

V65X System

User's Guide



100% Recycled Paper

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IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions carefully. Save these instructions for future reference.
2. Follow all warnings and instructions marked on the product.
3. Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
4. Do not use this product near water.
5. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
6. Slots and openings in the cabinet and the back or bottom are provided for ventilation; to ensure reliable operation of the product and to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register, or in a built-in installation unless proper ventilation is provided.
7. This product should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
8. This product is equipped with a 3-wire grounding-type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the purpose of the grounding-type plug.

-
9. Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.
 10. If an extension cord is used with this product, make sure that the total ampere rating of the equipment plugged into the extension cord does not exceed the extension cord ampere rating. Also, make sure that the total rating of all products plugged into the wall outlet does not exceed 15 amperes.
 11. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.
 12. Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage points or other risks. Refer all servicing to qualified service personnel.
 13. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - a. When the power cord or plug is damaged or frayed
 - b. If liquid has been spilled into the product
 - c. If the product has been exposed to rain or water
 - d. If the product does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions since improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal condition.
 - e. If the product has been dropped or the cabinet has been damaged
 - f. If the product exhibits a distinct change in performance, indicating a need for service

-
14. Replace battery with the same type as the product's battery we recommend. Use of another battery may present a risk of fire or explosion. Refer battery replacement to a qualified serviceman.
 15. Warning! Battery may explode if not handled properly. Do not recharge, disassemble or dispose of in fire. Keep away from children and dispose of used battery promptly.
 16. Use only the proper type of power supply cord set (provided in your keyboard/manual accessories box) for this unit. It should be a detachable type: UL listed/CSA certified, type SVT/SJT, rated 6A 125V minimum, VDE approved or its equivalent. Maximum length is 15 feet (4.6 meters).

CD-ROM Safety Warning

DANGER

INVISIBLE RADIATION WHEN OPEN.
AVOID EXPOSURE TO BEAM.

VORSICHT

UNSICHTBARE LASERSTRAHLUNG WENN GEÖFFNET.
NICHT IN DEN STRAHL SEHEN.

ATTENTION

RADIATION DU FAISCEAU LASER INVISIBLE. EN CAS
D'OUVERTURE. EVITER TOUTE EXPOSITION AUX RAYONS.

VARO

AVATTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE
LASERSÄTEILYLLE ÄLÄ KATSO SÄTEESEEN.

VARNING!

OSYNLING LASERSTRÄLNING NÄR DENNA DEL ÄR ÖPPNAD.
BETRAKTA EJ STRÄLEN.

VARNING

OSYNLING LASERSTRÄLNING NÄR DENNA DEL ÄR ÖPPNAD.
STIRRA EJ IN I STRÄLEN.

ADVARSEL

LASERSTRÄLING VED ÅBNING. SE IKKE IND I STRÄLEN.

CLASS 1 LASER PRODUCT
APPAREIL A LASER DE CLASSE 1
LASER KLASSE 1
LOUKAN 1 LASERLAITE
PRODUIT LASER
CATEGORIE 1

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.

ADVARSEL!

Lithiumbatteri - Eksplosionsfare ved fejlagtig håndtering. Udskiftning må kun ske med batteri af samme fabrikat og type. Léver det brugte batteri tilbage til leverandøren.

ADVARSEL

Eksplosjonsfare ved feilaktig skifte av batteri. Benytt samme batteritype eller en tilsvarende type anbefalt av apparatfabrikanten. Brukte batterier kasseres i henhold til fabrikantens instruksjoner.

WARNING

Explosionsfara vid felaktigt batteribyte. Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren. Kassera använt batteri enligt fabrikantens instruktion.

VAROITUS

Päristo voi räjähtää, jos se on virheellisesti asennettu. Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin. Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

VORSICHT!

Explosionsgefahr bei unsachgemäßen Austausch der Batterie Ersatz nur durch denselben oder einem vom Hersteller empfohlenem ähnlichen Typ. Entsorgung gebrauchter Batterien nach Angaben des Herstellers.

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.

About this Manual

Purpose

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

Manual Structure

This user's guide consists of two chapters.

Chapter 1 System Board

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

Chapter 2 BIOS Utility

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

Conventions

The following are the conventions used in this manual:

Text entered by user

Represents text input by the user.

Screen messages

Denotes actual messages that appear on the screen.

 ,  ,  , etc.

Represent the actual keys that you have to press on the keyboard.



NOTE

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



WARNING

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



CAUTION

Gives precautionary measures to avoid possible hardware or software problems.



IMPORTANT

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



TIP

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

Table of Contents

Chapter 1 System Board

1.1	Features.....	1-2
1.2	System Board Layout	1-3
1.3	ESD Precautions	1-4
1.4	Pre-installation Instructions.....	1-4
1.5	Pentium II Processor	1-5
1.5.1	Installing a Pentium II Processor	1-6
1.5.2	Removing a Pentium II Processor	1-8
1.6	Jumpers and Connectors	1-9
1.7	Installing Memory.....	1-12
1.7.1	Installing a DIMM.....	1-19
1.7.2	Removing a DIMM.....	1-20
1.7.3	Reconfiguring the System	1-20
1.8	Installing Expansion Cards	1-21
1.8.1	Installing the PCI Card.....	1-21
1.8.2	Installing the ISA Cards	1-22
1.8.3	Installing the AGP Card	1-23
1.9	Post-installation Instructions.....	1-25
1.10	USB	1-25
1.11	Hardware Monitor Function	1-26
1.12	Error Messages	1-27
1.12.1	Software Error Messages	1-27
1.12.2	System Error Messages	1-27
1.12.3	Correcting Error Conditions	1-30

Chapter 2 BIOS Utility

2.1	Entering Setup	2-2
2.2	System Information	2-3
2.2.1	Processor.....	2-4
2.2.2	Processor Speed	2-4
2.2.3	Internal Cache.....	2-4
2.2.4	External Cache	2-5
2.2.5	Floppy Drive A	2-5
2.2.6	Floppy Drive B	2-5
2.2.7	IDE 1st Channel Master.....	2-5
2.2.8	IDE 1st Channel Slave.....	2-5
2.2.9	IDE 2nd Channel Master.....	2-6
2.2.10	IDE 2nd Channel Slave.....	2-6
2.2.11	Total Memory	2-6
2.2.12	Serial Port 1	2-7
2.2.13	Serial Port 2	2-7
2.2.14	Parallel Port	2-7
2.2.15	Pointing Device	2-7
2.2.16	Memory Parity Mode	2-7
2.2.17	USB Host Controller.....	2-8
2.2.18	Product Information	2-8

2.3	Basic Configuration.....	2-9
2.3.1	Date and Time.....	2-10
2.3.2	Floppy Drives.....	2-11
2.3.3	IDE Drives	2-11
2.3.4	Boot Options.....	2-15
2.4	Advanced Configuration	2-18
2.4.1	Internal Cache (CPU Cache).....	2-18
2.4.2	External Cache	2-18
2.4.3	Cache Scheme.....	2-19
2.4.4	Memory at 15MB-16MB Reserved For.....	2-19
2.4.5	Memory Parity Mode.....	2-19
2.4.6	C8000h-DFFFFh Shadow	2-19
2.4.7	Onboard Peripheral Configuration.....	2-19
2.4.8	PnP/PCI System Configuration	2-26
2.5	System Security Setup	2-29
2.5.1	Disk Drive Control.....	2-29
2.5.2	Setup Password	2-30
2.5.3	Power-on Password	2-33
2.6	Power Management.....	2-34
2.6.1	Power Management Mode	2-34
2.7	Exit Setup Utility.....	2-36
2.7.1	Save CMOS Settings and Exit.....	2-36
2.7.2	Load Previous Settings and Exit.....	2-36
2.7.3	Load Default Settings	2-36
2.7.4	Save CMOS Settings.....	2-37
2.7.5	Abort Settings Change	2-37

List of Figures

1-1	System Board Layout.....	1-1
1-2	Installing the Retention Mechanism	1-6
1-3	Installing a Pentium II Processor	1-7
1-4	Removing a Pentium II Processor	1-8
1-5	Jumper and Connector Locations.....	1-9
1-6	CN12 - Reset Sw., Power Sw., and Turbo LED connector locations	1-10
1-7	Installing a DIMM	1-19
1-8	Removing a DIMM	1-20
1-9	Installing a PCI Card	1-21
1-10	Installing an ISA Card	1-23
1-11	Installing an AGP Card	1-24

List of Tables

1-1	System Board Switch Settings.....	1-10
1-2	Core/Bus Pentium Clock Ration	1-11
1-3	Onboard Connectors.....	1-11
1-4	Memory Configurations.....	1-12
1-5	System Error Messages.....	1-28
2-1	Parallel Port Operation Mode Settings.....	2-24
2-2	Drive Control Settings	2-30

System Board

This high-performance system board is built on an ATX baseboard utilizing an Intel Pentium® II processor running at 233/66, 266/66, and 300/66 MHz. It has two ISA, four PCI, and one AGP slots (with one PCI- and ISA-shared slot) for future expansion. The onboard three DIMMs sockets allow memory upgrade to a maximum of 384 MB and supports both SDRAM and EDO DRAM memory.

It also supports the USB (Universal Serial Bus) connector, and other standard features such as two UART NS16C550 serial ports, one enhanced parallel port with Enhanced Parallel Port (EPP)/Extended Capabilities Port (ECP) feature, a diskette drive interface, and an embedded hard disk interface. The system has an optional IrDA (Infrared Data Association) interface for remote control function. The board also include a built-in 10/100 Mb/s Intel 82558 LAN chip that supports Wake-On-LAN (WOL).

The system supports the power-management function that conforms to the power-saving standards of the U.S. Environmental Protection Agency (EPA) Energy Star program. It also offers the Plug-and-Play feature. This feature saves the user from configuration troubles, thus making the system more user-friendly.

The system is fully compatible with MS-DOS V6.X, OS/2, UNIX, Windows NT and Windows 95 operating systems.

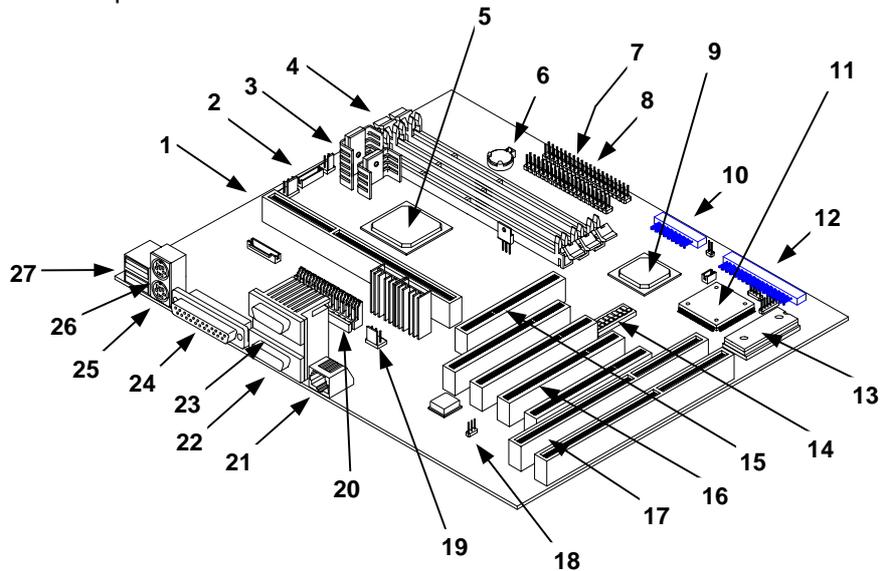
1.1 Features

The system board has the following features and components:

- Intel Pentium II CPU processor (233/66, 266/66, and 300/66 MHz.)
- 384-MB maximum system memory
- Three DIMM sockets that accept 8-, 16-, 32-, 64- and 128-MB DIMMs
- 256-KB or 512-KB pipelined-burst second-level cache built-in Pentium II CPU
- Integrates an enhanced PCI local bus IDE controller
- Intel 440LX chipset supports AGP (Accelerated Graphics Port) and Ultra DMA/33 functions
- 256KB Flash ROM for system BIOS
- Two ISA, four PCI, and one AGP expansion slots (one PCI- and ISA-shared slot)
- Dual NS16C550 buffered serial ports and one SPP/ECP/EPP parallel port
- Intel 82558 LAN chip, supports WOL.
- USB interface that enables the system to support more peripherals
- IrDA Interface supported (optional)
- PS/2 mouse and keyboard interface
- Power-management function

1.2 System Board Layout

Figure 1-1 shows the board layout and the locations of the important components.



- | | | | |
|----|---------------------------------|----|-----------------------------|
| 1 | CPU port | 15 | AGP slots |
| 2 | Fan connector 1,2, and 3 | 16 | PCI slots |
| 3 | Voltage Regulator with Heatsink | 17 | ISA slots |
| 4 | DIMM sockets | 18 | Wake on LAN (WOL) connector |
| 5 | System Chipset FX82443LX | 19 | Standby Power connector |
| 6 | RTC battery | 20 | Power Connector |
| 7 | IDE 2 connector | 21 | LAN Connector |
| 8 | IDE 1 connector | 22 | COM 1 port |
| 9 | System Chipset PIIX4 82371AB | 23 | COM 2 port |
| 10 | Multifunction connector | 24 | Parallel port |
| 11 | System Chipset FDC37C935 | 25 | PS/2 keyboard connector |
| 12 | Floppy connector | 26 | PS/2 mouse connector |
| 13 | System BIOS Chip | 27 | USB ports |
| 14 | Core/Bus Clock switch | | |

Figure 1-1 System Board Layout



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

1.3 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.

1.4 Pre-installation Instructions

Always observe the following before you install a system component:

1. Turn off the system power and all the peripherals connected to the unit before opening it.
2. Open the system according to the instructions in the housing installation manual.
3. Follow the ESD precautions in section 1.3 before handling a system component.
4. Remove any expansion boards or peripherals that block access to the DIMM sockets or CPU socket.
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.

1.5 Pentium II Processor

The board supports the Pentium II processor - a module that consists of a Pentium Pro technology-based CPU and a second-level cache. It utilizes the new enclosed packaging technology called S.E.C (single-edge contact) cartridge, that allows the second-level cache to remain tightly coupled to the processor. It is capable of increasing the performance of 32-bit software and multimedia applications

The Pentium II processor also supports the following features:

- 64-bit Pentium Pro technology-based CPU running a 233 or 266 MHz
- MMX technology support for multimedia functions
- 32-KB internal cache size
- 256-/512-KB write-back second-level cache size
- Non-blocking architecture to prevent CPU stalls during cache, memory and I/O accesses

1.5.1 Installing a Pentium II Processor



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

Follow these steps to install a Pentium II processor:

1. Place the retention mechanism over the CPU connector on the system board. Secure it with the screws that came with the package.

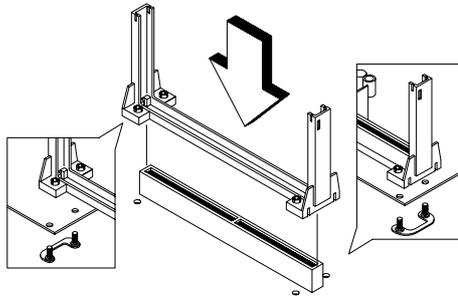


Figure 1-2 Installing the Retention Mechanism

2. Remove the Pentium II processor from its protective packaging. Make sure that the latches on the sides of the module are not pressed.
3. With the processor card golden fingers pointing downward, align the processor to the posts of the retention mechanism.
4. Lower the processor into to the CPU connector on the system board until the golden fingers touch the connector.

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

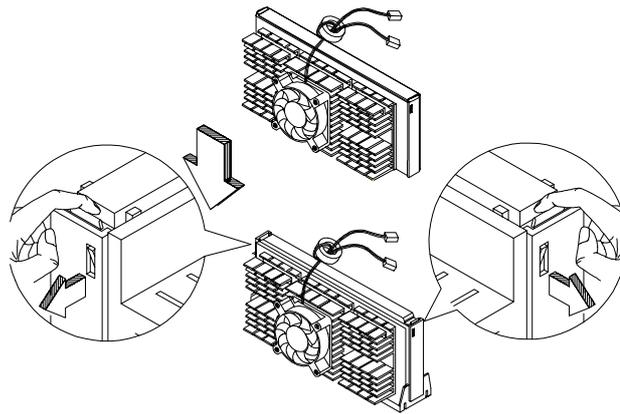


Figure 1-3 Installing a Pentium II Processor

1.5.2 Removing a Pentium II Processor



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

Follow these steps to remove the Pentium II processor:

1. Press the latches on both sides of the processor to release it from the retention mechanism. You will hear a click sound once the latch is released.
2. Pull the processor to totally detach it from the CPU connector.

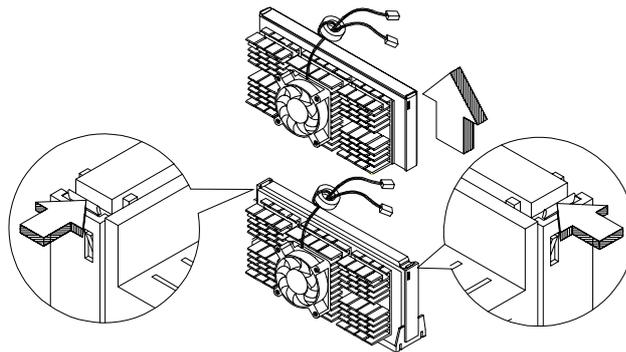


Figure 1-4 Removing a Pentium II Processor

1.6 Jumpers and Connectors

Figure 1-5 shows the jumper and connector locations.

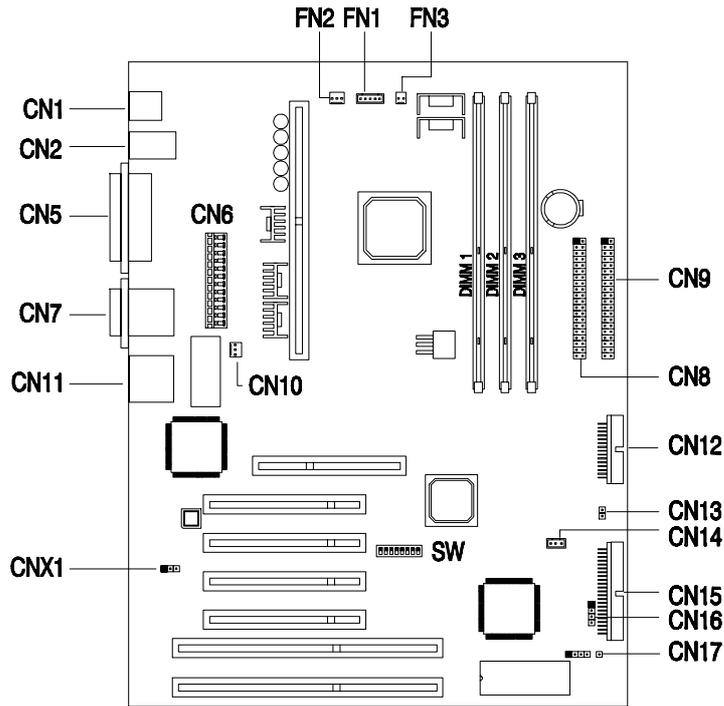


Figure 1-5 Jumper and Connector Locations



The shaded pin indicates pin 1.

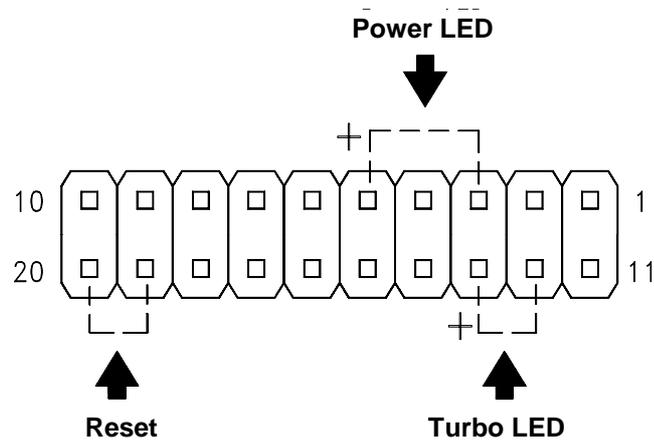


Figure 1-6 CN12 - Reset Sw., Power LED, and Turbo LED connector locations

The following tables list the jumper settings and their corresponding functions:

Table 1-1 System Board Switch Settings

Switch	Setting	Function
SW1	On Off	60 MHz 66 MHz*
Sw2	On Off	Bypass Password* Check Password
SW3	On Off	OEM BIOS Acer BIOS*

* Default setting

Table 1-2 Core/Bus Pentium Clock Ratio

SW5	SW6	SW7	SW8	Core/Bus Pentium
On	On	On	On	2
Off	On	On	On	4 (266 MHz CPU)
On	Off	Off	On	3.5 (233 MHz CPU)*
Off	On	Off	On	4.5 (300 MHz CPU)

Table 1-3 Onboard Connectors

Connector	Function
CN1	USB Connector
CN2	Keyboard and Mouse Connector
CN5	Parallel Port
CN6	Power Connector
CN7	Serial Port (Com1 and Com2)
CN8	Secondary IDE Connector
CN9	Primary IDE Connector
CN10	Standby Power Connector
CN11	LAN Connector
CN12	Multifunction Connector (see Figure 1-5)
CN13	Power SW Connector
CN14	Modem Ring Connector
CN15	Floppy Connector
CN16	HDD LED Connector
CN17	IRDA Board Connector
FN1	CPU Fan Connector (5 pin)
FN2	CPU Fan Connector (3 pin)
FN3	CPU Fan Connector (2 pin)
CNx1	Wake on LAN (WOL) Connector

1.7 Installing Memory

The system memory is expandable to 384 MB by adding DIMMs (Dual In-line Memory Modules). See Figure 1-1 for the location of the DIMM sockets. Section 1.7.1 tells how to install DIMMs.

The 168-pin DIMM sockets on the system board accept 8-, 16-, 32-, 64- and 128-MB DIMMs, with 16 MBit and 64 MBit SDRAM technology support. Table 1-5 lists the possible memory configurations.

Table 1-4 Memory Configurations

DIMM 1	DIMM 2	DIMM 3	Total Memory
8 MB	-	-	8 MB
16 MB	-	-	16 MB
32 MB	-	-	32 MB
64 MB	-	-	64 MB
128 MB	-	-	128 MB
8 MB	8 MB	-	16 MB
8 MB	16 MB	-	24 MB
8 MB	32 MB	-	40 MB
8 MB	64 MB	-	72 MB
8 MB	128 MB	-	136 MB
8 MB	-	8 MB	16 MB
8 MB	-	16 MB	24 MB
8 MB	-	32 MB	40 MB
8 MB	-	64 MB	72 MB
8 MB	-	128 MB	136 MB
16 MB	8 MB	-	24 MB
16 MB	16 MB	-	32 MB
16 MB	32 MB	-	48 MB
16 MB	64 MB	-	80 MB
16 MB	128 MB	-	144 MB

Table 1-4 Memory Configurations

DIMM 1	DIMM 2	DIMM 3	Total Memory
16 MB	-	8 MB	24 MB
16 MB	-	16 MB	32 MB
16 MB	-	32 MB	48 MB
16 MB	-	64 MB	80 MB
16 MB	-	128 MB	144 MB
32 MB	8 MB	-	40 MB
32 MB	16 MB	-	48 MB
32 MB	32 MB	-	64 MB
32 MB	64 MB	-	96 MB
32 MB	128 MB	-	160 MB
32 MB	-	8 MB	40 MB
32 MB	-	16 MB	48 MB
32 MB	-	32 MB	64 MB
32 MB	-	64 MB	96 MB
32 MB	-	128 MB	160 MB
64 MB	8 MB	-	72 MB
64 MB	16 MB	-	80 MB
64 MB	32 MB	-	96 MB
64 MB	64 MB	-	128 MB
64 MB	128 MB	-	192 MB
64 MB	-	8 MB	80 MB
64 MB	-	16 MB	96 MB
64 MB	-	32 MB	96 MB
64 MB	-	64 MB	112 MB
64 MB	-	128 MB	192 MB
128 MB	8 MB	-	136 MB
128 MB	16 MB	-	144 MB
128 MB	32 MB	-	160 MB

Table 1-4 Memory Configurations

DIMM 1	DIMM 2	DIMM 3	Total Memory
128 MB	64 MB	-	192 MB
128 MB	128 MB	-	256 MB
128 MB	-	8 MB	136 MB
128 MB	-	16 MB	144 MB
128 MB	-	32 MB	160 MB
128 MB	-	64 MB	192 MB
128 MB	-	128 MB	256 MB
8 MB	8 MB	8 MB	24 MB
8 MB	8 MB	16 MB	32 MB
8 MB	8 MB	32 MB	48 MB
8 MB	8 MB	64 MB	80 MB
8 MB	8 MB	128 MB	144 MB
8 MB	16 MB	8 MB	32 MB
8 MB	16 MB	16 MB	40MB
8 MB	16 MB	32 MB	56 MB
8 MB	16 MB	64 MB	88 MB
8 MB	16 MB	128 MB	152 MB
8 MB	32 MB	8 MB	48 MB
8 MB	32 MB	16 MB	56 MB
8 MB	32 MB	32 MB	72 MB
8 MB	32 MB	64 MB	104 MB
8 MB	32 MB	128 MB	168 MB
8 MB	64 MB	8 MB	80 MB
8 MB	64 MB	16 MB	88 MB
8 MB	64 MB	32 MB	104 MB
8 MB	64 MB	64 MB	136 MB
8 MB	64 MB	128 MB	200 MB
8 MB	128 MB	8 MB	144 MB

Table 1-4 Memory Configurations

DIMM 1	DIMM 2	DIMM 3	Total Memory
8 MB	128 MB	16 MB	152 MB
8 MB	128 MB	32 MB	168 MB
8 MB	128 MB	64 MB	200 MB
8 MB	128 MB	128 MB	264 MB
16 MB	8 MB	8 MB	32 MB
16 MB	8 MB	16 MB	40 MB
16 MB	8 MB	32 MB	56 MB
16 MB	8 MB	64 MB	88 MB
16 MB	8 MB	128 MB	152 MB
16 MB	16 MB	8 MB	40 MB
16 MB	16 MB	16 MB	48 MB
16 MB	16 MB	32 MB	64 MB
16 MB	16 MB	64 MB	96 MB
16 MB	16 MB	128 MB	160 MB
16 MB	32 MB	8 MB	56 MB
16 MB	32 MB	16 MB	64 MB
16 MB	32 MB	32 MB	80 MB
16 MB	32 MB	64 MB	112 MB
16 MB	32 MB	128 MB	176 MB
16 MB	64 MB	8 MB	88 MB
16 MB	64 MB	16 MB	96 MB
16 MB	64 MB	32 MB	112 MB
16 MB	64 MB	64 MB	144 MB
16 MB	64 MB	128 MB	208 MB
16 MB	128 MB	8 MB	152 MB
16 MB	128 MB	16 MB	160 MB
16 MB	128 MB	32 MB	176 MB
16 MB	128 MB	64 MB	208 MB

Table 1-4 Memory Configurations

DIMM 1	DIMM 2	DIMM 3	Total Memory
16 MB	128 MB	128 MB	272 MB
32 MB	8 MB	8 MB	48 MB
32 MB	8 MB	16 MB	56 MB
32 MB	8 MB	32 MB	72 MB
32 MB	8 MB	64 MB	104 MB
32 MB	8 MB	128 MB	168 MB
32 MB	16 MB	8 MB	56 MB
32 MB	16 MB	16 MB	64 MB
32 MB	16 MB	32 MB	80 MB
32 MB	16 MB	64 MB	112 MB
32 MB	16 MB	128 MB	176 MB
32 MB	32 MB	8 MB	72 MB
32 MB	32 MB	16 MB	80 MB
32 MB	32 MB	32 MB	96 MB
32 MB	32 MB	64 MB	128 MB
32 MB	32 MB	128 MB	192 MB
32 MB	64 MB	8 MB	104 MB
32 MB	64 MB	16 MB	112 MB
32 MB	64 MB	32 MB	128 MB
32 MB	64 MB	64 MB	160 MB
32 MB	64 MB	128 MB	224 MB
32 MB	128 MB	8 MB	168 MB
32 MB	128 MB	16 MB	176 MB
32 MB	128 MB	32 MB	192 MB
32 MB	128 MB	64 MB	224 MB
32 MB	128 MB	128 MB	288 MB
64 MB	8 MB	8 MB	80 MB
64 MB	8 MB	16 MB	88 MB

Table 1-4 Memory Configurations

DIMM 1	DIMM 2	DIMM 3	Total Memory
64 MB	8 MB	32 MB	104 MB
64 MB	8 MB	64 MB	136 MB
64 MB	8 MB	128 MB	200 MB
64 MB	16 MB	8 MB	88 MB
64 MB	16 MB	16 MB	96 MB
64 MB	16 MB	32 MB	112 MB
64 MB	16 MB	64 MB	144 MB
64 MB	16 MB	128 MB	208 MB
64 MB	32 MB	8 MB	104 MB
64 MB	32 MB	16 MB	112 MB
64 MB	32 MB	32 MB	128 MB
64 MB	32 MB	64 MB	160 MB
64 MB	32 MB	128 MB	224 MB
64 MB	64 MB	8 MB	136 MB
64 MB	64 MB	16 MB	144 MB
64 MB	64 MB	32 MB	160 MB
64 MB	64 MB	64 MB	192 MB
64 MB	64 MB	128 MB	256 MB
64 MB	128 MB	8 MB	200 MB
64 MB	128 MB	16 MB	208 MB
64 MB	128 MB	32 MB	224 MB
64 MB	128 MB	64 MB	256 MB
64 MB	128 MB	128 MB	320 MB
128 MB	8 MB	8 MB	144 MB
128 MB	8 MB	16 MB	152 MB
128 MB	8 MB	32 MB	168 MB
128 MB	8 MB	64 MB	200 MB
128 MB	8 MB	128 MB	264 MB

Table 1-4 Memory Configurations

DIMM 1	DIMM 2	DIMM 3	Total Memory
128 MB	16 MB	8 MB	152 MB
128 MB	16 MB	16 MB	160 MB
128 MB	16 MB	32 MB	176 MB
128 MB	16 MB	64 MB	208 MB
128 MB	16 MB	128 MB	272 MB
128 MB	32 MB	8 MB	168 MB
128 MB	32 MB	16 MB	176 MB
128 MB	32 MB	32 MB	192 MB
128 MB	32 MB	64 MB	224 MB
128 MB	32 MB	128 MB	288 MB
128 MB	64 MB	8 MB	200 MB
128 MB	64 MB	16 MB	208 MB
128 MB	64 MB	32 MB	224 MB
128 MB	64 MB	64 MB	256 MB
128 MB	64 MB	128 MB	320 MB
128 MB	128 MB	8 MB	264 MB
128 MB	128 MB	16 MB	272 MB
128 MB	128 MB	32 MB	288 MB
128 MB	128 MB	64 MB	320 MB
128 MB	128 MB	128 MB	384 MB

1.7.1 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 of the DIMM and the socket.

-
2. Gently push the DIMM until the holding clips lock the DIMM into a vertical position.

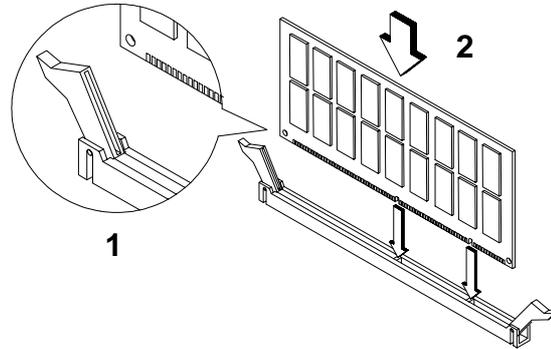


Figure 1-7 Installing a DIMM



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

1.7.2 Removing a DIMM

To remove 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.

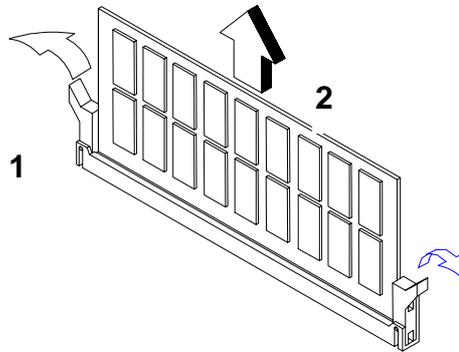


Figure 1-8 Removing a DIMM

1.7.3 Reconfiguring the System

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

1.8 Installing Expansion Cards

1.8.1 Installing the PCI Card

To install PCI cards:

1. Locate the PCI slot(s) on the mainboard.
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.

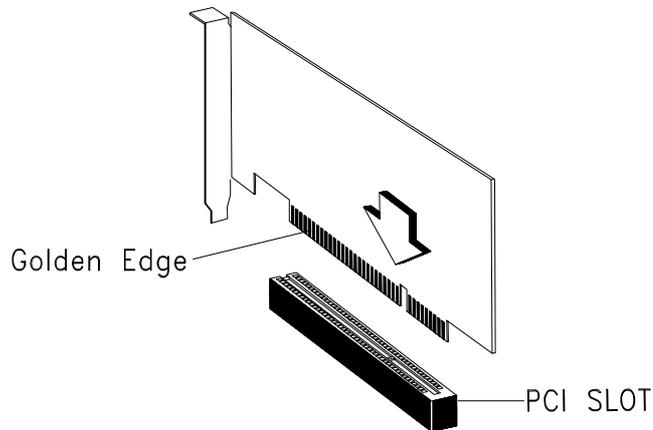


Figure 1-9 Installing a PCI Card

1.8.2 Installing the 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 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.

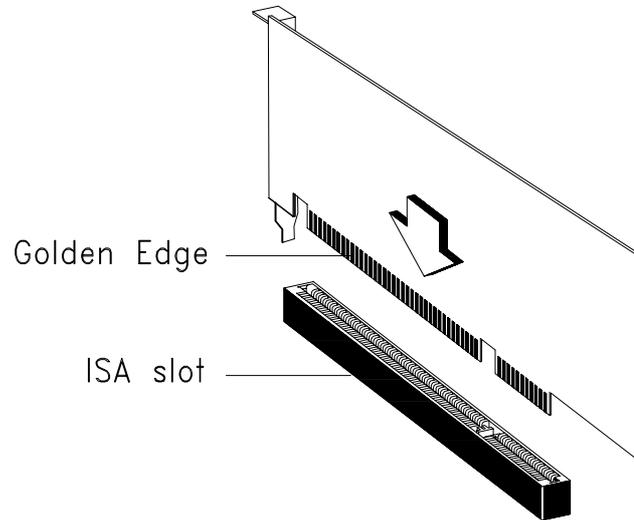


Figure 1-10 Installing an ISA Card

1.8.3 Installing the AGP Card

When installing AGP card, make sure that the IRQs required by these cards are not previously assigned to PCI or ISA devices to avoid resource conflicts.

Follow these steps when installing AGP card:

1. Locate the AGP slot on the mainboard.
2. Insert an AGP card into the slot. Make sure that the card is properly seated.

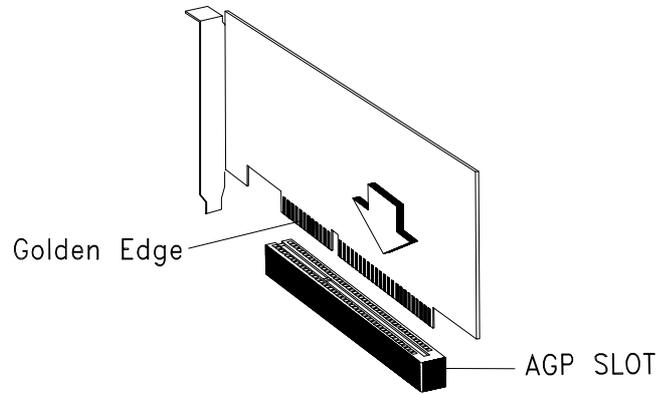


Figure 1-11 Installing an AGP Card

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



BIOS detects and configures only PnP cards.

1.9 Post-installation Instructions

Observe the following after installing a system component:

1. See to it that the components are installed according to the step-by-step instructions in their respective sections.
2. Make sure you have set all the required jumpers. See section 1.6 for the correct jumper settings.
3. Replace any expansion boards or peripherals that you removed earlier.
4. Replace the system cover.
5. Connect the necessary cables and turn on the system.

1.10 USB

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

See Figure 1-1 for the location of the USB interface on the system board.

1.11 Hardware Monitor Function

The Hardware Monitor function of the system board allows you to check the system resources, either locally or in a computer network, via software such as Acer ADM (Advanced Desktop Management) or Intel LDCM (LAN Desk Client Manager). Acer ADM and Intel LDCM are desktop management programs that offer SMART (System Monitoring Analysis and Reporting Technology) monitor function for checking local or network connected systems. In addition, it also enables the PC products and applications to be OS independent.

To enable the Hardware Monitor function, you need to install either ADM or Intel LDCM. Contact your dealer for information on the availability of the software. Refer to the software documentation for more details on the Hardware Monitor function.

1.12 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

1.12.1 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.

1.12.2 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 1-5 lists the system error messages in alphabetical order.

Table 1-5 System Error Messages

Error Message	Corrective Action
Bad CMOS Battery	Replace battery. Contact your dealer.
CMOS Checksum Error	Run Setup.
DRAM Configuration Error	Check and modify DRAM configuration to agree with Table 1-5.
Equipment Configuration Error	Run Setup.
Floppy Drive Controller Error	Check and connect the cable to the floppy drive or controller.
Floppy Drive Error	Floppy may be bad. If not, check the floppy drive and replace if necessary.
Hard Disk Controller Error	Check and connect the cable to the hard disk drive or controller.
Hard Disk 0 Error	Check all cable connections. Check the hard disk and replace if necessary.
Hard Disk 1 Error	Check all cable connections. Check the hard disk and replace if necessary.
Hard Disk 0 Extended Type Error	Run Setup.
Hard Disk 1 Extended Type Error	Run Setup.
I/O Parity Error	Contact your dealer.
Keyboard Error or No Keyboard Connected	Check and connect the keyboard to the system unit.

Table 1-5 System Error Messages (continued)

Error Message	Corrective Action
Keyboard Interface Error	Contact your dealer.
Keyboard Locked	Unlock the keyboard.
Memory Error	Check DIMMs on the system board. Contact your dealer.
Memory Size Mismatch	Run Setup.
Serial 1 Conflict	Run Setup. Disable Onboard Serial 1.
Serial 2 Conflict	Run Setup. Disable Onboard Serial 2.
Parallel Port Conflict	Run Setup. Disable Onboard Parallel Port.
Pointing Device Error	Check or connect the pointing device. Contact your dealer.
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	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.
Shadow RAM Fail	Contact your dealer.
System Memory Address Error	Check DIMMs on system board or contact your dealer.

1.12.3 Correcting Error Conditions

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:

1. Run Setup. 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 configuration is a major cause of power-on error messages, especially for a new system.
2. Remove the system cover according to the directions in the system housing installation guide. Check that the system board and any expansion boards are set correctly.
3. If you cannot access a new disk, it may be because your disk is not physically formatted. Physically format the disk using the FDISK and FORMAT commands.
4. Check that all connectors and boards are secure. Consult the system housing installation guide for assistance.

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.

BIOS Utility

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

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



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

Before running Setup, have the following information ready:

- **Floppy drive type** The standard type is either a 5.25-inch 1.2-MB or a 3.5-inch 1.44-MB floppy drive.
- **IDE hard disk drive type** The drive information is on the label pasted on your IDE drive or in the documentation supplied by the vendor.

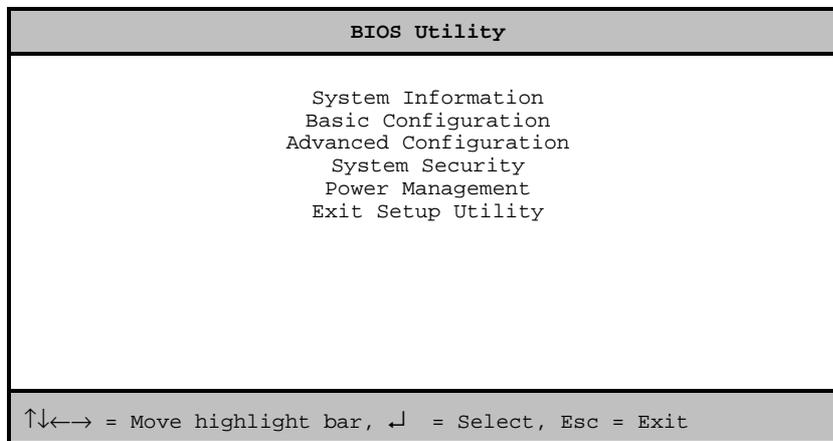
2.1 Entering Setup

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



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

The BIOS Utility Main menu then appears:



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.

2.2 System Information

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

System Information		Page 1/2
Processor.....	Pentium II	
Processor Speed.....	266 MHz	
Internal Cache	32 KB, Enabled	
External Cache	512 KB, Enabled	
Floppy Drive A.....	1.44 MB, 3.5-inch	
Floppy Drive B.....	None	
IDE 1st Channel Master.....	Hard Disk, 519 MB	
IDE 1st Channel Slave.....	None	
IDE 2nd Channel Master.....	CD-ROM	
IDE 2nd Channel Slave.....	None	
Total Memory.....	16 MB	
1st Bank.....	None	
2nd Bank.....	SDRAM	
3rd Bank.....	None	

PgDn/PgUp = Move Screen, Esc = Back to Main Menu

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

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

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

Press **[ESC]** to return to the Main menu.

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

System Information		Page 2/2
Serial Port 1	3F8h, IRQ 4	
Serial Port 2	2F8h, IRQ 3	
Parallel Port	378h, IRQ 7	
Pointing Device	Installed	
Memory Parity Mode	Disabled	
USB Host Controller	Disabled	
Product Information		
PgDn/PgUp = Move Screen, Esc = Back to Main Menu		

The following sections explain the parameters.

2.2.1 Processor

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

2.2.2 Processor Speed

The Processor Speed parameter specifies the speed of the CPU currently installed in your system. The system can support CPUs running from 233 MHz to 300 MHz.

2.2.3 Internal Cache

This parameter specifies the first-level or the internal memory (i.e., the memory integrated into the CPU) size.

2.2.4 External Cache

This parameter specifies the external cache memory size currently supported by the system.

2.2.5 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 2.3.2.

2.2.6 Floppy Drive B

This parameter specifies the system's current floppy drive B settings. For information on how to configure the floppy drives, see section 2.3.2.

2.2.7 IDE 1st 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 drives, see section 2.3.3.

2.2.8 IDE 1st 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 drives, see section 2.3.3.

2.2.9 IDE 2nd 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 drives, see section 2.3.3.

2.2.10 IDE 2nd 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 drives, see section 2.3.3.

2.2.11 Total Memory

This parameter specifies the total amount of onboard memory. The memory size is automatically detected by BIOS during the POST. 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 1st Bank or DIMM 1. The `None` setting indicates that there is no DRAM installed. For the location of the 1st Bank or DIMM 1, refer to Figure 1-1.

2nd Bank

This parameter indicates the type of DRAM installed in the 2nd Bank or DIMM 2. The `None` setting indicates that there is no DRAM installed. For the location of the 2nd Bank or DIMM 2, refer to Figure 1-1.

3rd Bank

This parameter indicates the type of DRAM installed in the 3rd Bank or DIMM 3. The `None` setting indicates that there is no DRAM installed. For the location of the 3rd Bank or DIMM 3, refer to Figure 1-1.

2.2.12 Serial Port 1

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

2.2.13 Serial Port 2

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

2.2.14 Parallel Port

This parameter shows the parallel port address and IRQ settings.

2.2.15 Pointing Device

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`.

2.2.16 Memory Parity Mode

This parameter allows you to enable or disable (Default) the ECC feature.

2.2.17 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 also deactivates the function.

2.2.18 Product Information

This parameter specifies the product name, version of the BIOS, identification number of the BIOS, and others.

Product Information		Page 1/1
Product Name -----	Acer Power 6100	
System S/N -----	ACRS12345677721	
Main Board ID -----	V65X	
Main Board S/N -----	55.38501.001	
System BIOS Version -----	V3.0	
System BIOS ID -----	R01-A2 EN	
BIOS Release Date -----	Aug 08, '97	

Esc = Back to Main Menu

2.3 Basic Configuration

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

The following screen shows the Basic Configuration menu.

```
Basic Configuration                               Page 1/1
Date ..... [MM/DD/YY]
Time ..... [HH:MM:SS]

Floppy Drive A ..... [xx-MB   xx-inch]
Floppy Drive B ..... [xx-MB   xx-inch]

>IDE Primary Channel Master
>IDE Primary Channel Slave
>IDE Secondary Channel Master
>IDE Secondary Channel Slave

>Boot Options

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

2.3.1 Date and Time

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

Date

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

Valid values for month, day, and year are:

- Month 1 to 12
- Day 1 to 31
- Year 1980 to 2099

Time

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

Valid values for hour, minute, and second are:

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

2.3.2 Floppy Drives

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

Possible settings for the Floppy Drive parameters:

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

Follow the same procedure for Floppy Drive B. Choose **None** if you do not have a second floppy drive.

2.3.3 IDE Drives

To configure the IDE drives connected to your system, select the parameter that represents the channel and port 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 to the master port of IDE channel 1.

IDE Primary Channel Slave

This parameter lets you configure the hard disk drive connected to the slave port of IDE channel 1.

IDE Secondary Channel Master

This parameter lets you configure the hard disk drive connected to the master port of IDE channel 2.

IDE Secondary Channel Slave

This parameter lets you configure the hard disk drive connected to the slave port of IDE channel 2.

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

IDE Primary Channel Master		Page 1/1
Type	[Auto]	
Cylinder	[xxxx]	
Head	[xxxx]	
Sector	[xxxx]	
Size	[xxxx] MB	
Hard Disk Block Mode	[Auto]	
Advanced PIO Mode	[Auto]	
Hard Disk Size > 504MB	[Auto]	
Hard Disk 32 Bit Access	[Enabled]	
CD-ROM Drive DMA Mode	[Disabled]	

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

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 by selecting **User**.

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

CYLINDERS

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

HEAD

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

SECTORS

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

SIZE

This parameter specifies the size of your hard disk, in MB. This is automatically set depending on your Type parameter setting.

Enhanced IDE Features

HARD DISK BLOCK MODE

This function enhances disk performance depending on the hard disk in use. If you set this parameter to *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*.

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 to better hard disk performance. To disregard the feature, change the setting to *Disabled*.

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, enhanced IDE feature works only under DOS and Windows 3.x, 95 environment. Other operating systems require this parameter to be set to *Disabled*.

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, and Novell NetWare. If your software or hard disk does not support this function, set this parameter to *Disabled*.

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*.

2.3.4 Boot Options

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

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

Boot Options		Page 1/1
Fast Boot	[Auto]	
Silent Boot	[Enabled]	
Num Lock After Boot	[Enabled]	
Memory Test	[Disabled]	
System Boot Drive	[Drive A Then C]	
Boot From CD-ROM	[Disabled]	

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

Fast Boot

This parameter allows the system to boot faster by skipping some POST routines. The default setting is *Auto*.

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. After which the screen displays the operating system prompt (such as DOS) or logo (such as Windows 95). If any error occurred while booting, the system automatically switches to the text mode.

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

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

Num Lock After Boot

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

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`.

System Boot Drive

This parameter allows you to specify the system search sequence. The selections are:

- `Drive A then C`: The system checks drive A first. If there is a diskette in the drive, the system boots from drive A. Otherwise, it boots from drive C.
- `Drive C then A`: The system checks drive C first. If there is a hard disk (drive C) installed, the system boots from drive C. Otherwise, it boots from drive A.
- `C`: The system always boots from drive C.
- `A`: The system always boots from drive A.

Boot from CD-ROM

When set to *Enabled*, the system checks for a bootable CD in the CD-ROM drive. If a CD is present, the system boots from the CD-ROM; otherwise, it boots from the drive specified in the System Boot Drive parameter.

When set to *Disabled*, the system boots from the drive specified in the System Boot Drive parameter.

2.4 Advanced Configuration

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



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

The following screen shows the Advanced Configuration parameters.

```
Advanced Configuration                                     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]

Onboard Peripheral Configuration
PnP/PCI System Configuration

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

2.4.1 Internal Cache (CPU Cache)

This parameter enables or disables the internal cache memory. The default is set to **Enabled**.

2.4.2 External Cache

This parameter enables or disables the external cache memory. The default is set to **Enabled**.

2.4.3 Cache Scheme

This parameter is fixed to write back. Write Back cache updates the cache locations during a write operation only.

2.4.4 Memory at 15MB-16MB Reserved For

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

2.4.5 Memory Parity Mode

This parameter allows you to enable or disable (Default) the ECC feature.

2.4.6 C8000h-DFFFFh Shadow

The system reserves 384 KB of random access memory (RAM) for the shadow RAM function. When you set these addresses to *Enabled*, the I/O ROM BIOS run directly from the shadow RAM for faster operation.

2.4.7 Onboard Peripheral Configuration

The Onboard Peripheral Configuration allows you to configure the onboard communication ports and the onboard devices. Selecting this option from the Advanced menu displays the following screen:

Onboard Devices Configuration		Page 1/1
Floppy Disk Controller	[Enabled]	
IDE Controller	[Both]	
PS/2 Mouse Controller	[Enabled]	
USB Host Controller	[Disabled]	
USB Legacy Mode	[Disabled]	
Onboard Serial/Parallel Port Settings		
↑↓ = Move Highlight Bar, → ← = Change Setting, F1 = Help		

Floppy Disk Controller

This parameter lets you enable or disable the onboard floppy disk controller.

Onboard IDE Controller

Setting this parameter to `Primary` enables only the primary IDE controllers. To enable both primary and secondary IDE controllers set to `Both`. To disable both primary and secondary IDE controllers choose `Disabled`.

PS/2 Mouse Controller

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

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 also deactivates the function.

USB LEGACY MODE

This function, when enabled, lets you use a USB keyboard in DOS environment. Set this to Disabled to deactivate the USB keyboard function in DOS environment.

Onboard Serial/Parallel Port Settings

Onboard Serial/Parallel Port Settings		Page 1/1
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	----- [ECP]	
ECP DMA Channel	----- [1]	

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

SERIAL PORT 1

This parameter allows you to enable or disable the serial port 1.

BASE ADDRESS

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

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

IRQ

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



The Base Address and IRQ parameters are configurable only if Serial Port 1 is enabled.

SERIAL PORT 2

This parameter allows you to enable or disable the serial port 2.

BASE ADDRESS

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

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

IRQ

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



The Base Address and IRQ parameters are configurable only if Serial Port 2 is enabled.

PARALLEL PORT

This parameter allows you to enable or disable the parallel port.

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 Parallel Port is enabled.

OPERATION MODE

This item allows you to set the operation mode of the parallel port. Table 2-1 lists the different operation modes.

Table 2-1 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)	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).

2.4.8 PnP/PCI System Configuration

Onboard Serial/Parallel Port Settings		Page 1/1			
PCI IRQ Setting [Auto]					
		INTA	INTB	INTC	INTD
PCI Slot 1	[--]	[--]	[--]	[--]
PCI Slot 2	[--]	[--]	[--]	[--]
PCI Slot 3	[--]	[--]	[--]	[--]
PCI Slot 4	[--]	[--]	[--]	[--]
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, → ← = Change Setting, F1 = Help					

PCI IRQ Setting

This parameter allows for Auto or Manual configuration of PCI devices. If you use plug-and-play (PnP) devices, you can keep the default setting Auto. The system then automatically configures the PnP devices. You can manually assign the interrupt for each device by setting this parameter to manual. Refer to your manual for technical information about the PCI card.



When the PCI IRQ Setting is set to Auto, all the IRQ setting fields become gray and non-configurable.

PCI SLOT 1/2/3/4

These parameters specify the auto-assigned interrupt for each of the PCI devices.

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 have been updated. This allows display of multiple images on the screen.



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

Graphics Aperture Size

This parameter allocate memory usage for the Accelerated graphics port (AGP). The default is 64 MB.

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.

Reset Resource Assignments

Resource Assignment contains information concerning your system's resources like hardware components and configurations. The default parameter is set to *No*. If user changes any configuration or system hardware or wants to Reset the assignments, the BIOS will automatically reconfigure and update its system resource database. The parameter setting will always return to *No* after the reset.

2.5 System Security Setup

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

The following screen appears if you select System Security from the Main menu:

System Security		Page 1/1
Disk Drive Control		
Floppy Drive	[Normal]
Hard Disk Drive	[Normal]
Setup Password	[None]
Power On Password	[None]
Operation Mode	[Normal]
↑↓ = Move Highlight Bar, → ← = Change Setting, F1 = Help		

2.5.1 Disk Drive Control

The disk drive control features allow you to control the floppy drive or the hard disk drive boot function to prevent loading operating systems or other programs from a certain drive while the other drives are operational.

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

Table 2-2 Drive Control Settings

Floppy Drive	
Setting	Description
Normal	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	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

2.5.2 Setup Password

The Setup Password prevents unauthorized access to the BIOS utility.

Setting a Password

1. Make sure that SW2 is set to On (bypass password).

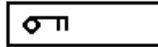


You cannot enter the BIOS utility if a Setup password does not exist and SW2 is set to Off (password check enabled).

By default, SW2 is set to On (bypass password).

2. Enter BIOS utility and select System Security.

-
3. Highlight the Setup Password parameter and press the  or  key. The password prompt appears:



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



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

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



6. Retype the password then press .

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

7. Press  to exit the System Security screen and return to the Main menu.
8. Press  to exit the BIOS utility. A dialog box appears asking if you want to save the CMOS data.
9. Select *Yes* to save the changes and reboot the system.
10. While rebooting, turn off the system then open the housing.
11. Set Switch Sw2 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.
3. Press **←** or **→** to display the password prompt and key-in a new password.

or

Press **←** or **→** and select **None** to remove the existing password.
4. Press **ESC** to exit the System Security screen and return to the Main menu.
5. Press **ESC** to exit the BIOS utility. A dialog box appears asking if you want to save the CMOS data.
6. Select **Yes** to save the changes.

Bypassing the Setup Password

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

1. Turn off and unplug the system.
2. Open the system housing and switch SW2 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.

2.5.3 Power-on Password

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



Make sure to set switch SW2 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 do not appear; however, the keyboard will be locked after system boot and will remain locked until the correct password is entered.

2.6 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		Page 1/1
Power Management Mode	[Enabled]	
IDE Hard Disk Standby Timer	[OFF]	
System Sleep Timer	[OFF]	
Stop CPU Clock in Sleep State ...	[Yes]	
Power Switch < 4 sec.	[Suspend]	

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

2.6.1 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 to *Disabled* deactivates the power-management feature and all the timers.

IDE Hard Disk Standby Timer

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

System Sleep Timer

This parameter sets the system to the lowest power-saving mode. It automatically enters into the sleep or the suspend mode after a specified period of inactivity. Any keyboard or mouse action detected resume system operation.

STOP CPU CLOCK IN SLEEP STATE

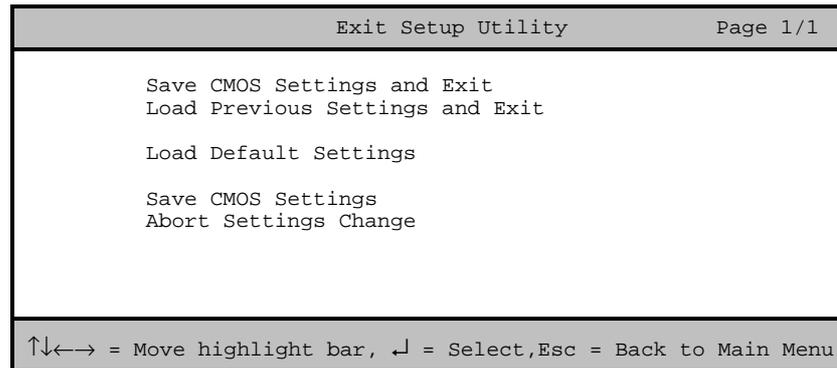
If you want to stop the CPU clock when the system enters the sleep or suspend mode, set this parameter to *Yes*. If not, then select *No*.

POWER SWITCH < 4 SEC.

This parameter allows you to make the power switch behave as a suspend button or a power button. If you set this parameter to *Suspend* the power switch will behave like a suspend button. If you set this parameter to *Power Off*, the power switch will behave like a power button.

2.7 Exit Setup Utility

To exit the BIOS utility, select Exit Setup Utility from the Main menu. The following screen appears:



2.7.1 Save CMOS Settings and Exit

Select this option if you want to save the current CMOS settings and exit the BIOS utility.

2.7.2 Load Previous Settings and Exit

Select this option to cancel the current changes made to the BIOS settings, reload the previous settings and exit the BIOS utility after reload.

2.7.3 Load Default Settings

This option loads the default settings for the optimized system configuration. After loading the settings, you return to the Main menu. Press **ESC** to leave the BIOS utility.

2.7.4 Save CMOS Settings

Select this option to save the current BIOS settings, including your recent modifications. After saving, you return to the Main menu. Press **ESC** to leave the BIOS utility.

2.7.5 Abort Settings Change

This option cancels all modifications that you have made in the system configuration and reloads your previous settings. After reload, you return to the Main menu. Press **ESC** to leave the BIOS utility.