapter 4 Installing Optional Components

Describes how to remove and replace the system housing, and to install the optional components into the housing. It gives brief instructions accompanied by mechanical illustrations showing how to perform each described procedure.

Chapter 5 Acer Manageability Software

Discusses the desktop manageability software bundled with your system: The Acer Resource CD, Acer CPR, the Acer Software Installer, McAfee® VirusScan® and Intel LANDesk® Client Manager.

The Acer Resource CD contains the bundled software that comes with your system, along with the Acer CPR utility and the Acer Software Installer. Use Acer CPR to restore your computer to its original factory settings. Use the Acer Software Installer to install the bundled software that resides on the Acer Resource CD.

McAfee VirusScan's main features are described, as well as how to update VirusScan data files. Information about installing VirusScan is also included.







The Intel LANDesk® Client Manager section describes how to install/remove and use LANDesk® Client Manager.

Appendix A CD-ROM Drive

This appendix shows how to use your CD-ROM drive. Also included are illustrations of the front and rear panels, describing each feature.

Conventions

The following conventions are used in this manual:

	<p>Represents the actual keys that you have to press on the keyboard.</p>
	<p>NOTE Gives bits and pieces of additional information related to the current topic.</p>
	<p>WARNING Alerts you to any danger that might result from doing or not doing specific actions.</p>
	<p>CAUTION Suggests precautionary measures to avoid potential hardware or software problems.</p>
	<p>IMPORTANT Reminds you to take specific action relevant to the accomplishment of the procedure at hand.</p>
	<p>TIP Tells how to accomplish a procedure with fewer steps through little shortcuts.</p>

Chapter 1 Getting Started

1.1 Preinstallation

The preinstallation process involves the following activities:

Selecting a site

Unpacking components

1.1.1 Selecting a Site

Consider the following when selecting a site for your computer:

Determine the best site for your system. Cable paths should not run near equipment that might cause electromagnetic or radio frequency interference such as radio transmitters, television sets, copy machines, or heating and air conditioning equipment.

Route cables away from personnel and equipment traffic.

Avoid dusty areas and extremes of temperature and humidity.

1.1.2 Unpacking Components

Unpack the contents of each box carefully. Save all packing materials in case you need to move or ship the system in the future.

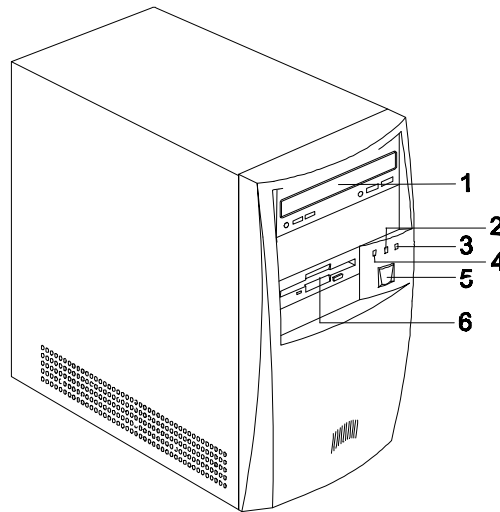
Check that all items are present and in good condition. Contact your dealer immediately if anything is missing or damaged.

1.2 Features

The basic configuration consists of a system unit, a keyboard, a CD-ROM drive, a diskette drive, a fixed disk drive and a mouse.

1.2.1 Front Panel

Figure 1-1 shows the system unit front panel.

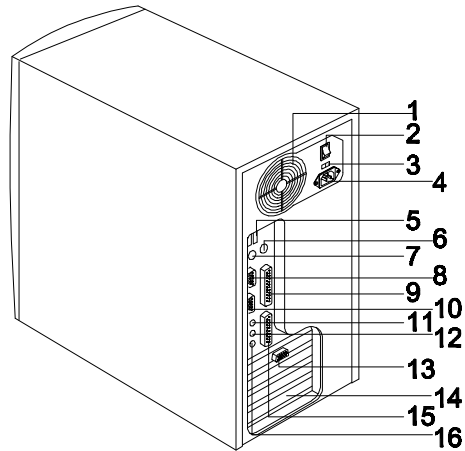


1. CD-ROM Drive
2. Turbo LED
3. Power LED
4. Fixed Disk Drive LED
5. Power Button
6. 3.5-inch Diskette Drive

Figure 1-1 Front Panel

1.2.2 Rear Panel

Figure 1-2 shows the system unit rear panel.



- | | |
|-----------------------------|-------------------------------|
| 1. Fan | 9. Parallel Port |
| 2. System Main Power Switch | 10. Serial Port 2 |
| 3. Voltage Selector | 11. Speaker-out/Line-out Port |
| 4. System Power Socket | 12. Line-in Port |
| 5. USB Ports | 13. VGA/Monitor Port |
| 6. PS/2 Mouse Port | 14. Add-on Card Brackets |
| 7. PS/2 Keyboard Port | 15. Game/MIDI Port |
| 8. Serial Port 1 | 16. Microphone-in Port |

Figure 1-2 Rear Panel

1.3 Connecting System Components

Do not turn on the system main power switch on the rear panel of the system or plug the system until you finish connecting all system components.

The following sections show how to connect each component to the system.

1.3.1 Connecting the Keyboard

Plug the keyboard cable into the keyboard socket on the rear panel. See Figure 1-3.

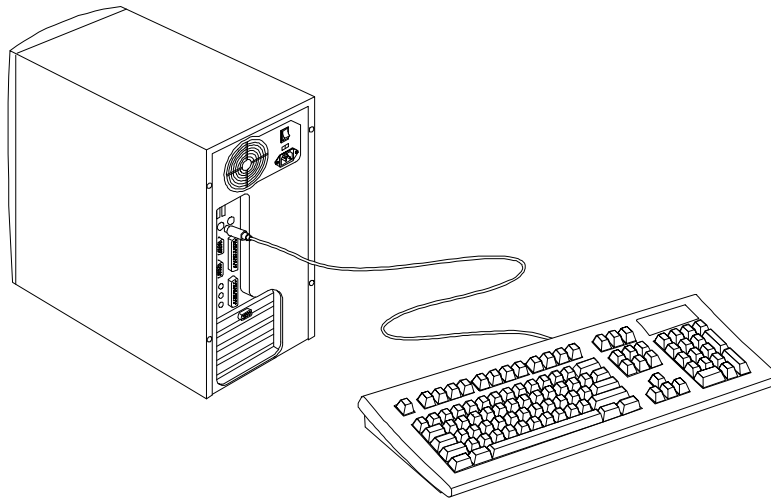


Figure 1-3 Connecting the Keyboard

1.3.2 Connecting the Monitor

Plug the monitor signal cable into the VGA connector on the rear panel.

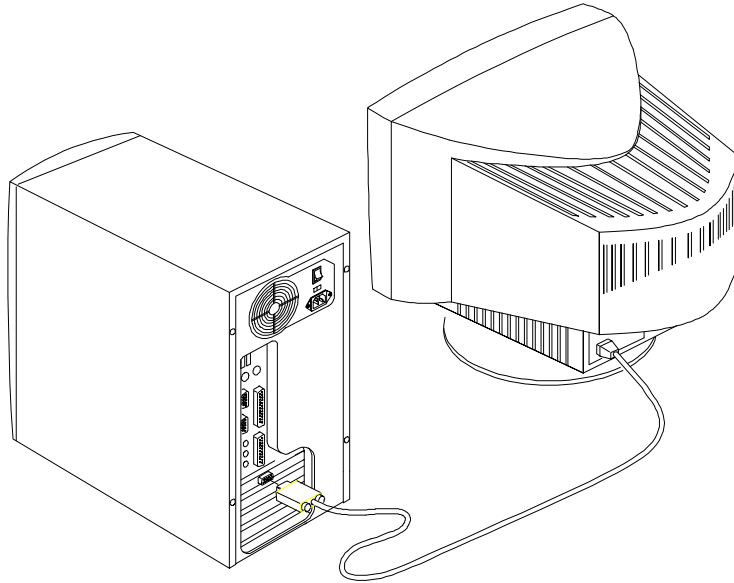


Figure 1-4 Connecting the Monitor

1.3.3 Connecting the Mouse

Plug the mouse cable into the mouse connector on the rear panel.

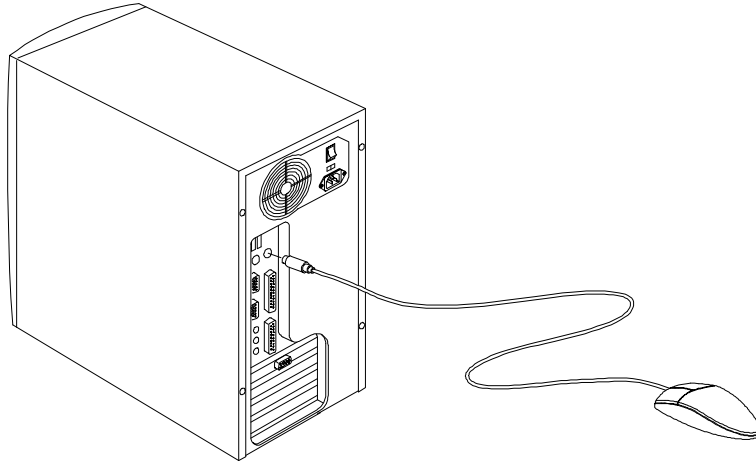


Figure 1-5 Connecting the Mouse

1.3.4 Connecting the Printer (Optional)

If you have a parallel printer, connect it to the parallel port on the rear panel. See Figure 1-6.

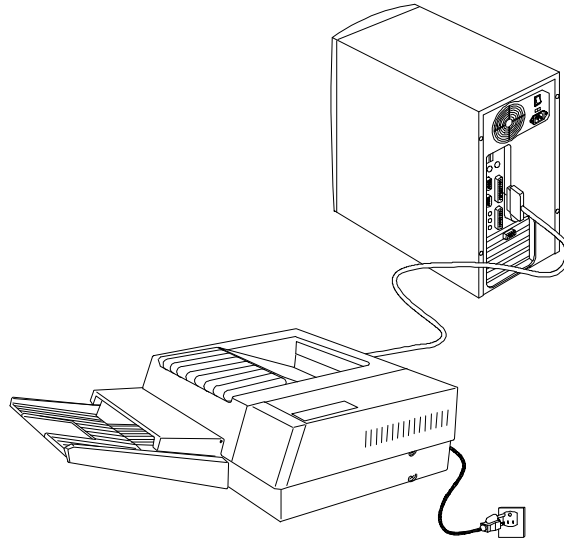


Figure 1-6 Connecting the Parallel Printer



If you have a serial printer or other serial peripheral, connect it to the serial port (COM1).

1.3.5 Complete System Connections

After connecting all the components, plug one end of the power supply cable into the system power socket. Plug the other end of the power supply cable into a wall outlet. Figure 1-7 shows the complete system connections.

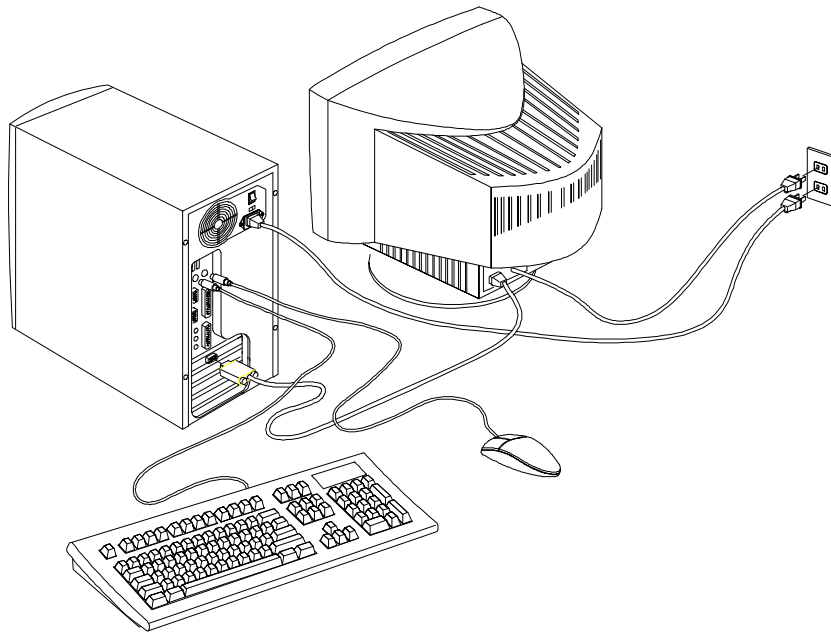


Figure 1-7 Complete System Connections

1.3.6 Connecting Multimedia Components (Optional)

Your system also supports optional multimedia features. Connect multimedia components as shown in Figure 1-8.

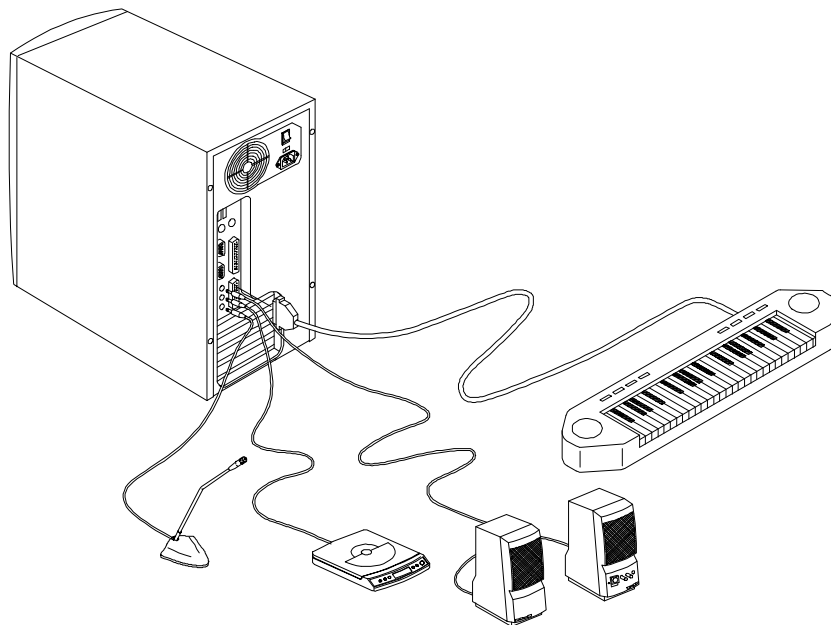


Figure 1-8 Connecting Multimedia Components

1.3.7 Connecting to the Network (Optional)

Your system may come with a LAN (Local Area Network) card for network connection.

To connect your system to the network, plug in the network cable into the card's network port.

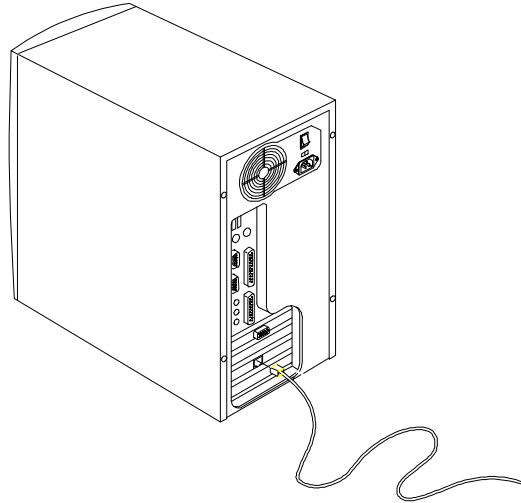


Figure 1-9 Connecting to the Network

1.3.8 Connecting the Fax/Modem (Optional)

Your system also supports an optional fax/modem card. Connect the telephone line and handset as shown in Figure 1-10.

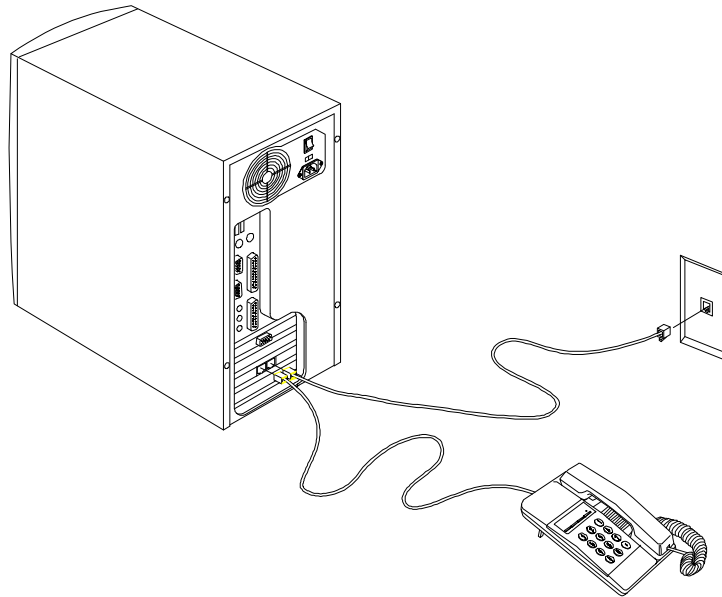



Figure 1-10 Connecting the Telephone Line and Handset to the Fax/Modem

1.3.9 Connecting USB Devices (Optional)

The USB ports on the rear panel enable the system to support additional serial devices without using up your system resources.

To connect a USB device, simply plug the device cable into a USB port marked  on the rear panel. See the following figure:

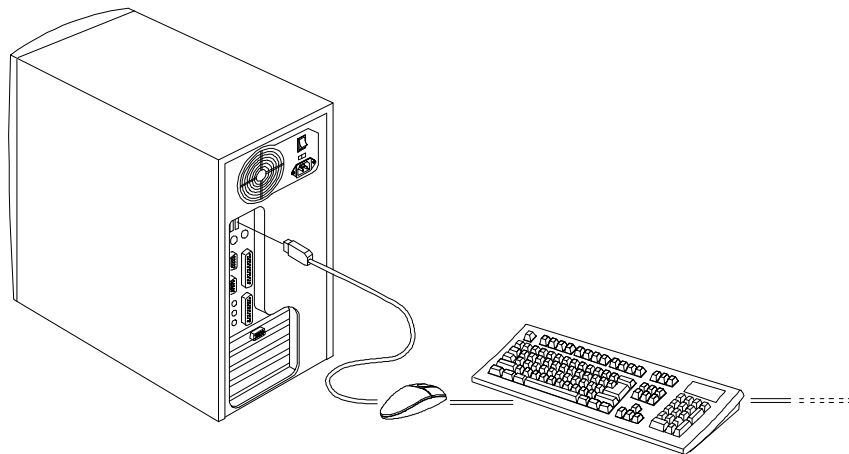


Figure 1-11 Connecting USB Devices

1.4 Turning On Your Computer

After you have connected all peripherals and cables, follow these steps to turn on your computer:

1. Turn on all peripherals connected to the system such as monitor, printer, fax, speakers, etc.
2. Locate the system main power switch on the back of the system unit and turn it on.
3. Press the power button located on the front of the system unit.

When the system finishes booting, the computer is now ready for use.

1.5 Turning Off Your Computer

1. Save any work you want to keep and exit programs, then shut down your computer through Windows.
2. Turn off all peripherals connected to the system such as the monitor, printer, fax, speakers, etc.
3. Press the power button located on the front of the system unit. (Note: This step is needed only under Windows NT Workstation environments.)



You do not need to turn off the system main power switch on the rear panel. Turn off the system main power switch only:

- *if you will not use your system for a long period of time.*
- *If you need to open your system for troubleshooting or upgrading purposes.*

If the system main power switch is not available, you must unplug the system.

1.6 Troubleshooting

If you encounter a hardware problem, review the following suggestions before calling for service.

General Failure

Are all cables securely plugged in?

Are all system components and peripherals turned on?

Is the system main power switch on?

Is the power outlet burned out? You may check this by plugging in and turning on some other piece of equipment.

Are any cables damaged? Are they properly routed to the correct port?

Front Panel Light Doesn't Work

Check inside the system unit and make sure that the front panel LED connector is correctly plugged in (refer to section 2.3 Jumpers and Connectors).

"Garbage" or Nothing Appears on the Screen

Is the monitor turned on? Is the screen brightness adjusted properly?



Never open the monitor case. The CRT monitor retains very high voltage levels, even after the power is turned off. Refer all monitor service to qualified service technicians.

Keyboard is Dead

Is the keyboard cable plugged in? Turn off the system unit and plug in the keyboard.



Do not plug in or unplug the keyboard while the power is on.

Printer Doesn't Work

Is the printer power turned on?

Is the printer cable connected to the correct port (serial or parallel)?

Are your application and the printer configured for the same operating values? Be sure there is no conflict with any port.

Is the printer out of paper or jammed? Check the printer's status indicator lights.

Add-on Card Fails Intermittently

Do two add-on cards have conflicting addresses?

If You Receive an Error Message

- Read the corrective actions in Table 1-1 in section 1.7.

1.7 Error Messages

In the event that you receive an error message, do not continue using the computer. Note the message and take corrective action immediately. This section describes the different types of error messages and suggests corrective measures.

There are two general types of error messages:

Software

System

1.7.1 Software Error Messages

Software error messages are returned by your operating system or application. These messages typically appear 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.

1.7.2 System Error Messages

A system error message indicates a problem with the computer itself. These messages normally appear during the power-on self-test, before the operating system prompt appears. Table 1-1 lists the system error messages.

Table 1-1 System Error Messages

Error Message	Corrective Action
Bad CMOS Battery	Replace battery. Contact your dealer.
CMOS Checksum Error	Run Setup. See Chapter 3.
Floppy Drive Controller Error	Check and connect the cable to the floppy drive or controller.
Floppy Drive Error	Check CMOS setup configuration. Floppy may be bad. Check the floppy drive and replace if necessary.
DRAM Configuration Error	Check and modify DRAM configuration to agree with Table 4-1.
Equipment Configuration Error	Run Setup. See Chapter 3.
Hard Disk Controller Error	Check and connect the cable to the hard disk drive or controller.
Hard Disk 0 (1, 2, 3) Auto Detection Failed	Check the HDD cable connections and CMOS setup configuration.
I/O Parity Error	Contact your dealer.
PS/2 Keyboard Error or No Keyboard Connected	Check that the keyboard is connected to the system unit. Disconnect and reconnect the keyboard.
PS/2 Keyboard Interface Error	Contact your dealer.
Memory Error	Check DIMMs on the system board. Contact your dealer.
Memory Size Mismatch	Run Setup. See Chapter 3.

Table 1-1 System Error Messages (continued)

Error Message	Corrective Action
Onboard Serial 1 Conflict	Run Setup and disable Onboard Serial 1. See Chapter 3.
Onboard Serial 2 Conflict	Run Setup and disable Onboard Serial 2. See Chapter 3.
Onboard Parallel Port Conflict	Run Setup and disable Onboard Parallel Port. See Chapter 3.
PS/2 Pointing Device Error	Check or connect the pointing device. Contact your dealer.
PS/2 Pointing Device Interface Error	Contact your dealer.
Press F1 key to continue or Ctrl-Alt-Esc for Setup	Press F1 or CTRL ALT ESC .
Press Esc to turn off NMI, any key to reboot	Check CMOS setup configuration. Memory Parity may be enabled. Press ESC to disregard NMI error. Press any key to reboot the system.
Protected Mode Test Fail	Contact your dealer.
RAM BIOS Error	Contact your dealer.
Real Time Clock Error	Run Setup. See Chapter 3.
Shadow RAM Fail	Contact your dealer.
System Memory Address Error	Check DIMMs on system board or contact your dealer.

1.7.3 Correcting Error Conditions

Run Setup (see Chapter 3). You must know the correct configuration values for your system before you enter Setup, which is why you should write these values down when the system is correctly configured. An incorrect Setup As a general rule, the "Press F1 to continue" error message 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:

configuration is a major cause of power-on error messages, especially for a new system.

Remove the system cover according to the directions in Chapter 4 (Installing Optional Components).

Check that the system board and any expansion boards are configured correctly.

Check that all connectors and boards are secure. Consult Chapter 4 (Installing Optional Components) for assistance.



If you have purchased a new hard disk drive and cannot access it, it may be because your disk is not physically formatted.

If you follow 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. Contact an authorized service center for assistance.

Chapter 2 System Board

This chapter describes the system board and all its major components, including:

- Details about the system board layout
- Jumper and connector locations and functions
- Jumper settings

The AcerPower 6100 system board is a high-performance board that supports the Pentium II processor with MMX (MultiMedia eXtensions) technology. It comes in a micro-ATX form factor - a design that enables PC makers to further reduce space and cost.

The system board comes with three 168-pin DIMM (Double In-line Memory Module) sockets for system memory upgrade, one AGP connector, three PCI slots and one ISA (Industry Standard Architecture) slot for future expansion.

Onboard I/O (input/output) interfaces are comprised of two UART (Universal Asynchronous Receiver-Transmitter) 16C550 serial ports, a parallel port with SPP (Standard Parallel Port)/ECP (Extended Capabilities Port)/EPP (Enhanced Parallel Port) support, and PS/2 keyboard and mouse ports. Two USB (Universal Serial Bus) ports, one mono Microphone-in port, one stereo Line-in port, one Line-out port, and one Game/MIDI (Musical Instrument Digital Interface) port are also added to the board design to enable the system to support additional peripherals.

Special features such as audio, video, PnP (Plug-and-Play) support, Power Management, Hardware Monitoring, and Modem Ring-in functions are also supported. These functions are individually discussed in this chapter.

The system is fully compatible with Windows NT and Windows 9x operating systems.

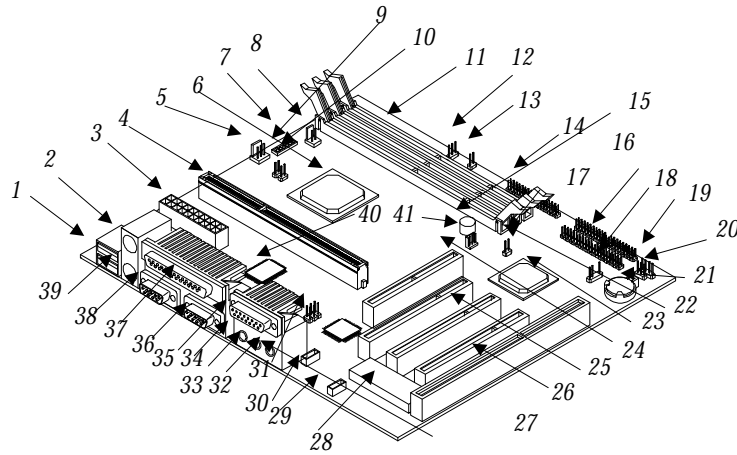
2.1 Major Components

The system board has the following major components:

- A Single Edge Contact (SEC) CPU (Central Processing Unit) connector that supports either Pentium II processors running from 266 through 450 MHz or Celeron processors running from 300A through 366 MHz
- Supports 512-KB PBSRAM (PBSRAM - Pipelined-burst Synchronous Random Access Memory) second-level cache (incorporated in CPU module)
- Three DIMM sockets that accept 32-, 64-, and 128-MB Standard DRAMs. These sockets allow memory upgrade of up to 384 MB
- PCI local bus IDE (Integrated Device Electronics) controller
- PCI Audio controller (ESS Solo 1)
- AGP VGA card connector
- One Modem ring-in connector
- One fax/modem connector
- Two PCI enhanced IDE interfaces that support up to four IDE devices
- Three PCI slots, one ISA slot (one PCI-/ISA-shared slot)
- External ports
 - PS/2 keyboard and mouse ports
 - Two buffered high-speed serial ports
 - One SPP/ECP/EPP high-speed parallel port
 - Two USB ports
 - One mono Microphone-in port
 - One stereo Line-in port
 - One stereo Line-out port
 - One Game/MIDI port

2.2 Layout

Figure 2-1 shows the locations of the major components on the system board.



1	USB ports	14	FDD connector	28	System BIOS chip
2	PS/2 mouse port	15	Buzzer	29	Fax/modem connector
3	ATX power connector	16	IDE1 connector	30	CD-in connector
4	CPU card connector	17	IDE2 connector	31	Audio port function
5	Fan alarm connector	18	Modem ring-in connector	32	Microphone-in port
6	PCI,AGP, memory controller	19	HDD LED connector	33	Line-in port
7	SW1	20	Power/Suspend LED connector	34	Speaker-out port
8	2-pin fan connector	21	Battery	35	Game/MIDI port
9	System temperature detector connector	22	Power switch connector	36	COM2 port
10	CPU temperature detector connector	23	PCI-to-ISA bridge controller	37	Parallel port
11	DIMM sockets	24	AGP connector	38	COM1 port
12	Turbo LED connector (2-3)	25	PCI slot	39	PS/2 keyboard port
13	Reset switch connector	26	ISA slot	40	Super I/O controller
		27	Audio controller	41	Wake-on LAN connector (not used)

Figure 2-1 System Board Layout

2.3 Jumpers and Connectors

2.3.1 Jumper and Connector Locations

Figure 2-2 shows the jumper and connector locations.

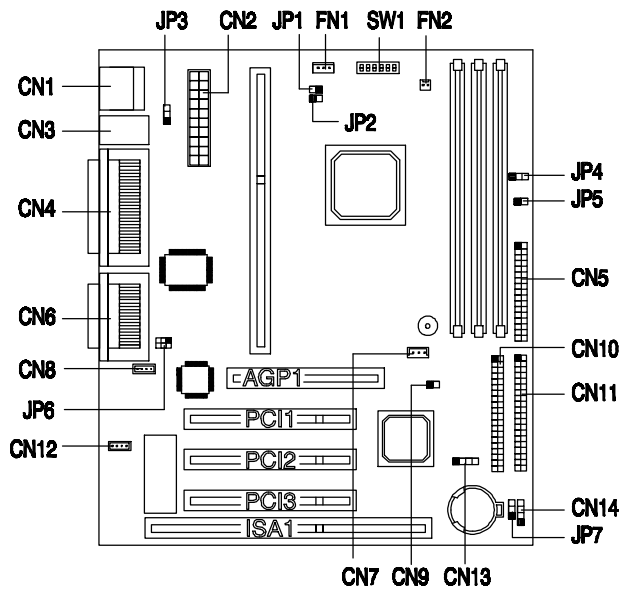


Figure 2-2 Jumper and Connector Locations



In this figure, the shaded pin indicates pin 1.

2.3.2 Jumper Settings

The following table lists the possible jumper settings:

Table 2-1 Jumper Settings

Jumper		Setting		Function
JP3		1-2 2-3 *		KB Turn-On Function Enabled Disabled
JP6		1-3, 2-4 3-5, 4-6 *		Audio Port Function Line-out Speaker-out
SW1 Settings				
Switch No.		Setting		Function
1	2	3	4	CPU Multiplier
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
5	On *		Off	Password Bypass password Check password
6				Reserved

* Default setting

2.3.3 Onboard Connectors

Table 2-2 lists the onboard connectors.

Table 2-2 Onboard Connectors

Connector	Function
CN1	USB ports
CN2	ATX power connector
CN3	Upper: PS/2 mouse port Lower: PS/2 keyboard port
CN4	Upper: Parallel port Lower: COM1 port (left) COM2 port (right)
CN5	Floppy disk drive connector
CN6	Upper: Game/MIDI port Lower: (L-to-R) Stereo line-out/speaker-out port Stereo line-in port Mono microphone-in port
CN7	Wake-on LAN connector (not used)
CN8	CD-in connector
CN9	Power switch connector
CN10	IDE2 connector
CN11	IDE1 connector
CN12	Fax/modem connector
CN13	Modem ring-in connector
CN14	HDD LED connector

Table 2-2 Onboard Connectors (continued)

Connector	Function
FN1	Fan alarm connector
FN2	2-pin fan connector
JP1*	System temperature detector connector
JP2*	CPU temperature detector connector
JP4	Turbo LED connector (pins 2-3)
JP5	Reset switch connector
JP7	Power/Suspend LED connector

* JP1 And JP2 function may be reversed on motherboard silkscreen. The correct function is shown in Table 2-2.

correct function is shown in Table 2-2.

2.4 Front Panel Connectors

The following figure shows the pin orientation of the front panel connectors.

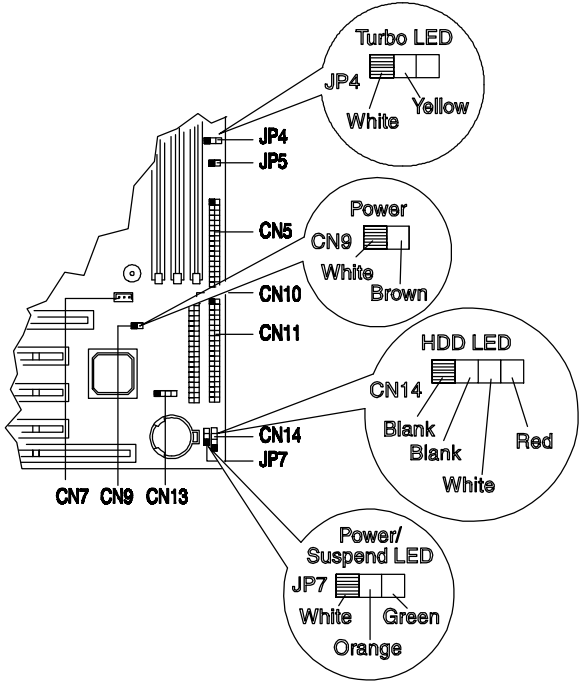


Figure 2-3 Front Panel Connectors

2.5 IDE Hard Disk Support

The board comes with an enhanced PCI IDE controller that supports PIO mode 4 and Ultra DMA (Direct Memory Access) mode data transfers. In addition, two PCI IDE interfaces are mounted on the system board to enable the system to support a maximum of four IDE hard disks, or any other IDE devices. See Figure 2-2 for the location of the IDE interfaces.

Connect the cables according to the IDE hard disk configuration in Table 2-3. Follow the instructions in the housing installation manual on how to install a hard disk in the system.

Table 2-3 IDE Hard Disk Configuration

IDE Connector	Master	Slave
IDE1 (CN11)	Hard disk 0	Hard disk 1
IDE2 (CN10)	Hard disk 2	Hard disk 3 IDE CD-ROM drive

2.6 Video Function

The system board comes with an Accelerated Graphics Port (AGP) connector - the latest bus architecture that is considered to be the best solution for 3-D applications. AGP offers greater bandwidth; thus, it is capable of speeding up the VGA bus in order to meet the requirement of 3-D applications. Check Figure 2-1 or 2-2 for the location of the AGP connector on the system board.

2.7 Audio Function

The board provides an audio solution via the onboard audio controller and the following audio connectors:

- Mono microphone port
- Stereo line-in port
- Stereo line-out port
- Game/MIDI port
- CD-in connector
- Fax/modem connector

These connectors enable the system to accommodate external audio devices. For instructions on how to connect the external audio devices, refer to section 1.3.6. Connecting Multimedia Components.

2.8 USB

USB (Universal Serial Bus) is a serial bus design that is capable of cascading low-/medium-speed peripherals (less than 12 Mbps) such as a keyboard, mouse, joystick, scanner, printer and modem/ISDN. With USB, complex cable connections at the back panel of your PC can be eliminated.

The board comes with two USB ports (CN1). See Figure 2-1 or Figure 2-2 for the location of the ports.

2.9 Hardware Monitoring Function

The Hardware Monitoring function allows you to check the system resources, either locally or in a computer network, by using software such as Intel LDCM (LAN Desk Client Manager). Intel LDCM is a desktop management program that offers SMART (System Monitoring Analysis and Reporting Technology) monitor function for checking local or network connected systems.

To enable the Hardware Monitoring function, you need to install Intel LDCM. See Chapter 5 for information on how to install LDCM.

2.10 Modem Ring-in Function

The Modem Ring-in function enables the system to resume from suspend mode by monitoring the modem (or any device of similar type) activities. Any signal or activity detected from the Modem ring-in connector (CN13) automatically returns the system to normal operation. Refer to Figure 2-2 for the location of the Modem ring-in connector on the system board.

Chapter 3 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.

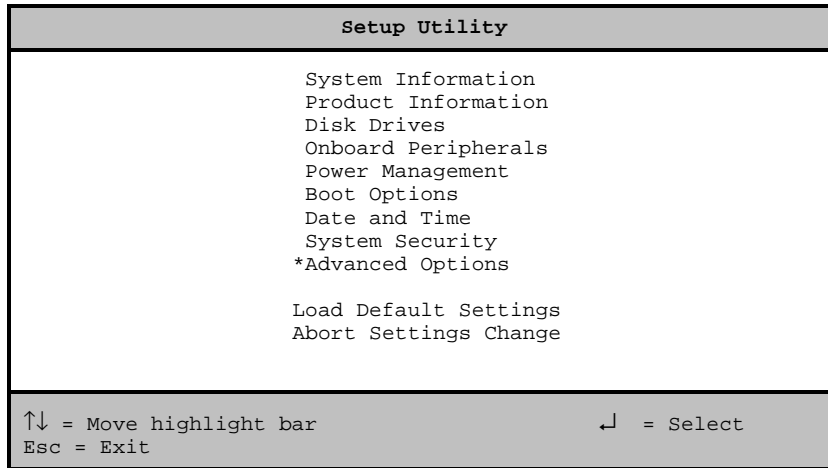
3.1 Entering Setup

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



*You must press **CTRL** **ALT** **ESC** simultaneously while the system is booting. This key combination does not work any other time.*

The Setup Utility main menu then appears:



* This option appears when you press the **F8** key. (The **F8** key works only when you are in the main menu.)



The asterisk () mark indicates that the parameter appears only when you are in the Advanced Level.*

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.

The command line at the bottom of the menu tells you how to move within a screen and from one screen to another.

To select an option, move the highlight bar by pressing **↑** or **↓** then press **ENTER**.

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

To change a parameter setting, press **←** or **→** until the desired setting is found.

Press **ESC** to return to the main menu. If you are already in the main menu, press **ESC** again to exit Setup.

The system supports two BIOS Utility levels: Basic and Advanced. If you are an advanced user, you may want to check the detailed configuration of your system. Detailed system configurations are contained in the Advanced Level. To view the Advanced Level, press **[F8]**.



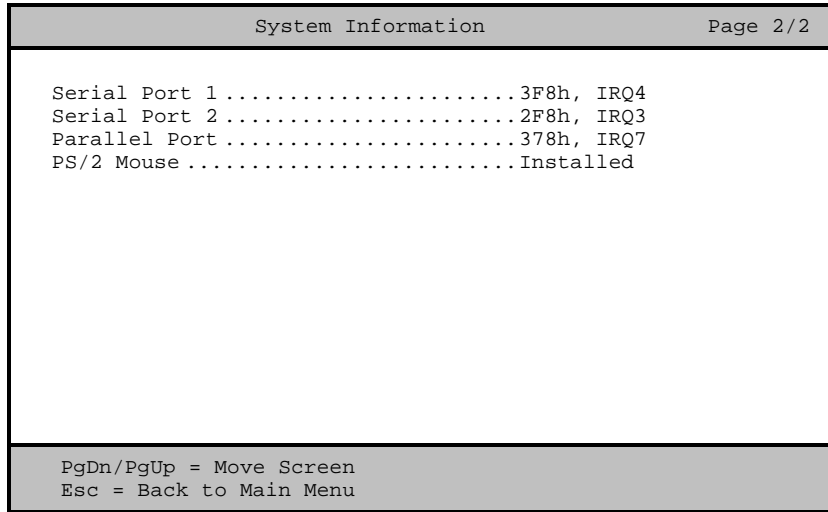
The [F8] key works only when you are in the main menu. This means that you can activate the Advanced Level only when you are in the main menu.

3.2 System Information

The following screen appears if you select System Information from the main menu.

System Information		Page 1/2
Processor	Pentium II	
Processor Speed	350 MHz	
Internal Cache	32 KB, Enabled	
External Cache	512 KB, Enabled	
Floppy Drive A	1.44 MB, 3.5-inch	
IDE Primary Channel Master	Hard Disk, 3909 MB	
IDE Primary Channel Slave	None	
IDE Secondary Channel Master	None	
IDE Secondary Channel Slave	IDE CD-ROM	
Total Memory	32 MB	
1st Bank	SDRAM, 32 MB	
2nd Bank	None	
3rd Bank	None	
PgDn/PgUp = Move Screen		
Esc = Back to Main Menu		

The following screen shows page 2 of the System Information menu:



The System Information menu shows the current basic configuration of your system.

3.2.1 Processor

The Processor parameter specifies the type of processor currently installed in your system. The system supports Pentium II processors.

3.2.2 Processor Speed

The Processor Speed parameter specifies the speed of the processor currently installed in your system.

3.2.3 Internal Cache

This parameter specifies the first-level or the internal memory (i.e., the memory integrated into the CPU) size, and whether it is enabled or disabled.

3.2.4 External Cache

This parameter specifies the second-level cache memory size currently supported by the system.

3.2.5 Floppy Drive A

This parameter specifies the system's current floppy drive A settings. For information on how to configure the floppy drives, see section 3.4.1.

3.2.6 IDE Primary Channel Master

This parameter specifies the current configuration of the IDE device connected to the master port of the primary IDE channel. For information on how to configure the IDE devices, see section 3.4.3.

3.2.7 IDE Primary Channel Slave

This parameter specifies the current configuration of the IDE device connected to the slave port of the primary IDE channel. For information on how to configure the IDE devices, see section 3.4.3.

3.2.8 IDE Secondary Channel Master

This parameter specifies the current configuration of the IDE device connected to the master port of the secondary IDE channel. For information on how to configure the IDE devices, see section 3.4.3.

3.2.9 IDE Secondary Channel Slave

This parameter specifies the current configuration of the IDE device connected to the slave port of the secondary IDE channel. For information on how to configure the IDE devices, see section 3.4.3.

3.2.10 Total Memory

This parameter specifies the total amount of onboard memory. The memory size is automatically detected by BIOS during the POST (Power-On Self Test). If you install additional memory, the system automatically adjusts this parameter to display the new memory size.

1st Bank

This parameter indicates the type of DRAM installed in the DIMM 1 socket. The **None** setting indicates that there is no DRAM installed. For the location of the DIMM sockets, refer to Figure 2-1.

2nd Bank

This parameter indicates the type of DRAM installed in the DIMM 2 socket. The **None** setting indicates that there is no DRAM installed. For the location of the DIMM sockets, refer to Figure 2-1.

3rd Bank

This parameter indicates the type of DRAM installed in the DIMM 3 socket. The **None** setting indicates that there is no DRAM installed. For the location of the DIMM sockets, refer to Figure 2-1.

3.2.11 Serial Port 1

This parameter shows the serial port 1 address and IRQ settings.

3.2.12 Serial Port 2

This parameter shows the serial port 2 address and IRQ settings.

3.2.13 Parallel Port

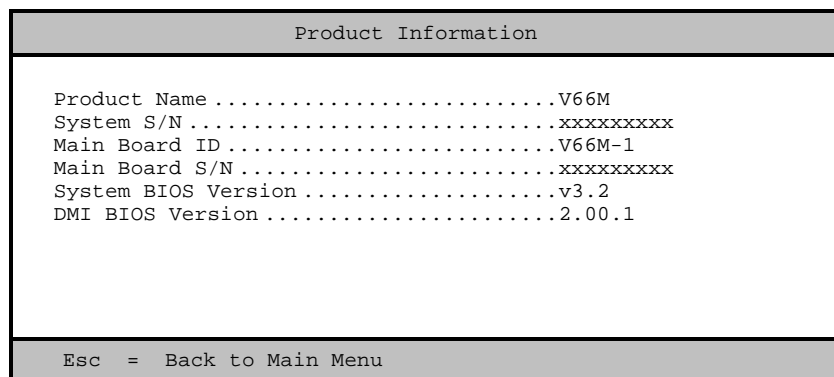
This parameter shows the parallel port address and IRQ settings.

3.2.14 PS/2 Mouse

The BIOS utility automatically detects if there is a mouse connected to your system. If there is, this parameter displays the **Installed** setting. Otherwise, this is set to **None**.

3.3 Product Information

The screen below appears if you select Product Information from the main menu.



The Product Information menu contains the general data about the system, such as the product name, serial number, BIOS version, etc. This information is necessary for troubleshooting (may be required when asking for technical support).

3.3.1 Product Name

This parameter specifies the official name of your system.

3.3.2 System S/N

This parameter specifies your system's serial number.

3.3.3 Main Board ID

This parameter specifies your system board's identification number.

3.3.4 Main Board S/N

This parameter specifies your system board's serial number.

3.3.5 System BIOS Version

This parameter specifies the version of your system's BIOS utility.

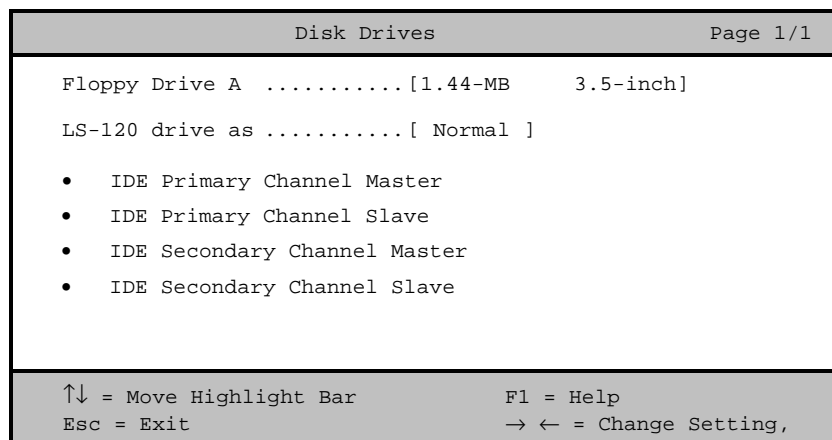
3.3.6 DMI BIOS Version

The Desktop Management Interface (DMI) BIOS allows you to check your system hardware components without actually opening your system. Hardware checking is done via software during start up. This parameter specifies the version of the DMI BIOS utility installed in your system.



3.4 Disk Drives

Select Disk Drives from the main menu to configure the drives installed in your system.

The following screen shows the Disk Drives menu:



3.4.1 Floppy Drive A

To enter the configuration value for the first floppy drive (drive A), highlight the Floppy Drive A parameter. Press  or  to view the options and select the appropriate value.

Possible settings for the Floppy Drive parameters are:

[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]

3.4.2 LS-120 drive as

This parameter allows you not only to enable the LS-120 device installed in your system, but also to specify the function of the device. The setting affects how BIOS will detect the device.

Possible settings are:

Normal In this setting, BIOS does not support the LS-120 drive. The drive needs the LS-120 device driver to operate.

Drive A BIOS recognizes the LS-120 drive as drive A. If a standard diskette drive A exists, BIOS automatically identifies it as drive B. If a standard diskette drive B exists, it automatically becomes inaccessible.

If two LS-120 drives exist, BIOS recognizes them as drive A and drive B, respectively.

Drive B BIOS recognizes the LS-120 drive as drive B. If a standard diskette drive B exists, it becomes inaccessible.

Hard Disk BIOS recognizes the LS-120 drive as a hard disk. In this setting, format the LS-120 drive as any other hard disk and assign it a drive letter C, D, E, and so on. See the documentation that came with the LS-120 drive for more information.

3.4.3 IDE Drives

To configure the IDE drives connected to your system, select the parameter that represents the channel and device where the desired hard disk to configure is connected. The options are:

IDE Primary Channel Master

This parameter lets you configure the hard disk drive connected as a master device of IDE channel 1.

IDE Primary Channel Slave

This parameter lets you configure the hard disk drive connected as a slave device of IDE channel 1.

IDE Secondary Channel Master

This parameter lets you configure the hard disk drive connected as a master device of IDE channel 2.

IDE Secondary Channel Slave

This parameter lets you configure the hard disk drive connected as a slave device of IDE channel 2.

The following screen appears if you select any of the IDE Drive parameters:

IDE Primary/Secondary Channel Master/Slave	
Type	[Auto]
Cylinder	[----]
Head	[----]
Sector	[----]
Size	[XXXX] MB
Hard Disk Size > 504MB	[Auto]
*Hard Disk Block Mode	[Auto]
*Advanced PIO Mode	[Auto]
*Hard Disk 32 Bit Access	[Enabled]
*DMA Transfer Mode	[Auto]
*CD-ROM Drive DMA Mode	[Enabled]
↑↓ = Move Highlight Bar	F1 = Help
Esc = Exit	→ ← = Change Setting,

Type

This parameter lets you specify the type of hard disk installed in your system. If you want BIOS to automatically configure your hard disk, select **Auto**. If you know your hard disk type, you can enter the setting manually. The default setting is **Auto**.

Setting this parameter also sets the Cylinder, Head, Sector, and Size parameters.

Cylinders

This parameter specifies your hard disk's number of cylinders, and is automatically set depending on your Type parameter setting.

Heads

This parameter specifies your hard disk's number of heads, and is automatically set depending on your Type parameter setting.

Sectors

This parameter specifies your hard disk's number of sectors, and is automatically set depending on your Type parameter setting.

Size

This parameter specifies the size of your hard disk, in MB.

Hard Disk Size > 504 MB

When set to **Auto**, the BIOS utility automatically detects if the installed hard disk supports the function. If supported, 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. However, this enhanced IDE feature works only under a DOS or Windows 3.x/95/98 environment. Other operating systems require this parameter to be set to **Disabled**. The default setting is **Auto**.

Hard Disk Block Mode

This function enhances disk performance depending on the hard disk in use. If you set this parameter to **Auto**, the BIOS utility automatically detects if the installed hard disk drive supports the Block Mode function. If supported, it allows data transfer in block (multiple sectors) at a rate of 256 bytes per cycle. To disregard the feature, change the setting to **Disabled**. The default setting is **Auto**.

This parameter appears only when you are in the Advanced Level.

Advanced PIO Mode

When set to **Auto**, the BIOS utility automatically detects if the installed hard disk supports the function. If supported, it allows for faster data recovery and read/write timing that reduces hard disk activity time. This results in better hard disk performance. To disregard the feature, change the setting to **Disabled**. The default setting is **Auto**.

This parameter appears only when you are in the Advanced Level.

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/95/98, and Novell NetWare. If your software or hard disk does not support this function, set this parameter to **Disabled**. The default setting is **Enabled**.

This parameter appears only when you are in the Advanced Level.

DMA Transfer Mode

The Ultra DMA and Multi-DMA modes enhance hard disk performance by increasing the transfer rate. However, besides enabling these features in the BIOS Setup, both the Ultra DMA and Multi-DMA modes require the DMA driver to be loaded. By setting this parameter to **Auto**, BIOS automatically sets the appropriate DMA mode for your hard disk. The default setting is **Auto**.

This parameter appears only when you are in the Advanced Level.

CD-ROM Drive DMA Mode

Set this parameter to **Enabled** to enable the DMA mode for the CD-ROM drive. This improves the system performance since it allows direct memory access to the CD-ROM. To deactivate the function, set the parameter to **Disabled**. The default setting is **Enabled**.

This parameter appears only when you are in the Advanced Level.

3.5 Onboard Peripherals

The Onboard Peripherals menu allows you to configure the onboard devices. Selecting this option from the main menu displays the following screen:

```
Onboard Peripherals

Serial Port 1..... [Enabled ]
  Base Address..... [3F8h]
  IRQ..... [4]

Serial Port 2..... [Enabled ]
  Base Address..... [2F8h]
  IRQ..... [3]

Parallel Port..... [Enabled ]
  Base Address..... [378h]
  IRQ..... [ 7 ]
  Operation Mode..... [EPP ]
  ECP DMA Channel..... [ - ]

• Onboard Device Settings

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

3.5.1 Serial Port 1

This parameter allows you to enable or disable the serial port 1. The default setting is **Enabled**.

Base Address

This function lets you set a logical base address for the serial port 1. The options are:

- 3F8h
- 2F8h
- 3E8h
- 2E8h

IRQ

This function lets you assign an interrupt for the serial port 1. The options are IRQ 4 and 11.

3.5.2 Serial Port 2

This parameter allows you to enable or disable the serial port 2. The default setting is **Enabled**.

Base Address

This function lets you set a logical base address for the serial port 2. The options are:

3F8h
2F8h
3E8h
2E8h

IRQ

This function lets you assign an interrupt for the serial port 2. The options are IRQ 3 and 10.



The Base Address and IRQ parameters are configurable only if the Serial Port parameters are enabled.

3.5.3 Parallel Port

This parameter allows you to enable or disable the parallel port. The default setting is **Enhanced Parallel Port (EPP)**.

Base Address

This function lets you set a logical base address for the parallel port. The options are:

3BCh

378h

278h

IRQ

This function lets you assign an interrupt for the parallel port. The options are **IRQ 5** and **7**.



The Base Address and IRQ parameters are configurable only if the Parallel Port is enabled.

If you install an add-on card that has a parallel port whose address conflicts with the parallel port on board, a warning message appears on the screen.

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 3-1 lists the different operation modes.

Table 3-1 Parallel Port Operation Mode Settings

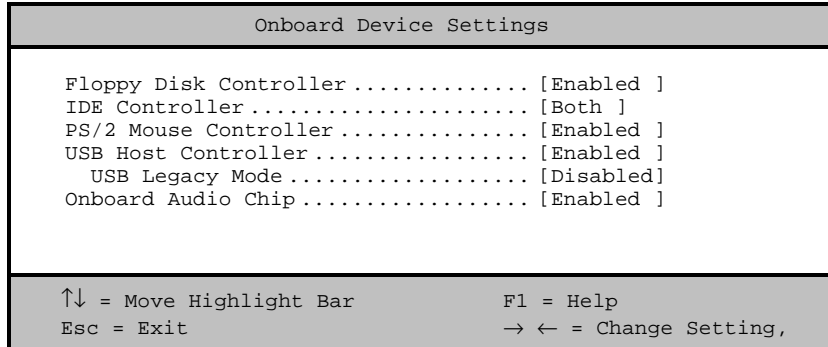
Setting	Function
Standard Parallel Port (SPP)	Allows normal speed one-way operation
Standard and Bidirectional	Allows normal speed operation in a two-way mode
Enhanced Parallel Port (EPP) (Default)	Allows bidirectional parallel port operation at maximum speed
Extended Capabilities Port (ECP)	Allows parallel 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 Windows 95).

3.5.4 Onboard Device Settings

The Onboard Device Settings menu allows you to configure the device controllers available onboard. Selecting this option from the Onboard Peripherals menu displays the following screen:



Floppy Disk Controller

This parameter lets you enable or disable the onboard floppy disk controller. The default setting is **Enabled**.

IDE Controller

Set this parameter to **Primary** to enable only the primary IDE channel; **Secondary** to enable only the secondary IDE channel; **Both** to enable both primary and secondary IDE channels; or **Disabled** to disable the onboard IDE controllers. The default setting is **Both**.

PS/2 Mouse Controller

This parameter enables or disables the onboard PS/2 mouse controller. The default setting is **Enabled**.

USB Host Controller

This parameter lets you enable or disable the USB controller on board. When enabled, it activates the USB function of the system. When disabled, it deactivates the function. The default setting is **Enabled**.

USB Legacy Mode

This function, when enabled, lets you use a USB keyboard in a DOS environment. Set this to **Disabled** to deactivate the USB keyboard function in DOS environment. This parameter is configurable only if the USB Host Controller parameter is enabled. The default setting is **Disabled**.

Onboard Audio Chip

This parameter lets you enable or disable the onboard audio controller. If you installed an audio card into your system, you must disable this parameter for the card to work properly. The default setting is **Enabled**.

3.6 Power Management

The Power Management menu lets you configure the system power-management feature.

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

Power Management	
Power Management Mode	[Enabled]
IDE Hard Disk Standby Timer	[Off]
System Sleep Timer	[Off]
Sleep Mode	[-----]
Power Switch < 4 Sec.	[Power off]
System Wake-Up Event	
Modem Ring Indicator	[Disabled]

↑↓ = Move Highlight Bar	F1 = Help
Esc = Exit	→ ← = Change Setting,

3.6.1 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 it to **Disabled** deactivates the power-management feature and its timers. The default setting is **Enabled**.

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 you do not want your hard disk to enter the Standby mode. The default setting is **Off**.

System Sleep Timer

This parameter automatically puts the system to power-saving mode after a specified period of inactivity. Any keyboard or mouse action, or any activity detected from the IRQ channels resumes system operation. The default setting is **Off**.

Sleep Mode

This parameter lets you specify the power-saving mode that the system will enter after a specified period of inactivity. The options are **Standby** or **Suspend** mode.

This parameter becomes configurable only if the System Sleep Timer is enabled. Any keyboard or mouse action, or any enabled monitored activity occurring through the IRQ channels resumes system operation.

3.6.2 Power Switch < 4 sec.

When set to **Power Off**, the system automatically turns off when the power switch is pressed. When set to **Suspend**, the system enters the suspend mode. The default setting is **Power Off**.

3.6.3 System Wake-Up Event

This parameter lets you specify the activity that will resume the system to normal operation.

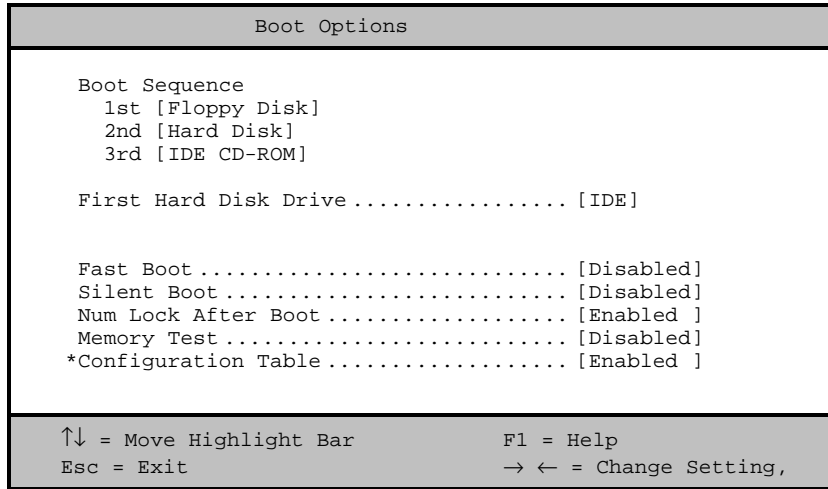
Modem Ring Indicator

When **Enabled**, any fax/modem activity wakes the system from Sleep mode. The default setting is **Disabled**.



3.7 Boot Options

This option allows you to specify your preferred settings for bootup.

The following screen appears if you select Boot Options from the main menu:



3.7.1 Boot Sequence

This parameter allows you to specify the boot search sequence. To change the order of devices, simply press  or .

3.7.2 First Hard Disk Drive

This parameter specifies whether the BIOS utility will boot from an IDE hard disk drive or a SCSI hard disk drive. The system will automatically boot from an IDE hard disk if your system does not have a SCSI hard disk drive. The default setting is **IDE**.

3.7.3 Fast Boot

Setting this parameter to **Auto** allows the system to boot faster by skipping some POST routines. Select **Disabled** to return to the normal booting process. The default setting is **Disabled**.

3.7.4 Silent Boot

This parameter enables or disables the Silent Boot function. When set to **Enabled**, BIOS is in graphical mode and displays only an identification logo during POST and while booting. Then, the screen displays the operating system prompt (as in DOS) or logo (as in 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**.

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

The default setting is **Disabled**.

3.7.5 Num Lock After Boot

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

3.7.6 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**.

3.7.7 Configuration Table

This parameter allows you to enable or disable the display of 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.

This parameter appears only when you are in the Advanced Level.



The default setting is **Enabled**.

3.8 Date and Time

The following screen appears if you select the Date and Time option from the main menu:

Date and Time	
Date	[WWW MMM DD, YYYY]
Time	[HH:MM:SS]
↑↓ = Move Highlight Bar F1 = Help	
Esc = Exit → ← = Change Setting,	

3.8.1 Date

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

Valid values for weekday, month, day, and year are:



Weekday: Sun, Mon, Tue, Wed, Thu, Fri, Sat

Month: 1 to 12

Day: 1 to 31

Year: 1980 to 2099

3.8.2 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

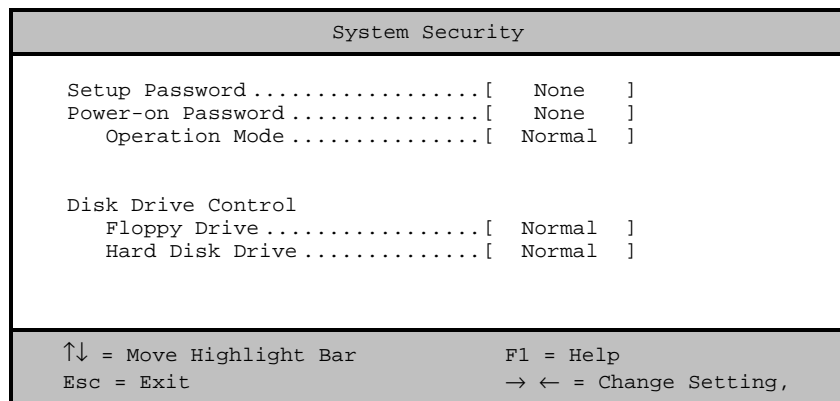
Minute 00 to 59

Second 00 to 59

3.9 System Security

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 select System Security from the main menu:



3.9.1 Setup Password

The Setup Password prevents unauthorized access to the BIOS utility.

Setting a Password



1. Make sure that switch 5 of SW1 is set to **On** (bypass password).

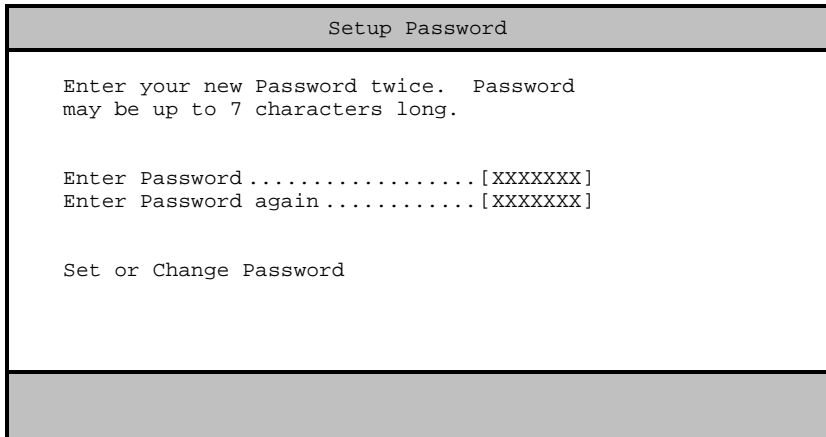



*You cannot enter the BIOS utility if a Setup password does not exist and switch 5 of SW1 is set to **Off** (password check enabled).*

*By default, switch 5 of SW1 is set to **On** (bypass*

password).





2. Enter the BIOS utility and select System Security.
3. Highlight the Setup Password parameter and press  or . The following screen appears:



4. Type a password. The password may consist of up to seven characters. Then press .



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






5. Retype the password then press .
6. After setting the password, highlight the Set or Change Password option.
7. Press  to return to the System Security screen.
8. Press  to return to the main menu.
9. Press  to exit the BIOS utility. A dialog box appears asking if you want to save the CMOS data.
10. Select **Yes** to save the changes and reboot the system.

11. After rebooting, turn off the system then open the housing.
12. Set switch 5 of SW1 to **Off** 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 and press  or . The Setup Password menu appears.
3. From the Setup Password menu, highlight the Set or Change Password option.
4. Enter a new password.
5. Press  to return to the System Security screen.
6. Press  to return to the main menu.
7. Press  to exit the BIOS utility. A dialog box appears asking if you want to save the CMOS data.
8. Select **Yes** to save the changes.

To remove the password, simply select the Setup Password parameter from the System Security menu and set it to **None**.

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 switch 5 of SW1 to **On** 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.*

3.9.2 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 switch 5 of SW1 is set to **Off** to enable the Power-on password.*

Operation Mode

This function lets you enable or disable the password prompt display. When set to **Normal**, the password prompt appears before system boot. When set to **Keyboard Lock**, the password prompt does not appear; however, your system will not respond to any keyboard or mouse input until you enter the correct password.

The default setting is **Normal**.

3.9.3 Disk Drive Control

The Disk Drive Control parameters allow you to protect the floppy drive and hard disk data from being modified (possible under DOS mode only).

Table 3-2 lists the drive control settings and their corresponding functions.

Table 3-2 Drive Control Settings

Floppy Drive	
Setting	Description
Normal (Default)	Floppy 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
Hard Disk Drive	
Setting	Description
Normal (Default)	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

3.10 Advanced Options



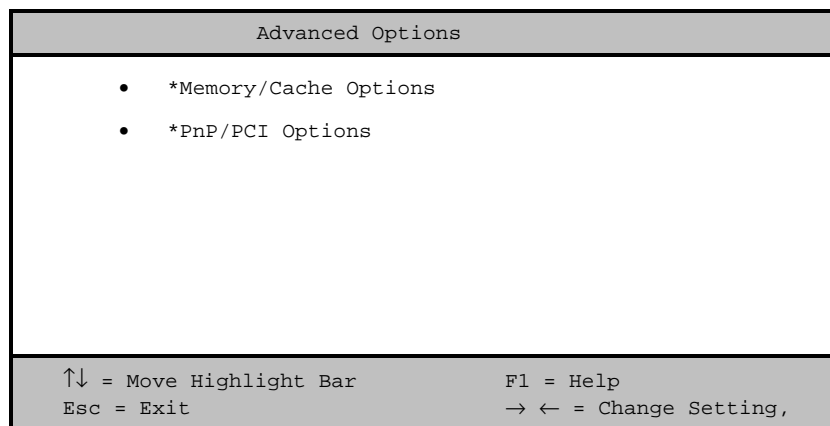
This option is available only in the Advanced Level.

The Advanced Options menu allows you to configure the system memory, onboard peripherals, and PCI device settings.



To avoid damaging the system, do not change any settings in the Advanced Options unless you are a qualified technician.

The following screen shows the Advanced Options menu:



3.10.1 Memory/Cache Options

Selecting Memory/Cache Options from the Advanced Options menu displays the following screen:

```
Memory/Cache Options                               Page 1/1

*Internal Cache (CPU Cache) ..... [Enabled ]
*External Cache ..... [Enabled ]
  *Cache Scheme ..... Write-back

*Memory at 15MB-16MB Reserved for .. [System]
*Memory Parity Mode ..... [Disabled]
*C8000h-DFFFFh Shadow ..... [Disabled]

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

This menu lets you configure the system memory.

Internal Cache (CPU Cache)

This parameter enables or disables the primary cache memory, i.e., the CPU memory. The default setting is **Enabled**.

External Cache

This parameter enables or disables the secondary cache memory. In Pentium II, the external cache is already integrated in the CPU card.

The default setting is **Enabled**.

Cache Scheme

This parameter is non-configurable. Its setting is fixed at **Write-back** mode. Write-back mode 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.

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. The default setting is **System**.

Memory Parity Mode

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 want to disregard the function.

The default setting is **Disabled**.

C8000h - DFFFFh Shadow

Set the parameter to **Enabled** to shadow expansion card to ROM. For some legacy ISA LAN cards, you might need to disable the shadowing in order to work properly. In this case, we recommend that you set this parameter to **Disabled**.

The default setting is **Disabled**.

3.10.2 PnP/PCI Options

The PnP/PCI Options allows you to specify the settings for your PCI devices. Selecting this option displays the following screen:

PnP/PCI Options					
*PCI IRQ Setting	[Auto]				
		INTA	INTB	INTC	INTD
*PCI Slot 1	[--]	[--]	[--]	[--]	
*PCI Slot 2	[--]	[--]	[--]	[--]	
*PCI Slot 3	[--]	[--]	[--]	[--]	
*PCI IRQ Sharing	[Yes]				
*VGA Palette Snoop	[Disabled]				
*Graphics Aperture Size	[64] MB				
*Plug and Play OS	[Yes]				
*Reset Resource Assignments ..	[No]				
↑↓ = Move Highlight Bar		F1 = Help			
Esc = Exit		→ ← = Change Setting,			



AGP Slot 1 shares an IRQ resource with PCI Slot 1.

PCI IRQ Setting

Select **Auto** to let BIOS automatically configure the plug-and-play (PnP) devices installed in your system. Otherwise, select **Manual**.



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

PCI Slots

When you set the PCI IRQ Setting parameter to **Auto**, these parameters specify the auto-assigned interrupt for each of the PCI devices. If you set the PCI IRQ Setting parameter to **Manual**, you need to specify the interrupt that you want to assign for each PCI device installed in your system.

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**.



If there are no IRQs available to assign for the remaining device function, we recommend that you enable this parameter.

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 has been updated. This allows the 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.

Graphics Aperture Size

This parameter specifies the system memory area reserved for Accelerated Graphics Port (AGP). AGP is a new bus design that enables the system to support 3D applications by speeding up the VGA bus and increasing the bandwidth.



It is recommended you to leave this parameter at its default setting [64].

Plug and 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 (or higher).*

Reset Resource Assignments

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 Chapter 4 for instructions on installing and configuring ISA cards.

3.11 Load Default Settings

You need to reload the BIOS default settings every time you make changes to your system hardware configuration (such as memory size, CPU type, hard disk type, etc.); otherwise, BIOS will keep the previous CMOS settings. Selecting this option displays the following dialog box:

Do you want to load default settings?	
[Yes]	[No]

Choosing **Yes** enables BIOS to automatically detect the hardware changes that you have made in your system. This option also allows you to restore the default settings.

Choosing **No** returns you to the main menu without loading the default settings.

3.12 Abort Settings Change

Selecting the Abort Settings Change option from the main menu displays the following dialog box:

Do you want to abort settings change?	
[Yes]	[No]

Choosing **Yes** discards all the changes that you have made and reverts the parameters to their previously saved settings.

Choosing **No** returns you to the main menu. BIOS retains all changes that you have made.

3.13 Exiting Setup

To exit the BIOS utility, simply press **[ESC]**. The following dialog box appears:

```
Do you really want to exit SETUP?  
[Yes]                [No]
```

Select **Yes** to exit Setup. Select **No** to return to the main menu. If you have made changes in the parameter settings, the following dialog box appears:

```
Settings have been changed.  
Do you want to save CMOS settings?  
[Yes]                [No]
```

Select **Yes** to save your changes before you exit Setup. Select **No** to discard all changes and exit Setup.

Chapter 4 Installing Optional Components

4.1 Installation Precautions

Before you install any system component, we recommend that you read the following sections. These sections contain important ESD precautions, pre- and post installation instructions.



Turn off the system power and unplug the power cord and all peripherals before opening the system or connecting or removing any peripheral device. Always turn on any external peripheral device before you turn on the system.



To avoid damaging the system, do not open the housing for service or upgrades unless you are a qualified technician.

4.1.1 ESD Precautions

Electrostatic discharge (ESD) can damage your processor, disk drives, expansion boards, and other components. Always observe the following precautions before you install a system component.

1. Do not remove a component from its protective packaging until you are ready to install it.
2. Wear a wrist grounding strap and attach it to a metal part of the system unit before handling components. If a wrist strap is not available, maintain contact with the system unit throughout any procedure requiring ESD protection.



The heatsinks (one on the system board and one on the CPU module) become very hot when the system is on. Do not touch the heatsinks with any metal or with your hands until the system has cooled down.

4.1.2 Preinstallation 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. Unplug the power cord from the unit.
2. Open the system according to the instructions in the “Removing and Replacing the Housing Cover” section.
3. Follow the ESD precautions in section 4.1.1 before handling a system component.
4. Remove any expansion boards or peripherals that block access to components.
5. See the following sections for specific instructions on the component you wish to install.



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

4.1.3 Post-installation Instructions

Observe the following after installing a system component:

1. Verify 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 2.3 for the correct jumper settings.
3. Replace any expansion boards or peripherals that you removed earlier.
4. Replace the system cover. See section 4.2 for instructions.
5. Connect the necessary cables and turn on the system.

4.2 Removing and Replacing the Housing Cover



Before you proceed, make sure that you have turned off the system and all peripherals connected to it. Read section 4.1 for preinstallation instructions.

This section tells you how to open the housing cover when you need to install additional components inside the system unit.

4.2.1 Removing the Housing Cover

1. Turn off power to the system unit and unplug all cables.
2. Place the system unit on a flat, steady surface.
3. Remove the four screws from the rear panel. Set the screws aside. You will need them when replacing the housing cover.

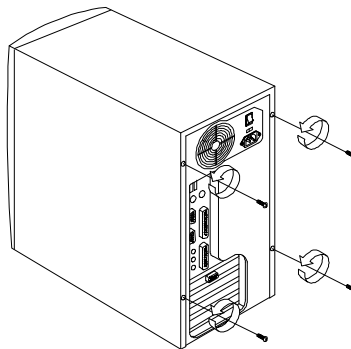


Figure 4-1 Removing the Screws

4. Push the housing cover slightly backward as indicated in Figure 4-2.
5. Pull the housing cover up and remove it from the chassis.

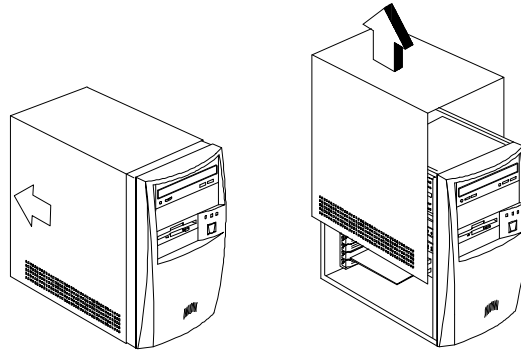


Figure 4-2 Removing the Housing Cover

4.2.2 Replacing the Housing Cover

1. Replace the housing cover as shown in Figure 4-3.

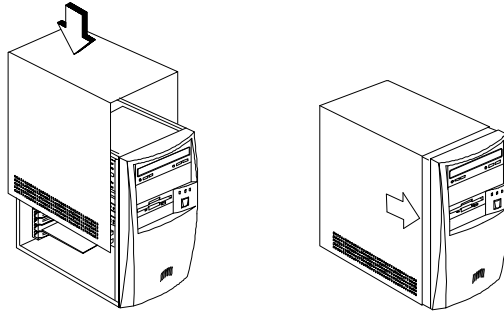


Figure 4-3 Replacing the Housing Cover

2. Secure the housing cover with the necessary screws.

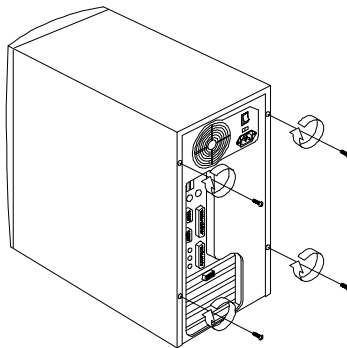


Figure 4-4 Securing the Screws

4.3 Installing and Removing Expansion Boards

4.3.1 Installing a PCI Card

To install a PCI card:

1. Locate the PCI slot(s) on the system board.
2. Remove the bracket on the housing opposite to the empty PCI slot.
3. Insert a PCI card into the slot. Make sure that the card is properly seated.
4. Secure the card to the housing with a screw.

When you turn on the system, BIOS automatically detects and assigns resources to the PCI devices.

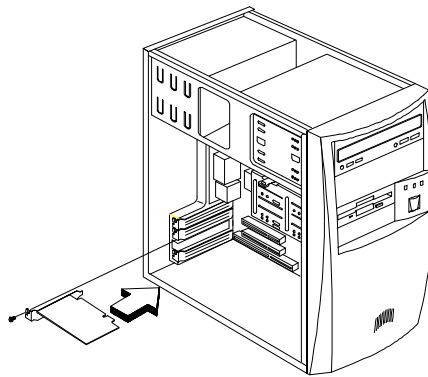


Figure 4-5 Installing a PCI Card

4.3.2 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. Remove all PnP cards installed in the system, if any.
2. Install non-PnP ISA cards.
3. Turn on the system.
4. Use Windows 95/98 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.

5. Turn off the system.

6. Locate the expansion slots and install the PnP ISA and PCI cards.
7. Turn on the system. This time PnP BIOS automatically configures the PnP ISA and PCI cards with the available resources.

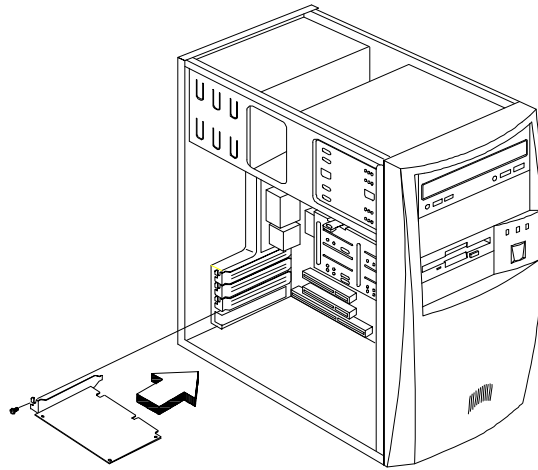


Figure 4-6 Installing an ISA Card

4.4 Installing Additional Memory

The system memory is upgradable to a maximum of 384 MB via three 168-pin DIMM sockets on board. These DIMM sockets accept PC-66/PC-100 compliant DIMMs with 16-, 32-, 64-, and 128-MB capacities, with or without ECC feature. See Figure 2-1 for the location of the DIMM sockets. Section 4.4.1 tells how to install DIMMs.

Table 4-1 lists possible memory configurations.



When installing DIMMs, make sure that you install only one type of DIMM. Do not combine different types of DIMMs.

Your system is configured with PC-100 DIMMs; use compatible memory when upgrading.

Table 4-1 Memory Configurations

DIMM1	DIMM2	DIMM3	Total Memory
16 MB			16 MB
32 MB			32 MB
64 MB			64 MB
128 MB			128 MB
16 MB	16 MB		32 MB
32 MB	32 MB		64 MB
64 MB	64 MB		128 MB
128 MB	128 MB		256 MB
16 MB	16 MB	16 MB	48 MB
16 MB	32 MB	32 MB	80 MB
16 MB	64 MB	64 MB	144 MB
16 MB	128 MB	128 MB	272 MB
32 MB	16 MB	16 MB	64 MB
32 MB	32 MB	32 MB	96 MB
32 MB	64 MB	64 MB	160 MB
32 MB	128 MB	128 MB	288 MB
64 MB	16 MB	16 MB	96 MB
64 MB	32 MB	32 MB	128 MB
64 MB	64 MB	64 MB	192 MB
64 MB	128 MB	128 MB	320 MB
128 MB	16 MB	16 MB	160 MB
128 MB	32 MB	32 MB	192 MB
128 MB	64 MB	64 MB	256 MB
128 MB	128 MB	128 MB	384 MB

4.4.1 Installing a DIMM

Follow these steps to install a DIMM:

1. Align pin 1 of the DIMM with pin 1 of the socket. Pin 1 is labeled 1 on both the DIMM and the socket.
2. Gently push the DIMM until the holding clips lock the DIMM into a vertical position.

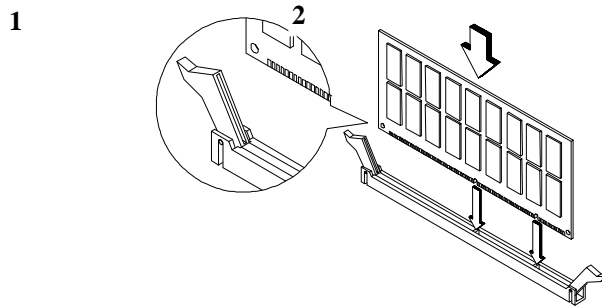


Figure 4-7 Installing a DIMM



Be careful when inserting DIMMs. Forcing a DIMM in or out of a socket can damage the socket or the DIMM (or both).

4.4.2 Removing a DIMM

1. Press the holding clips on both sides of the socket outward to release the DIMM.
2. Gently pull the DIMM out of the socket.

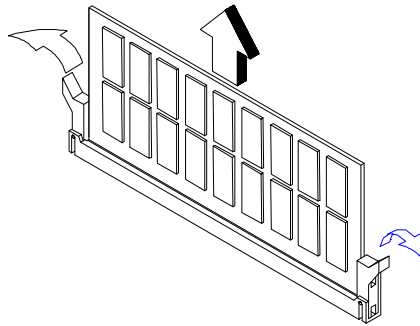


Figure 4-8 Removing a DIMM

4.4.3 Reconfiguring the System

The system automatically detects the amount of memory installed. Run Setup (see Chapter 3) to view the new value for total system memory and make a note of it.

4.5 Upgrading the Processor



Refer to sections 4.5.1 and 4.5.2 for instructions when upgrading a Pentium II processor.

Refer to section 4.5.3 for instructions when upgrading a Celeron processor.

4.5.1 Removing the Processor Card (Pentium II)



Observe the ESD precautions when installing or removing a system component. See section 4.1.1.

Before you can replace or upgrade your processor, you need to remove the previously installed processor on the system board.

Follow these steps to remove the processor card:

1. Disconnect the fan heat sink cable from the system board.
2. Press the latches on both sides of the processor to release it from the retention mechanism. You will hear a clicking sound once the latch is released. Disconnect any fan cables from the system board.

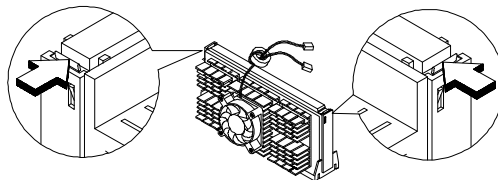


Figure 4-9 Pressing the Latches

3. Pull the processor to totally detach it from the CPU connector.

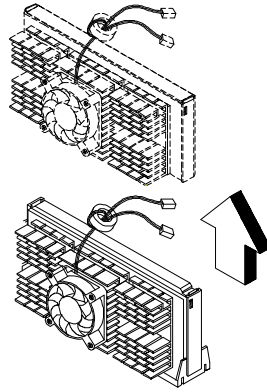


Figure 4-10 Removing a Processor

4.5.2 Installing a Processor Card (Pentium II)



Observe the ESD precautions when installing or removing a system component. See section 4.1.1

Before you proceed, make sure that there is no processor installed in the CPU connector.

Follow these steps to install a processor card:

1. If the retention mechanism has never been installed, place the retention mechanism over the CPU connector on the system board and press it until it clicks into place.
2. Press the four rivets to secure the retention mechanism. Make sure all four rivets are properly inserted into the holes on the system board.

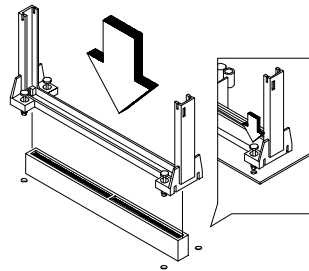


Figure 4-11 Installing the Retention Mechanism

3. Remove the processor card from its protective packaging. Make sure that the latches on the sides of the module are not pressed in.
4. Remove the thermal tape protector at the back of the fan sink.

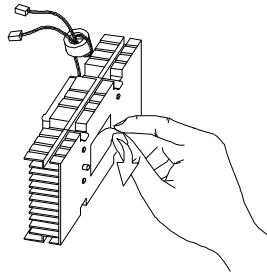


Figure 4-12 Removing the Tape Protector from the Fan Sink

5. Insert the wide clip ends into the wide holes on the processor and the narrow clip ends into the narrow holes.

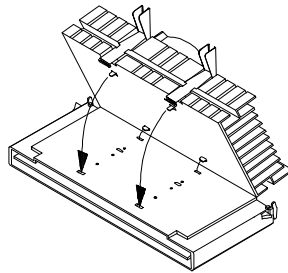


Figure 4-13 Inserting the Clip Ends into the Processor Holes

6. Using your fingers, push the metal bracket down until it clicks into the CPU cartridge and then push the metal bracket's handle to lock the metal bracket into place.

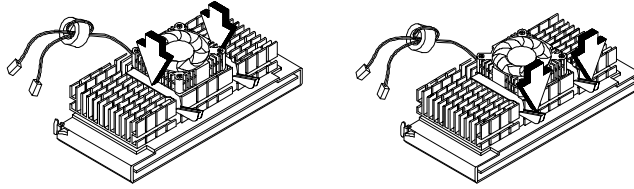


Figure 4-14 Locking the Metal Bracket

7. With the processor card golden fingers pointing downward, align the processor to the posts of the retention mechanism.
8. Lower the processor into to the CPU connector on the system board until the golden fingers touch the connector.

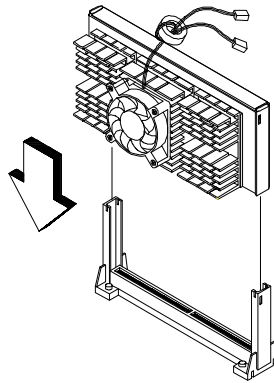


Figure 4-15 Installing a Processor Card

9. Press the processor down until the golden fingers completely fit into the connector and the latches on the sides lock the processor into place.

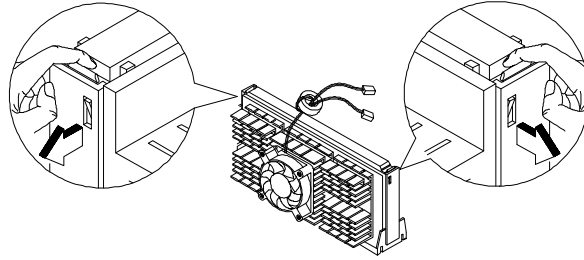


Figure 4-16 Locking the Processor

10. Connect the 3-pin and 2-pin fan/heatsink cables to FN1 and JP2 on the system board, respectively.

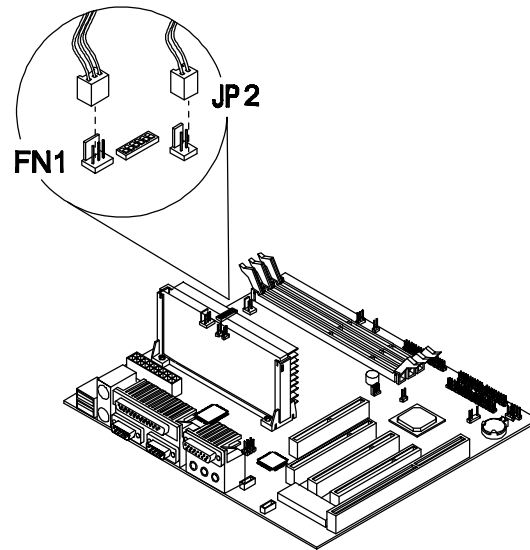


Figure 4-17 Connecting the Fan/Heatsink Cables



The heatsink becomes very hot when the system is on. NEVER touch the heatsink with any metal or with your hands.

4.5.3 Installing the Celeron Processor



Observe ESD precautions when installing or removing a system component. See section 4.1.1.

Before you proceed, make sure that there is no processor installed in the CPU connector.

Follow these steps to install a Celeron processor:

1. Place the retention mechanism over the CPU connector on the system board and press it until it clicks into place.
2. Press the four rivets to secure the retention mechanism. Make sure all four rivets are properly inserted into the holes on the system board.

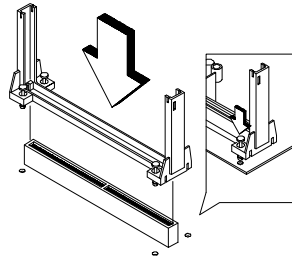


Figure 4-18 Installing the Retention Mechanism

3. Remove the Celeron processor from its protective packaging.
4. Attach the heatsink on top of the Celeron processor.
5. Align the fasteners underneath the processor card with the heatsink tabs.
6. Press the heatsink and fasteners together to lock the heatsink.

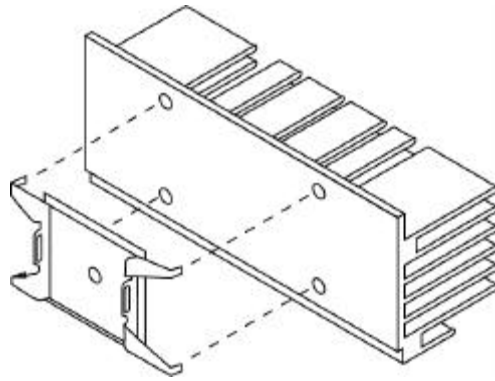


Figure 4-19 Attaching the Heatsink

7. Press the processor down until the golden fingers completely fit into the connector.
8. Snap the retention cover into place as shown in the figure below.

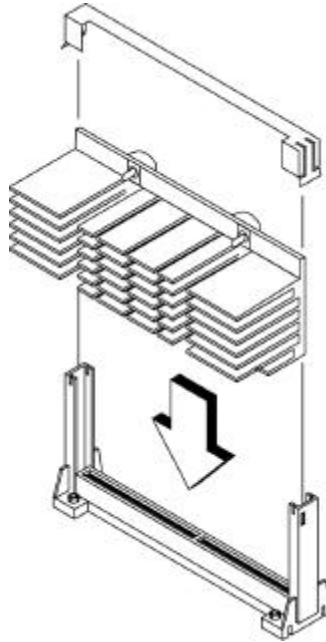


Figure 4-20 Installing the Celeron Processor



The heatsink becomes very hot when the system is on. NEVER touch the heatsink with any metal or with your hands.

9. Connect the 3-pin and 2-pin fan/heatsink cables to FN1 and JP2 on the system board, respectively.

Chapter 5 Acer Manageability Software

Your AcerPower system is bundled with Acer desktop manageability software. It is designed to make an AcerPower system more manageable based on support for the following industry standards and specifications:

- Desktop Management Interface (DMI) 2.0
- S.M.A.R.T. compliant

Acer desktop manageability software is provided through the Acer software preload which comes pre-installed on your system, and the Acer Resource CD.

The following manageability features and utilities are explained in more detail in the remaining sections of this chapter.

- Acer Resource CD
- Acer Software Installer
- Acer Software Library
- Acer Online Documentation
- Acer CPR
- System diagnostics
- McAfee® VirusScan®
- Intel LANDesk® Client Manager

5.1 The Acer Resource CD

The Acer Resource CD contains a collection of powerful utility programs and information, to effectively manage your AcerPower system. The Acer Resource CD provides the following useful features and services:

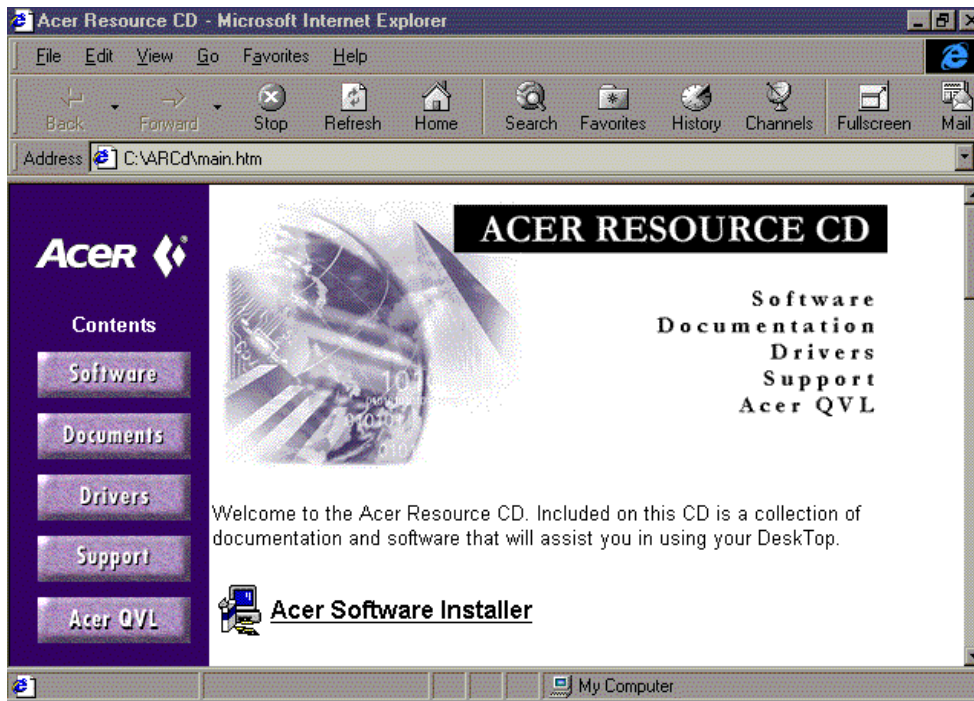


Figure 5-1 Acer Resource CD

- **Acer Software Installer.** This program allows you to install only the application software you wish to use, avoiding unwanted applications and eliminating unnecessary hard disk space usage.

- **Acer Software Library.** This is a reference library containing a reference copy of the qualified drivers and applications for your AcerPower system.
- **Acer Online Documentation.** This includes *User's Guides* and Release Notes in PDF format, which can be accessed using Adobe Acrobat Reader.
- **Acer CPR.** This is a powerful hard disk recovery program for disaster recovery. It allows you to reinstall your hard disk drive, with the Acer preload including operating system, drivers, to its factory condition.
- **System Diagnostics.** This program allows you to verify components and system integrity.

To use your *Acer Resource CD*, insert it into the CD-ROM drive. The Windows auto-run mechanism automatically launches Microsoft Internet Explorer, and brings up the Acer Resource CD interface (in HTML-based format).

5.2 Acer Software Installer

Acer Software Installer allows you to do a customized installation of only the applications software that you wish to use, and to eliminate unnecessary hard disk space usage.

The Acer Software Installer also provides a single and easy launching point for you to selectively install some or all of the bundled software; you do not need to know any of the path names or other details. Launch the Acer Software Installer and click on the software title on the **Acer Software Installer** screen. The Acer Software Installer will prepare and install the software of your choice for you.



Figure 5-2 Acer Software Installer

Use the Acer Software Installer

To activate the Acer Software Installer, please do the following:

1. From the Acer Resource CD interface, click on the **Acer Software Installer** button.
2. When Microsoft Internet Explorer **File Download** screen is displayed to prompt “what would you like to do”, select **Open it**, and then click the **OK** button.
3. When Microsoft Internet Explorer **Security Warning** screen is displayed to prompt “do you wish to continue”, click the **Yes** button. The **Acer Software Installer** menu appears.
4. Click the software title you wish to install.
5. Follow the on-screen prompts to complete the installation.

Installable Applications Software

The following application software (bundled with your AcerPower system) is installable from the Acer Software Installer:

- Acer Settings (Acer wallpaper and screen saver)
- Adobe Acrobat Reader
- Intel LANDesk Client Manager
- McAfee VirusScan



Some of the bundled applications have dedicated versions for different Operating Systems. Make sure the matching application is being installed for the correct Operating System version.

5.3 Acer Software Library

Acer Software Library contains a reference copy of the qualified drivers for your AcerPower system. The proper drivers for your AcerPower system have been preinstalled in the Acer preload on your hard disk drive.



The drivers and applications in the Acer Software Library are for your reference only, or for reinstallation.

The Acer Software Library includes:

- Video drivers
- Audio drivers
- Modem drivers
- Network drivers
- Intel LDCM, Administrator Version
- Acer motherboard specific drivers
- Monitor

To access the Acer Software Library components, click the **Acer Software Library** button from the Acer Resource CD interface, and then search for the drivers or applications you are looking for.

5.4 Acer Online Documentation

The Acer Online Documentation includes *User's Guides*, and other helpful information in PDF format. It allows you to quickly access important information about your system, components, and applications without searching for their manual.

The Acer Online Documentation includes:

- *Intel LANDesk Client Manager User's Guide.*
- *McAfee VirusScan User's Guide.*

To access the Acer Online Documentation, click on the **Acer Online Documentation** button from the Acer Resource CD interface, then click on the document file you are looking for.



The Adobe Acrobat Reader must be installed first from the Acer Software Installer, before viewing the PDF documents.

5.5 Acer CPR

Acer CPR is primarily a powerful preload restoration program for disaster recovery that is part of your Acer Resource CD. It allows you to reconfigure your hard disk drive, and to reinstall your Acer preload, including operating system and drivers.

In case of any emergency such as hard disk drive failure, you may find that the only way to get the system running again is to rebuild the hard disk drive to its original factory state. Acer CPR gives you a simple way to completely reinstall the Acer preload that originally came preinstalled on your hard disk drive. In such an emergency, use Acer CPR to rebuild your hard disk drive. Take note of these precautions.



A rebuild of the hard disk drive will remove all data and partitions from the system disk. Files which have not been backed up will be lost when rebuilding your hard disk drive. Acer shall not be liable for any loss of data or any other incidental, special or consequential damages. Acer's responsibility for Acer CPR utility is limited to the terms of the Limited Product Warranty with your system.

*The Acer CPR utility has been programmed to operate only with specific Acer systems. **IT WILL NOT WORK WITH ANY OTHER COMPUTER SYSTEM.***

Please be aware that all software on the Acer Resource CD is subject to the terms of the software license agreements that come packaged with your Acer system. Your use of the Acer Resource CD means that you agree to all of those software license agreement terms. Also, as part of the rebuild process you will be prompted to type-in your Microsoft Certificate of Authenticity (COA) product ID number. Look for your COA number on the cover of your Windows manual.

To rebuild your hard drive, do the following:

1. Power up your Acer system.
2. When prompted (after memory testing completes), press **CTRL + ALT + ESC** to enter BIOS CMOS setup.
3. Insert the Acer Resource CD into your CD-ROM drive.
4. From the main setup screen, select the **Boot Options** section, and change the **Boot Sequence** to the following order:
 - 1st [CD-ROM]
 - 2nd [Floppy Disk]
 - 3rd [Hard Disk]
5. Press **ESC** twice. When prompted, 'Do you want to save CMOS data?', select [**Yes**], then press **ENTER**. The system will reboot from the CD-ROM.
6. After booting from the CD-ROM, you will see the Acer CPR options displayed. Select **Rebuild Drive** and follow the onscreen instructions.
7. When prompted, enter the DS number (DS.xxxxx.xxx) to select the software to be installed.

If you are rebuilding your hard drive with the same operating system, use the DS number on the label located on the lower right side of your system chassis.

If you are changing the operating system (for example, from Windows 98 to Windows 95), refer to the Acer Resource CD. The DS numbers for the operating systems you can install are printed on the front of the Acer Resource CD.
8. After you complete rebuilding your hard disk drive, remove your Acer Resource CD when prompted and repeat steps 2, 4, and 5 to enter the BIOS CMOS setup. Set the **Boot Sequence** back to its original configuration:
 - 1st [Floppy Disk]
 - 2nd [Hard Disk]
 - 3rd [CD-ROM]
9. Follow step 5 to exit setup.
10. Find your Microsoft Certificate of Authenticity (COA) ID number on the cover of your Windows manual (front cover for Windows 98; back cover for Windows 95 and Windows NT). Enter this number when requested.

5.6 System Diagnostics

The System Diagnostics program allows you to test individual components and verify system integrity. It is also a valuable tool for quickly identifying problems and solutions. This reduces support costs by minimizing time spent on troubleshooting the system components.

To invoke the system diagnostics program:

- Follow the Acer CPR procedure to start Acer CPR.
- From the Acer CPR screen, click on the **Diagnostics** button. The diagnostics software will start to automatically test the system components.

5.7 McAfee[®] VirusScan[®]

McAfee VirusScan is an advanced desktop anti-virus solution. Once installed, VirusScan protects your system from virus activity. If a virus is detected, VirusScan can attempt to remove it from the infected file, move the file to a quarantine location, or delete the infected file. VirusScan helps protect one of your most important assets — the information on your computer.

VirusScan should also be considered as an important element of a comprehensive, overall manageability solution program to reduce the Total Cost of Ownership. The program should include a variety of safety measures such as regular backups, meaningful password protection, training, and awareness.

McAfee VirusScan performs the following:

- Scans all subsystem areas — including floppies, boot sectors, file allocation and partition tables, folders, files, and compressed files — to provide extensive security.
- Accurately cleans most virus infections from files, master boot sectors, partition tables, and memory.
- On-access scanning technology captures viruses on disk access, file copying, file creation, file renaming, program execution, system startup, and system shut down.
- On-demand scanning provides for user-initiated detection of known boot, file, multi-partite, stealth, encrypted, and polymorphic viruses located within files, drives, and diskettes.

5.7.1 Installing VirusScan

To install the McAfee VirusScan utility:

1. Invoke the **Acer Software Installer** from the Acer Resource CD (refer to previous section for instructions).
2. Click **McAfee VirusScan**.
3. Follow the on-screen prompts to complete the installation.

5.7.2 Updating VirusScan Data Files

New viruses (and variants of old ones) are constantly appearing and circulating within the computer community. McAfee updates the VirusScan programs regularly — usually monthly, but more often if many new viruses appear. Each new version detects and removes as many as 100 to 200 new viruses, and may add new features to the VirusScan product. To find out what's new in your release, read the WHATSNEW.TXT text file shipped with this product.

VirusScan's new SecureCast component gives you several options for keeping your installation up-to-date, with varying levels of user interaction. One option, which uses BackWeb's Internet "push" technology, automatically updates your installation on a regular basis. If you choose this option, you will install BackWeb's client software, which will perform invisible downloads of updates whenever you are connected to the Internet. If you are not connected long enough for a full download at one time, the software will automatically piece out the work and notify you when a complete update package has arrived.

You can also wait until VirusScan warns you it is time to update, and use the convenient one-button electronic update option available at that time. Or you can choose to update your files manually at any time by following the procedure below. Information on SecureCast is available from the McAfee Web Site at:

[http:// www.nai.com/default_mcafee.asp](http://www.nai.com/default_mcafee.asp)

Download New Versions Manually

To update your data files manually, take the following steps:

1. Download the data file (for example, DAT-3103.ZIP) from one of McAfee's electronic services. On most services, it is located in the anti-virus section. Please note that your ability to access these updates is legally restricted by the maintenance terms outlined in the README.1ST file accompanying the software and detailed in the software license agreement.
2. Copy the file to a new directory.
3. The file is in a compressed format. Decompress the file using any PKUNZIP-compatible decompressing software. If you don't have the decompressing software, you can download PKUNZIP (shareware) from McAfee electronic sites. (All authentic files from McAfee will be tagged with -AV by PKZIP. Look for this tag when unzipping files to ensure their authenticity.)
4. Locate the directories on your hard drive where your VirusScan software is currently loaded. The default directory locations are shown below.

Windows 9X	x:\Program Files\McAfee\VirusScan
Windows NT	x:\Win32App\VirusScan NT

where x is your CD-ROM drive letter

5. Copy the new NAMES.DAT, CLEAN.DAT, and SCAN.DAT files to the appropriate directory, overwriting the old data files. There might be VirusScan files in more than one directory. If so, place the updated files in each appropriate directory.



Occasionally, the product's scan engine is also upgraded and you will require a new version of VirusScan in order to use the newest data files. By subscribing to a maintenance plan and upgrading your VirusScan software regularly, you are ensured complete virus protection for at least one year after your VirusScan purchase. Contact McAfee for details.

6. Before performing any scans, shut down your computer, wait a few seconds, and turn it on again. This will avoid the possibility of VirusScan reporting a “failed integrity check.”

5.8 Intel LANDesk® Client Manager

As computer systems are becoming more complex, system manageability is becoming one of the important requirements for desktop, server, and notebook computers, especially in networked environments. The Desktop Management Interface (DMI) standard, created by the Desktop Management Task Force (DMTF), provides an industry standard based solution, enabling any DMI-compliant management software to manage any DMI-enabled computer systems.

AcerPower desktop computers have been made DMI 2.0 compliant, by providing DMI 2.0 Service Provider, and DMI-compliant component instrumentation. The manageable system information within the AcerPower system can be accessed through any DMI-compliant management software.

Your AcerPower desktop computer has also been bundled with Intel LANDesk Client Manager, which is a DMI-compliant management software.

The LANDesk Client Manager, Client Version, can be used by the AcerPower users, to do the following tasks:

- Review system inventory.
- View DMI-compliant component information.
- Receive notifications of system events.
- Troubleshoot some of the computer problems.

The LANDesk Client Manager, Administrator Version, can be used by a system administrator to manage client workstations remotely. Besides to remotely perform those system management tasks listed above, the system administrator can also:

- Back up and restore the system configuration files.
- Make remote troubleshooting easier.
- Transfer files to and from client workstations.
- Remotely reboot client workstations.
- Remotely power up client systems.

For more information about MIF files, instrumentation, and DMI standards, please visit the following site on the World Wide Web: <http://www.dmtf.org>.

5.8.1 Setting Up LANDesk Client Manager

Installing LANDesk Client Manager, Client Version

To install LANDesk Client Manager, Client Version, do the following:

- Invoke the Acer Software Installer from Acer Resource CD (refer to previous section for instructions).
- Click **Intel LANDesk Client Manager**.
- Follow the instructions to complete the installation.



To reinstall LDCM, or to install a newer version of LDCM, you must remove the existing copy of LDCM first.

Removing LANDesk Client Manager

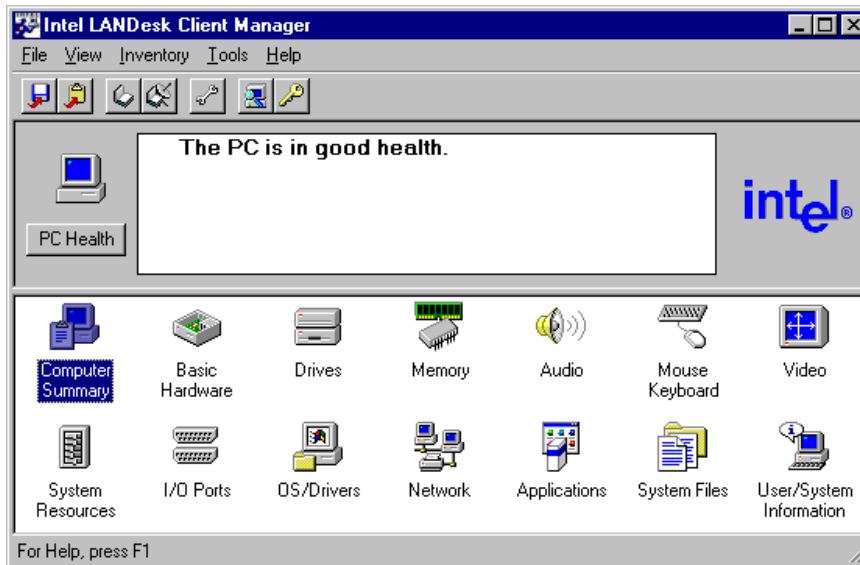
To remove the LANDesk Client Manager, on your Windows desktop:

- Click **Start | Settings | Control Panel**.
- Double-click **Add/Remove Programs**.
- Double-click **LANDesk Client Manager**.
- Follow the instructions to completely remove LDCM.

5.8.2 Using LANdesk Client Manager

To invoke LANdesk Client Manager: click **Start | Programs | Intel LANdesk Management | Client Manager**. The Client Manager user interface has three main parts:

- The PC health indicator, which consists of the PC Health meter, PC health description, and suggestions for improving unhealthy workstations.
- The inventory, which consists of numerous categories of information. This information help you troubleshoot system problems, audit system components (hardware and software), and even change, back up, and recover system configurations.
- The DMI explorer which enables you to view and modify DMI-compliant component information.



5.8.3 LANDesk Client Manager, Administrator Version

A copy of the LANDesk Client Manager, Administrator Version, is bundled on your Acer Resource CD. It is recommended that you install this software only if it is to be used by a system administrator as the management station.

Installing LANDesk Client Manager, Administrator Version



You must have LANDesk Client Manager, Client Version, installed on your system before installing the Administrator Version.

Load TCP/IP, IPX/SPX, and File Sharing before installing the Administrator Version.

To install LDCM, Administrator Version, on your AcerPower Windows desktop:

- Insert the Acer Resource CD into your CD-ROM drive.
- Click **Start | Run**.
- Type **x:/Softlib/Ldcm.adm/Setup**

(where x is the CD-ROM drive).

- Click **OK**.
- Follow the instructions to complete the installation of LDCM, Administrator version.

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